Welcome to the Three Rivers Community College Catalog 2018-2019

About the Catalog

The Three Rivers Community College Catalog provides an overview of the College's curriculum, academic programs, facilities, and educational resources. It also includes College policies on academic rules, regulations, and procedures; degree and certificate requirements; and a detailed listing and description of courses. Links to other information such as admissions, financial aid and student services are also included.

The College Catalog is updated each spring for the upcoming academic year. The previous year's edition is archived at that time with other past catalogs. Information in this catalog applies to students attending the Fall 2018, Spring 2019, and Summer 2019 semesters.

Disclaimer

Please note that the information concerning academic requirements, courses, and programs of study in the Catalog does not establish an irrevocable contract between the student and the College. Every effort is made to present accurate current information at the time of publication. However, due to unforeseen circumstances, the College reserves the right to make changes as needed at any time, without notice.

How to Use the Catalog

Navigating the Catalog

To navigate through the Catalog, please use the links in the left-hand navigation menu, or use the Catalog Search box at the top of the left-hand navigation menu.

Advanced Search

An advanced search function is located under the Catalog Search box at the top of the left-hand navigation menu. It allows for searches of specific words or phrases.

Plan of Study Document (Degree Planner)

You will see the Plan of Study (Degree Planner) icon at the upper right corner of each program page. Select this icon for that program's Plan of Study Form which can be printed.

My Favorites

My Favorites is your personal catalog. It allows you to save and track your favorite degree programs, courses and other areas of the catalog that interest you. Click the My Favorite link, located at the bottom of the left-hand navigation menu, to create your personal catalog.

1. To save a section of the catalog, click on the Star icon in the upper right-hand corner of the page.
2. To access your saved sections, click on the My Favorites link at the bottom of the left-hand navigation menu.

Share

Share a page from the catalog on Facebook or Twitter by clicking the Share icon in the upper right-hand corner of the page.

Print-Friendly Page

If you want to print a section of the catalog, click the Print icon in the upper right-hand corner of the page. It will open a print-friendly version of the page.

Help

Having difficulty using the catalog? Click the Help icon, located in the upper right-hand corner of the page, to access Acalog ACMS Online Help.

Archived Catalogs

For prior year catalogs, please see the drop-down menu in the upper right for a list of archived catalogs.

General Contact Info

Three Rivers Community College Campus

574 New London Turnpike
Norwich, CT 06360-6598

(860) 215-9016

welcomecenter@threerivers.edu

Off-Campus Instructional Location

Naval Submarine Base
Building 83
Groton, CT 06349
860-445-5575

Three Rivers Websites

Main site: www.threerivers.edu

Extrranet (for students, faculty and staff): www.trcc.commnet.edu

Online Access to Banner, Blackboard and email: http://my.commnet.edu

Social Media

Facebook - www.facebook.com/ThreeRiversCC

Twitter - twitter.com/3RiversCC

Instagram - www.instagram.com/threeriverscommunitycollege/

Linked In - www.linkedin.com/school/three-rivers-community-college-cp/

YouTube - www.youtube.com/channel/UCmL0Jx78Jp7QUshO8vJuA9A

Directory

Faculty and Staff Directory - http://www.threerivers.edu/directory/

Office Directory (includes Fax numbers) - http://www.threerivers.edu/office-directory/

Academic Departments - http://www.threerivers.edu/academics/degrees-certificates/academic-department/

President's Message

The future belongs to those who prepare for it.

- Ralph Waldo Emerson

Welcome to Three Rivers Community College where you will find an education that challenges you in the best way, helps you grow as a person, advances your professional career, and hones your knowledge and skills.

Here you'll find a community of like-minded students on a pathway to rewarding careers or further higher education.

Here you'll find a community of faculty and staff with one goal in mind - to support and help you set and reach your goals.

Here you'll become part of this great community of learning, support, challenge and friendship that will lead to a meaningful life for you and your family.

This catalog features the breadth and depth of our offerings. It is your primary source of information as you pursue your academic career at Three Rivers Community College. Enjoy exploring our many offerings in over 75 associate degree and certificate programs. See just how far your aspirations will take you.

I look forward to seeing you on campus.

Mary Ellen Jukoski

President

ABOUT THE PRESIDENT

Mary Ellen Jukoski, Ed. D. has been selected as the next President of Three Rivers Community College. A graduate of College of St. Rose, Albany, NY (B.A., cum laude; M.A.), Dr. Jukoski also earned an M.S. at State University of New York. She received her Doctorate in Education from The University of Memphis in Memphis, TN.

Dr. Jukoski began her academic career as Assistant Dean at Empire State College, Saratoga Springs, NY. Next, she became Assistant Executive Dean, World University-Miami in Florida. Following her tenure there, she held three positions at the University of Memphis, ending as Associate Director of the National Institute of Mental Health Federal Grant Project. Her next position was with Loretto Heights College in Denver, CO as Director of the University Without Walls Program. Next, she held successive positions as Dean of Continuing Education and Assistant Vice President for Academic Institution at Sacred Heart University in Fairfield, CT. She left Sacred Heart to become Academic Vice President and Dean of the College at Mitchell College, and became its Acting President and Academic Vice President. She capped her career at Mitchell by becoming its President. Along the way, she has also held numerous higher education teaching positions at those schools.

Throughout her career, Dr. Jukoski has received an impressive list of honors and awards, and has been appointed to numerous board positions. She has been published extensively, including "Understanding the Adult Learner: How Universities Get Rid of the Peter Pan Syndrome in the Classroom," published in Proceedings of National Conference on the Adult Learner; and "Learning Styles: The Practical Implications of Current Theory," published in Proceedings the University of Chicago and National University Continuing Education Association Conference, Developing and Teaching Programs for Adults in the Humanities, Arts and Sciences, an Exchange Between Theory and Practice; among many others.

Three Rivers Community College's Mission Statements

Three Rivers Community College Mission Statement

Three Rivers is an accessible, affordable, and culturally diverse community college that meets varied educational needs by creating an environment that stimulates learning.

To accomplish its mission, Three Rivers Community College:

- offers post-secondary educational opportunities
- encourages life-long learning
- provides a well-rounded and rewarding educational experience with an emphasis on critical thinking, effective communication, and the College's institutional values.
- fosters an appreciation of the natural and social sciences, humanities, technology and the arts
- helps students achieve their goals
- serves as a community resource for people and institutions within its service area
- delivers its services efficiently and measurably
- contributes to economic development of this region and the state.

Three RIvers Community College Vision Statement

Three Rivers Community College will be a college of choice with a reputation for innovation, quality, and accessibility, serving a dynamic student population.

ConnSCU Mission Statement

The Connecticut State Colleges & Universities (ConnSCU) contribute to the creation of knowledge and the economic growth of the state of Connecticut by providing affordable, innovative, and rigorous programs. Our learning environments transform students and facilitate an ever increasing number of individuals to achieve their personal and career goals.

Connecticut Community Colleges Mission Statement

As part of the Connecticut State Colleges & Universities (ConnSCU) system, the twelve Connecticut Community Colleges share a mission to make excellent higher education and lifelong learning affordable and accessible. Through unique and comprehensive degree and certificate programs, non-credit lifelong learning opportunities and job skills training programs, they advance student aspirations to earn career-oriented degrees and certificates and to pursue their further education. The Colleges nurture student learning and success to transform students and equip them to contribute to the economic, intellectual, civic, cultural and social well-being of their communities. In doing so, the Colleges support the state, its businesses and other enterprises and its citizens with a skilled, well-trained and educated workforce.

About Three Rivers

About Three Rivers

On May 9, 1962, ground was broken for the construction of a local community college soon to be named the Norwich State Technical Institute. The first students began classes in September 1963. The name was changed in 1964 to Thames Valley State Technical College, and in 1970, Mohegan Community College was also formed in Norwich.

In 1992, Thames Valley State Technical College and Mohegan Community College were combined to form Three Rivers Community College, a name that was chosen to reflect the geographical nature of the region. The first commencement as Three Rivers Community College was held in 1993. The two campuses were consolidated to the current location, and in the fall of 2009, Three Rivers officially opened its doors to students with a new complex that featured state-of-the-art classrooms, and science and computer laboratories. In addition to the main campus in Norwich, there is also an instructional center located at the Naval Submarine Base in Groton.

The student population consists of approximately 4,000 students enrolled in degree and certificate programs each semester, and 2,500 students in the Workforce and Community Education program each year. Through the integration of technical, career, and liberal arts programs within the College, Three Rivers students are able to move with greater ease from one program to another.

What Makes Three Rivers Unique?
Three Rivers is an excellent choice for students pursuing studies beyond high school. The College offers 45 Associate Degree programs and 33 Certificate programs. Programs range from Manufacturing Technology, Exercise Science and Nursing to Early Childhood Education, Graphic Design and Business Administration. Students can also transfer credits earned at Three Rivers to state universities and private colleges in order to attain a Bachelor's degree or higher in the field of their choice.

The Workforce and Community Education Department (WCE) offers non-credit on-campus classes as well as hundreds of online courses. Training and certification in various subjects, such as Allied Health, Medical Billing, and Security, help those who are looking to begin a new career, as well as those who want to learn more to advance in their current positions.

WCE also partners with employers in promoting and implementing educational training programs. This includes developing courses for the Eastern Advanced Manu-facturing Alliance (EAMA), representing over 50 manufacturers from eastern and southeastern Connecticut. Three Rivers is also a critical partner with the Eastern Workforce Investment Board (EWIB), developing the Eastern Connecticut Manufacturing Pipeline re-employment program which

is funded by a $6 million US Department of Labor Workforce Innovation Grant, one of only six awarded in the country, and the only project focusing on manufacturing.

Three Rivers has a very active Student Programs department. There are many activities, events and over 30 clubs and organizations for students to participate in.
Many scholarship opportunities are available, and students are encouraged to apply each semester. These scholarships provide financial support for our students beyond the traditional financial aid.

The College meets the diverse needs of the community by creating an environment that stimulates learning, while at the same time providing comprehensive, accessible, affordable and innovative educational opportunities.

Programs of Study

Programs Ordered by Department:

- Associate Degrees and Certificate Programs

Programs Ordered by Type:

Associate

Accounting Career, A.S.

Degree Code: A07

Associate In Science

Program Coordinator: Edwin Muenzner - 860-215-9456

This program is designed for people who intend to seek employment following graduation as junior accountants or accounting clerks. The accounting field is among the fastest growing occupations in Southeastern Connecticut. This career program prepares students for accounting positions in business and industry, government, and public accounting firms upon completion.

Accounting Career Curriculum Requirements

Semester I

ACC* K115 - Financial Accounting °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement ∞ or completion of ENG* K096 with a "C#" grade or better. ∞; MAT* K095 or MAT* K095I with a "C#" grade or better.*

This course is designed to cover basic accounting theory and practice as applied to the complete accounting cycle, including the use of current accounting systems and procedures and the preparation of financial statements. The course also covers Long-term Assets, Current & Long-Term Liabilities, and Corporate Reporting and Analysis.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

IDS K105 - The First Year Experience °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# or higher.*
This course is designed to engage students as active participants within the college environment. Students will have the opportunity to acquire academic skills, attributes, awareness of self as learner, and to engage with the resources and activities within the Three Rivers Community College community. You can expect regular reading, writing and research assignments along with classroom discussion as you investigate how to be successful in this environment.

BMG* K202 - Principles of Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Fundamental principles of management and business operations are discussed with emphasis placed on management orientation, policy making, practical problem analysis, and philosophy. Attention also centers on the following: planning, organizing, directing, controlling, budgeting functions, qualitative and quantitative decision-making and financial analyses.

BMK* K201 - Principles of Marketing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces the four elements of the marketing mix: product decisions, pricing decisions, promotional decisions and distribution decisions. Emphasis is on the importance of marketing research and consumer behavior in the formulation of marketing strategies. Students study marketing principles and practices as they are applied to consumer and industrial products and services as well as in not-for-profit organizations. Additional topics include marketing in a global economy, ethics, and marketing information systems. The marketing campaigns of small and large companies are discussed as practical examples. Students develop their own marketing plans using strategy and principles learned in the course.

Total: 16

Semester II

BBG* K115 - Business Software Applications °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K123 or higher with a "C" grade or better.*
Using Microsoft Suite application software, students in this hands-on course will learn to use each of the software packages as they relate to the business environment. These software packages include an emphasis on Excel to build flexible spreadsheets used in business decision making, supplemented with Word to produce professional-looking documents, Access to select and analyze data to produce valid results, and Powerpoint to effectively present and communicate.

ACC* K118 - Managerial Accounting °

4 CREDIT HOURS
Prerequisite: ACC K111 or ACC* K115 with a "C" grade or better.*
This course is designed to cover the application of accounting principles and procedures to the cost control function of manufacturing business management. Emphasis is placed on managerial analysis and control, job order costing, process cost, standard cost, and variance analysis.

MAT* K123 - Elementary Statistics °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "C-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course considers fundamental concepts of probability and statistics. The topics include exploratory data analysis (tables, graphs, measures of central tendency and dispersion), basic probability, applications of binomial and normal distributions, confidence intervals, hypothesis testing and Chi-Square Goodness-of-Fit Test.

BBG* K231 - Business Law I °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course provides the student with an understanding of fundamental legal principles and their applications to business transactions and to individual rights and obligations. Crimes and torts are examined, and special emphasis is placed on the study of the law of contracts.

ACC* K125 - Accounting Computer Applications I °

3 CREDIT HOURS
Prerequisite: ACC K111 or ACC* K115.*
This course is designed to teach accounting students about computerized integrated accounting and accounting spreadsheet applications using a standard Windows interface. Students will learn to operate the software by entering realistic accounting transactions for a variety of business applications and by generating financial statements, spreadsheets, and other management information reports. The techniques and terminology learned can be applied to other Window-based software packages.

Total: 16

Semester III

ECN* K101 - Principles of Macroeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces students to the basic concepts of the economic system. The first semester is primarily macroeconomics, with the emphasis on the economic thought process. Discussion of money and banking, national income, fiscal measures, and stabilizing the economy are all included.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

- _____- Fine Arts Elective **3 CREDIT HOURS**

ACC* K241 - Federal Taxes I °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K123 or MAT* K146 or MAT* K167 or MAT* K172 or MAT* K186.*
This course examines federal income taxation as it relates to individuals. Emphasis is on tax law, researching tax questions, the determination of taxable income, deductions, and the preparation of tax returns.

ACC* K271 - Intermediate Accounting I °

3 CREDIT HOURS
Prerequisite: ACC K112 or ACC* K118.*
In this course, students will engage in an intensive study of financial accounting theory, focusing on revenue and expense recognition and the valuation and disclosure of financial statement elements.

Total: 15

Semester IV

ACC* K292 - Practicum in Accounting °

3 CREDIT HOURS
Prerequisite: Permission of the program coordinator.
This course is based on on-the-job placement∞ in a business setting. This is a college-supervised experience based on a learning contract with evaluations by both the college faculty and the staff of the cooperating business.

or

- _____- Elective from one of the following prefixes: ACC*, BBG*, BES*, BFN*, BMG*, BMK*, HSP*. **3 CREDIT HOURS**

ACC* K233 - Principles of Cost Accounting °

4 CREDIT HOURS
Prerequisite: ACC K111 or ACC* K115.*
This course encompasses fundamental principles and procedures needed for planning, evaluating, and controlling the organization's internal activities. Students will be exposed to accounting systems that are designed to provide information for managers as they relate to decision making. Topics include: budgeting, relevant costing, absorption and direct costing models, production levels, and inventory evaluations. Students work with accounting information that includes job-order costing, process costing, and standard costs.

ACC* K272 - Intermediate Accounting II °

3 CREDIT HOURS
Prerequisite: ACC K271.*
In this course, students will engage in an intensive study of financial accounting theory focusing on inventory, fixed and intangible assets, as well as liabilities and the impact on Equity.

- _____- Natural Sciences Elective **3 CREDIT HOURS**

Total: 13

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering. within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

Accounting Career, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. Demonstrate knowledge of general business vocabulary specific to the field of Accounting.
2. Demonstrate knowledge of those principles and skills applicable to general business and those specific to the field of Accounting.
3. Demonstrate the ability to apply learned principles and skills to unique factual settings using correct vocabulary.
4. Have obtained a well-rounded general education.
5. Successfully find a job in the Accounting field.

Business Administration, A.S.

Degree Code: KA30

Associate in Science

Program Coordinator: James O'Shea - 860-215-9459

This program is designed with options in Management, Finance & Banking, Marketing, Small Business and Entrepreneurship, Hotel Management, and Restaurant Management. Each degree is designed to prepare individuals for positions of responsibility in small businesses, corporations, government, and public and private agencies upon completion. Recent surveys show that there are increasing opportunities for managerial employment in areas such as finance, marketing, hospitality, retailing and many other business services. Individuals already employed in business or industry seeking career advancement would also benefit from this program as a source of professional development.

For a semester sequence visual illustration please visit: http://www.trcc.commnet.edu/Div_academics/Business/index.shtml

Business Administration Curriculum Requirements

Credit hours listed within each semester sequence include all concentrations, please note to select only courses within your option.

Options *Key: M-Management, F-Finance & Banking, K-Marketing, S-Small Business & Entrepreneurial Studies, H-Hotel Management, R-Restaurant Management*

Semester I

ACC* K115 - Financial Accounting °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement ∞ or completion of ENG* K096 with a "C#" grade or better. ∞; MAT* K095 or MAT* K095I with a "C#" grade or better.*

This course is designed to cover basic accounting theory and practice as applied to the complete accounting cycle, including the use of current accounting systems and procedures and the preparation of financial statements. The course also covers Long-term Assets, Current & Long-Term Liabilities, and Corporate Reporting and Analysis.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

IDS K105 - The First Year Experience °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# or higher.*
This course is designed to engage students as active participants within the college environment. Students will have the opportunity to acquire academic skills, attributes, awareness of self as learner, and to engage with the resources and activities within the Three Rivers Community College community. You can expect regular reading, writing and research assignments along with classroom discussion as you investigate how to be successful in this environment.

BMK* K201 - Principles of Marketing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces the four elements of the marketing mix: product decisions, pricing decisions, promotional decisions and distribution decisions. Emphasis is on the importance of marketing research and consumer behavior in the formulation of marketing strategies. Students study marketing principles and practices as they are applied to consumer and industrial products and services as well as in not-for-profit organizations. Additional topics include marketing in a global economy, ethics, and marketing information systems. The marketing campaigns of small and large companies are discussed as practical examples. Students develop their own marketing plans using strategy and principles learned in the course.

BMG* K202 - Principles of Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Fundamental principles of management and business operations are discussed with emphasis placed on management orientation, policy making, practical problem analysis, and philosophy. Attention also centers on the following: planning, organizing, directing, controlling, budgeting functions, qualitative and quantitative decision-making and financial analyses.

HSP* K100 - Introduction to the Hospitality Industry

3 CREDIT HOURS
This course provides an overview of the structure and functions of the hospitality industry, including hotels, motels, inns, restaurants, resorts, casinos, and other tourist related concerns. Students will survey career options and the essential abilities needed to pursue these options. The course also introduces students to the many tourist attractions in southeastern Connecticut.

Total: 16

Semester II

BBG* K115 - Business Software Applications °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K123 or higher with a "C" grade or better.*
Using Microsoft Suite application software, students in this hands-on course will learn to use each of the software packages as they relate to the business environment. These software packages include an emphasis on Excel to build flexible spreadsheets used in business decision making, supplemented with Word to produce professional-looking

documents, Access to select and analyze data to produce valid results, and Powerpoint to effectively present and communicate.

MAT* K123 - Elementary Statistics °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "C-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course considers fundamental concepts of probability and statistics. The topics include exploratory data analysis (tables, graphs, measures of central tendency and dispersion), basic probability, applications of binomial and normal distributions, confidence intervals, hypothesis testing and Chi-Square Goodness-of-Fit Test.

BBG* K231 - Business Law I °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course provides the student with an understanding of fundamental legal principles and their applications to business transactions and to individual rights and obligations. Crimes and torts are examined, and special emphasis is placed on the study of the law of contracts.

ACC* K118 - Managerial Accounting °

4 CREDIT HOURS
Prerequisite: ACC K111 or ACC* K115 with a "C" grade or better.*
This course is designed to cover the application of accounting principles and procedures to the cost control function of manufacturing business management. Emphasis is placed on managerial analysis and control, job order costing, process cost, standard cost, and variance analysis.

- _____- One elective from the following: BMK* K106 - Principles of Selling °, BMK* K123 - Principles of Customer Service °, BMK* K235 - Public Relations ° or BMK* K241 - Principles of Advertising ° **3 CREDIT HOURS** *(K)*
- _____- One elective from the following: BBG* K210 - Business Communication °, BBG* K232 - Business Law II ° or BFN* K201 - Principles of Finance ° **3 CREDIT HOURS** *(M)*
- _____- One elective from the following: BBG* K210 - Business Communication ° or BMG* K210 - Organizational Behavior ° **3 CREDIT HOURS** *(F)*

BES* K118 - Small Business Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to assist students with the knowledge and skills needed to operate and/or develop a small business. Emphasis will be placed on the entrepreneurial aspects of creating, managing, and gaining profit from a small business.

BMG* K202 - Principles of Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Fundamental principles of management and business operations are discussed with emphasis placed on management orientation, policy making, practical problem analysis, and philosophy. Attention also centers on the following: planning, organizing, directing, controlling, budgeting functions, qualitative and quantitative decision-making and financial analyses.

HSP* K108 - Sanitation & Safety

3 CREDIT HOURS
This course teaches students about the potential emergency situations in the hospitality industry and the appropriate and correct actions to take. Students will receive the National Restaurant Association's Certification in Food Sanitation and Safety required by law in the food service industry. Students will learn all aspects of sanitation including the ordering, receiving, storing, preparing, and serving of food.

Total: 15 or 16

Semester III

ECN* K101 - Principles of Macroeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces students to the basic concepts of the economic system. The first semester is primarily macroeconomics, with the emphasis on the economic thought process. Discussion of money and banking, national income, fiscal measures, and stabilizing the economy are all included.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

- _____- One elective from the following: BMG* K210 - Organizational Behavior ° or BMG* K220 - Human Resources Management ° **3 CREDIT HOURS** *(M)*
  and
- _____- One elective from the following: BBG* K210 - Business Communication °, BBG* K232 - Business Law II ° or BFN* K201 - Principles of Finance ° **3 CREDIT HOURS** *(M)*

BFN* K201 - Principles of Finance °

3 CREDIT HOURS
Prerequisites: ACC K118; MAT* K123 or MAT* K167; ECN* K101;ECN* K102 (CCSU Transfer only).*
This course offers an introduction to the basic principles of finance with an emphasis on the role a finance manager plays in the corporate world. Areas covered are financial analysis and forecasting, operating and financial leverage, short and long term financing alternatives, capital budgeting, time value of money, mergers and acquisitions, and international financial management.

BFN* K110 - Personal Finance °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; ∞ MAT* K095 or MAT* K095I placement∞.*

This course provides, in a non-technical presentation, a basic understanding of personal finance. The choices that consumers face in managing their finances are examined. The topics include personal income and budgeting, consumer credit, investing, taxes, housing, insurance, retirement, and estate planning.

- _____- One elective from the following: BBG* K210 - Business Communication °, BMG* K210 - Organizational Behavior ° or BBG* K232 - Business Law II ° **3 CREDIT HOURS** *(K)*
  and
- _____- One elective from the following: BMK* K106 - Principles of Selling °, BMK* K123 - Principles of Customer Service °, BMK* K235 - Public Relations ° or BMK* K241 - Principles of Advertising ° **3 CREDIT HOURS** *(K)*

- _____- Fine Arts Elective **3 CREDIT HOURS** *(M, F, S, H, R)*

GRA* K140 - Publication Design °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; or permission of the instructor and knowledge of a word processing program.*

This course provides an introduction to graphic design. Proper file management, Macintosh computer navigation basics and fundamental techniques of the design process will be covered. Students will learn to create a graphic identity through proper typography, image editing and page layout. Graphic Design industry standard software will be used including Adobe Photoshop, Illustrator and InDesign. Classes consist of lectures, demonstrations, applied practice and critiques.

- _____- One elective from the following: BBG* K210 - Business Communication °, BBG* K232 - Business Law II ° or BFN* K110 - Personal Finance ° **3 CREDIT HOURS** *(S)*
  and
- _____- One elective from the following: BMG* K210 - Organizational Behavior ° or BMG* K220 - Human Resources Management ° **3 CREDIT HOURS** *(S)*

HSP* K243 - Hotel Operations °

4 CREDIT HOURS
Prerequisite: HSP K100.*
This course focuses on the management of the various lodging options available to commercial and leisure travelers. The course will also focus on hotel/motel front office supervision and other management considerations in arranging the lodging.

HSP* K111 - Basic Food Preparation

4 CREDIT HOURS
Corequisite: HSP K108.*
This course introduces the fundamental theories and skills in basic food preparation and baking. Emphasis is on the identification of a standard quality product, cooking theories, equipment, recipe conversion, weights and measures, and safe and sanitary working habits.

- _____- One elective from the following: BBG* K210 - Business Communication °, BMG* K210 - Organizational Behavior ° or BBG* K232 - Business Law II ° **3 CREDIT HOURS** *(H, R)*

Total: 15 or 16

Semester IV

Management Concentration

- BBG* K294- Business Internship° **3 CREDIT HOURS**
  or
- _____- One elective from the following prefixes: ACC*, BBG*, BES*, BFN*, BMG*, BMK*, HSP* **3 CREDIT HOURS**
- _____- Natural Science Elective **4 CREDIT HOURS**

BMG* K228 - Labor and Employment Law °

3 CREDIT HOURS
Prerequisites: BBG K231 and BMG* K202.*
This course provides the student with an understanding of the legal principles and their applications to the employer-employee relationship including such topics as unionism and collective bargaining (including union organizing, contract negotiations, strikes and boycotts); wages, hours and benefits; dispute resolution (grievance and arbitration procedures); employment discrimination; and emloyee privacy.

BMG* K218 - Operations Management °

3 CREDIT HOURS
Prerequisites: ACC K118 or ACC* K233 with a "C" grade or better.*
Fundamental principles and concepts of operations management and business operations are discussed as they relate to the planning and controlling of the operating processes and work flow activities in private and public organizations. Key Topics include production and work planning, capacity planning, inventory control, quality control, scheduling, distribution, plant location, maintenance management, the roles of efficiency and effectiveness and decision making. This course is equivalent to MFG* K230.

Finance and Banking Concentration

ACC* K292 - Practicum in Accounting °

3 CREDIT HOURS
Prerequisite: Permission of the program coordinator.
This course is based on on-the-job placement∞ in a business setting. This is a college-supervised experience based on a learning contract with evaluations by both the college faculty and the staff of the cooperating business.

or

- _____- One elective from the following prefixes: ACC*, BBG*, BES*, BFN*, BMG*, BMK*, HSP* **3 CREDIT HOURS**
- _____- Natural Science Elective **4 CREDIT HOURS**

BBG* K232 - Business Law II °

3 CREDIT HOURS
Prerequisite: BBG K231.*
This course covers the basic principles of the substantive law governing real and personal property, sales transactions, and commercial paper.

ECN* K102 - Principles of Microeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces students to microeconomics theory, with a focus on understanding how business, social, and policy decisions are made. The basic theories of distribution of income, international economics, labor, and comparative economic systems are studied.

Marketing Concentration

BMK* K292 - Practicum in Marketing °

3 CREDIT HOURS
Prerequisite: Permission of the program coordinator.
This course is based on on-the-job placement∞ in a business setting. This is a college-supervised experience based on a learning contract with evaluations by both the college faculty and the staff of the cooperating business.

or

- _____- One elective from the following prefixes: ACC*, BBG*, BES*, BFN*, BMG*, BMK*, HSP* **3 CREDIT HOURS**
- _____- Natural Science Elective **4 CREDIT HOURS**
- _____- One elective from the following: BBG* K210 - Business Communication °, BMG* K210 - Organizational Behavior ° or BBG* K232 - Business Law II ° **3 CREDIT HOURS**
- _____- One elective from the following: BMK* K106 - Principles of Selling °, BMK* K123 - Principles of Customer Service °, BMK* K235 - Public Relations ° or BMK* K241 - Principles of Advertising ° **3 CREDIT HOURS**

Small Business and Entrepreneurial Studies Concentration

BES* K218 - Entrepreneurship °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better. ∞.*
The course is designed especially for those students who wish to start a business. A strong emphasis is placed on the practical applications of financing a new business, marketing goods and services, dealing with competitors, and handling leases and landlords. Understanding legal elements for the new business person and other topics make up the bulk of this course. Reality-based projects and instruction enable students to practice immediate application of content.

- _____- Natural Science Elective **4 CREDIT HOURS**

BES* K239 - Business Plan Development °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course will teach the student the process of developing a business plan. This course will draw on knowledge obtained from previous business courses. The course will utilize business plan development software. Students will individually, and on a team basis, develop a complete business plan.

- _____- One elective from the following: BBG* K210 - Business Communication °, BBG* K232 - Business Law II ° or BFN* K110 - Personal Finance ° **3 CREDIT HOURS**

Hospitality Management: Hotel Option Concentration

HSP* K296 - Cooperative Education °

3 CREDIT HOUR
Prerequisites: Permission of Program Coordinator.
This course is an on-the-job practical experience to reinforce the principal techniques and procedures presented in the classroom and lab. Students seek their own employment in an approved hospitality position and are evaluated by their employers, the program coordinator, and by the quality of their written assignments. Students meet for a cooperative, professional seminar and individually with the program coordinator several times throughout the semester.

or

- _____- One elective from the following prefixes: ACC*, BBG*, BES*, BFN*, BMG*, BMK*, HSP* **3 CREDIT HOURS**
- _____- Natural Science Elective **4 CREDIT HOURS**

HSP* K117 - Beverage Management

3 CREDIT HOURS
This course introduces students to wines, beers, spirits, and the technical aspects of the products. Viticulture, wine making, the distillation process, and the methods of making malt beverages are investigated. Students will explore the business aspects of buying, selling, and serving these products and the implications of liability and health in a contemporary society.

BMK* K106 - Principles of Selling °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to prepare students for professional selling of products, services, and ideas. It concentrates on the mutual satisfaction of both buyers and sellers and the role of the salesperson. Topics studied include the communication process, sales territory management, and the seven steps in the selling process: prospecting, approach, presentation, demonstration, handling of objections, closing and follow-up. Practical application of these concepts in industrial sales, consumer sales, public service selling, and political campaigns is also examined through case studies, role-playing, and student participation exercises.

Hospitality Management: Restaurant Option Concentration

HSP* K296 - Cooperative Education °

3 CREDIT HOUR
Prerequisites: Permission of Program Coordinator.
This course is an on-the-job practical experience to reinforce the principal techniques and procedures presented in the classroom and lab. Students seek their own employment in an approved hospitality position and are evaluated by their employers, the program coordinator, and by the quality of their written assignments. Students meet for a cooperative, professional seminar and individually with the program coordinator several times throughout the semester.

or

- _____- Elective from the following prefixes: ACC*, BBG*, BES*, BFN*, BMG*, BMK*, HSP* **3 CREDIT HOURS**
- _____- Natural Science Elective **3 CREDIT HOURS**

HSP* K117 - Beverage Management

3 CREDIT HOURS
This course introduces students to wines, beers, spirits, and the technical aspects of the products. Viticulture, wine making, the distillation process, and the methods of making malt beverages are investigated. Students will explore the business aspects of buying, selling, and serving these products and the implications of liability and health in a contemporary society.

HSP* K112 - Advanced Food Preparation °

4 CREDIT HOURS
Prerequisites: HSP K111 and HSP* K108.*
This course is a continuation and application of the culinary techniques and knowledge acquired in HSP* K111 - Basic Food Preparation. Full course menus will be prepared and served to guests. Students will experience various positions in the dining room and kitchen. Emphasis is placed on menu planning and recipes, purchasing, food costing, and service while working as part of a team.

Total: 13

Note:

°Course has a prerequsite. Students should check course description

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

Business Administration, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. Demonstrate knowledge of general business vocabulary and vocabulary specific to the business field.
2. Demonstrate knowledge of principles and skills applicable to general business and those specific to the field.
3. Demonstrate the ability to apply learned principles and skills to unique factual settings using correct vocabulary.
4. Have obtained a well-rounded general education.
5. Be prepared for employment in the business field.

Certified Clinical Medical Assistant

Degree Code: A11

Associate in Science

Contact: Edie Oullett - 860-215-9460

This program is designed to fill a need in the region for health care workers, one of the five fastest-growing job sectors in Connecticut. Students who graduate from this program will be ready to sit for the Certified Clinical Medical Assistant exam and be prepared as successful candidates for multiple employment possibilities. Students will become knowledgeable in both the business and clinical skills necessary in a healthcare provider office, and may also choose to continue their studies toward a bachelor's degree in health information technology. Those who complete this program will know how to provide patient care safely and in accordance with medical assistant regulations, laws, and patient rights; how to perform administrative functions in an medical office; and how to clearly and effectively communicate with patients, their families, and health care team members. Students will be able to demonstrate problem-solving abilities, professionalism, and ethical, legal, and caring behaviors in the health care environment.

Semester I

BIO* K115 - Human Biology

4 CREDIT HOURS
Corequisite: ENG K096 or higher. Please note: if completing ENG* K096 prior to enrolling in BIO* K115, a grade of "C#" or better is required for registration into this course.*
This introductory course focuses on a presentation of human structure and function, including a survey of the body's system for students who want to be more knowledgeable about the life processes of their own bodies. Lab procedures do not involve animal dissections. This course does not meet the pre-admission requirement for the Nursing Program. Three-hour lecture; one three- hour laboratory period.

CSA* K105 - Introduction to Software Applications °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces some popular software packages currently being used in industry, business, and government such as Microsoft Word, Excel, Access, and PowerPoint. A small amount of time will be devoted to the Windows operating system environment. Recent versions of the software packages will be used. Strong reading, good writing, and basic math skills are required. Prior computer usage experience (e.g. keyboard and mouse actions, file and folder management, Internet browsing) is assumed. Digital learning technologies will be used throughout the course.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

MAT* K137 - Intermediate Algebra °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "B-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course cultivates understanding and different representations of functions. Topics covered include linear, quadratic, exponential, rational, radical functions, equations, and expressions with emphasis on modeling and solving

real world problems. A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). Please refer to online schedule and click on the CRN hyperlink and/or review the printed schedule to determine which faculty require math software in their section.

or

MAT* K137S - Intermediate Algebra Embedded °

4 CREDIT HOURS

Prerequisite: MAT K095 or MAT* K095I with a "C-#" or higher, or appropriate placement∞ through multiple measures assessment process.*

This course represents the Intermediate Algebra instruction with embedded support. The course cultivates understanding and different representations of functions. Topics covered include linear, quadratic, exponential, rational, radical functions, equations, and expressions and operations on them with emphasis on modeling and solving real world problems. A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). All sections of MAT* K137S require the use of software.

MED* K111 - Administrative Medical Assisting

3 CREDIT HOURS

This course is designed to cover the theory, practice, and techniques of fundamental office management, and to provide an overview of the profession of medical assisting and its role in providing quality health care. Healthcare administrative functions, including office responsibilities, safety in the office environment, commuication techniques, medical records management, schedule management, professionalism, and legal and ethical issues will be emphasized.

Total: 16-17

Semester II

ENG* K102 - Literature & Composition °

3 CREDIT HOURS

Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*

Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

MED* K125 - Medical Terminology °

3 CREDIT HOURS

Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*

This course is intended for students interested in obtaining a knowledge and understanding of basic medical terminology as the language of the health care professional. The student learns basic medical word roots and combining forms, suffices, prefixes, and abbreviations. Correct spelling, forming singulars and plurals, understanding definitions, and using terms correctly are important components of the course. This course is especially useful for individuals working in the healthcare or pursuing a degree in an allied health area.

PSY* K111 - General Psychology I

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course provides an overview of the theories and research findings pertaining to scientific psychology with an emphasis on: the origins of psychology, nature and nurture, human diversity, theoretical models, research methodology, biological bases of thought and behavior, learning theory, sensation and perception, memory, stress and health as well as emotion and motivation.

- MED* K112 - Medical Insurance and Billing **3 CREDIT HOURS**
- MED* K170 - Law & Ethics for Health Professionals **3 CREDIT HOURS**

Total: 15

Semester III

PSY* K201 - Life Span Development °

3 CREDIT HOURS
Prerequisite: PSY K111.*
This course will study the physical, psychosocial and cognitive development of humans from birth to death. There will be an emphasis on distinct time periods such as conception and development of the fetus, infancy, childhood, puberty and adolescence, young, middle, and late adulthood, and gerontology.

- HIM* K155 - Fundamental of Clinical Informatics & Electronic Medical Records **3 CREDIT HOURS**
- MED* K133 - Clinical Medical Assisting Lab **4 CREDIT HOURS**
- MED* K141 - Laboratory Principles for Medical Assisting I **3 CREDIT HOURS**
- MED* K250 - Principles of Pharmacology **3 CREDIT HOURS**

Total: 16

Semester IV

-

MED* K216 - Electronic Medical Record Management 3 CREDIT HOURS

MED* K241 - Laboratory Principles for Medical Assisting II 3 CREDIT HOURS

MED* K280 - Medical Assisting Externship 4 CREDIT HOURS

and

1 historical or aesthetic dimension elective 3 CREDIT HOURS

Total: 13

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering. within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60 - 61

Certified Clinical Medical Assistant, Associate in Science Degree Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. Provide patient care safety and in accordance with medical assistant regulations, policies, laws, and patient rights.
2. Perform medical office administrative functions at entry-level proficiency.
3. Use clear and effective communication with patients, families, and the health-care team.
4. Demonstrate knowledge and skills in the collection and documentation of health data.
5. Demonstrate ethical, legal, and caring behaviors in the health care environment.
6. Demonstrate accurate problem-solving abilities when working as a medical assistant.
7. Demonstrate professionalism in health-care settings.

Computer Science Technology, A.S.

Degree Code: B65

Associate in Science

Contact: Mark Comeau - 860-215-9415

This program is designed to provide students with skills consistent with entry-level computer programming and related jobs. The core curriculum, including mathematics requirements combined with general education electives, provides the first step in a student's pursuit of a higher degree at other institutions. Included in the program is a sequence of programming courses that provides the foundational knowledge required for a career in software engineering. Also included are courses in database development, web development, and a foundational course in digital circuits and their design. The student will learn programming fundamentals and the basics of computer architecture, information processing, and algorithmic problem solving. Building on these basics, a student will receive an extensive exposure to and practice in the fundamentals of structured programming as well as objectoriented analysis and design. The program concludes with a course providing the student with a comprehensive understanding of the analysis and design of data structures.

Computer Science Technology Curriculum Requirements

Prerequisites to the Program

MAT* K172 - College Algebra °

3 CREDIT HOURS
Prerequisites: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process.*

This course is a thorough and rigorous algebra course that strengthens the understanding of functions, their properties, multiple representations, and operations with functions. The function families studied include: polynomial, exponential, logarithmic, rational, and radical functions. Students will also learn linear and quadratic inequalities, absolute value equations and inequalities, linear and noninear systems.

Semester I

CSC* K108 - Introduction to Programming °

4 CREDIT HOURS
Prerequisites: Familiarity with Microsoft Windows operating system and basic word processing; MAT K095 or MAT* K095I with a "C#" grade or better.*
This course presents a broad introduction to computer science including computer design, programming, information processing and algorithmic problem solving. It is intended as a foundation for beginning computer science students and others seeking to use computers as a tool in business, engineering, science and other disciplines. In addition, this course provides an introduction to high level computer programming language. The student will learn to design, develop and implement programs to solve various data processing problems. Topics covered include control structures, functions and parameter passing, file I/O, and an introduction to arrays and structures. In the lab, the student will use the computer to create and run programs to solveproblems discussed in the lecture portion. Three lecture hours, one two-hour lab.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

CST* K153 - Web Development And Design I °

4 CREDIT HOURS
Prerequisite: None required. Recommended BBG K115 or CSA* K105 or equivalent.*
This course offers a preliminary treatment of Web Design and Development concepts, with programs that yield visible and audible results in Web pages and Web-based applications. The course includes an introduction to Microsoft Internet Explorer and the World Wide Web, effective Web page design practices, XML, HTML, XHTML, web graphics, authoring software, and client- and server-side scripting. The course includes detailed discussion of graphics

formats, the appropriate use of graphics and text, font selection, use of meta-tags, navigation techniques, and methods of optimizing websites.

Total: 14

Semester II

CST* K145 - Digital Circuits and Logic °

4 CREDIT HOURS
*Pre*requisite: *CSC* K108*
A study of the elements of digital logic design, digital circuits, and the fundamentals of a modern digital system. The course begins with a history of computing, an explanation of binary number systems, and data representation, progresses through logical design and into PC systems. Logic design exercises and simulations are used to provide practical experience.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

- _____- Fine Arts or Humanities Elective **3 CREDIT HOURS**

Total: 14

Semester III

CSC* K215 - Object-oriented Programming with C++ °

4 CREDIT HOURS
Prerequisite: CSC K108.*
This course completes the introduction to programming in the C++ language. Object Oriented Programming concepts include objects and classes, instantiation, encapsulation, inheritance, polymorphism, overloading, pointers and class libraries. Additional topics include structures, recursion, namespaces, multi-file programming, and random access files. proficiency in structured programming at the level of CSC* K108.

or

CSC* K223 - Java Programming I °

4 CREDIT HOURS
Prerequisite: CSC K108.*
This course is designed to provide the student with the fundamentals of object oriented programming using the language of JAVA. Topics include applets, applications, inheritance, polymorphism, GUI components, event handling, graphics, multi-threading, exception handling, multi-media, file I/O, and networking. Three lecture hours, one two-hour lab.

CSC* K233 - Database Development I °

4 CREDIT HOURS
Prerequisite: CSC K108.*
The main objective of this course is to teach students the fundamental concepts underlying the current database technology. The course will cover the concepts behind the latest database technology - the relational database model. The course will attempt to solidify the concepts by exposing the student to a specific DATABASE Management System (DBMS) that employs the relational model, and by introducing the student to one or more query database languages. Three lecture hours, one two-hour lab.

MAT* K254 - Calculus I °

4 CREDIT HOURS
Prerequisite: MAT K186 with a 'C" grade or better.*
This is a first course in the calculus sequence intended for students who plan on majoring in mathematics, physical sciences, or engineering technology. Topics include: rate of change, limits, continuity, differentiation of algebraic, trigonometric, exponential, and logarithmic functions, differentials, applications of differentiation, definite and indefinite integrals, and applications of integration.

MAT* K210 - Discrete Math °

3 CREDIT HOURS
Prerequisite: MAT K186 or permission of the instructor.*
This course provides an introduction to set theory, logic and number theory. The ideas of algorithms and proof will be developed through the content.

Total: 15

Semester IV

CSC* K216 - Intermediate C++ Programming °

4 CREDIT HOURS
Prerequisite: CSC K108.*
This course is designed to provide the student with the fundamentals of object oriented programming using the language of C∞∞. Topics include inheritance, polymorphism, operator overloading, pointers, class templates, function templates, and exception handling. Some of these topics will be applied to Windows GUI programming with the NET library. Three lecture hours, one two-hour lab

or

CSC* K224 - Java Programming II °

4 CREDIT HOURS
Prerequisite: CSC K223.*
This course covers more advanced Java programming concepts, focusing on data structures and algorithms, with specific topics including lists, stacks, queues, priority queues, sets, maps (hash tables), and binary search trees, time complexity, space complexity, and recursion. The course also discusses building these data structures from scratch as well as leveraging the Java API.

- _____- Social Science Elective **3 CREDIT HOURS**

MAT* K256 - Calculus II °

4 CREDIT HOURS
Prerequisite: MAT K254 with a "C" grade or better.*
This course is the second semester of calculus intended for students who plan on majoring in mathematics, physical science, or engineering technologies. The topics include the definite integral, applications of integration, methods of integration, sequences, series and vectors.

- _____- Technical Elective **3 CREDIT HOURS**
- _____- Natural Science Elective **3 CREDIT HOURS**

Total: 17

Note:

° Course has a prerequisite. Students should check course description.

( ) MAT* K172 is considered a prerequisite for this technology program.

† Students not seeking to transfer to a four-year institution may substitute Technical Elective(s) for one or both calculus courses.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Technical Electives:

Note: a second natural science elective may be used as a technical elective.

CSC* K234 - Database Development II °

4 CREDIT HOURS
Prerequisite: CSC K233.*
In this course students will extend their knowledge of relational database programming by developing programming objects directly in the database (stored procedures, functions, data types and triggers) using the traditional SQL language as well as .NET languages. Students will also explore the use of the XML data type for the storage of XML documents and validation of these documents using XML schemas. OLAP (On-Line Analytical Processing) and Data

Mining will also be explored. Three lecture hours, one two-hour lab. The lab is the hands-on component to Database II and will feature database programming object development using the SQL Server database management system.

CSC* K295 - CO-OP Ed/Work Experience °

3 CREDIT HOURS
Prerequisite: Permission of the program coordinator.
Corequisites: Student must have completed all freshman level technology courses and have a GPA of 2.50 or better.
Students will work in industry gaining hands-on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by the co-op student during the semester internship.

CST* K275 - Information Security °

4 CREDIT HOURS
Prerequisite: None required. Recommended BBG K115 or CSA* K105 or equivalent.*
Students will become knowledgeable of basic network security. Topics include general security concepts, including authentication methods along with common network attacks and how to safeguard against them; communication security, including remote access, e-mail, the Web, directory and file transfer, and wireless data; infrastructure security, including various network devices and media, and the proper use of perimeter topologies such as DMZs, extranets, and intranets to establish network security; cryptography basics, including the differences between asymmetric and symmetric algorithms, and the different types of PKI certificates and their usage; operational/organizational security, including its relationship to physical security, disaster recovery, and business continuity; and computer forensics.

EET* K134 - Electronics I °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
This course is an introduction to the internal physical behavior of semiconductor electronic devices. Topics include semiconductor physics, P-N junction operation, transistors and applications, amplifiers, op amps timers and specialty devices. Models, equivalent circuits, and applications are emphasized. Two hours lecture and three hours laboratory, course meets five hours per week. The lab portion of this course supports Electronics I by providing the student with practical experience in the handling and measurement of semi-conductor devices. Computer simulation and bench measurement experiments will be performed in studying the operational characteristics of basic semiconductor devices.

and

EET* K254 - Digital Electronics I °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
Students will engage in a comprehensive study of binary logic gates. The circuits for certain various gates are analyzed. The course also includes the study of codes, encoding, decoding, number systems, and various sequential logic circuits such as flip-flops, counters, and shift registers. Two hours lecture and three hours laboratory, course meets five hours per week. In the laboratory portion of the course, students will engage in a comprehensive study of logic circuitry. Circuits containing various logic gates are built and tested. Applications of logic circuitry in practical applications are also build and evaluated.

and

EET* K258 - Microprocessors & Controls °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
Students will be introduced to the concepts involved in single board microcomputers. Emphasis is placed upon using a microprocessor as a control device, and also in a microcomputer system. Various microcomputer and related integrated circuits are studied. Two hours lecture and three hours laboratory, course meets five hours per week. In the laboratory portion of this course, students will build and evaluate microcomputer based systems. Students will also develop assembly and high level code, program the systems, carry out performance tests and develop laboratory reports.

and

GRA* K260 - Web Design °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; GRA* K140 and GRA* K230; or permission of the instructor.*
This computers graphics course is an introduction to the concepts of professional web site design using the Industry-standards-based website development tools Dreamweaver and Adobe Photoshop. Students will be able to create, prepare, and manipulate documents, illustrations, and images for the web. The four design principles of contrast, repetition, alignment, and proximity will be discussed and utilized to create a web site using the authoring tools described above as well as the skills acquired in the prerequisite courses.

MAT* K167 - Principles of Statistics °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. Please refer to online schedule and click on the CRN hyperlink and/or review printed schedule in determining which faculty require math software in their course(s).*
This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations and confidence intervals.

MAT* K268 - Calculus III: Multivariable °

4 CREDIT HOURS
Prerequisite: MAT K256 with a "C" grade or better.*
This third semester of calculus is intended for students who plan on majoring in mathematics, science or engineering technologies. It exposes students to the calculus of several variables. Topics include vectors, dot and cross product, equations of lines and planes, functions of several variables, limits and continuity, partial derivatives, chain rule, gradient, maximizing and minimizing functions of several variables, Lagrange multipliers, multiple integrals, polar, cylindrical, spherical coordinate systems, vector fields, line integrals, Green's and Stokes' and the Divergence Theorems.

MAT* K272 - Linear Algebra °

3 CREDIT HOURS
Prerequisite: MAT K256 with a "C" grade or better.*
A first course in linear algebra for students in mathematics, science and engineering. Topics include: systems of linear equations, matrices, determinants, vectors and vector spaces, linear transformations, eigenvalues and eigenvectors. The course is an introduction to the techniques of linear algebra with elementary applications.

MAT* K285 - Differential Equations °

3 CREDIT HOURS
Prerequisite: MAT K256 with a "C" grade or better.*
A continuation of calculus with an introduction to standard techniques of solving differential equations. The following topics will be introduced: first-order differential equations, linear equations of higher order, power series methods, Laplace transform methods, linear systems of differential equations, numerical methods, and modeling by differential equations in a variety of applications in physics, chemistry, engineering, biology, social sciences and finances.

Grand Total: 60

Computer Science Technology, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. analyze and solve problems in computing
2. demonstrate entry level programming ability in structured and object-oriented programming languages.
3. model, design, implement and program a database.
4. explain network technology protocols, including structure, communication, architecture and standards.
5. explain the role of the Internet, Intranet and Internet tools in business and how these technologies are applied to improve efficiency and maximize profits.
6. apply critical thinking skills acquired across the curriculum.
7. exhibit both oral and written technical communication skills.
8. transfer successfully to a 4 year college or university or obtain employment in an information technology field.

Construction Technology, A.A.S.

Degree Code: KB79

Associate In Applied Science

Program Coordinator: Mark Comeau - 860-215-9415

This program is designed as an umbrella degree that groups the disciplines of architecture, civil and construction management technologies, (commonly referred to as "AEC" - architecture, engineering and construction).

The degree tracks students studying in all three disciplines through a common first year of courses. Starting in the third semester, students will begin to track into one of the three specific concentrations they choose to major in. Courses common within the core, prepare and lead students into the courses that form the concentration and provide students with the knowledge, practice, and skills required to enter employment in their discipline upon graduation at the technician level. Students will be qualified as technical designers, engineering technicians, and construction management technicians in inspection, testing, scheduling, and estimating.

Composed of a technical core with specific expanded topics, students establish a foundation essential in the AEC industries that includes construction materials, blueprint reading, codes and regulations, contracts and specifications, surveying, and CAD (computer aided design) with a BIM (building information modeling) focus. The architecture track expands on the design process and sustainable site development, while the civil track expands upon structures, hydrology and drainage, and soils. The construction management track rounds out the third concentration with a focus on construction estimating, logistics, critical-path, and scheduling.

Upon completion, students will be qualified at the technician level in architecture, engineering or construction firms, municipal building and planning offices, transportation, utility, and construction departments, or may transfer into a baccalaureate program.

For a color-coded, semester sequence visual illustration please visit:
http://www.professorcomeau.com/index_files/Page758.htm

Construction Technology Curriculum Requirements

Semester I

ARC* K102 - Architecture of the World

3 CREDIT HOURS
The course offers a global perspective of buildings, their settings, and the dissemination of ideas about architecture from the late Neolithic period to the present. Particular attention is given to the relationships of architectural expression, meaning and building technology and to issues arising when architectural traditions of one culture are imposed upon or otherwise adapted by another. Students will explore the impact of climate, economy, philosophy, social structure and technology on architecture by becoming familiar with some of the world's major monuments in architectural history. The course also integrates the visual arts that paralleled each era, exploring the fundamental elements of each movement as illustrated through aesthetic expression.

ARC* K135 - Construction Graphics

1 CREDIT HOUR
Corequisite: ARC K135L.*
This course introduces the fundamental concepts of drafting and working drawings for the construction industry, emphasizing set layout and sequencing, sheet image composition, drawing construction, line weights, conventions, symbols and projection. "Drafting" as a means to convey "design intent" and "constructability" to the construction industry is accomplished through the lab portion of this course by the execution of actual drawing types, including architectural, civil, structural, detail, and other drawings.

ARC* K135L - Construction Graphics Lab

2 CREDIT HOURS
Corequisite: ARC K135.*
This course implements the principles of construction graphics covered in the lecture portion of this course and the execution of actual drawing types, including architectural, civil, structural, detail, and other drawings.

CAD* K106 - Basic CAD - AutoCad

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S or higher*
This course, with the included lab, exposes the student to the current means of generating graphic images with computers. Topics covered include CAD* overview, computer terminology, hardware descriptions and requirements, file manipulation and management, 2D and 3D geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail, and assembly drawings.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

PHY* K114 - Mechanics °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172.*
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry. Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion. Three-hour lecture; one two-hour laboratory.

Total: 16

Semester II

ARC* K108 - Construction Materials and Methods

3 CREDIT HOURS
This course introduces students to the sources, uses, physical properties and limitations of materials used in construction while exploring methods of assembly and systems from both a historical and contemporary persepctive. Emphasis is placed on concrete, masonry, steel, wood and material components and respective testing, use, and practical applications.

ARC* K227 - Codes & Ordinances

3 CREDIT HOURS
This course introduces students to the origins, scope, and administration of local, state, and federal codes and ordinances. Students will be exposed to the elements of these codes and ordinances and to the impacts they have on the design, construction and occupancy of a project. Students will develop a working knowledge of the subject material as they track a hypothetical project from preliminary zoning research, through design and construction and ultimately the issuance of a "certificate of occupancy."

CAD* K214 - Cad - Construction °

1 CREDIT HOUR
Prerequisites: CAD K106/CAD* K107 and latest CAD release working knowledge.*
Corequisite: CAD K215.*
Students continue to learn and practice construction drafting concepts using a CAD system. Students will solve graphic problems typical to construction topics such as plan and elevation views, structuraland concrete detailing, construction section-details, topography and site planning, and schedules including structural members, finish, doors and windows. Creating and using symbol libraries will be introduced.

CAD* K215 - Cad - Construction Lab °

2 CREDIT HOUR
Prerequisites: CAD K106/CAD* K107 and latest CAD release working knowledge.*
Corequisite: CAD K214.*
Students will be assigned graphic problems typical to construction topics based on the lecture.

MAT* K172 - College Algebra °

3 CREDIT HOURS
Prerequisites: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course is a thorough and rigorous algebra course that strengthens the understanding of functions, their properties, multiple representations, and operations with functions. The function families studied include: polynomial, exponential, logarithmic, rational, and radical functions. Students will also learn linear and quadratic inequalities, absolute value equations and inequalities, linear and noninear systems.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

Total:15

Semester III

ARC* K214 - Sustainable Construction °

3 CREDIT HOURS
Prerequisite: ARC K108*
Students will engage in the analysis of sustainable planning, design, and construction methods. Emphasis will be placed on both site and building aspects including walkability, heat-island effect, water management, material durability and performance, healthy buildings, renewables, and methods of performance validation. Credential rators (e.g. LEED, Energy Star, etc.), and other industry metrics will be studied and evaluated along with up and down-stream and life-cycle analyses.

or

CIV* K222 - Structural Design °

3 CREDIT HOURS
Prerequisites: ARC K108*
Corequisite: PHY K114*
The names and functions of various statically-determined structural steel and concrete members and systems are discussed and analyzed including footings, columns, beams, slabs, trusses, and connections. Students will practice solving designs for shear, bending moment and deflection through analytic methods according to current specifications using appropriate design techniques, manuals, and theory, and practice graphical detailing of designs according to current practice.

ARC* K221 - Contracts & Specifications

3 CREDIT HOURS
This course introduces students to construction industry documents, including working drawings and the project manual which contains bidding documents, contract documents, contract conditions, and the specifications. Additional documents include cut sheets, shop drawings, and various AIA (American Institute of Architects) documents used in contract administration. Working knowledge is attained through actual execution of the documents.

ARC* K211 - Architecture Design I °

1 CREDIT HOUR
This course introduces the student to the fundamental methodologies of a designer's decision making process. Students will work individually and in groups as they apply their studies to the solutions of small "vignette" architectural projects that explore the principles of form, space, and order in design.

ARC* K211L - Architecture Design I Lab °

2 CREDIT HOURS
This course implements the principles of architectural design covered in the lecture portion of this course. Emphasis in the Design I Lab is placed more upon the path of design and the decision making process than a "polished" design solution, through sketches, diagrams, and models.

CIV* K150 - Surveying I

1 CREDIT HOUR
Corequisites: CIV K151 and MAT* K172.*
This course introduces the student to the proper use and care of surveying equipment used in making linear and angular measurements, including tapes, transits, theodolites, levels and total stations. This leads to the development of the basic principles of traversing as it relates to boundary surveying.

CIV* K151 - Surveying I Lab

2 CREDIT HOURS
Corequisites: CIV K150 and MAT* K172.*
This laboratory will familiarize the student with the proper use and care of the common instruments used by the surveying profession. The use of the equipment is then applied to a boundary traverse.

MEC* K114 - Statics °

3 CREDIT HOURS
Prerequisites: MAT K172 and PHY* K114.*
Corequisite: MAT K186.*
This course helps students develop the ability to analyze problems using the basic principles of static systems in order to provide a foundation for stress analysis. The forces on structures in equilibrium and concepts of centroids, center of gravity, and moment of inertia are studied. The concept of stress and strain in axial torsional and bending loading is also introduced.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

Total: 16

Semester IV

Architecture Concentration

ARC* K213 - Architecture Design II °

1 CREDIT HOUR
Prerequisites: ARC K211/ARC* K211L.*
Corequisite: ARC K213L.*
This course, along with Architectural Design I, forms the capstone of the Architectural program, as students continue implementing the principles of Design I. Students expand their design experience as they implement form, space, and order concepts in the design of building layouts, planning schemes, façade designs, and construction techniques

ARC* K213L - Architecture Design II Lab °

2 CREDIT HOURS
Prerequisites: ARC K211/ARC* K211L.*
Corequisite: ARC K213.*
This course implements the principles of architectural design covered in the lecture portion of this course. Students transition from designing small "vignette" projects in Design I to larger holistic design problems, including urban infill, single buildings, and planning projects.

ARC* K241 - Site Analysis °

1 CREDIT HOUR
Prerequisites: ARC K135/ARC* K135L.*
Corequisite: ARC K241L.*
This course introduces students to an overview inventory of the systems and elements that are encountered in the analysis of site conditions. Students will explore how each element operates and what procedures are required to

maintain or improve the quality of the site environment. Students will develop a value system, which fosters the concept of fitness to human purpose and specific site context through an ecological approach to design.

ARC* K241L - Site Analysis Lab °

2 CREDIT HOURS
Prerequisites: ARC K135/ARC* K135L.*
Corequisite: ARC K241.*
This course implements the principles of site analysis covered in the lecture portion of this course, as students explore the relationship between land use and architectural design. Hands on experience is gained through a final project that explores site selection, orientation, climatology, natural and cultural features, topography, and regulatory issues.

CAD* K116 - Revit 3D Software

3 CREDIT HOURS
This course is Revit 3D software, an Autodesk platform course where students gain operational and productivity knowledge in this industry-leading parametric software application. Structured demonstrations will lead students through command of the software dashboard, execution of operations, and sheet setup and product output, while gaining working knowledge of BIM (building information modeling) and its capabilities.

CTC* K296 - CO-OP Education Work Experience

1 CREDIT HOUR
Prerequisite: Permission of the program coordinator.
Co-requisite: Student must have completed all freshman level technology courses and have a GPA of 2.50 or better.
Students will work in industry gaining hands on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 75 documented industry hours must be completed by the co-op student during the semester internship.

_____ Directed Elective* 3 CREDIT HOURS/Units: 3

Civil Technology Concentration

CIV* K200 - Soils °

1 CREDIT HOUR
Prerequisite: MAT K186.*
Corequisite: CIV K201.*
The principles of soil mechanics are identified as a basis for discussing and implementing the fundamentals and applications of geotechnical sub-surface exploration, analysis, and design. These include recognizing soil composition, texture, and classification; understanding permeability and seepage, consolidation, settlement, and shear strength; and applying concepts in lateral earth pressures, fundamentals of retaining structures, shallow and deep foundations, and slope stability.

CIV* K201 - Soils Lab °

2 CREDIT HOURS
Prerequisite: MAT K186.*
Corequisite: CIV K200.*
Lab projects are conducted in order to study the physical, mechanical, and hydraulic properties of soils as a means to predict soil behavior and to apply practical solutions in the design of geotechnical structures. Students will perform

tests and operations similar to industry testing techniques to determine grain size distribution, specific gravity, Atterberg limits, permeability, compaction, consolidation, direct shear and triaxial tests.

CIV* K236 - Hydrology and Stormwater Drainage

1 CREDIT HOUR
Corequisite: CIV K237.*
Students will understand and analysis the hydrologic cycle as it pertains to civil engineering and site design and planning while engaging in the design of stormwater mitigation and management systems that implement computational methods and the use of best-practices and application software for rainfall and runoff. Course outcomes are demonstrated through the design of a simulation project.

CIV* K237 - Hydrology and Stormwater Drainage Lab

2 CREDIT HOURS
Corequisite: CIV K236.*
Pending course description update.

MEC* K250 - Strength of Materials °

3 CREDIT HOURS
Prerequisites: MEC K114.*
This course instills knowledge of moments of inertia, torsion, bending, and columns, and how it applies to stress and the structural properties of materials. The relationship of these properties to common engineering problems is reviewed.

CTC* K296 - CO-OP Education Work Experience

1 CREDIT HOUR
Prerequisite: Permission of the program coordinator.
Co-requisite: Student must have completed all freshman level technology courses and have a GPA of 2.50 or better.
Students will work in industry gaining hands on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 75 documented industry hours must be completed by the co-op student during the semester internship.

KXXX Directed Elective* 3 CREDIT HOURS

Construction Management Concentration

CTC* K120 - Fundamentals of Construction Management

3 CREDIT HOURS
Introduces the fundamental aspects of construction management to students in a broad format, covering topics that include understanding the design vision, establishing team expectation, project planning, scheduling, estimating, organizational forms, contracts and risk management.

CTC* K229 - Construction Estimating °

3 CREDIT HOURS
Prerequisite: Recommended some knowledge of the construction industry.
The course examines the roles and responsibilities of a construction estimator. Using both traditional and industry

standard digital methods, the course will cover the cost of labor, material, and equipment by unit and by square foot; the fundamentals and effects of scheduling, including critical path, bar and gant charts; and the effect of the global economy on overall construction costs.

ARC* K241 - Site Analysis °

1 CREDIT HOUR
Prerequisites: ARC K135/ARC* K135L.*
Corequisite: ARC K241L.*
This course introduces students to an overview inventory of the systems and elements that are encountered in the analysis of site conditions. Students will explore how each element operates and what procedures are required to maintain or improve the quality of the site environment. Students will develop a value system, which fosters the concept of fitness to human purpose and specific site context through an ecological approach to design.

ARC* K241L - Site Analysis Lab °

2 CREDIT HOURS
Prerequisites: ARC K135/ARC* K135L.*
Corequisite: ARC K241.*
This course implements the principles of site analysis covered in the lecture portion of this course, as students explore the relationship between land use and architectural design. Hands on experience is gained through a final project that explores site selection, orientation, climatology, natural and cultural features, topography, and regulatory issues.

CTC* K296 - CO-OP Education Work Experience

1 CREDIT HOUR
Prerequisite: Permission of the program coordinator.
Co-requisite: Student must have completed all freshman level technology courses and have a GPA of 2.50 or better.
Students will work in industry gaining hands on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 75 documented industry hours must be completed by the co-op student during the semester internship.

KXXX Directed Elective* 3 CREDIT HOURS

Total: 13

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

Construction Technology, Associate in Applied Sciences Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. Analyze the history of the built environment and appraise geographic adaptation when considering modern solutions to: natural resource utilization; sustainable harvest, refinement and transport of construction materials; and performance of designs and systems, accounting for climate change.
2. Translate, synthesize, and prepare graphical and written project documentation used to illustrate or describe essential industry information including construction drawings, specifications, contractual and municipal forms, field data, and technical inspection and testing reports.
3. Utilize emerging theories, equipment and technologies (i.e. sustainability, a total-station, AutoCAD), in the design and evaluation of discipline-specific components, processes, and systems (e.g. materials and form, structures, surveying and layout, and scales ranging from site-specific to urban).
4. Through simulations, evaluate potential project variables (arterial access, soils, hydrologic management, logistics), appraise their role in design development, and select strategies for project execution.
5. Perform and communicate effectively as a contributing individual or team member.
6. Demonstrate lifelong learning and continuous improvement of professional, ethical, and social responsibility.

Criminal Justice-Enforcement Option, A.S.

Degree Code: A02

Associate in Science

Program Coordinator: Jeffrey Crouch - 860-215-9418

This program is designed for students interested in pursuing criminal justice careers in an enforcement-oriented nucleus, and who plan to transfer to a four-year college. Students are urged to investigate and select the institution to which they will transfer as early as possible since each transfer situation must be planned to meet specific baccalaureate requirements.

Criminal Justice - Enforcement Curriculum Requirements

Semester I

CJS* K100 - Perspectives of Criminal Justice °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# grade or higher.*
Students will explore learning styles, develop college success strategies, engage in the practice of academic writing, reading and critical thinking within the context of the criminal justice system. This course satisfies the College's First-Year Experience requirement.

or

IDS K105 - The First Year Experience °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# or higher.*
This course is designed to engage students as active participants within the college environment. Students will have the

opportunity to acquire academic skills, attributes, awareness of self as learner, and to engage with the resources and activities within the Three Rivers Community College community. You can expect regular reading, writing and research assignments along with classroom discussion as you investigate how to be successful in this environment.

CJS* K101 - Introduction to Criminal Justice °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course provides an overview of the criminal justice system in the United States. Students will be exposed to the system's components: law enforcement, courts, and corrections from historical, theoretical, and philosophical perspectives. Students will have the opportunity to interact with criminal justice professionals and be challenged in both reading and writing

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

SOC* K101 - Principles of Sociology

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a study of the major concepts used in the field of sociology. The nature of institutions will be examined both individually and in their dynamic interrelationship. Emphasis is placed on understanding the impact of society on our lives, and on increasing our effectiveness in controlling our destinies within it.

Total: 15

Semester II

CJS* K211 - Criminal Law I °

3 CREDIT HOURS
Prerequisite: CJS K101.*

Corequisite: ENG K101 or ENG* K101S.*
This course involves comprehensive study of sources, distinctions, and limitations relating to criminal law; the development of criminal law in the United States; the principles of criminal liability; various crimes and their elements; and the criteria considered in determining capacity and defenses. Connecticut Penal Code is used to relate Model Penal Code and Common Law materials specifically to Connecticut. Case studies and briefs are used to emphasize the acts, the mental state, and the attendant circumstances that are necessary ingredients in proving crimes.

CJS* K213 - Evidence & Criminal Procedure °

3 CREDIT HOURS
Prerequisite: CJS K101.*
Corequisite: ENG K101 or ENG* K101S.*
This course explores the historical background, kinds of evidence, and the development of the rules of evidence. Considered are the hearsay rule and its major exceptions, burden of proof, judicial notice, and presumptions. Students will examine the roles of the judge, jury, and prosecuting attorney. Other areas of study will include the grand jury, prosecution by indictment as well as other court procedures.

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

or

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

MAT* K123 - Elementary Statistics °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "C-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course considers fundamental concepts of probability and statistics. The topics include exploratory data analysis (tables, graphs, measures of central tendency and dispersion), basic probability, applications of binomial and normal distributions, confidence intervals, hypothesis testing and Chi-Square Goodness-of-Fit Test.

PSY* K111 - General Psychology I

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course provides an overview of the theories and research findings pertaining to scientific psychology

with an emphasis on: the origins of psychology, nature and nurture, human diversity, theoretical models, research methodology, biological bases of thought and behavior, learning theory, sensation and perception, memory, stress and health as well as emotion and motivation.

Total: 15

Semester III

CJS* K201 - Criminology °

3 CREDIT HOURS
Prerequisite: CJS K101 or SOC* K101.*
Corequisite: ENG K101 or ENG* K101S.*
This course investigates the relationship between crime and society. Emphasis is placed on understanding theoretical explanations of deviant behaviors from multiple disciplinary perspectives. Students will have the opportunity to use current technologies and practices in assessing crime and crime patterns. They will engage in quantitative reasoning and social science methodologies. Students will explore public policy development and implementation as it relates to crime prevention, control and quality of life issues.

or

CJS* K202 - Juvenile Delinquency °

3 CREDIT HOURS
Prerequisite: CJS* K101
Corequisite: ENG K101 or ENG* K101S. SOC* K101 recommended.*
This course presents an introduction to both the structure and process of juvenile justice and delinquency in the United States. The course will examine the changing philosophy and theoretical perspectives of juvenile justice and delinquency by presenting an overview of the social, psychological, and biological explanations of juvenile deviance.

CJS* K220 - Criminal Investigation °

3 CREDIT HOURS
Prerequisite: CJS K101.*
Corequisite: ENG K101 or ENG* K101S.*
This course is designed to make the student aware of the fundamentals of criminal investigation. The student will learn correct procedures and conduct at the crime scene, how to preserve evidence, and chain of custody. Emphasis is on the responsibility of the first responder. Additionally, students will review documentation, preparation, and testimony in court.

CJS* K250 - Police Organization & Administration °

3 CREDIT HOURS
Prerequisites: CJS K101; ENG* K101 or ENG* K101S.*
This course exposes the student to the complexities inherent in the administration of modern law enforcement organizations by presenting and analyzing a variety of management styles and administrative techniques used in such organizations. Students will examine many of the internal and external factors that impact contemporary law enforcement organizations (e.g., federal regulations, political structures, community needs, press, etc.). Students will be exposed to theoretical perspectives, practical applications and designs in an environment that encourages discussion, writing, and networking with local and state agencies.

CJS* K253 - Interpersonal Dynamics for Criminal Justice Professional °

3 CREDIT HOURS
Prerequisite: CJS K101.*
Corequisite: Any 200-level CJS course or POL K212.*
This course is designed to introduce the student to the major theories about interpersonal processes and their relevance to the problems within the criminal justice system. The course content flows from understanding the theories to techniques of interpersonal communication. Emphasis is placed on facilitating effective communication, sensitivity, decision-making and action planning in a multicultural society.

- _____- Restricted Elective **3 CREDIT HOURS @**

Total: 15

Semester IV

CJS* K225 - Forensic Science °

3 CREDIT HOURS
Prerequisites: CJS K101.*
Corequisites: ENG K101 or ENG* K101S.*
This course involves the examination of physical evidence including collecting, identifying, preserving: and transportation it. They will be exposed to the crime laboratory and its capabilities and limitations. Additionally, they will participate in field testing and learn the various purposes of kits and their function and design. Laboratory procedures will be demonstrated depending on existing and available facilities.

CJS* K291 - Criminal Justice Practicum °

3 CREDIT HOURS
Prerequisite: Permission of the instructor.
This practicum is a college-approved and supervised position related to the student's criminal justice program with public or private law enforcement or security occupations in which basic law enforcement, criminal investigation, probation, or corrections form a principal part of the work of the agency in which field work experience is undertaken. Students are evaluated by members of the college faculty and the staff of the cooperating agency. This is a capstone course.

or

CJS* K294 - Contemporary Issues in Criminal Justice °

3 CREDIT HOURS
Prerequisites: Permission of instructor or Criminal Justice program coordinator.
This capstone course is designed for students with a solid foundation of knowledge and exposure to practices in the field of Criminal Justice. The course provides students with opportunities to examine current issues in law enforcement, the judicial system and corrections through discussions with experts in the field. The focus and content of the course will change each year to reflect the changes in political and social thought and their impact on public policy.

HIS* K____- History Elective **3 CREDIT HOURS**
_____- Fine Arts Elective **3 CREDIT HOURS** +
_____- Natural Science Elective **3-4 CREDIT HOURS** ++

Total: 15-16

Note:

° Course has a prerequisite. Students should check course description.

+ Students should consult with their advisor for proper course selection.

++ Students wishing to transfer should check MATH/SCIENCE requirements at transfer institution.

@ Restricted electives are any CJS* elective or POL* K212 or HPE* K128 or ANT* K105 or PSY* K245 or PHL* K111.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60-61

Criminal Justice Enforcement, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. identify and explain the basic structures and functions of the criminal justice system.
2. interpret the basic concepts and functions of criminal law.
3. integrate multidisciplinary theories which constitute the basis for understanding criminality and victimization.
4. apply constitutional principles that protect the rights of individuals and regulate criminal justice practices and procedures.
5. discuss the importance of social and ethical issues confronting the criminal justice systems.

Additionally, the graduate will complete the comprehensive learning outcomes identified within the General Education Component.

Criminal Justice-Treatment Option, A.S.

Degree Code: A04

Associate in Science

Program Coordinator: Jeffrey Crouch - 860-215-9418

This program is designed to provide a broad overview of the criminal justice field, as well as specialized emphasis on career opportunities in a treatment-oriented nucleus, for students who plan to transfer to a four-year college.

Criminal Justice - Treatment Curriculum Requirements

Semester I

CJS* K100 - Perspectives of Criminal Justice °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# grade or higher.*
Students will explore learning styles, develop college success strategies, engage in the practice of academic writing, reading and critical thinking within the context of the criminal justice system. This course satisfies the College's First-Year Experience requirement.

or

IDS K105 - The First Year Experience °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# or higher.*
This course is designed to engage students as active participants within the college environment. Students will have the opportunity to acquire academic skills, attributes, awareness of self as learner, and to engage with the resources and activities within the Three Rivers Community College community. You can expect regular reading, writing and research assignments along with classroom discussion as you investigate how to be successful in this environment.

CJS* K101 - Introduction to Criminal Justice °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course provides an overview of the criminal justice system in the United States. Students will be exposed to the system's components: law enforcement, courts, and corrections from historical, theoretical, and philosophical perspectives. Students will have the opportunity to interact with criminal justice professionals and be challenged in both reading and writing

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

- _____- Fine Arts Elective **3 CREDIT HOURS**

Total: 15

Semester II

SOC* K101 - Principles of Sociology

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a study of the major concepts used in the field of sociology. The nature of institutions will be examined both individually and in their dynamic interrelationship. Emphasis is placed on understanding the impact of society on our lives, and on increasing our effectiveness in controlling our destinies within it.

CJS* K202 - Juvenile Delinquency °

3 CREDIT HOURS
Prerequisite: CJS* K101
Corequisite: ENG K101 or ENG* K101S. SOC* K101 recommended.*
This course presents an introduction to both the structure and process of juvenile justice and delinquency in the United States. The course will examine the changing philosophy and theoretical perspectives of juvenile justice and delinquency by presenting an overview of the social, psychological, and biological explanations of juvenile deviance.

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

or

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

MAT* K123 - Elementary Statistics °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "C-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course considers fundamental concepts of probability and statistics. The topics include exploratory data analysis (tables, graphs, measures of central tendency and dispersion), basic probability, applications of binomial and normal distributions, confidence intervals, hypothesis testing and Chi-Square Goodness-of-Fit Test.

PSY* K111 - General Psychology I

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course provides an overview of the theories and research findings pertaining to scientific psychology

with an emphasis on: the origins of psychology, nature and nurture, human diversity, theoretical models, research methodology, biological bases of thought and behavior, learning theory, sensation and perception, memory, stress and health as well as emotion and motivation.

Total: 15

Semester III

CJS* K253 - Interpersonal Dynamics for Criminal Justice Professional °

3 CREDIT HOURS
Prerequisite: CJS K101.*
Corequisite: Any 200-level CJS course or POL K212.*
This course is designed to introduce the student to the major theories about interpersonal processes and their relevance to the problems within the criminal justice system. The course content flows from understanding the theories to techniques of interpersonal communication. Emphasis is placed on facilitating effective communication, sensitivity, decision-making and action planning in a multicultural society.

HSE* K183 - Substance Abuse °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This is a basic course in substance abuse and dependency. Topics will include an overview of physiological, psychological and social aspects of substance abuse. This course will have application for human service majors and others interested in the field of chemical addiction.

POL* K212 - Constitutional Law and Civil Rights °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
An intensive study and analysis of the United States Constitution and especially the Amendments to that Constitution; a study and review of court decisions which interpret the Constitution; a comprehensive study of court decisions which determine police policy and consideration of specific guidelines which must be followed in the criminal justice process.

PSY* K245 - Abnormal Psychology °

3 CREDIT HOURS
Prerequisite: PSY K111 or PSY* K112.*
This course offers an introduction to psychopathology and psychotherapy. A study of emotional disturbance includes: neuroses and personality disorders, psychoses, psycho diagnosis, and psychotherapy with an emphasis on how disorders begin and various treatments that are used. Topics in the course are: the nature of neurosis, anxiety reactions, obsessive-compulsive reactions, depressive reactions, hysteria and psycho-physiological reactions, personality disturbance, sexual deviance, addictions, theories of psychosis, forms of psychosis, somatic therapies, psychoanalytic therapies, behavior therapy, client-centered therapy, and group therapies.

SOC* K213 - Human Sexuality °

3 CREDIT HOURS
Prerequisite: Any 100-level anthropology, psychology or sociology course.
This course explores the social aspects of sexualities as they exist across different social groups. Students will analyze

the Western hegemonic ideal of "sexuality" and expand their understanding of the many influences on patterns of sexual behavior. This includes a close examination of sexualities in relation to ethnic and racial boundaries and evolutionary, historical and cross-cultural perspectives.

Total: 15

Semester IV

CJS* K201 - Criminology °

3 CREDIT HOURS
Prerequisite: CJS K101 or SOC* K101.*
Corequisite: ENG K101 or ENG* K101S.*
This course investigates the relationship between crime and society. Emphasis is placed on understanding theoretical explanations of deviant behaviors from multiple disciplinary perspectives. Students will have the opportunity to use current technologies and practices in assessing crime and crime patterns. They will engage in quantitative reasoning and social science methodologies. Students will explore public policy development and implementation as it relates to crime prevention, control and quality of life issues.

CJS* K291 - Criminal Justice Practicum °

3 CREDIT HOURS
Prerequisite: Permission of the instructor.
This practicum is a college-approved and supervised position related to the student's criminal justice program with public or private law enforcement or security occupations in which basic law enforcement, criminal investigation, probation, or corrections form a principal part of the work of the agency in which field work experience is undertaken. Students are evaluated by members of the college faculty and the staff of the cooperating agency. This is a capstone course.

or

CJS* K294 - Contemporary Issues in Criminal Justice °

3 CREDIT HOURS
Prerequisites: Permission of instructor or Criminal Justice program coordinator.
This capstone course is designed for students with a solid foundation of knowledge and exposure to practices in the field of Criminal Justice. The course provides students with opportunities to examine current issues in law enforcement, the judicial system and corrections through discussions with experts in the field. The focus and content of the course will change each year to reflect the changes in political and social thought and their impact on public policy.

- _____- Natural Sciences Elective **3-4 CREDIT HOURS ++**
- HIS* K__ - **History Elective 3 CREDIT HOURS**
- _____- Restricted Elective **3 CREDIT HOURS @**

Total: 15-16

Note:

° Course has a prerequisite. Students should check course description.

++ Students wishing to transfer should check Math/Science requirements at transfer institution.

@ Restricted electives are any CJS* elective or POL* K212 or HPE* K128 or PHL* K111.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60-61

Criminal Justice Treatment, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. identify and explain the basic structures and functions of the criminal justice system.
2. integrate multidisciplinary theories which constitute the basis for understanding criminality and victimization.
3. apply constitutional principles that protect the rights of individuals and regulate criminal justice practices and procedures.
4. discuss the importance of social and ethical issues confronting the criminal justice systems.
5. explain the fundamental concepts of human services, especially case management, and group work.

Additionally, the graduate will complete the comprehensive learning outcomes identified within the General Educate Component

CSCU Transfer Ticket Degree Programs, AA

Connecticut State Colleges and Universities (CSCU) Transfer Ticket Degrees

CSCU's Transfer Ticket degree programs provide pathways for community college students to complete degree programs that transfer to Connecticut State Universities (Central, Eastern, Southern, and Western) and Charter Oak State College without losing any credits or being required to take extra credits in order to complete a bachelor's degree in that same discipline. You will be able to transfer, apply to competitive admissions majors, and complete your BA/BS degree in the same time and with the same course requirements as students who start at a CSU or COSC.

Transfer Ticket degree programs available at Three Rivers Community College are:

- Art Studies
- Biology Studies
- Business Studies
- Chemistry Studies
- Communication Studies
- Computer Science Studies
- Criminology Studies
- Early Childhood Teaching Credential Studies
- English Studies
- Exercise Science Studies
- History Studies

- Mathematics Studies
- Physics Studies
- Political Science Studies
- Psychology Studies
- Social Work Studies
- Sociology Studies
- Spanish Studies

Please visit www.ct.edu/transfer for more details.

Early Childhood Education, A.S.

Degree Code: A46

Accredited by the National Association for the Education of Young Children (NAEYC). 1313 L St. N.W. Suite 500, Washington DC 20005. (202) 232-8777, (800) 424-2460
www.NAEYC.org

Associate in Science

Program Coordinator: Sheila Skahan - 860-215-9475

This program is designed to provide education and experiences as a basis for employment in the field of early childhood working with children ages 0-8 and/or as a two-year educational foundation for students wishing to transfer to a four/five-year teaching certification program. This program prepares students to work in early care and education settings including child care, public school paraprofessionals (K-2) and related human service agencies. Our courses also address the needs of individuals already employed in the area of early education who want to enhance their professional competence and depth of knowledge. The goal of the plan is to create an "accessible pathway for career mobility for early childhood educators." TRCC currently has working relationships with the following colleges: ECSU, SCSU, University of Hartford, Mitchell College, St. Joseph College, Charter Oak State College and The University of Connecticut: Human Development and Family Relations major.

Early Childhood Education Curriculum Requirements

Semester I

ECE* K101 - Introduction to Early Childhood Education °

3 CREDIT HOURS
Prerequisite: ENG K096 placement∞ or permission of the program coordinator based on ECE work experience.*
This course introduces students to a study of the historical, anthropological, psychological, philosophical, and social perspectives of early care and education for children ages 0-8. The course acquaints students with trends in educational settings including the organization, history, and governance of American schools. The course includes the study of child development, learning models, and the multiple roles in the early childhood education profession. An additional 10 hours of field observations will be required outside of class.

ECE* K182 - Child Development °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better or permission of the program coordinator based on ECE work experience.*
This course presents the basic principles, current research, and traditional theories of child development, from the prenatal period to the onset of adolescence, with an emphasis on the earlier years of childhood. Students will be guided in the development of a scientific and objective attitude toward the interpretation of child behavior and will study various methods of conducting research in child development. They will observe children and analyze their behavior in each of the following areas: physical abilities and motor skills, cognitive abilities, as well as social and emotional development. An additional 10 hours of field observations will be required outside of class.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

IDS K105 - The First Year Experience °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# or higher.*
This course is designed to engage students as active participants within the college environment. Students will have the opportunity to acquire academic skills, attributes, awareness of self as learner, and to engage with the resources and activities within the Three Rivers Community College community. You can expect regular reading, writing and research assignments along with classroom discussion as you investigate how to be successful in this environment.

PSY* K111 - General Psychology I

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course provides an overview of the theories and research findings pertaining to scientific psychology with an emphasis on: the origins of psychology, nature and nurture, human diversity, theoretical models, research methodology, biological bases of thought and behavior, learning theory, sensation and perception, memory, stress and health as well as emotion and motivation.

Total: 15

Semester II

ECE* K222 - Methods and Techniques in Early Childhood Education °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; ECE* K101; ECE* K182; or permission of the instructor.*
The course is designed for those students who have an understanding and knowledge of child development and children. The course will review the philosophical, sociological and pedagogical foundations of education and their applications in early childhood education settings. Students will apply actual principles of learning to the analysis of instructional approaches and curriculum development. This course will expose students to the fundamentals of

classroom strategies, effective teaching tools and techniques for children ages 0-8. Observations of early childhood programs will be required. An additional 10 hours of field observations will be required outside of class.

ECE* K231 - Early Language & Literacy Development °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; ECE* K101; ECE* K182; or permission of the instructor.*
The course introduces students to language and literacy development in the young child from birth to eight years old. Students will explore the early childhood language arts curriculum including speaking, listening, writing, and reading skills. An emphasis will be on the influence of child development milestones on an emerging literacy development. This course will also include experience in the creation of a literacy-rich environment that engages children in developmentally- appropriate language areas. Observations of early childhood programs will be required. An additional 5 hours of field observations will be required outside of class.

- _____ ECE Elective **3 CREDIT HOURS**

SOC* K101 - Principles of Sociology

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a study of the major concepts used in the field of sociology. The nature of institutions will be examined both individually and in their dynamic interrelationship. Emphasis is placed on understanding the impact of society on our lives, and on increasing our effectiveness in controlling our destinies within it.

MAT* K123 - Elementary Statistics °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "C-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course considers fundamental concepts of probability and statistics. The topics include exploratory data analysis (tables, graphs, measures of central tendency and dispersion), basic probability, applications of binomial and normal distributions, confidence intervals, hypothesis testing and Chi-Square Goodness-of-Fit Test.
(MAT* K137 or higher recommended for transfer)

Total: 15

Semester III

ECE* K210 - Observation Participation & Seminar °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; ECE* K101; ECE* K182; or permission of the instructor.*
The course emphasizes techniques and strategies for recording children's (ages 0-8) behavior accurately and objectively through portfolio assessment. The course reviews CT Statewide Department of Education benchmarks and performance standards, and identifies the methodologies best used for assessment. The importance of child development from birth to eight years is emphasized and used in observation of children in a childcare setting, preschool programs, and K-3 classes. Observations of early childhood programs will be required. An additional 60 hours of field observations will be required outside of class.

ECE* K215 - The Exceptional Learner °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; ECE* K101; ECE* K182.*
This course provides an overview of the study of the exceptional child with an emphasis on the history, laws, concepts, practices, and terminology used by professionals in the field within inclusive settings. Causes, characteristics, needs, and implications of the intellectual, motor and sensory handicaps will be discussed. Additional topics will be addressed including diversification, multiculturalism, and parenting. Observations of early childhood programs will be required. An additional 5 hours of field observations will be required outside of class.

- _____ ECE Elective **3 CREDIT HOURS**

HIS* K201 - U.S. History I °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a survey of American history from colonial times to 1877 including the major political, economic, social, cultural, and diplomatic developments in American history, such as the revolution, the Constitution, Jefferson, Hamilton, Jackson, Sectionalism, slavery, mid-century expansionism and the Civil War, and Reconstruction.

or

HIS* K202 - U.S. History II °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
ey of United States history from Reconstruction to Bush with special emphasis on the development of the American economy, United States expansionism, race relations, the world wars, women's rights, the cities, the sixties, the depression, the Cold War, Watergate, Vietnam, and the 1980's. (HIS* K201 is not a prerequisite course for HIS* K202).

- _____ Science Elective (4 credit Science with lab recommended for transfer) **3-4 CREDIT HOURS**

Total: 15-16

Semester IV

ECE* K295 - Student Teaching Practicum °

6 CREDIT HOURS
Prerequisite: Completion of seven ECE courses or permission of ECE advisor; letters of recommendation; GPA of 3.0 recommended.
Guided observation, participation and supervised student teaching in NAEYC accredited centers or public schools grades K-3. The purpose of student teaching is to enable the student to apply child development theory and methodologies in a learning environment with children. Students will manage a classroom independently, plan, organize, implement and evaluate classroom activities. Students will complete a minimum of 200 hours of student teaching. Weekly seminars devoted to issues in early childhood education, curriculum prep and the experience of the student teacher will extend the individuals learning experience. This course also requires 3 hours of class time each week. Please note the following: Students must fulfill specific health requirements mandated by CT State Licensing or SDE, including annual physical and TB requirements. Additionally, students are required to complete a criminal record check prior to the semester. These expenses must be assumed by the student.

- _____ Fine Arts Elective **3 CREDIT HOURS** (as identified in Liberal Arts and Sciences, A.A.)

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

- _____ Any 200 level course in Sociology or Psychology **3 CREDIT HOURS**

Total: 15

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60-61

Early Childhood Education, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. promote child development and learning by knowing young children's needs and understanding the multiple influences on development and learning.
2. demonstrate an understanding of a variety of current and historical, philosophical and theoretical approaches to early childhood education.
3. build participation of families and communities in the learning and development of children.
4. understand the goals, benefits and uses of observing, documenting and assessing to support young children and families.
5. know, understand and use supportive interactions to focus on the children's needs and intersts and to build effective environments and routines for children.
6. understand the central concepts of content knowledge in early education and academic disciplines.
7. build meaningful curriculum using own knowledge and resources to design and implement problem-solving, creative thinking, academic and social competence.
8. identify and involve oneself with the professional early child hood field by upholding ethical standards and engaging in informed advocacy for children and the profession.

Electrical, Laser and Robotics Engineering Technology, A.S.

Degree Code: KB13

Associate in Science

Program Coordinator: Michael Gentry - 860-215-9428

This program is designed to provide the skills required by the Connecticut industry and throughout the Northeast Region through a unique set of courses. Originally named Electrical Engineering Technology, the Program curriculum has been focused on automated controls for over thirty-five years. The Laser/Fiber Optics core has been incorporated into the program and the automated controls courses have been expanded to include additional focus on Robotics.

The Program offers core courses in Electrical, Electronics, Lasers, Optics and Automated Controls. Students can also design their own concentration through project opportunities offered in several courses. Some related areas include Electrical Power/Alternate Energy, Machine Vision, Wireless/Fiber Optic Communications, Internet of Things (IoT) and others. Classes are limited in number to allow Faculty time for one on one instruction. All courses are taught in the laboratory with an emphasis on hands on experience through lab exercises, demonstrations and projects.

Students find job opportunities in industrial automation, manufacturing/test engineering, product development and other roles in a variety of industries.

Many of our students are already working in industry and pursue the Associate Degree to further their career opportunities.

Electrical, Laser and Robotics Engineering Technology Curriculum Requirements

Semester I

PHO* K101 - Intro to Light and Lasers

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S.*
This course is a comprehensive study of photonics designed as a one-semester course. It provides the foundation required to prepare technicians in the areas of optics, electro-optics, lasers, and photonics. Topics include: Nature and Properties of Light, Optical Handling and Positioning, Light Sources and Laser Safet, Basic Geometrical Optics, and Basic Physical Optics. The course covers the wave and particle properties of light, light interactions, fundamentals of laboratory safety, bulk optical materials and their properties, optical coatings and methods of coating deposition, laboratory mountings, positioning equipment, surface quality of optical components, inspection methods and procedures, the care and cleaning of optics, concepts of laser safety, laser safety standards, safety classifications, laws of reflection and refraction, image formation with lenses and mirrors, interference, diffraction, and polarization processes. The lab portion of the course provides students with hands on activities to demonstrate the various optical concepts. This course is equivalent to PHY* K103. One 2 hour lecture; one 3 hour lab.

EET* K105 - Electric Circuits & Systems °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I.*
Corequisites: MAT K137 or MAT* K137S.*
This course provides an introduction to the basic concepts of DC and AC electric circuits. Voltage, current, resistance, energy, and power relationships are introduced. Circuit analysis of basic series and parallel circuits is covered. Instruments and techniques of electrical measurement for both DC and AC circuits are also discussed. Other topics include semiconductor devices, transformers and power supplies, microcontrollers, motors and drive circuits, and electrical power generation/distribution. The lab portion of this course will supplement the course Electric Circuits & Systems. Students will apply the concepts learned in the classroom and gain practical hands-on experience making electrical measurements using a variety of test instruments.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

- _____ - Physics Elective PHY* K114º or PHY* K115º **4 CREDIT HOURS**

Total: 13

Semester II

EET* K119 - Advanced Circuits and Systems °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
This course develops the concepts of DC and AC electric circuits introduced in Electric Circuits and Systems. More advanced configurations and applications of DC and AC principles are covered, including: transient behavior of capacitive and inductive circuits; power considerations in industrial AC system; network theorems, such as superposition and Thevenin's theorem applied to DC, AC, and mixed circuits; transformers, three phases circuits, and filters. Two hours lecture and three hours laboratory, course meets five hours per week. The lab portion of this course will supplement the course Electric Circuits and Systems. Students will apply the concepts learned in the classroom and develop their skills in making electrical measurements using a variety of test instruments.

EET* K134 - Electronics I °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
This course is an introduction to the internal physical behavior of semiconductor electronic devices. Topics include semiconductor physics, P-N junction operation, transistors and applications, amplifiers, op amps timers and specialty devices. Models, equivalent circuits, and applications are emphasized. Two hours lecture and three hours laboratory, course meets five hours per week. The lab portion of this course supports Electronics I by providing the student with practical experience in the handling and measurement of semi-conductor devices. Computer simulation and bench measurement experiments will be performed in studying the operational characteristics of basic semiconductor devices.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator*

(TI-84 or TI-89).
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

PHO* K241 - Introduction to Laser Technology

3 CREDIT HOURS
Corequisite: MAT K137.*
This course provides an introduction to the physics of lasers, laser output characteristics, and types of lasers. Application of lasers will be also be explored. Topics include solid state, gas, and semiconductor lasers. Laser pumps, resonators, mode structures and power supplies are covered. Use of lasers in materials processing, communication systems, sensors and scientific analysis will be included.
The lab portion of this course will reinforce classroom physics and technology concepts and give students the opportunity to become familiar with common laser instrumentation. Lab projects will allow students to more deeply explore topics of interest. Lab exercises will include practice with Diode, HeNe, Argon, Fiber and CO2 lasers.

Total: 16

Semester III

EET* K254 - Digital Electronics I °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
Students will engage in a comprehensive study of binary logic gates. The circuits for certain various gates are analyzed. The course also includes the study of codes, encoding, decoding, number systems, and various sequential logic circuits such as flip-flops, counters, and shift registers. Two hours lecture and three hours laboratory, course meets five hours per week. In the laboratory portion of the course, students will engage in a comprehensive study of logic circuitry. Circuits containing various logic gates are built and tested. Applications of logic circuitry in practical applications are also build and evaluated.

EET* K264 - Data Acquisition and Controls °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
This course provides an introduction to data acquisition circuits and systems as well as basic feedback control systems. Topics include measurements techniques, computerized data acquisitions, introduction to LabVIEW, Interfacing to microcontrollers and instrumentation, signal processing and communications, and feedback control techniques, mechanical systems and mechanical power transmission. Students will learn the basics of measurements and data acquisition using LabVIEW based exercises. This lab portion of this course provides students with hands-on experience with analog and digital closed loop automatic control components, circuits, and systems. It familiarizes students with analog and digital simulation techniques. LabVIEW and microcontrollers are used extensively with various sensors and actuators.

EET* K274 - Electronic Communication Systems °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
Students will study communications from an informational and circuit/systems point of view. Modulation theory and techniques will be covered. Noise considerations, bandwidth requirements, and the transmission, propagation, reception

and detection of RF signals will be considered. Analog and digital considerations will be addressed. Modern digital communication systems including WiFi, Bluetooth and ZigBee will be evaluated. Two hours lecture and three hours laboratory, course meets five hours per week. The Laboratory portion of this course supports provides students with hands-on experience in the design, check-out, and evaluation of the various circuits and subsystems that comprise a communications system. Students will use single board microcomputers and microcontrollers with Wifi, Bluetooth and other wireless formats to implement data acquisition, data logging and controls.

MAT* K167 - Principles of Statistics °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. Please refer to online schedule and click on the CRN hyperlink and/or review printed schedule in determining which faculty require math software in their course(s).*
This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations and confidence intervals.

- _____- Fine Arts Elective **3 CREDIT HOURS**

Total: 15

Semester IV

EET* K258 - Microprocessors & Controls °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
Students will be introduced to the concepts involved in single board microcomputers. Emphasis is placed upon using a microprocessor as a control device, and also in a microcomputer system. Various microcomputer and related integrated circuits are studied. Two hours lecture and three hours laboratory, course meets five hours per week. In the laboratory portion of this course, students will build and evaluate microcomputer based systems. Students will also develop assembly and high level code, program the systems, carry out performance tests and develop laboratory reports.

EET* K266 - Advanced Controls and Robotics °

3 CREDIT HOURS
Prerequisites: EET K264*
This course builds on topics from EET* K264 with the sensors, microcontrollers, actuators and programmable logic controllers, that make up modern day robots. Automatic control system techniques are used to implement robot analysis and design. Two hours lecture and three hours laboratory, course meets five hours per week. This lab provides students with hands-on experience with the components and systems used in robotics. Students build or refurbish robot arms, rovers, quadrotor or other robotic systems. A microcomputer controlled system design project is included. This course is equivalent to MFG* K221.

PHO* K102 - Applied Optics °

4 CREDIT HOURS
Prerequisites: PHO K101.*
Building on the foundation of PHO* K101, this course will introduce more sophisticated optical systems and mathematical analysis. Topics will include thick lenses, matrix methods of optics, aberrations, stops and pupils,

interferometry, Fresnel and Fraunhofer diffraction and polarization. Emphasis will be on applications of optics in modern technology. All laboratory section will reinforce concepts through hands-on experiments and team projects.

- _____- Humanities/Social Science Elective **3 CREDIT HOURS**
- _____- Humanities/Social Science Elective **3 CREDIT HOURS**

Total: 16

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

Electrical, Laser and Robotics Engineering Technology, Associate in Science Degree Program Objectives

Graduates of the program in Electrical Engineering will:

1. make technical and creative contributions and find employment in electrical engineering technology.
2. appreciate the need to be life long learners.
3. demonstrate professionalism and a sense of social and ethical responsibility in their work.
4. engage in professional development or study in a four-year program to pursue flexible career paths amid future technological changes.

Electrical, Laser and Robotics Engineering Technology, Associate in Science Degree Program Outcomes

By the time of graduation, students in the Electrical Engineering Technology program will:

1. understand and apply technical concepts relating to electrical, optical and robotic systems including fabrication, measurement, analysis and maintenance of systems and subsystems.
2. combine oral, technical and written communication skills to present and exchange information effectively and to direct activities involving electrical, laser and robotics technology.
3. demonstrate the ability to use appropriate mathematical, computational and technical-thinking skills needed for engineering technology applications.
4. illustrate an ability to think critically and identify, evaluate and solve complex technical and non-technical problems; demonstrate creativity in designing problem solutions; and conduct and interpret experimental data and outcomes.
5. practice the skills needed to work effectively in teams and as an individual.
6. describe concepts relating to quality, timeliness and continuous improvement.
7. recognize actions and acts of professionalism that allow them to become informed and participating citizens cognizant of ethics, civic duty and social responsibility.

Engineering Science, A.S.

Degree Code: B18

A College of Technology Pathway

Program Coordinator: Mark Vesligaj- 860-215-9442

The Connecticut College of Technology is an innovative program leading to a Bachelor of Science Degree in engineering or technology. The program consists of two distinct pathways, one in Engineering Science and one in Technology Studies. After completing the Technology Studies Pathway Program at Three Rivers, students may enter directly into technical fields at Central Connecticut State University or Charter Oak State College (Connecticut's External Degree Program). The Engineering Science Pathway leads directly into the School of Engineering at the University of Connecticut or the University of New Haven.
The pathway courses will transfer to engineering and technology programs at many other public and private universities as well.

Associate in Science

Program Coordinator: Mark Vesligaj - 860-215-9442

The "Engineering Science Pathway" consists primarily of coursework in engineering, mathematics, and the sciences. In addition to the credit core of courses shown below, a grade average of "B" with no grade less than a "C" is required for continuation at UConn's School of Engineering, or University of New Haven.

The "Engineering Science Pathway" focuses upon building a foundation in the fields of mechanical, industrial, or civil engineering. Graduates will receive a background in mathematics, science and general education courses for transfer into a four-year program. Engineering Science also offers students currently employed in technical positions an opportunity to retrain and upgrade their technical skills. Differences in various areas of specialization in engineering allow students to choose electives with reference to their programs of study. Core courses in Engineering Science may be offered at other Connecticut Community Colleges in cooperation with Three Rivers.

Engineering Science Curriculum Requirements

Semester I

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

CHE* K121 - General Chemistry I °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K172 and high school chemistry or CHE* K111 all passed with a "C" grade or better; or permission of the instructor or department chairperson.*

Corequisite: MAT K186.*
In this course, students will study the fundamental principles, theories, and laws of chemistry. Topics include atomictheory and the structure of the atom, the aggregated states of matter, kinetic molecular theory, chemical bonding, stoichiometry and periodicity, solutions, and colloids. Three- hour lecture; one three-hour laboratory period.

PHY* K221 - Calculus-Based Physics I °

4 CREDIT HOURS
Prerequisite: MAT K254 highly recommended.*
Corequisite: MAT K254.*
This is a calculus-based introduction to the basic concepts of classical mechanics. Major topics will include Newton's laws, motion in n-dimensions, periodic motion, thermodynamics, energy, hydrodynamics, and an introduction to material science. The course will emphasize the theoretical aspects of physics and will help the student develop effective problem solving strategies. Laboratories will be designed to allow the student to visualize the important concepts introduced in lecture and to increase student understanding of the scientific process. There will be two hours of lecture, one hour of problem solving, and three hours of lab each week.

MAT* K254 - Calculus I °

4 CREDIT HOURS
Prerequisite: MAT K186 with a 'C" grade or better.*
This is a first course in the calculus sequence intended for students who plan on majoring in mathematics, physical sciences, or engineering technology. Topics include: rate of change, limits, continuity, differentiation of algebraic, trigonometric, exponential, and logarithmic functions, differentials, applications of differentiation, definite and indefinite integrals, and applications of integration.

EGR* K111 - Introduction to Engineering °

3 CREDIT HOURS
Prerequisite: MAT K137*
This course is designed to introduce students to the fields of engineering through design and graphics and comprehensive engineering projects. Topics include: sketching, charts, graphs, forces, energy, electrical circuits, mechanisms, robotics, manufacturing technologies, and fundamentals of engineering economics.

Total: 18

Semester II

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

PHY* K222 - Calculus-Based Physics II °

4 CREDIT HOURS
Prerequisite: PHY K221.*
This is a continuation of PHY* K221. Major topics will include continuation of the study of solids, electromagnetic phenomena, Maxwell's equations, and atomic and sub-atomic phenomena. Laboratories will center around studying electromagnetic phenomena and enhancing student knowledge of the relationship between electricity, magnetism and light. There will be two hours of lecture, one hour of problem solving, and three hours of lab each week.

MAT* K256 - Calculus II °

4 CREDIT HOURS
Prerequisite: MAT K254 with a "C" grade or better.*
This course is the second semester of calculus intended for students who plan on majoring in mathematics, physical science, or engineering technologies. The topics include the definite integral, applications of integration, methods of integration, sequences, series and vectors.

- _____- Fine Arts Elective **3 CREDIT HOURS +**

CHE* K122 - General Chemistry II °

4 CREDIT HOURS
Prerequisites: CHE K121 with a "C" or better; MAT* K186 with "C" grade or better.*
This course includes further study of the principles, theories, and laws of chemistry. Topics include thermo-chemistry, kinetics, chemical equilibrium, oxidation reduction and electro-chemistry, introduction to organic and nuclear chemistry, and the chemistry of the elements and their compounds. Three-hour lecture; one three-hour laboratory period. CHE* K121 - General Chemistry I ° and II are ordinarily both taken for transfer credit.

or

EGR* K215 - Engineering Thermodynamics I

4 CREDIT HOURS
Prerequisites: CHE K121, MAT* K254, and PHY* K221.*
Corequisite: Please note that MAT K254 may be taken concurrently.*

This course is designed to introduce students to the First and Second Laws of Thermodynamics. Topics include: energy concepts and balances, thermodynamic properties of pure substances and ideal gases, and analysis of ideal and real processes including turbines, pumps, heat exchangers, and compressors.

Total: 18

Semester III

MAT* K285 - Differential Equations °

3 CREDIT HOURS
Prerequisite: MAT K256 with a "C" grade or better.*
A continuation of calculus with an introduction to standard techniques of solving differential equations. The following topics will be introduced: first-order differential equations, linear equations of higher order, power series methods, Laplace transform methods, linear systems of differential equations, numerical methods, and modeling by differential equations in a variety of applications in physics, chemistry, engineering, biology, social sciences and finances.

EGR* K211 - Engineering Statics °

3 CREDIT HOURS
Prerequisite: MAT K254.*
Corequisite: MAT K254.*
Students will be introduced to engineering mechanics via vector approach to static forces and their resolution. Topics include: properties of force systems, free-body analysis, first and second moments of areas and mass and static friction. Applications to trusses, frames, beams and cables are included.

PHL* K111 - Ethics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course will cover the fundamentals of ethics, including an introduction to the origins and nature of moral right and responsibility. Students will analyze and formulate positions on contemporary ethical issues.

Technical Elective

Total: 12-13

Semester IV

MAT* K268 - Calculus III: Multivariable °

4 CREDIT HOURS
Prerequisite: MAT K256 with a "C" grade or better.*
This third semester of calculus is intended for students who plan on majoring in mathematics, science or engineering technologies. It exposes students to the calculus of several variables. Topics include vectors, dot and cross product, equations of lines and planes, functions of several variables, limits and continuity, partial derivatives, chain rule, gradient, maximizing and minimizing functions of several variables, Lagrange multipliers, multiple integrals, polar, cylindrical, spherical coordinate systems, vector fields, line integrals, Green's and Stokes' and the Divergence Theorems.

CSC* K108 - Introduction to Programming °

4 CREDIT HOURS
Prerequisites: Familiarity with Microsoft Windows operating system and basic word processing; MAT K095 or MAT* K095I with a "C#" grade or better.*
This course presents a broad introduction to computer science including computer design, programming, information processing and algorithmic problem solving. It is intended as a foundation for beginning computer science students and others seeking to use computers as a tool in business, engineering, science and other disciplines. In addition, this course provides an introduction to high level computer programming language. The student will learn to design, develop and implement programs to solve various data processing problems. Topics covered include control structures, functions and parameter passing, file I/O, and an introduction to arrays and structures. In the lab, the student will use the computer to create and run programs to solveproblems discussed in the lecture portion. Three lecture hours, one two-hour lab.

- _____- Social Sciences Elective **3 CREDIT HOURS** +++

EGR* K212 - Engineering Dynamics °

3 CREDIT HOURS
Prerequisites: EGR K211 and MAT* K256.*
Engineering applications of Newtonian mechanics to dynamic forces, translational motion, work, impulse and

momentum will be taught. Topics include: kinematics, kinetics of particles and rigid bodies, vibrations, energy and momentum conservation.

- _____- History Elective **3 CREDIT HOURS ++**

Total: 17

Note:

° Course has a prerequisite. Students should check course description.

+ ARC* K102, ART* K101, ART* K102, ART* K260 or MUS* K101 recommended for transfer to UCONN.

++ HIS* K201 or HIS* K202 recommended for transfer to UCONN

+++ ANT* K101, ECN* K101, ECN* K102 or PSY* K112 recommended for transfer to UCONN

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 65-66

Engineering Science, Associate in Science Degree Program Objectives

Program Objectives:

1. Complete an Associate of Science degreein Engineering Science.
2. Transition seamlessly into a Bachelor of Science Degree Program in Engineering with junior level status in the receiving institution as part of the College of Technology Engineering Pathway Program.

Engineering Science, Associate in Science Degree Program Outcomes

Student Learning Outcomes:

By the time of graduation, students in the Engineering Science program will:

1. Apply engineering, mathematical, scientific, and technological principles and concepts to identify and formulate solutions to engineering problems.
2. Apply critical thinking and problem-solving skills to solve engineering problems.
3. Demonstrate the ability to function on teams.
4. Recognize the need to engage in life-long learning.

Environmental Engineering Technology, A.S.

Degree Code: B19

Associate in Science

Program Coordinator: Diba Khan-Bureau - 860-215-9443

This program is designed to educate students in the general and technical aspects of environmental issues and common practice environmental procedures. The degree focuses on practical education with classes covering the basic quantitative and conceptual skills required of environmental engineering technicians. The student population for this program varies from recent high school graduates, to employees seeking retraining, and post-associate degree students looking for career changes. The broad-based curriculum meets the demands of a range of environmental positions. Graduates have gone on to work for manufacturing firms, regulatory agencies, and as consultants, or have continued their education at baccalaureate institutions. Due to the expanding environmental industry and high levels of environmental concern in Connecticut, this program has been in great demand.

Prerequisite to the Program

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

Environmental Engineering Technology Curriculum Requirements

Semester I

BIO* K180 - Principles of Environmental Science

3 CREDIT HOURS
Corequisite: ENG K096 or higher. Please note: if completing ENG* K096 prior to enrolling in BIO* K180, a grade of "C#" or better is required for registration into this course.*
This is a basic course in environmental studies that introduces ecological principles and a global perspective on environmental problems such as deforestation, droughts, floods, soil erosion, overpopulation, food shortages and pollutants. Some field work will be included. Course fulfills International/Intercultural Requirement.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENV* K163 - Geomatics Spatial Analysis

3 CREDIT HOURS
This course will provide students with the fundamentals of the discipline of Geomatics, an amalgation of the sciences of geography, meaurement, and mapping. Coursework will include exercises utilizing geographic information systems (GIS) software, global navigation satellite systems (GNSS, commonly GPS) mobile units, and more traditional measurement surveying tools. Students will be introduced to the concept of three-dimensional modeling, and learn to develop simple and complex spatial models for multifaceted environmental processes and relationships.

ENV* K172 - Environmental Research Project I °

1 CREDIT HOUR
Prerequisite: Permission of the instructor.
This course introduces and develops skills in microscopy techniques, field research, literature searches, monitoring equipment usage, and teamwork, and provides hands-on experience in the field and laboratory.

- _____- Humanities or Social Science Elective **3 CREDIT HOURS**

Total: 13

Semester II

ENV* K110 - Environmental Regulations °

3 CREDIT HOURS
Prerequisite: ENV K101 .*
This course provides a broad view of federal, state, and municipal environmental regulations as they apply to industry, commercial establishments, local governmental facilities, and the individual citizen. It provides a practical approach to regulatory understanding to enable one to plan an effective and economically sound compliance program. Course topics include the Clean Air Act (CAA), Clean Water Act (CWA), Toxic Substance Control Act (TSCA), SARA Title III (Community Right-to-Know), and federal, state, and local regulations, covering such topics as hazardous material transportation, in-ground tank storage, and specific hazardous materials such as asbestos and PCBs.

ENV* K242 - Hydrology °

3 CREDIT HOURS
Prerequisite: MAT K172 or higher.*
This course features an emphasis on ground water. Topics include weather as it affects water resources, precipitation, stream flow, stream flow hydro graphics, rainfall run-off relationships, the impact of natural and man-made phenomena on water resources, and ground water hydrology.

ENV* K260 - Geomatics °

4 CREDIT HOURS
Prerequisite: ENV K163*
Geomatics is increasingly used to evaluate the various data models and structures used in the input management analysis and output of geographic data used in the sciences, environmental sciences and engineering and natural resources management. The Geomatics course will offer students further skills required in the study of Geographical Information Systems, GPS, spatial analyzes, photogrammetry & cartography providing understanding and field experience. Cartography is used in the area pertaining to preserving indigenous lands and documenting water and land rights, urban and transportation planning, wildlife habitat preservation and environmental impact analysis. This course

will enable students to apply geomatics skills and knowledge in a growing field. Geomatics can be used to evaluate many issues, but not limited to, natural sciences and the environment. Research and modeling will be essential in the development, design and performance monitoring of a wide variety of spatial data. The Geomatics course will provide students with further knowledge of geographical information systems. Introduction to Geographical Information Systems is the preliminary course for students, which will lead to Geomatics giving the students further understanding of geographical information sciences, GPS and cartography. The combined courses provide options to obtain work or to continue an education to acquire a certificate, an A.S. or an advanced degree. The Geomatics class supports the new paradigm for a renewed effort in geospatial analyzes for charting and measuring the world.

ENV* K265 - Fundamental Measurements and Applications Lab

3 CREDIT HOURS
Corequisites: MAT K172. Recommended High School Chemistry or CHE* K111.*
This course will familiarize students with environmental analysis, instrumentation, and sampling methods. Students will have hands-on training and experience with various sampling analysis equipment and techniques. Upon completion the participants will understand the basic concepts necessary to choose and conduct environmental measurements in streams, lakes, and wetlands and for stormwater runoff, wastewater, gasses and soils. The student will also be able to utilize computer applications to perform data analysis for all laboratory and field work methods completed.

ENV* K277 - Environmental Research Project II °

1 CREDIT HOUR
Prerequisite: ENV K172.*
This course further enhances the skills learned in ENV* K172. The course will include field work and flexible hours.

Total: 14

Semester III

BIO* K121 - General Biology I °

4 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Corequisites: CHE K111 or CHE* K121, either course with a "C" grade or better; or permission of the department chair. Please note: If completing CHE* K111 or CHE* K121 prior to enrolling in BIO* K121, a grade of "C" or better is required for registration into this course.*
This course introduces the major principles and concepts of modern biology. Topics to be covered include molecular and cellular biology, cell division, cellular transport systems, cellular metabolism, the specialization and differentiation of both plant and animal cells, and modern genetics. Three-hour lecture; one three-hour laboratory period.

CHE* K121 - General Chemistry I °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K172 and high school chemistry or CHE* K111 all passed with a "C" grade or better; or permission of the instructor or department chairperson.*
Corequisite: MAT K186.*
In this course, students will study the fundamental principles, theories, and laws of chemistry. Topics include

atomictheory and the structure of the atom, the aggregated states of matter, kinetic molecular theory, chemical bonding, stoichiometry and periodicity, solutions, and colloids. Three- hour lecture; one three-hour laboratory period.

ENV* K245 - Water Resources Engineering

3 CREDIT HOURS
Corequisite: ENV K245L.*
This course studies the methodology used in determining storm water runoff for small urban areas. The theory and logic of both the Rationale Method and the Soil Conservation Services TR-55 are studied in detail. The quantity computations are covered, as well as the understanding of gutter analysis. As part of the lab, the student will design a storm drain system, including a cost estimate for the project.

ENV* K245L - Water Resources Engineering Lab

1 CREDIT HOUR
Corequisite: ENV K245.*
This course gives the methodology used in determining storm water runoff for small urban areas. This lab is used as a practical exercise to develop the methods of Water Resources Engineering, including actual design of a storm water system with a cost estimate.

ENV* K278 - Environmental Research Project III °

1 CREDIT HOUR
Prerequisite: ENV K277.*
This course further enhances the skills learned in ENV* K277. The course will include field work and flexible hours. Advanced students will mentor less advanced students in this course.

MAT* K254 - Calculus I °

4 CREDIT HOURS
Prerequisite: MAT K186 with a 'C" grade or better.*
This is a first course in the calculus sequence intended for students who plan on majoring in mathematics, physical sciences, or engineering technology. Topics include: rate of change, limits, continuity, differentiation of algebraic, trigonometric, exponential, and logarithmic functions, differentials, applications of differentiation, definite and indefinite integrals, and applications of integration.

Total: 17

Semester IV

BIO* K122 - General Biology II °

4 CREDIT HOURS
Prerequisite: BIO K121 with a "C" grade or better or permission of the instructor.*
Corequisite: None required; CHE K122 is recommended.*
This course is a continuation of General Biology I. Topics to be covered include taxonomy, the diversity of life forms from the microbes to the animals, the structures and functions of both plant and animal systems, as well as ecology, ecosystems and evolution. (For transfer credit, student should take both BIO* K121 and BIO* K122.) Three-hour lecture; one three-hour laboratory period.

or

BIO* K235 - Microbiology °

4 CREDIT HOURS
Prerequisites: BIO K121 and CHE* K111 or CHE* K121 or permission of the instructor, all courses passed with a "C" grade or better. BIO* K122 is recommended.*
This course covers a comprehensive study of microorganisms. Topics covered will include the basic characteristics, morphology, physiology, growth, reproduction, and genetics of bacteria, as well as a brief taxonomical survey of the following microbial life forms: Archaea, Eubacteria (Cyanobacteria, Mycoplasms, Rickettsia, Chlamydia), Fungi, Algae, Protozoans, and Viruses. Emphasis will be on species that affect humans. Laboratory activities will include various techniques of staining, culturing, and isolating bacteria. The morphology and metabolic processes of select microbial groups will be studied. Students will learn to apply various modern bio- techniques that are used for controlling the growth of microbes, and to identify unknowns. Three hours of lecture; three hours of lab each week.

CHE* K122 - General Chemistry II °

4 CREDIT HOURS
Prerequisites: CHE K121 with a "C" or better; MAT* K186 with "C" grade or better.*
This course includes further study of the principles, theories, and laws of chemistry. Topics include thermo-chemistry, kinetics, chemical equilibrium, oxidation reduction and electro-chemistry, introduction to organic and nuclear chemistry, and the chemistry of the elements and their compounds. Three-hour lecture; one three-hour laboratory period. CHE* K121 - General Chemistry I ° and II are ordinarily both taken for transfer credit.

ENV* K208 - Long Island Sound Ecology °

3 CREDIT HOURS
Prerequisite: ENV K101 or permission of the instructor.*
This course is an ecological study of Long Island Sound marine environments. Emphasis is placed on the factors limiting the distribution of marine organisms and on the visual recognition of invertebrates, fish, and seaweeds. Extensive travel to off campus field study locations is featured. Pollution run-off to the Long Island Sound and urban areas will be discussed.

ENV* K220 - Hazardous Materials °

3 CREDIT HOURS
Prerequisite: None required; CHE K111 or CHE* K121 recommended.*
This course is a study of accident prevention, safety, industrial hygiene and proper procedures for handling hazardous materials. Properties of many industrial reagents and solvents are examined so they can be handled and stored properly. The following specific topics will be covered: Material Safety Data Sheets (MSDS), labeling, personnel training and records, emergency response program, toxicity routes of entry, storage, ventilation, personal protective equipment, barriers, and spills containment Requirements of OSHA, SPCC, RCRA, and TSCA will be reviewed to provide students with a working knowledge of the regulations. This course meets the requirements of 29 CFR 1910.120.

ENV* K279 - Environmental Research Project IV °

1 CREDIT HOUR
Prerequisite: ENV K278.*
This course further enhances the skills learned in ENV* K278. The course will include field work and flexible hours. Advanced students will mentor less advanced students in this course.

ENV* K291 - Environmental Engineering Technology Co-Op °

1 CREDIT HOUR
Prerequisite: Permission of the program coordinator.
Corequisite: Students must have completed all freshman level technology courses and have a GPA of 2.50 or better.
Students will work in industry gaining hands-on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by the co-op student during the semester internship.

Total: 16

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

Environmental Engineering Technology, Associate in Science Degree Program Objectives

Graduates of the program in Environmental Engineering Technology will:

1. graduates will be qualified for to make technical and creative contributions to and find employment in environmental monitoring and measurements, policy and design in the practice of environmental engineering technology.
2. graduates will have an appreciation for the need to be lifelong learners.
3. graduates will demonstrate professionalism and a sense of societal and ethical responsibility in their professional endeavors.
4. graduates will engage in professional development or study in a four-year program to pursue flexible career paths amid future technological changes.

Environmental Engineering Technology, Associate in Science Degree Program Outcomes

By the time of graduation, students in the Environmental Engineering Technology program will:

1. practice the skills needed to work effectively in teams and as an individual.
2. demonstrate the ability to use appropriate mathematical, computational and graphic-thinking skills needed for environmental engineering technology applications.
3. combine oral, graphical and written communication skills to present and exchange information effectively and communicate design solutions.
4. know of a professional code of ethics describe concepts relating to environmental monitoring, policy, processes and continuous improvement.

5. describe how the concepts of environmental measurements and the design, management and operation of environmental facilities affect evaluation of analysis, policies and decision making.
6. illustrate an ability to think critically and identify, evaluate and solve complex environmental problems; demonstrate technical and provide practical applications in environmental control problem and solutions; and communicate solutions technically and effectively.
7. recognize actions and acts of professionalism that allow them to become informed and participating citizens cognizant of ethics, civic duty and social responsibility.
8. recognize the need to be lifelong learners.

Exercise Science, A.S.

Degree Code: A81

Associate in Science

Program Coordinator: Heidi Zenie - 860-215-9485

This program is designed to provide a strong basic foundation in the area of exercise science as well as a broad background in general education. For those students seeking an entry level position in health and fitness, the Exercise Science program prepares students for necessary industry certifications and the knowledge and motivation to continue as life long learners in health and fitness. For students interested in furthering their education by transferring to a four-year institution, the program prepares students to transfer to an exercise science or other health related program.

Exercise Science Curriculum Requirements

Semester I

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

HIS* K1XX History Elective **3 CREDIT HOURS**

HPE* K105 - Introduction to Exercise Science °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
An introduction of the profession of Fitness Training and the five components of physical fitness, as it relates human anatomy and physiology, exercise, and nutrition to fitness and its effects on the body.

MAT* K167 - Principles of Statistics °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. Please refer to online schedule and click on the CRN hyperlink and/or review printed*

schedule in determining which faculty require math software in their course(s).
This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations and confidence intervals.

or

MAT* K172 - College Algebra °

3 CREDIT HOURS
Prerequisites: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course is a thorough and rigorous algebra course that strengthens the understanding of functions, their properties, multiple representations, and operations with functions. The function families studied include: polynomial, exponential, logarithmic, rational, and radical functions. Students will also learn linear and quadratic inequalities, absolute value equations and inequalities, linear and noninear systems.

PSY* K111 - General Psychology I

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course provides an overview of the theories and research findings pertaining to scientific psychology with an emphasis on: the origins of psychology, nature and nurture, human diversity, theoretical models, research methodology, biological bases of thought and behavior, learning theory, sensation and perception, memory, stress and health as well as emotion and motivation.

Total: 15

Semester II

BIO* K121 - General Biology I °

4 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Corequisites: CHE K111 or CHE* K121, either course with a "C" grade or better; or permission of the department chair. Please note: If completing CHE* K111 or CHE* K121 prior to enrolling in BIO* K121, a grade of "C" or better is required for registration into this course.*
This course introduces the major principles and concepts of modern biology. Topics to be covered include molecular and cellular biology, cell division, cellular transport systems, cellular metabolism, the specialization and differentiation of both plant and animal cells, and modern genetics. Three-hour lecture; one three-hour laboratory period.

CHE* K111 - Concepts of Chemistry °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K137 or MAT* K137S with a "C" grade or better (or permission of the instructor on math requirement).*
This course offers a brief and comprehensive survey of important chemical theories and some of the applications of chemistry. Topics covered will include measurements in chemistry, atomic structures and chemical bonding, chemical reactions, states of matter, stoichiometry, theories of solution, and basic organic and biochemical concepts. Course Design: CHE* K111 is meant for students with little or no background in chemistry who need the course in preparation

for General Chemistry, or for students who need to meet a pre-admission requirement for nursing or other allied health programs, or those who need a lab science course.

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

HPE* K245 - Programming and Prescription I °

4 CREDIT HOURS
Prerequisite: HPE K105.*
Students will be introduced to fitness assessment, testing and exercise criteria as well as guidelines for safe and efficient cardiovascular resistance and speed and agility training techniques. Exercise testing and prescription for healthy cardiovascular, respiratory, endocrine, skeletal and nervous systems will be stressed. Pulmonary diseases and post orthopedic injuries will also be included in the context of this course. The need for essential nutrient intake is another important aspect of this course.

Total: 15

Semester III

BIO* K111 - Introduction to Nutrition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course covers the principles of nutrition, nutrients, their sources, the interaction between those nutrients and the human body, and the selection of adequate diets for different age groups.

BIO* K211 - Anatomy & Physiology I °

4 CREDIT HOURS
Prerequisites: BIO K121 and CHE* K111 or higher passed with a "C" grade or better.*
This course is a comprehensive study of the gross anatomical structure and physiology of the human body pertaining to cells, tissues, membranes, organs, and the following systems: integumentary, skeletal, articular, muscular and nervous including special senses. Anatomy and Physiology is a two semester course. Students must enroll in both BIO* K211 and BIO* K212 for transfer credits to other institutions. Three-hour lecture; one three-hour laboratory period per week.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an

understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

HPE* K241 - Exercise Physiology with lab °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S.*
Corequisite: BIO K211.*
This class will cover physiological responses/adaptations to exercise. Topics in this course include neuromuscular, metabolic, cardiovascular, hormonal and respiratory systems as they pertain to acute and chronic exercise. The major goal of the class is to develop a basic understanding of exercise physiology that will 1) allow the student to utilize exercise physiology in their daily lives and future profession, 2) prepare the student to take additional courses in exercise science.

HPE* K246 - Programming and Prescription II °

3 CREDIT HOURS
Prerequisite: HPE K245.*
This course is designed to introduce students to theories and techniques of exercise prescription for a variety of special populations (obese, diabetic, arthritic, pregnant, elderly, and the widely symptomatic). Guidelines for appropriate cardiovascular and resistance training for these groups will be discussed in detail. Protocols for prevention, diagnosis, treatment and rehabilitation will be stressed.

Total: 17

Semester IV

BIO* K212 - Anatomy & Physiology II °

4 CREDIT HOURS
Prerequisite: BIO K211 with a "C-" grade or better*
This course is a continuation of *BIO* K211 - Anatomy & Physiology I* °, and covers the following systems: endocrine, circulatory, lymphatic, respiratory, digestive (nutrition), urinary (including fluids and electrolytes), and reproduction, as well as human development and genetics. Anatomy and Physiology is a two semester course. Students must enroll in both *BIO* K211* and *BIO* K212* for transfer credit to other institutions. Three-hour lecture; one three-hour laboratory period per week.

HPE* K243 - Kinesiology with lab °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; BIO* K211.*
This course will be designed as a basic introduction to the fundamentals of Kinesiology. The integration of the anatomy of human movement and the mechanics of human movement will be the focal point of the course. Knowledge will be obtained through classroom lecture, hands on practical experiences, lab activities and other various assessment techniques. A broader understanding of human anatomy, through active movement and the application of this knowledge, in education, coaching, medicine and other areas of life in a practical method will be obtained.

HPE* K247 - Aspects of Strength and Conditioning

3 CREDIT HOURS
Prerequisite: HPE K245 or BIO* K115.*
This course will offer the student an understanding of physiological adaptations seen with functional resistance and anaerobic exercise to improve daily function and performance-related health components (power, speed, agility, coordination, and balance). Students will be exposed to a variety of scientific principles associated with resistance training design, periodization and functional training. New training methods and equipment will also be discussed as part of the special topics component of this course.

- _____- Fine Arts Elective **3 CREDIT HOURS**

Total: 14

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 61

Exercise Science, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. plan, administer, and evaluate wellness and fitness programs, nutrition projects, and exercise physiology in clinical, industrial and corporate environments.
2. describe and apply principles of leadership, including motivating, leading and directing.
3. develop a medically-based fitness model.
4. understand the terminology in medicine, health promotion and fitness.
5. gain an understanding of how to design exercise programs for special populations
6. understand how to establish exercise programs/prescriptions, exercise related goals and objectives, training modifications and program evaluation strategies.
7. collaborate with a variety of health care professionals through consultations and referrals in a multi-disciplinary approach to wellness.
8. think critically to effectively solve problems in a variety of dynamic environments.
9. effectively communicate with health career providers, fitness professionals, clients, administrators, family and community in the delivery of life long health and wellness.
10. Additionally, the graduate will complete the comprehensive learning outcomes identified within the General Education Component.

General Engineering Technology, A.A.S

Degree Code: B25

Associate in Applied Science

Program Contact: Michael Gentry- 860-215-9428

This program is designed to meet the industry's need for generalists, as opposed to technicians educated in a specific discipline. It also provides a program for students who wish to design an engineering technology curriculum to meet their own individual needs, and for students who are unsure of the specific technology discipline they want as a major.

Each student takes a core of courses in mathematics, science, technology, humanities and social sciences. The remainder of the program consists of courses chosen by the student to best meet personal goals. For example, an elective concentration in optics can provide the background for an entry-level position in Connecticut's photonics industry. Approved military coursework may also be used to fulfill the elective requirements.

GET students are currently employed by Electric Boat, Pratt and Whitney, Connecticut Municipal Electrical Energy Co-op, the US Navy, and other southeastern Connecticut industries. Students have also successfully transferred to four-year institutions in Engineering Technology, such as Central Connecticut State University School of Technology. Students considering transfer are advised to see their advisor early in their studies to maximize transfer credit.

General Engineering Technology Curriculum Requirements

(suggested 2 year sequence)

Prerequisites to the Program

CSA* K105 - Introduction to Software Applications °

3 CREDIT HOURS
Prerequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces some popular software packages currently being used in industry, business, and government such as Microsoft Word, Excel, Access, and PowerPoint. A small amount of time will be devoted to the Windows operating system environment. Recent versions of the software packages will be used. Strong reading, good writing, and basic math skills are required. Prior computer usage experience (e.g. keyboard and mouse actions, file and folder management, Internet browsing) is assumed. Digital learning technologies will be used throughout the course.

Semester I

CHE* K111 - Concepts of Chemistry °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K137 or MAT* K137S with a "C" grade or better (or permission of the instructor on math requirement).*
This course offers a brief and comprehensive survey of important chemical theories and some of the applications of chemistry. Topics covered will include measurements in chemistry, atomic structures and chemical bonding, chemical reactions, states of matter, stoichiometry, theories of solution, and basic organic and biochemical concepts. Course Design: CHE* K111 is meant for students with little or no background in chemistry who need the course in preparation for General Chemistry, or for students who need to meet a pre-admission requirement for nursing or other allied health programs, or those who need a lab science course.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex

ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

MAT* K172 - College Algebra °

3 CREDIT HOURS
Prerequisites: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course is a thorough and rigorous algebra course that strengthens the understanding of functions, their properties, multiple representations, and operations with functions. The function families studied include: polynomial, exponential, logarithmic, rational, and radical functions. Students will also learn linear and quadratic inequalities, absolute value equations and inequalities, linear and noninear systems.

MFG* K102 - Manufacturing Processes and Lab

3 CREDIT HOURS
Corequisite: TCN K105*
This course studies manufacturing: making goods and wares by industrial processes. The course will provide theoretical experience in the scientific, engineering, and economic principles on which the various manufacturing processes are based.This laboratory portion provides emphasis on common metal cutting tools and lathe operations, as well as on associated precision measuring tools and instruments. The labs will also involve set-ups and procedures for various manufacturing processes including plasma cutting, sheet metal, molding and additive manufacturing.

TCN* K105 - Laser and Lab Safety

1 CREDIT HOUR
This course introduces important concepts and regulations for safety in laser and manufacturing labs and other work settings. Topics include safe handling of lasers, safe use of hand and power tools, hazard awareness and accident prevention, exposure limits, administrative and engineering controls, chemical hygiene and safety planning. The course is a requirement for all students beginning the Manufacturing Engineering Technology or Laser & Fiber Optic Technology associate degree programs.

Total: 14

Semester II

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

PHY* K114 - Mechanics °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172.*
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry. Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion. Three-hour lecture; one two-hour laboratory.

CAD* K141 - Basic 3D Parametric Modeling and Lab Solidworks

3 CREDIT HOURS
Prerequisite: MAT K137 or higher*
This course, and accompanying lab, is designed to expand and enhance the student's ability to combine and apply mechanical design principles with computer design techniques and capabilities. This course teaches the basic concepts of orthographic projection, isometrics, oblique drawings, and basic drafting technology. A component of this course will focus on descriptive geometry, which will nurture the visualization skills of students by identifiying points, planes, and perpendiculars in various perspectives. Introducing the mechanical design software SolidWorks, this course begins to examine the basic functionality of drawing automation.

Total: 17

Semester III

CAD* K2XX Advanced 3D Parametric Modeling Solidworks

PHY* K115 - Heat Sound Light °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172. Please note if MAT* K172 is completed prior to registration into PHY* K115, students must complete MAT* K172 with a "C" grade or better.*

This course covers three broad areas of physics including thermal equilibrium, heat transfer, harmonic motion and wave properties of sound and light. Three-hour lecture; one two-hour laboratory.

- _____- Directed Elective **3 CREDIT HOURS @**
- _____- Directed Elective **4 CREDIT HOUR @**

Total: 14

Semester IV

EET* K105 - Electric Circuits & Systems °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I.*
Corequisites: MAT K137 or MAT* K137S.*
This course provides an introduction to the basic concepts of DC and AC electric circuits. Voltage, current, resistance, energy, and power relationships are introduced. Circuit analysis of basic series and parallel circuits is covered. Instruments and techniques of electrical measurement for both DC and AC circuits are also discussed. Other topics include semiconductor devices, transformers and power supplies, microcontrollers, motors and drive circuits, and electrical power generation/distribution. The lab portion of this course will supplement the course Electric Circuits & Systems. Students will apply the concepts learned in the classroom and gain practical hands-on experience making electrical measurements using a variety of test instruments.

- _____- Humanities/Social Science Elective **3 CREDIT HOURS**
- _____- Open Elective **3 CREDIT HOURS**
- _____- Directed Elective **3 CREDIT HOURS @**
- _____- Directed Elective **3 CREDIT HOURS @**

Total: 15

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

@ Please see program coordinator.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

General Engineering Technology, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. prepare technical and laboratory reports and present them using the latest computer software and oral presentation skills.
2. prepare drawings of machine components both manually and using Autocad software.
3. explain orthographic projection as it relates to standard board drafting and CAD.
4. explain various parts of a drill press, milling machine, and lathe and accomplish the calculations necessary to determine the correct rotational speed for the engine lathe, drill press and milling machine.
5. explain basic Chemistry concepts such as measurements in chemistry, atomic structures and chemical bonding, chemical reactions, states of matter and stoichiometry.
6. demonstrate skills in a discipline of choice including but not limited to, Optics, Mechanical, Manufacturing, Electrical, Civil, CAD or Environmental Engineering Technology options.
7. explain an option in general engineering technology that they have chosen to emphasize in their studies.

General Studies, A.S.

FOR A DETAILED GENERAL STUDIES DEGREE PLANNER, CLICK HERE.

Degree Code: B31

Associate in Science

Program Contact: Steven Neufeld- 860-215-9457

The General Studies Associate in Science degree program is designed primarily for those individuals whose special interests cannot be accommodated within a Liberal Arts degree program or for those who wish to develop a broader base of knowledge for intellectual stimulation and personal growth. With more open electives and fewer required courses than the Liberal Arts and Sciences degree, the General Studies degree offers greater flexibility for individual interest and needs. This program can also be suitable for transfer to a four-year institution, but more care and guidance in choosing electives will be necessary. Students interested in using the General Studies degree for transfer are advised to check carefully the specific requirements of the institution to which they intend to transfer. With the assistance of an academic advisor, the student may create a program of study suitable either as a foundation to transfer to a four-year college or as preparation for particular self-defined goals.

General Studies Curriculum Requirements

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

IDS K105 - The First Year Experience °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# or higher.*
This course is designed to engage students as active participants within the college environment. Students will have the opportunity to acquire academic skills, attributes, awareness of self as learner, and to engage with the resources and activities within the Three Rivers Community College community. You can expect regular reading, writing and research assignments along with classroom discussion as you investigate how to be successful in this environment.

- MAT* K1XX° - Any 100 Level MAT course or Higher MAT **3 CREDIT HOURS**
- HIS* KXXX - Any HIS course **3 CREDIT HOURS**

Electives

Arts Elective: **3 CREDIT HOURS**

Social Sciences Electives: **6 CREDIT HOURS**

Natural Sciences Elective: **3-4 CREDIT HOURS**

Advanced Liberal Arts and Sciences Electives: **6 CREDIT HOURS**

Open Electives: **24 CREDIT HOURS**

Note:

°Course has a prerequisite. Students should check course description.

+ It is important to note that no fewer than 60 credits are needed to complete the degree. If the one credit speech option is selected, students must be careful to take two four-credit courses somewhere in the program or take an extra course.

Students who are planning on transferring to a four-year institution should check with their advisors, their future schools, or refer to the Selecting Electives list regarding General Education Requirements.

∞ First Year Experience course equivalents are CJS* K100 - Perspectives of Criminal Justice ° and NUR* K108 - Perspectives of Nursing °.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to

50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60-61

Other Requirements:

In selecting courses, each student must fulfill the following requirements:

International/Intercultural Requirement

All degree-seeking students must complete one course which emphasizes a global, cross-cultural or multi-cultural perspective and encourages students to think beyond the boundaries of traditional Western European cultural perspectives.

Courses which satisfy this requirement are:

ANT* K105 Introduction to Cultural Anthropology °	ANT* K136 - Music Cultures of the World °
ANT* K230 Indigenous Peoples of the World °	HIS* K257 War and Society in World Civilization °
ARC* K102 Architecture of the World	HIS* K271 Modern Asia °
BIO* K180 Principles of Environmental Science	MUS* K104 World Music °
CJS* K172 Introduction to Terrorism and Homeland Security °	PHL* K151 World Religions °
ENG* K240 Studies in World Literature °	POL* K103 Introduction to International Relations °
ENG* K250 Studies in Ethnic Literature °	SOC* K103 Social Problems
ENG* K261 Women Writers Across Cultures °	SPA* K111 Elementary Spanish I °
ENV* K101 Environmental Studies	SPA* K112 Elementary Spanish II °
GEO* K111 World Regional Geography °	SPA* K211 Intermediate Spanish I °
HIS* K121 World Civilization I °	SPA* K212 Intermediate Spanish II °
HIS* K122 World Civilization II °	SSC* K210 World Issues °
HIS* K218 African American History °	SOC* K220 Racial & Ethnic Diversity °
HIS* K244 - Europe in the 20th Century °	

Oral Communication requirement

All degree-seeking students must complete one course to develop competency in oral communication; the courses which meet this requirement are: COM* K109 - Speech Practice ° **1 CREDIT HOUR** and COM* K173 - Public Speaking ° **3 CREDIT HOURS**.

Note:

These requirements do not increase the total number of credits needed to complete the degree; they can be met within the 60-61 credits of the degree program by choosing appropriate electives.

General Studies, Associate Degree Program Outcomes and Statement of Core Values

Three Rivers Community College is committed to the belief that the best preparation for life, and especially for careers that require specialized training, is a broad acquaintance with human knowledge. The General Studies degree program is designed to give students the opportunity to explore knowledge from multiple perspectives. Students are challenged to become intellectually curious, aesthetically aware and critically perceptive, and to develop their communicative and quantitative skills. Through the study of the natural sciences, the social sciences, and the humanities, the General Studies degree program gives students the flexibility to adapt to the changing needs of the workplace and the foundation necessary for lifelong learning and personal growth.

Students completing the general Studies program will develop the ability to:

- think critically and creatively
- work collaboratively as well as independently
- communicate effectively both in speaking and in writing
- reason quantitatively as well as verbally
- value artistic expression
- move beyond a narrow focus and recognize broader historical, cultural, global and scientific perspectives
- understand and reflect searchingly upon one's values and the values of others.

General education and career education are interactive components. They enrich each other by helping students to make career choices in keeping with their understanding of themselves and their world. Together, they provide the skills and perspectives that make possible the dignity of work and social contribution. They cultivate a framework of meaning, value, ethical purpose and commitment that enrich every aspect of life. They foster an attitude of critical inquiry, curiosity, openness and wonder that enables a spirit of lifelong learning.

Graphic Design, A.S.

Degree Code: KA15

Associate in Science

Program Coordinator: Kevin Amenta- 860-215-9402

This program is designed to provide students with a comprehensive general education in graphic design concepts, communication skills, technical skills, aesthetics, terminology and vocabulary, and to provide an awareness of the practical application of acquired technical skills. Computer use will be an integral and essential part of the program. The curriculum will prepare students for immediate employment in a variety of graphic design settings.

Graphic Design Curriculum Requirements

(suggested 2 year sequence)

Semester I

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

GRA* K131 - Digital Photography

3 CREDIT HOURS
This course is an introduction to digital photography and basic photo-editing features of Adobe Photoshop. Students shoot digital images for specific assignments emphasizing exposure, depth-of-field, composition, and image quality. The introduction of digital photography techniques, editing, and creative approaches will be the focus. Students will read and report on famous photographers and photography literature. Each student is required to have a camera in which they can manually control the focus, shutter speed, aperture and ISO.

IDS K105 - The First Year Experience °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# or higher.*
This course is designed to engage students as active participants within the college environment. Students will have the opportunity to acquire academic skills, attributes, awareness of self as learner, and to engage with the resources and activities within the Three Rivers Community College community. You can expect regular reading, writing and re-search assignments along with classroom discussion as you investigate how to be successful in this environment.

- MAT* K1XX°- Any 100-level Math course **3 CREDIT HOURS**

Total: 15

Semester II

COM* K101 - Introduction to Mass Communications °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S; any 100-level Humanities or Social Sciences course.*
This course is a survey of the American mass media and communication. Lectures and discussions will focus on the various print and electronic mass media industries, and the impact of mass communication on our society. The course is designed as an introductory course for those students who plans to major in graphic design and communication and for those who want to be informed about the development of the influence of modern mass media.

COM* K166 - Video Filmmaking °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S and any 100-level Humanities or Social Sciences course.*
A creative workshop in which students will work with digital media to make their own movies. Students work with video camcorders and editing software. Students will learn scripting, shooting, editing and audio production techniques. Students will also research and write on various topics related to digital video and filmmaking. Each student is required to have access to a camera or camera phone which can shoot movies. This course is equivalent to ART* K185.

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

GRA* K151 - Graphic Design I

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better and any 100 level Humanities or Social Sciences course.*

This course is designed to introduce students to graphic design. Topics include: proper file management, Macintosh computer navigation basics, fundamental techniques of the design process, and digital plagiarism. Students will learn to create a graphic identify through proper typography, image editing, and page layout. Graphic Design industry standard software will be used, including Adobe Photoshop, Illustrator, and InDesign. Classes consist of lectures, demonstrations, applied practice, and critiques.

SOC KXXX Social Science Elective

Total: 15

Semester III

BMK* K241 - Principles of Advertising °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course surveys the basic elements, functions, and principles of advertising. Emphasis is on advertising's role as a marketing tool. Students study current advertising campaigns and marketing communication methods. Target marketing, image creation, and ethical aspects of advertising are discussed. Selection of print media, electronic media, and supportive promotional techniques are included. Students create their own comprehensive advertising campaigns using strategies learned in the course.

GRA* K155 - Advertising Design °

3 CREDIT HOURS
Prerequisite: Knowledge of a word processing program.
This computer graphics course focuses on using Adobe Photoshop to design various advertisements and prepare them for print and the web. Students will apply design principles, and type/image integration to complete design projects of moderate to increasing complexity. Emphasis is placed on project development and execution, the generation of ideas, concepts and teamwork in order to communicate persuasively and effectively. Student-designed computer lab projects include writing copy, brand positioning, client/agency relationship, copywriting, and proper research methods. GRA* K155 meets the Computer Literacy Requirement.

GRA* K230 - Digital Imaging 1 °

3 CREDIT HOURS
Prerequisite: GRA K140 or GRA* K131 or permission of the instructor.*
Adobe Photoshop is the focus of this course which will provide students with a foundation in image manipulation and graphic design. This course concentrates on the high end capabilities of Photoshop as an illustration, design and photo retouching tool. Students will explore a wide range of manipulation techniques that can be applied to photos and graphics. Students will also study design principles and read and report on Photoshop artists.

- _____- Natural Science Elective **3 CREDIT HOURS**
- _____- History Elective **3 CREDIT HOURS**

Total: 15

Semester IV

COM* K121 - Journalism °

3 CREDIT HOURS
Prerequisite: None required; ENG K101 or ENG* K101S recommended.*
This course is designed to give students an introduction to news writing. Students receive practice in writing hard news, feature stories, and editorials, as well as editorial decision-making. Word processing instruction is included. No previous experience necessary. COM* K121 meets the computer literacy requirement.

COM* K291 - Publications Practice I °

3 CREDIT HOURS
Prerequisite: COM K121 and GRA* K140 and GRA* K155 or permission of the instructor.*
This course is designed to train students to produce The Current, the student magazine. This involves researching, interviewing, writing, editing, photography, and proofreading. It also includes all the pre-press work (including digital imaging), which is done on computers, primarily using the Adobe Graphic Studio. Advertising (sales and design) is also part of this course.

GRA* K260 - Web Design °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; GRA* K140 and GRA* K230; or permission of the instructor.*
This computers graphics course is an introduction to the concepts of professional web site design using the Industry-standards-based website development tools Dreamweaver and Adobe Photoshop. Students will be able to create, prepare, and manipulate documents, illustrations, and images for the web. The four design principles of contrast, repetition, alignment, and proximity will be discussed and utilized to create a web site using the authoring tools described above as well as the skills acquired in the prerequisite courses.

GRA* K296 - Graphic Arts Internship °

3 CREDIT HOURS
Prerequisites: GRA* K140; GRA* K230; GRA* K155; COM* K291; and one other course in the program
This practicum is a 200-level course which allows students to work in a faculty-approved position in a graphic arts, creative services, pre-press, or advertising or media outlet. The student will use their design skills as well as hardware and software skills acquired in their course work at the college to comprehensively study a selected technical area of graphics technology. Their supervisor as well as the assigned faculty member from Three Rivers will evaluate each student. As part of the evaluative process, students will present a portfolio of their work from their practicum.

- _____- Art Elective **3 CREDIT HOURS ****

Total: 15

Note:

° Course has a prerequisite. Students should check course description.

** Consult with Program Coordinator when selecting elective.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

Graphic Design, Associate in Science Degree Program Outcomes

Graduates of the Graphic Design program will:

1. Demonstrate skills, techniques, and manipulation of computer equipment, tools and software programs necessary to create appropriate graphic design.
2. Demonstrate an understanding of design principles, design concepts and problem solving.
3. Compile a portfolio of work reflecting knowledge, techniques, and cretivity gained during the student's course of study.
4. Communicate ideas, needs and properly critique using specific graphic design vocabulary.
5. Demonstrate how to work effectively within a production group, follow a timeline and perform in a professional design environment.
6. Understand the historical foundations of visual communications and recognize contemporary design concepts/trends.

7. Gain industry experience through an internship.

Human Services, A.S.

Degree Code: B37

Associate in Science

Program Coordinator: Joyce Martin - 860-215-9451

This program is designed to respond to the need to both prepare students for entry-level positions in human services, and to prepare students who plan to transfer to a four-year college or university for a baccalaureate degree in social work (BSW) or some other related field of study. The curriculum is designed to help students acquire knowledge, skills and competency in the methods of casework, group work, case management and community organization, with a focus on individuals, families, small groups, organizations and communities.

Note to students who plan to continue their education beyond the associate degree:
Students who intend to transfer are urged to investigate and select the institution to which they will transfer as early as possible since each transfer situation must be planned to meet specific baccalaureate requirements.

In general, the following choices will satisfy more of the requirements of the baccalaureate granting institutions:

1. completing BIO* K121 with lab or BIO* K115 with lab instead of HLT* K155.
2. completing MAT* K137 or higher.
3. completing two semesters of Spanish or French instead of Human Services electives or Sign Language.
4. completing ANT* K105 - Introduction to Cultural Anthropology ° as satisfaction of one of the open elective requirements.

Human Services Curriculum Requirements

CSA* K105 - Introduction to Software Applications °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces some popular software packages currently being used in industry, business, and government such as Microsoft Word, Excel, Access, and PowerPoint. A small amount of time will be devoted to the Windows operating system environment. Recent versions of the software packages will be used. Strong reading, good writing, and basic math skills are required. Prior computer usage experience (e.g. keyboard and mouse actions, file and folder management, Internet browsing) is assumed. Digital learning technologies will be used throughout the course.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

HSE* K101 - Introduction to Human Services °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to familiarize students with the current theory and knowledge related to human services. The course will include a survey of the helping professions, including a history of social welfare and human service agencies. The course will include guest speakers and an opportunity to observe human service practice in local human services organizations. Students will be expected to complete 10 hours of volunteer service in the community.

HSE* K210 - Group & Interpersonal Relations °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course provides an overview of current group theory and knowledge of methods and skills leading to a beginning competence in group work practice. The course will combine theoretical and empirical concepts of group dynamics to be applied to a wide range of groups in a variety of settings.

HSE* K241 - Human Service Agencies & Organizations °

3 CREDIT HOURS
Prerequisite: HSE K210 or permission of the instructor.*
This course is an introduction to the study of community organization as a method in social work practice, which has as its major objective of practice the planning and implementation of programs directed toward some aspect of community change. The skills, methods, and functions of community service workers will be explored and integrated into the other skills and methods of social service practice, which are a part of a student's overall learning experiences in the social service program.

HSE* K251 - Work With Individuals & Families °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to provide an introduction to methods and skills leading to beginning competence in the social work process of helping individuals and families. The skills include assessment, planning, contracting, intervention, interviewing, and evaluation.

HSE* K281 - Human Services Field Work I °

3 CREDIT HOURS
Prerequisite: Permission of the instructor.
This course is a practicum/field work experience in human services which is defined as direct involvement in a non-classroom setting sponsored by the College and jointly supervised by the agency and faculty. Students are also expected to participate in a weekly seminar. Students must have completed a minimum of 30 credits with 12 credits in human service degree courses.

IDS K105 - The First Year Experience °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# or higher.*
This course is designed to engage students as active participants within the college environment. Students will have the opportunity to acquire academic skills, attributes, awareness of self as learner, and to engage with the resources and activities within the Three Rivers Community College community. You can expect regular reading, writing and research assignments along with classroom discussion as you investigate how to be successful in this environment.

MAT* K135 - Topics in Contemporary Math °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "C#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). This course will expose students to topics in mathematics that are useable and relevant in today's world. Students will apply mathematical ideas while working within a social context. Examples of topics will include: concerns about the growth of the national debt, environmental issues, probability, statistical implications in our lives, and current events issues.

POL* K111 - American Government °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Through open discussion of political issues and controversies, this course examines the framework of our democracy. The broad study focuses on the strengths and weaknesses of American national government. Topics such as election campaigns, political parties, presidential power, and individual liberties are explored.

PSY* K111 - General Psychology I

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course provides an overview of the theories and research findings pertaining to scientific psychology with an emphasis on: the origins of psychology, nature and nurture, human diversity, theoretical models, research methodology, biological bases of thought and behavior, learning theory, sensation and perception, memory, stress and health as well as emotion and motivation.

PSY* K201 - Life Span Development °

3 CREDIT HOURS
Prerequisite: PSY K111.*
This course will study the physical, psychosocial and cognitive development of humans from birth to death. There will be an emphasis on distinct time periods such as conception and development of the fetus, infancy, childhood, puberty and adolescence, young, middle, and late adulthood, and gerontology.

SOC* K101 - Principles of Sociology

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a study of the major concepts used in the field of sociology. The nature of institutions will be examined both individually and in their dynamic interrelationship. Emphasis is placed on understanding the impact of society on our lives, and on increasing our effectiveness in controlling our destinies within it.

SOC* K103 - Social Problems

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to increase the understanding of the nature, scope, history, causes and complexity of contemporary social problems. The course emphasizes not only the problems but also proposed strategies for solution. Topics are studied in the context of many societies around the world, including those of Europe, Asia, Africa, and Latin America, in order to provide the student with a global and multicultural perspective on the issues. Topics vary from semester to semester according to current concerns and interests. Topics often included are poverty, crime, violence, substance abuse, racism, family issues, sexism, health care, environmental destruction, cities, and population. Course fulfills International/ Intercultural Requirement.

Please select one of the following three courses:

HLT* K155 - Personal Health °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This is a course on the physiological principles involved in the maintenance of individual health. Students will learn principles of hygiene, nutrition, communicable disease prevention, stress management, exercise, and other elements of personal life style that affects health.

BIO* K115 - Human Biology

4 CREDIT HOURS
Corequisite: ENG K096 or higher. Please note: if completing ENG* K096 prior to enrolling in BIO* K115, a grade of "C#" or better is required for registration into this course.*
This introductory course focuses on a presentation of human structure and function, including a survey of the body's system for students who want to be more knowledgeable about the life processes of their own bodies. Lab procedures do not involve animal dissections. This course does not meet the pre-admission requirement for the Nursing Program. Three-hour lecture; one three- hour laboratory period.

BIO* K121 - General Biology I °

4 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Corequisites: CHE K111 or CHE* K121, either course with a "C" grade or better; or permission of the department chair. Please note: If completing CHE* K111 or CHE* K121 prior to enrolling in BIO* K121, a grade of "C" or better is required for registration into this course.*
This course introduces the major principles and concepts of modern biology. Topics to be covered include molecular and cellular biology, cell division, cellular transport systems, cellular metabolism, the specialization and differentiation of both plant and animal cells, and modern genetics. Three-hour lecture; one three-hour laboratory period.

Human Services Elective or Foreign Language or Sign Language: 6-8 CREDIT HOURS

(In addition to human services courses, other courses in social sciences will satisfy the requirement if they are approved by the Program Coordinator of the Human Services Program)

Fine Arts Elective: 3 CREDIT HOURS

- Any art, music, theater, creative writing
  or

ARC* K102 - Architecture of the World

3 CREDIT HOURS
The course offers a global perspective of buildings, their settings, and the dissemination of ideas about architecture from the late Neolithic period to the present. Particular attention is given to the relationships of architectural expression, meaning and building technology and to issues arising when architectural traditions of one culture are imposed upon or otherwise adapted by another. Students will explore the impact of climate, economy, philosophy, social structure and technology on architecture by becoming familiar with some of the world's major monuments in architectural history. The course also integrates the visual arts that paralleled each era, exploring the fundamental elements of each movement as illustrated through aesthetic expression.

Open Electives: 3 CREDIT HOURS +++

Note:

° Course has a prerequisite. Students should check course description.

++ Practicum - Requires the consent of instructor.

+++ See program coordinator for recommendations

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60-63

Human Services, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. explain fundamental concepts of human services, especially case management, group work, community organization and supervision
2. explain the ethical principles and values governing the human service/social work profession.
3. explain the historical, social and political context within which the human services and social welfare services operate plan effective interventions with vulnerable population groups.
4. identify and index community resources.
5. integrate knowledge and abilities in a field placement situation.
6. identify entry level career opportunities in social service settings.
7. plan for career advancement and further educations.

Liberal Arts and Sciences, A.A.

FOR A DETAILED LIBERAL ARTS & SCIENCES DEGREE PLANNER, CLICK HERE.

Degree Code: B57

Associate in Arts

Program Contact: Steven Neufeld - 860-215-9457

This program is designed primarily for students who plan to transfer to a four-year college or university to continue studies toward a baccalaureate degree in the liberal arts and sciences. It is also suitable for students who wish to engage in an educationally challenging experience for personal growth and intellectual development. The requirements and distribution of courses in this A.A. degree program are similar to the general education requirements in many Liberal Arts and Sciences baccalaureate degree programs. However, since there are variations in the requirements at different four-year institutions, students are advised to check carefully the specific requirements of the institution to which they intend to transfer.

There are specific pathways within the Liberal Arts and Sciences degree program to help students use this degree as a first step toward a long term goal, such as transferring to Eastern Connecticut State University, transferring to the University of Connecticut, or pursuing selected majors. Your academic advisor will have the details you need. You may also secure a copy of the Pathway Guides for transfer to specific programs and universities at the Student Development Office. Call 860-215-9017 for information.

Specific information on courses which meet elective requirements is also available from Student Services advisors and academic advisors.

Liberal Arts and Sciences Curriculum Requirements

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

- HIS*K____ Elective **3 CREDIT HOURS** (Choose from HIS* K121, HIS* K122, HIS* K201, HIS* K202)

IDS K105 - The First Year Experience °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# or higher.*
This course is designed to engage students as active participants within the college environment. Students will have the opportunity to acquire academic skills, attributes, awareness of self as learner, and to engage with the resources and activities within the Three Rivers Community College community. You can expect regular reading, writing and research assignments along with classroom discussion as you investigate how to be successful in this environment.

MAT* K146 - Math for the Liberal Arts °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process and eligible for either ENG* K101S or ENG* K101.*
This is a survey course designed to acquaint the liberal arts student with a broad spectrum of mathematical ideas not emphasized in traditional algebra courses. As a terminal mathematics course, it conveys the nature and diversity of mathematics, its methods, applications, and roles in society. Topics are selected from problem solving and critical thinking skills, graph theory, voting and apportionment, introduction to probability, linear programming, patterns and symmetry, linear and exponential applications; others may include fractal geometry, financial management, fair division schemes, game theory, or codes.

or

- _____- Higher MAT **3 CREDIT HOURS**

Electives

Arts Elective: **3 CREDIT HOURS**

Foreign Language Electives: **6-8 CREDIT HOURS**

Social Sciences Electives: **6 CREDIT HOURS**

Natural Sciences Electives: **7-8 CREDIT HOURS**

Liberal Arts and Sciences Electives: **6 CREDIT HOURS**

Advanced Liberal Arts and Sciences Electives: **6 CREDIT HOURS**

Open Electives: **9 CREDIT HOURS**

Note:

° Course has a prerequisite. Students should check course description.

+ It is important to note that no fewer than 61 credits are needed to complete the degree. If the one credit speech option is selected, students must be careful to take two four-credit courses somewhere in the program or take an extra course.

∞ First Year Experience course equivalents include CJS* K100 - Perspectives of Criminal Justice ° and NUR* K108 - Perspectives of Nursing °.

Students who are planning on transferring to a four-year institution should check with their advisors, their future schools, or refer to the Selecting Electives list regarding General Education Requirements.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 61-64

Other Requirements:

In selecting courses, each student must fulfill the following requirements:

International/Intercultural Requirement

All degree-seeking students must complete one course which emphasizes a global, cross-cultural or multicultural perspective and encourages students to think beyond the boundaries of traditional Western European cultural perspectives.

Courses which satisfy this requirement are:

ANT* K105 Introduction to Cultural Anthropology °	HIS* K244 Europe in the 20th Century °
ANT* K136 Music Cultures of the World °	HIS* K257 War and Society in World Civilization °
ANT* K230 Indigenous Peoples of the World °	HIS* K271 Modern Asia °
ARC* K102 Architecture of the World	MUS* K104 World Music °
BIO* K180 Principles of Environmental Science	PHL* K151 World Religions °
CJS* K172 Introduction to Terrorism and Homeland Security °	POL* K103 Introduction to International Relations °
ENG* K240 Studies in World Literature °	SOC* K103 Social Problems
ENG* K250 Studies in Ethnic Literature °	SPA* K111 Elementary Spanish I °
ENG* K261 Women Writers Across Cultures °	SPA* K112 Elementary Spanish II °

ENV* K101 Environmental Studies	SPA* K211 Intermediate Spanish I °
GEO* K111 World Regional Geography °	SPA* K212 Intermediate Spanish II °
HIS* K121 World Civilization I °	SSC* K210 World Issues °
HIS* K122 World Civilization II °	SOC* K220 Racial & Ethnic Diversity °
HIS* K218 African American History °	

Oral Communication Requirement

All degree-seeking students must complete one course to develop competency in oral communication; the courses which meet this requirement are: COM* K109 - Speech Practice ° **1 CREDIT HOUR** and COM* K173 - Public Speaking ° **3 CREDIT HOURS**.

Note:

These requirements do not increase the total number of credits needed to complete the degree; they can be met within the 61-64 credits of the degree program by choosing appropriate electives.

Liberal Arts and Sciences, Associate Degree Program Outcomes and Statement of Core Values

Three Rivers Community College is committed to the belief that the best preparation for life, and especially for careers that require specialized training, is a broad acquaintance with human knowledge. The Liberal Arts degree program is designed to give students the opportunity to explore knowledge from multiple perspectives. Students are challenged to become intellectually curious, aesthetically aware and critically perceptive, and to develop their communicative and quantitative skills. Through the study of the natural sciences, the social sciences, and the humanities, the Liberal Arts degree program gives students the flexibility to adapt to the changing needs of the workplace and the foundation necessary for lifelong learning and personal growth.

At the core of the Liberal Arts and Sciences is not any one discipline or knowledge base, but rather an attempt to perceive the interrelatedness of knowledge and the connectedness of human experience. In addition to exploring the traditions of thought and the central questions within selected areas of study, students completing the Liberal Arts and Sciences program will develop the ability to:

- think critically and creatively
- work collaboratively as well as independently
- communicate effectively both in speaking and in writing
- reason quantitatively as well as verbally
- value artistic expression
- move beyond a narrow focus and recognize broader historical, cultural, global and scientific perspectives.
- understand and reflect searchingly upon one's values and the values of others.

Liberal Arts and career education are interactive components. They enrich each other by helping students to make career choices in keeping with their understanding of themselves and their world. Together, they provide the skills and perspectives that make possible the dignity of work and social contribution. They cultivate a framework of meaning, value, ethical purpose and commitment that enrich every aspect of life.

They foster an attitude of critical inquiry, curiosity, openness and wonder that enables a spirit of lifelong learning.

Manufacturing Engineering Technology, A.S.

Degree Code: B64

Associate in Science

Program Coordinator: Michael Gentry - 860-215-9428

This program is designed to merge the traditional "hands-on" learning concepts and the newer computer application techniques in today's engineering technology education.
The student learns the basics such as the standard methods and practices of Tool Design and Production Planning and Statistical Process Control. The student's knowledge is expanded by exploring the more revolutionary techniques of CAD/CAM, Computer-Aided Manufacturing and Robotics in an automated system through concept and practical applications.
This new emphasis on the computer includes CAD (Computer-Aided Drafting), CAM (Computer-Aided Manufacturing), and FMS (Flexible Manufacturing Systems). FMS includes the applications of robots, automated storage/retrieval, material handling systems, automated process control and inspection systems, and work cells (such as integrated machining, special processing and assembly). Global manufacturing competition is taught through methods of increasing productivity in engineering technology and business functions as well as the production plant.

Local industries advise and work with the department on keeping the curriculum and equipment up to date to maintain a state-of-the-art program.

Manufacturing Engineering Technology Curriculum Requirements

Prerequisites to the Program

PHY* K114 - Mechanics °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172.*
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry. Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion. Three-hour lecture; one two-hour laboratory.

Semester I

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

MFG* K102 - Manufacturing Processes and Lab

3 CREDIT HOURS
Corequisite: TCN K105*
This course studies manufacturing: making goods and wares by industrial processes. The course will provide theoretical experience in the scientific, engineering, and economic principles on which the various manufacturing processes are based.This laboratory portion provides emphasis on common metal cutting tools and lathe operations, as well as on associated precision measuring tools and instruments. The labs will also involve set-ups and procedures for various manufacturing processes including plasma cutting, sheet metal, molding and additive manufacturing.

TCN* K105 - Laser and Lab Safety

1 CREDIT HOUR
This course introduces important concepts and regulations for safety in laser and manufacturing labs and other work settings. Topics include safe handling of lasers, safe use of hand and power tools, hazard awareness and accident prevention, exposure limits, administrative and engineering controls, chemical hygiene and safety planning. The course is a requirement for all students beginning the Manufacturing Engineering Technology or Laser & Fiber Optic Technology associate degree programs.

MEC* K114 - Statics °

3 CREDIT HOURS
Prerequisites: MAT K172 and PHY* K114.*
Corequisite: MAT K186.*
This course helps students develop the ability to analyze problems using the basic principles of static systems in order to provide a foundation for stress analysis. The forces on structures in equilibrium and concepts of centroids, center of gravity, and moment of inertia are studied. The concept of stress and strain in axial torsional and bending loading is also introduced.

MAT* K172 - College Algebra °

3 CREDIT HOURS
Prerequisites: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course is a thorough and rigorous algebra course that strengthens the understanding of functions, their properties, multiple representations, and operations with functions. The function families studied include: polynomial, exponential, logarithmic, rational, and radical functions. Students will also learn linear and quadratic inequalities, absolute value equations and inequalities, linear and noninear systems.

CAD* K106 - Basic CAD - AutoCad

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S or higher*
This course, with the included lab, exposes the student to the current means of generating graphic images with computers. Topics covered include CAD* overview, computer terminology, hardware descriptions and requirements, file manipulation and management, 2D and 3D geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail, and assembly drawings.

Total: 16

Semester II

EET* K105 - Electric Circuits & Systems °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I.*
Corequisites: MAT K137 or MAT* K137S.*
This course provides an introduction to the basic concepts of DC and AC electric circuits. Voltage, current, resistance, energy, and power relationships are introduced. Circuit analysis of basic series and parallel circuits is covered. Instruments and techniques of electrical measurement for both DC and AC circuits are also discussed. Other topics include semiconductor devices, transformers and power supplies, microcontrollers, motors and drive circuits, and electrical power generation/distribution. The lab portion of this course will supplement the course Electric Circuits & Systems. Students will apply the concepts learned in the classroom and gain practical hands-on experience making electrical measurements using a variety of test instruments.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

MEC* K262 - Materials Science °

3 CREDIT HOURS
Prerequisites: MFG K102*
Corequisite: MEC K263.*
This course studies the structure and properties of engineering materials, and incorporates the presentation of materials selection, processing, and heat treatment. The changes in structure and properties during forming, machining, and heat treating operations are discussed.

MEC* K263 - Materials Science Lab °

1 CREDIT HOUR
Prerequisites: MFG K102; TCN* K105.*
Corequisite: MEC K262.*
In this lab, students will be exposed to selected experiments demonstrating the effects of processing, including heat treatment, on the properties of engineering materials. Standard materials tests are also performed.

CAD* K201 - Advanced CAD - AutoCad

3 CREDIT HOURS
Prerequisite: CAD K106.*
Corequisite: MAT K137*
This course, and the included lab, is designed to expose the student to advanced CAD techniques. Typical topics will include three-dimensional drawing, solid modeling, rendering, and customizing AutoCAD.

Total: 14

Semester III

EET* K264 - Data Acquisition and Controls °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
This course provides an introduction to data acquisition circuits and systems as well as basic feedback control systems. Topics include measurements techniques, computerized data acquisitions, introduction to LabVIEW, Interfacing to microcontrollers and instrumentation, signal processing and communications, and feedback control techniques, mechanical systems and mechanical power transmission. Students will learn the basics of measurements and data acquisition using LabVIEW based exercises. This lab portion of this course provides students with hands-on experience with analog and digital closed loop automatic control components, circuits, and systems. It familiarizes students with analog and digital simulation techniques. LabVIEW and microcontrollers are used extensively with various sensors and actuators.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

MAT* K167 - Principles of Statistics °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. Please refer to online schedule and click on the CRN hyperlink and/or review printed schedule in determining which faculty require math software in their course(s).*
This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations and confidence intervals.

MEC* K250 - Strength of Materials °

3 CREDIT HOURS
Prerequisites: MEC K114.*
This course instills knowledge of moments of inertia, torsion, bending, and columns, and how it applies to stress and the structural properties of materials. The relationship of these properties to common engineering problems is reviewed.

- _____- Social Sciences Elective **3 CREDIT HOURS**

Total: 15

Semester IV

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

MFG* K221 - Mechatronics

3 CREDIT HOURS
Prequisites: EET K264*
This interdisciplinary course with lab exposes students to the design, instrumentation, and control of high- precision, computer-controlled automation equipment, using concrete examples drawn from the photonics, biotech, manufacturing and semiconductor industries. Topics covered include design strategy, high-precision mechanical components, sensors and measurement, servo control, design for controllability, control software development, controller hardware, as well as automated error detection and recovery. Students will work individually and in teams on hands-on experiences reinforcing and supplementing the course content. This course is equivalent to EET* K266.

MFG* K230 - Statistical Process Control

3 CREDIT HOURS
Corequisite: MAT K167.*
This course presents the application of fundamental statistical concepts to manufacturing production control, tolerance analysis and acceptance sampling. Emphasis is placed on the application of statistics through control chart development, sampling size determination and frequency evaluation. The course incorporates computer hardware and software, particularly spread sheets and database programs in SPC applications to manual, automated and flexible manufacturing systems in a computer integrated environment. This course is equivalent to BMG* K218.

TCN* K291 - Interdisciplinary Capstone Design Project °

3 CREDIT HOURS
Prerequisites: Permission of the department chair.
This course provides students the opportunity to apply the concepts, theories, and practices developed throughout their Technology course of study in a one-semester capstone interdisciplinary project. Students will work together in teams to solve real world problems related to their interrelated field(s) of study. Students will learn how to develop and present effective written and oral technical communications. A major portion of the course will be dedicated to hands-on lab time during which students will work on their projects. Throughout the course, faculty members will serve as consultants to guide the students and provide formative feedback. The course will culminate with a final technical presentation to faculty, students and invited industry guests. This course is intended for students in the second year of study.

- _____- Humanities/Social Sciences Elective **3 CREDIT HOURS**

Total: 15

Note:

° Course has a prerequisite. Students should check course description.

+ May substitute EET* K144 - Fundamentals Electrical Circuits and Machines ° and EET* K145 - Fundamentals Electrical Circuits and Machines Lab °

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

Manufacturing Engineering Technology, Associate in Science Degree Program Objectives

Graduates of the program in Manufacturing Engineering will:

1. be qualified to make technical contributions to and find employment in operations, design, development and manufacturing in the practice of manufacturing engineering technology.
2. have an appreciation for the need to be life long learners.
3. demonstrate professionalism and a sense of social and ethical responsibility in their professional endeavors.
4. engage in professional development or study in a four-year program to pursue flexible career paths amid future technological changes.

Manufacturing Engineering Technology, Associate in Science Degree Program Outcomes

By the time of graduation, students in the Manufacturing Engineering Technology program will:

1. practice the skills needed to work effectively in teams and as an individual.
2. demonstrate the ability to use appropriate mathematical and computational skills needed for engineering technology applications.
3. combine oral, graphical and written communication skills to present and exchange information effectively and to direct manufacturing activities.
4. know of a professional code of ethics.
5. describe concepts relating to manufacturing quality, timeliness and continuous improvement.
6. describe how the concepts of metal manufacturing, statistics, process automation, computer-aided design and manufacturing, and organizational management affects manufacturing operations.
7. illustrate an ability to think critically and identify, evaluate and solve complex technical and non-technical problems;
8. demonstrate creativity in designing problem solutions; and conduct and interpret experimental data and outcomes.
9. recognize actions and acts of professionalism that allows them to become informed and participating citizens cognizant of ethics, civic duty and social responsibility.
10. recognize the need to be lifelong learners.

Manufacturing Engineering Technology: Laser Manufacturing Option, A.S.

Degree Code: B72

Associate in Science

Program Coordinator: Michael Gentry - 860-215-9428

This program is designed to merge the traditional "hands-on" learning concepts and the newer computer application techniques in today's engineering technology education.
The student learns the basics such as the standard methods and practices of Tool Design and Production Planning and Statistical Process Control. The student's knowledge is expanded by exploring the more revolutionary techniques of CAD/CAM, Computer-Aided Manufacturing and Robotics in an automated system through concept and practical applications. This new emphasis on the computer includes CAD (Computer-Aided Drafting), CAM (Computer-Aided Manufacturing), and FMS (Flexible Manufacturing System). FMS includes the applications of robots, automated storage/retrieval, material handling systems, automated process control and inspection systems, and work cells (such as integrated machining, special processing and assembly). Global manufacturing competition is taught through methods of increasing productivity in engineering technology and business functions as well as the production plant.
Local industries advise and work with the department on keeping the curriculum and equipment up to date to maintain a "state-of-the-art" program.

Manufacturing Engineering Technology Curriculum Laser Manufacturing Option Requirements

(suggested two-year sequence)

Prerequisites to the Program

MAT* K172 - College Algebra °

3 CREDIT HOURS
Prerequisites: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course is a thorough and rigorous algebra course that strengthens the understanding of functions, their properties, multiple representations, and operations with functions. The function families studied include: polynomial, exponential, logarithmic, rational, and radical functions. Students will also learn linear and quadratic inequalities, absolute value equations and inequalities, linear and noninear systems.

PHY* K114 - Mechanics °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172.*
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry. Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion. Three-hour lecture; one two-hour laboratory.

Semester I

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

MEC* K152 - Fundamentals of Engineering Graphics °

1 CREDIT HOUR
Prerequisite: MAT K095 OR MAT* K095I or higher.*
Corequisite: MEC K153.*
This course teaches the basic concepts of orthographic projection, isometric, and oblique drawings and basic drafting terminology. Emphasis will also be placed on free hand sketching using the above concepts and terminology. Basic principles of simplified board drafting practices will be covered. A major component of this course will focus on descriptive geometry which will nurture the visualization skills of students by identifying points, planes, and perpendiculars in various perspectives. Some of the techniques will be accompanied with CAD as a comparison.

MEC* K153 - Fundamentals of Engineering Graphics Lab °

2 CREDIT HOURS
Prerequisite: MAT K095 OR MAT* K095I or higher.*
Corequisite: MEC K152.*
This lab and accompanying lecture is designed to introduce students to the concept of applying mechanical design principles with computer designed techniques and capabilities. This course teaches the basic concepts of orthographic projection, isometric, and oblique drawings and basic drafting terminology. A component of this course will focus on descriptive geometry which will nurture the visualization skills of students by identifying points, planes and perpendiculars in various perspectives. Introducing the mechanical design software SolidWorks, this course begins to examine the basic functionally of drawing automation. One hour lecture/discussion and four hours of lab per week.

MFG* K102 - Manufacturing Processes and Lab

3 CREDIT HOURS
Corequisite: TCN K105*
This course studies manufacturing: making goods and wares by industrial processes. The course will provide theoretical experience in the scientific, engineering, and economic principles on which the various manufacturing processes are based.This laboratory portion provides emphasis on common metal cutting tools and lathe operations, as well as on associated precision measuring tools and instruments. The labs will also involve set-ups and procedures for various manufacturing processes including plasma cutting, sheet metal, molding and additive manufacturing.

PHO* K101 - Intro to Light and Lasers

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S.*
This course is a comprehensive study of photonics designed as a one-semester course. It provides the foundation required to prepare technicians in the areas of optics, electro-optics, lasers, and photonics. Topics include: Nature and Properties of Light, Optical Handling and Positioning, Light Sources and Laser Safet, Basic Geometrical Optics, and Basic Physical Optics. The course covers the wave and particle properties of light, light interactions, fundamentals of laboratory safety, bulk optical materials and their properties, optical coatings and methods of coating deposition, laboratory mountings, positioning equipment, surface quality of optical components, inspection methods and procedures, the care and cleaning of optics, concepts of laser safety, laser safety standards, safety classifications, laws

of reflection and refraction, image formation with lenses and mirrors, interference, diffraction, and polarization processes. The lab portion of the course provides students with hands on activities to demonstrate the various optical concepts. This course is equivalent to PHY* K103. One 2 hour lecture; one 3 hour lab.

TCN* K105 - Laser and Lab Safety

1 CREDIT HOUR
This course introduces important concepts and regulations for safety in laser and manufacturing labs and other work settings. Topics include safe handling of lasers, safe use of hand and power tools, hazard awareness and accident prevention, exposure limits, administrative and engineering controls, chemical hygiene and safety planning. The course is a requirement for all students beginning the Manufacturing Engineering Technology or Laser & Fiber Optic Technology associate degree programs.

Total: 13

Semester II

CAD* K106 - Basic CAD - AutoCad

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S or higher*
This course, with the included lab, exposes the student to the current means of generating graphic images with computers. Topics covered include CAD* overview, computer terminology, hardware descriptions and requirements, file manipulation and management, 2D and 3D geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail, and assembly drawings.

CAD* K107 - Computer-Aided Drafting Lab

2 CREDIT HOURS
Corequisite: CAD K106.*
This laboratory utilizes software in an IBM-PC environment. Topics given in the lecture will be learned through solving application problems on the computer.

EET* K105 - Electric Circuits & Systems °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I.*
Corequisites: MAT K137 or MAT* K137S.*
This course provides an introduction to the basic concepts of DC and AC electric circuits. Voltage, current, resistance, energy, and power relationships are introduced. Circuit analysis of basic series and parallel circuits is covered. Instruments and techniques of electrical measurement for both DC and AC circuits are also discussed. Other topics include semiconductor devices, transformers and power supplies, microcontrollers, motors and drive circuits, and electrical power generation/distribution. The lab portion of this course will supplement the course Electric Circuits & Systems. Students will apply the concepts learned in the classroom and gain practical hands-on experience making electrical measurements using a variety of test instruments.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*

This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

PHO* K241 - Introduction to Laser Technology

3 CREDIT HOURS
Corequisite: MAT K137.*
This course provides an introduction to the physics of lasers, laser output characteristics, and types of lasers. Application of lasers will be also be explored. Topics include solid state, gas, and semiconductor lasers. Laser pumps, resonators, mode structures and power supplies are covered. Use of lasers in materials processing, communication systems, sensors and scientific analysis will be included.
The lab portion of this course will reinforce classroom physics and technology concepts and give students the opportunity to become familiar with common laser instrumentation. Lab projects will allow students to more deeply explore topics of interest. Lab exercises will include practice with Diode, HeNe, Argon, Fiber and CO2 lasers.

Total: 16

Semester III

EET* K264 - Data Acquisition and Controls °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
This course provides an introduction to data acquisition circuits and systems as well as basic feedback control systems. Topics include measurements techniques, computerized data acquisitions, introduction to LabVIEW, Interfacing to microcontrollers and instrumentation, signal processing and communications, and feedback control techniques, mechanical systems and mechanical power transmission. Students will learn the basics of measurements and data acquisition using LabVIEW based exercises. This lab portion of this course provides students with hands-on experience with analog and digital closed loop automatic control components, circuits, and systems. It familiarizes students with analog and digital simulation techniques. LabVIEW and microcontrollers are used extensively with various sensors and actuators.

MAT* K167 - Principles of Statistics °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. Please refer to online schedule and click on the CRN hyperlink and/or review printed schedule in determining which faculty require math software in their course(s).*

This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations and confidence intervals.

- _____- Fine Arts Elective **3 CREDIT HOURS**
- _____- Technical Elective **3 CREDIT HOURS**
- _____- Technical Elective **3 CREDIT HOURS**

Total: 15

Semester IV

MFG* K221 - Mechatronics

3 CREDIT HOURS
Prequisites: EET K264*
This interdisciplinary course with lab exposes students to the design, instrumentation, and control of high- precision, computer-controlled automation equipment, using concrete examples drawn from the photonics, biotech, manufacturing and semiconductor industries. Topics covered include design strategy, high-precision mechanical components, sensors and measurement, servo control, design for controllability, control software development, controller hardware, as well as automated error detection and recovery. Students will work individually and in teams on hands-on experiences reinforcing and supplementing the course content. This course is equivalent to EET* K266.

MFG* K230 - Statistical Process Control

3 CREDIT HOURS
Corequisite: MAT K167.*
This course presents the application of fundamental statistical concepts to manufacturing production control, tolerance analysis and acceptance sampling. Emphasis is placed on the application of statistics through control chart development, sampling size determination and frequency evaluation. The course incorporates computer hardware and software, particularly spread sheets and database programs in SPC applications to manual, automated and flexible manufacturing systems in a computer integrated environment. This course is equivalent to BMG* K218.

PHO* K102 - Applied Optics °

4 CREDIT HOURS
Prerequisites: PHO K101.*
Building on the foundation of PHO* K101, this course will introduce more sophisticated optical systems and mathematical analysis. Topics will include thick lenses, matrix methods of optics, aberrations, stops and pupils, interferometry, Fresnel and Fraunhofer diffraction and polarization. Emphasis will be on applications of optics in modern technology. All laboratory section will reinforce concepts through hands-on experiments and team projects.

TCN* K291 - Interdisciplinary Capstone Design Project °

3 CREDIT HOURS
Prerequisites: Permission of the department chair.
This course provides students the opportunity to apply the concepts, theories, and practices developed throughout their Technology course of study in a one-semester capstone interdisciplinary project. Students will work together in teams to solve real world problems related to their interrelated field(s) of study. Students will learn how to develop and present effective written and oral technical communications. A major portion of the course will be dedicated to hands-

on lab time during which students will work on their projects. Throughout the course, faculty members will serve as consultants to guide the students and provide formative feedback. The course will culminate with a final technical presentation to faculty, students and invited industry guests. This course is intended for students in the second year of study.

- _____- Social Sciences Elective **3 CREDIT HOURS**

Total: 16

Note:

° Course has a prerequisite. Students should check course description.

+ May substitute EET* K144 - Fundamentals Electrical Circuits and Machines °/EET* K145 - Fundamentals Electrical Circuits and Machines Lab °

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

Manufacturing Engineering Technology, Associate in Science Degree Program Objectives

Graduates of the program in Manufacturing Engineering will:

1. be qualified to make technical contributions to and find employment in operations, design, development and manufacturing in the practice of manufacturing engineering technology.
2. have an appreciation for the need to be life long learners.
3. demonstrate professionalism and a sense of social and ethical responsibility in their professional endeavors.
4. engage in professional development or study in a four-year program to pursue flexible career paths amid future technological changes.

Manufacturing Engineering Technology, Associate in Scien Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. practice the skills needed to work effectively in teams and as an individual.
2. demonstrate the ability to use appropriate mathematical and computational skills needed for engineering technology applications.
3. combine oral, graphical, and written communication skills to present and exchange information effectively and to direct manufacturing activities.
4. know of a professional code of ethics.
5. describe concepts relating to manufacturing quality, timeliness and continuous improvement.

6. describe how the concepts of computer-aided design and manufacturing, electronics, lasers, metal manufacturing, optics, organizational management, process automation and statistics affect manufacturing operations.
7. illustrate an ability to think critically and identify, evaluate and solve complex technical and non-technical problems; demonstrate creativity in designing problem solutions; and conduct and interpret experimental data and outcomes.
8. recognize actions and acts of professionalism that allow them to become informed and participating citizens cognizant of ethics, civic duty and social responsibility.
9. recognize the need to be lifelong learners.

Mechanical Engineering Technology, A.S.

Degree Code: B62

Associate in Science

Program Contact: Michael Gentry - 860-215-9428

This program is designed with a broad range of subjects related to the design, manufacture, testing and development of various products, machines and systems.
The Mechanical program provides a learning experience in state-of-the-art laboratories on the most sophisticated equipment available. It is geared toward a practical hands-on experience that makes the Mechanical graduate a highly respected and marketable individual for many different types of industries.
Graduates of the Mechanical program can start immediately by working alongside of engineers in research, sales, or manufacturing industries. Typical types of starting positions include CAD operators, quality control specialists, robotic technicians, sales representatives, design technicians, testing technicians, etc. Building on a foundation of math, physics, humanities, and social sciences, the program trains and educates the student toward statics, machine design, fluid dynamics, and thermodynamics with emphasis upon the computer as a special tool to perform the task at hand.
The Mechanical Engineering Technology program also has a co-op option that allows the student to work while substituting the work experience for a technical elective. Many local industries are actively seeking and obtaining the Mechanical co-op student.
The job market for Mechanical graduates is very favorable. Currently the number of Mechanical job openings far exceeds the number of graduates on a nationwide trend. This situation means respectable and stable income for many years in the future. An investment of two years can turn into a lifetime of job security for the Mechanical graduate.
The primary goal of the Mechanical Engineering Technology program is to prepare technicians and designers for employment in industry. However, many students transfer to four-year institutions, especially four-year engineering technology programs.

Mechanical Engineering Technology Curriculum Requirements

Prerequisites to the Program

MAT* K172 - College Algebra °

3 CREDIT HOURS
Prerequisites: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course is a thorough and rigorous algebra course that strengthens the understanding of functions, their properties, multiple representations, and operations with functions. The function families studied include: polynomial, exponential,

logarithmic, rational, and radical functions. Students will also learn linear and quadratic inequalities, absolute value equations and inequalities, linear and noninear systems.

PHY* K114 - Mechanics °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172.*
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry. Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion. Three-hour lecture; one two-hour laboratory.

CSA* K105 - Introduction to Software Applications °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces some popular software packages currently being used in industry, business, and government such as Microsoft Word, Excel, Access, and PowerPoint. A small amount of time will be devoted to the Windows operating system environment. Recent versions of the software packages will be used. Strong reading, good writing, and basic math skills are required. Prior computer usage experience (e.g. keyboard and mouse actions, file and folder management, Internet browsing) is assumed. Digital learning technologies will be used throughout the course.

Semester I

CAD* K141 - Basic 3D Parametric Modeling and Lab Solidworks

3 CREDIT HOURS
Prerequisite: MAT K137 or higher*
This course, and accompanying lab, is designed to expand and enhance the student's ability to combine and apply mechanical design principles with computer design techniques and capabilities. This course teaches the basic concepts of orthographic projection, isometrics, oblique drawings, and basic drafting technology. A component of this course will focus on descriptive geometry, which will nurture the visualization skills of students by identifiying points, planes, and perpendiculars in various perspectives. Introducing the mechanical design software SolidWorks, this course begins to examine the basic functionality of drawing automation.

CAD* K142 - Basic 3D Parametric Modeling Inventor

3 CREDIT HOURS
Prerequisite: MAT K137 or higher
This course, and accompanying lab, uses Computer Aided Drafting (CAD) software to create technical models and drawings of real-world design problems. These skills will then be fully synthesized into the world of parametric solid modeling with the use of Autodesk Inventor Professional. This program will allow students to develop various engineering skills as they create the increasingly detailed illustrations used in industry. Drawings of assemblies and exploded views, as well as changing the properties of materials for stress analysis comparisons, will be explored. Through final projects, students can explore the fields of Computer Aided Manufacturing (CAM), Rapid Prototyping, Parametric Modeling, stress analysis, simulation, sheet metal, or Geometric Dimensional and Tolerancing.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*

College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

MEC* K114 - Statics °

3 CREDIT HOURS
Prerequisites: MAT K172 and PHY* K114.*
Corequisite: MAT K186.*
This course helps students develop the ability to analyze problems using the basic principles of static systems in order to provide a foundation for stress analysis. The forces on structures in equilibrium and concepts of centroids, center of gravity, and moment of inertia are studied. The concept of stress and strain in axial torsional and bending loading is also introduced.

MFG* K102 - Manufacturing Processes and Lab

3 CREDIT HOURS
Corequisite: TCN K105*
This course studies manufacturing: making goods and wares by industrial processes. The course will provide theoretical experience in the scientific, engineering, and economic principles on which the various manufacturing processes are based.This laboratory portion provides emphasis on common metal cutting tools and lathe operations, as well as on associated precision measuring tools and instruments. The labs will also involve set-ups and procedures for various manufacturing processes including plasma cutting, sheet metal, molding and additive manufacturing.

TCN* K105 - Laser and Lab Safety

1 CREDIT HOUR
This course introduces important concepts and regulations for safety in laser and manufacturing labs and other work settings. Topics include safe handling of lasers, safe use of hand and power tools, hazard awareness and accident prevention, exposure limits, administrative and engineering controls, chemical hygiene and safety planning. The course is a requirement for all students beginning the Manufacturing Engineering Technology or Laser & Fiber Optic Technology associate degree programs.

Total: 13

Semester II

CAD* K222 - Advanced 3D Parametric Modeling and Lab Solidworks

3 CREDIT HOURS
Prerequisite: CAD K141 and CAD* K142*
This course, and accompanying lab, is designed to further enhance the student's ability to combine and apply mechanical design principles with Solidworks. This course continues to examine the basic functionality of drawing automation. In addition, this course will introduce the concepts of geometric dimensioning and tolerancing by presenting an overview of a positional tolerance system, its relationship to coordinate tolerance systems, and other aspects of industry-standard drafting practices.

CAD* K231 - Advanced 3D Parametric Modeling NX

3 CREDIT HOURS
Prerequisite: CAD K141 and CAD* K142*
This course, and accompanying lab, is designed to expand and enhance the student's ability to combine and apply mechanical design principles with computer design techniques and capabilities. This course teaches the basic concepts of orthographic projection, isometrics, oblique drawings, and basic drafting terminology. A component of this course will focus on descriptive geometry, which will nurture the visualization skills of students by identifying points, planes, and perpendiculars in various perspectives. Introducing the mechanical design software SolidWorks, this course begins to examine the basic functionality of drawing automation.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

MEC* K262 - Materials Science °

3 CREDIT HOURS
Prerequisites: MFG K102*
Corequisite: MEC K263.*
This course studies the structure and properties of engineering materials, and incorporates the presentation of materials selection, processing, and heat treatment. The changes in structure and properties during forming, machining, and heat treating operations are discussed.

MEC* K263 - Materials Science Lab °

1 CREDIT HOUR
Prerequisites: MFG K102; TCN* K105.*
Corequisite: MEC K262.*
In this lab, students will be exposed to selected experiments demonstrating the effects of processing, including heat treatment, on the properties of engineering materials. Standard materials tests are also performed.

PHY* K115 - Heat Sound Light °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172. Please note if MAT* K172 is completed prior to registration into PHY* K115, students must complete MAT* K172 with a "C" grade or better.*
This course covers three broad areas of physics including thermal equilibrium, heat transfer, harmonic motion and wave properties of sound and light. Three-hour lecture; one two-hour laboratory.

Total: 15

Semester III

EET* K105 - Electric Circuits & Systems °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I.*
Corequisites: MAT K137 or MAT* K137S.*
This course provides an introduction to the basic concepts of DC and AC electric circuits. Voltage, current, resistance, energy, and power relationships are introduced. Circuit analysis of basic series and parallel circuits is covered. Instruments and techniques of electrical measurement for both DC and AC circuits are also discussed. Other topics include semiconductor devices, transformers and power supplies, microcontrollers, motors and drive circuits, and electrical power generation/distribution. The lab portion of this course will supplement the course Electric Circuits & Systems. Students will apply the concepts learned in the classroom and gain practical hands-on experience making electrical measurements using a variety of test instruments.

MAT* K254 - Calculus I °

4 CREDIT HOURS
Prerequisite: MAT K186 with a 'C" grade or better.*
This is a first course in the calculus sequence intended for students who plan on majoring in mathematics, physical sciences, or engineering technology. Topics include: rate of change, limits, continuity, differentiation of algebraic, trigonometric, exponential, and logarithmic functions, differentials, applications of differentiation, definite and indefinite integrals, and applications of integration.

MEC* K250 - Strength of Materials °

3 CREDIT HOURS
Prerequisites: MEC K114.*
This course instills knowledge of moments of inertia, torsion, bending, and columns, and how it applies to stress and the structural properties of materials. The relationship of these properties to common engineering problems is reviewed.

- MEC* K231 - Computer-Aided Engineering °/MEC* K232 - Computer-Aided Engineering Lab ° **3 CREDIT HOURS** ¢ *Transfer track only*
  or
- MEC* K272 - Fluid Mechanics/Thermodynamics ° 4 **CREDIT HOURS** ŧ *Career track only*

Total: 13 or 14

Semester IV

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will

research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

- MAT* K256 - Calculus II ° **4 CREDIT HOURS ¢** *Transfer track only*
  or
- MEC* K274 - Heat Transfer °/ MEC* K275 - Thermal Sciences Lab **3 CREDIT HOURS ŧ** *Career track only*

MEC* K281 - Machine Design °

3 CREDIT HOURS
Prerequisite: MEC K250.*
This course utilizes skills from previous courses and gives students the opportunity to investigate the design of machine elements. Actual design conditions are studied along with classical engineering design practice utilizing the concepts of stress, materials, unimatics, economy, safety, strength, and appearance.

TCN* K291 - Interdisciplinary Capstone Design Project °

3 CREDIT HOURS
Prerequisites: Permission of the department chair.
This course provides students the opportunity to apply the concepts, theories, and practices developed throughout their Technology course of study in a one-semester capstone interdisciplinary project. Students will work together in teams to solve real world problems related to their interrelated field(s) of study. Students will learn how to develop and present effective written and oral technical communications. A major portion of the course will be dedicated to hands-on lab time during which students will work on their projects. Throughout the course, faculty members will serve as consultants to guide the students and provide formative feedback. The course will culminate with a final technical presentation to faculty, students and invited industry guests. This course is intended for students in the second year of study.

- _____- Humanities/Social Science Elective **3 CREDIT HOURS**

Total: 18 or 19

Note:

° Course has a prerequisite. Students should check course description.

+ May substitute EET* K144 - Fundamentals Electrical Circuits and Machines ° and EET* K145 - Fundamentals Electrical Circuits and Machines Lab °

¢ Best choice for students intending to transfer to a four year university upon graduation.

ŧ Best choice for students seeking employment upon graduation.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

Mechanical Engineering Technology, Associate in Science Degree Program Objectives

Graduates of the Mechanical Engineering Technology program will:

1. be qualified to make technical contributions to and find employment in operations, design, development and manufacturing in the practice of mechanical engineering technology.
2. have an appreciation for the need to be life long learners.
3. demonstrate professionalism and a sense of social and ethical responsibility in their professional endeavors.
4. engage in professional development or in study in a four-year program to pursue flexible career paths amid future technological changes.

Mechanical Engineering Technology, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. practice the skills needed to work effectively in teams and as an individual.
2. demonstrate the ability to use appropriate mathematical and computational skills needed for engineering technology applications.
3. Combine oral, graphical and written communication skills to present and exchange information effectively and to direct manufacturing activities.
4. know of a professional code of ethics.
5. have the ability to work professionally in both thermal and mechanical systems areas including the design and realization of such systems.
6. be able to function competently in a laboratory setting, making measurements, operating technical equipment, critically examining experimental results, and properly reporting on experimental results, including their potential for process improvement.
7. Illustrate an ability to think critically and identify, evaluate and solve complex technical and non-technical problems; demonstrate creativity in designing problem solutions; and conduct and interpret experimental data and outcomes.
8. recognize the actions and acts of professionalism that allows them to become informed and participating citizens cognizant of ethics, civic duty and social responsibility.
9. recognize the need to be lifelong learners.

Nuclear Engineering Technology, A.S.

Degree Code: A92

Associate in Science

Program Coordinator: James Sherrard - 860-215-9472

This program is designed through cooperation with Millstone Station to produce entry-level technicians primarily for the commercial nuclear power industry. Millstone Station offers full scholarships through the college for up to 15 full-time freshman enrolling in the Nuclear Engineering Technology program. However, the program is open to all qualified students, with or without scholarship aid.
Using classroom, laboratory, and simulator instruction, students are educated in the theories underlying the actual safe

operation of nuclear power generating stations. Additional "hands-on" experience may be gained through 12 weeks of summer co-op employment at Millstone Station's nuclear power plants.
Potential job areas upon graduation include health physics, nuclear chemistry, reactor engineering and power plant operation/maintenance. The program also provides academic preparation for a career as a reactor operator. This career path involves further training by the utility and successful completion of a license examination administered by the Nuclear Regulatory Commission. For many students, graduating with an Associate Degree in Nuclear Engineering Technology is but one step in their academic career as they move on to pursue higher degrees.

Nuclear Engineering Technology Curriculum Requirements

Prerequisites to the Program

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

PHY* K114 - Mechanics °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172.*
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry. Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion. Three-hour lecture; one two-hour laboratory.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

Semester I

CHE* K121 - General Chemistry I °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K172 and high school chemistry or CHE* K111 all passed with a "C" grade or better; or permission of the*

instructor or department chairperson.
Corequisite: MAT K186.*
In this course, students will study the fundamental principles, theories, and laws of chemistry. Topics include atomictheory and the structure of the atom, the aggregated states of matter, kinetic molecular theory, chemical bonding, stoichiometry and periodicity, solutions, and colloids. Three- hour lecture; one three-hour laboratory period.

- _____- Computer Science Elective **3-4 CREDIT HOURS +**

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

NUC* K100 - Introduction to Nuclear Systems

3 CREDIT HOURS
This course is an introduction to the major systems of a commercial nuclear power plant. Designed for the student with no prior knowledge of engineering principles, it adheres to a systematic approach to operations and explains the underlying theoretical principles. The course focuses on Pressurized Water Reactor (PWR) and Boiling Water Reactor (BWR) plant design. The course also presents an overview of the Pressurized Heavy Water Reactor (PHWR), Fast Breeder Reactor (FBR), and High Temperature Gas-cooled Reactor (HTGR).

Total: 13-14

Semester II

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

MAT* K254 - Calculus I °

4 CREDIT HOURS
Prerequisite: MAT K186 with a 'C" grade or better.*
This is a first course in the calculus sequence intended for students who plan on majoring in mathematics, physical sciences, or engineering technology. Topics include: rate of change, limits, continuity, differentiation of algebraic, trigonometric, exponential, and logarithmic functions, differentials, applications of differentiation, definite and indefinite integrals, and applications of integration.

NUC* K110 - Radiation Health Safety °

2 CREDIT HOURS
Prerequisites: MAT K186 and CHE* K121.*
Corequisites: NUC K111 and NUC* K117.*
This course is an introduction to basic concepts associated with nuclear physics and nuclear radiation, health, and safety. Topics include nuclear structure, radioactivity, and interaction of radiation with matter, shielding, radiation measurement, exposure, and biological effects.

NUC* K111 - Radiation Health Safety Lab °

1 CREDIT HOUR
Prerequisites: MAT K186 and CHE* K121.*
Corequisites: NUC K110 and NUC* K117.*
This course is designed to give the student hands-on experience working with a variety of radiation monitoring devices. The students will also gain experience in the processing and analysis of counting data.

NUC* K117 - Atomic and Reactor Physics °

4 CREDIT HOURS
Prerequisites: MAT K186; NUC* K100; PHY* K114.*
Corequisites: MAT K254; PHY* K115; NUC* K110/NUC* K111.*
This course is an introduction to modern physics concepts of the structure of the atom, the properties of atomic particles, the nature of light, relativity theory and elementary quantum mechanics. An understanding of fission energy concepts and transmutations will be provided.

NUC* K118 - Nuclear Chemistry °

1 CREDIT HOUR
Prerequisites: CHE K121; MAT* K186; NUC* K100.*
Corequisite: NUC K117.*
This course is an introduction to the basic concepts of nuclear reactor chemistry. Topics covered include oxidation-reduction reactions, principles of corrosion, corrosion control practices, and important nuclear chemical reactions.

PHY* K115 - Heat Sound Light °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172. Please note if MAT* K172 is completed prior to registration into PHY* K115, students must complete MAT* K172 with a "C" grade or better.*
This course covers three broad areas of physics including thermal equilibrium, heat transfer, harmonic motion and wave properties of sound and light. Three-hour lecture; one two-hour laboratory.

Total: 19

Semester III

EET* K144 - Fundamentals Electrical Circuits and Machines °

3 CREDIT HOURS
Prerequisite: MAT K186.*
Corequisite: EET K145.*

This course covers the basics of DC and AC electricity in its first half and provides the foundation for the basics of power generation, distribution and conversion. Replaces Electricity and AC/DC Machinery.

EET* K145 - Fundamentals Electrical Circuits and Machines Lab °

1 CREDIT HOUR
Prerequisite: MAT K186.*
Corequisite: EET K144.*
Students will conduct laboratory experiments in electrical power, from basic principles through operation of AC and DC machinery; it is for students in Nuclear Engineering Technology and other non-electrical programs. Replaces Electricity and AC/DC Machinery Lab.

MAT* K256 - Calculus II °

4 CREDIT HOURS
Prerequisite: MAT K254 with a "C" grade or better.*
This course is the second semester of calculus intended for students who plan on majoring in mathematics, physical science, or engineering technologies. The topics include the definite integral, applications of integration, methods of integration, sequences, series and vectors.

MEC* K272 - Fluid Mechanics/Thermodynamics °

4 CREDIT HOURS
Prerequisite: PHY K115.*
This course investigates the behavior of fluids from a fluid mechanics and thermodynamics point of view, including the concepts of enthalpy, entropy, and energy balances.

NUC* K250 - Reactor Theory °

4 CREDIT HOURS
Prerequisites: MAT K254; NUC* K110/NUC* K111; NUC* K117; NUC* K118; PHY* K114; PHY* K115.*
Corequisites: MAT K256; NUC* K260/NUC* K261.*
This course studies nuclear energy with emphasis on fission, reactor types, moderation of neutrons, activation and decay schemes, transmutations, neutron diffusion theory, and theoretical reactor operation including heat transfer, power transients, instrumentation and resultant radiation.

NUC* K260 - Nuclear Materials Science °

2 CREDIT HOURS
Prerequisites: MAT K254; NUC* K100; NUC* K110/NUC* K111; NUC* K117; NUC* K118.*
Corequisites: MAT K256; NUC* K250; NUC* K261.*
This course will acquaint the student with constitution, properties and characteristics of engineering materials and provide a foundation for stress analysis on structures in equilibrium with emphasis on applications to nuclear power, including effects of material irradiation.

NUC* K261 - Nuclear Materials Science Lab °

1 CREDIT HOUR
Prerequisites: MAT K254; NUC* K100; NUC* K110/NUC* K111; NUC* K117; NUC* K118.*
MAT K256; NUC* K250; NUC* K260.*
This lab will focus on performing experiments in metallographic examination, mechanical testing, and heat treatment

of a variety of ferrous and nonferrous metals. Experiments to determine properties of materials such as strain, fatigue, corrosion, compression and tensions will also be conducted. Brittle fracture and thermal stress will be performed as well as effects of irradiating materials.

Total: 19

Semester IV

MEC* K274 - Heat Transfer °

2 CREDIT HOURS
Prerequisites: MAT K254; MEC* K272; PHY* K115.*
Corequisite: MEC K275.*
This course will include one and two dimension flow, and principles of convection, conduction, and radiation. Steady state conditions will be investigated.

MEC* K275 - Thermal Sciences Lab

1 CREDIT HOUR
Corequisites: MAT K254; MEC* K241 or MEC* K270 or MEC* K272.*
This course studies selected labs from the fields of fluid mechanics, thermodynamics, and heat transfer.

NUC* K210 - Nuclear Instruments and Control °

2 CREDIT HOURS
Prerequisites: EET K144/EET* K145; NUC* K100; NUC* K110/NUC* K111; NUC* K117; NUC* K250.*
Corequisites: NUC K211; NUC* K220/NUC* K221.*
The study of the underlying electrical, mechanical, physical, and chemical principles by which the instrumentation and modern PWR (pressurized water reactor) and BWR (boiling water reactor) systems control the safe generation of nuclear-based power. Emphasis is placed on the full understanding of the nuclear fission process and the interactions of the numerous subsystems required monitoring and controlling this important energy technology.

NUC* K211 - Nuclear Instruments and Control Lab °

1 CREDIT HOUR
Prerequisites: EET K144/EET* K145; NUC* K100; NUC* K110/NUC* K111; NUC* K117; NUC* K250.*
Corequisites: NUC K210; NUC* K220/NUC* K221.*
These laboratory exercises transfer acquired electrical, mechanical, physical, and chemical technology gained in earlier courses in hands-on applications to 15 selected nuclear instrument controlled subsystems. Emphasis is placed on the full understanding of the detection capabilities and subsequent safe nuclear system control.

NUC* K220 - Nuclear Simulator °

1 CREDIT HOUR
Prerequisites: NUC K100; NUC* K110/NUC* K111; NUC* K117; NUC* K118; NUC* K250; NUC* K260/NUC* K261.*
Corequisites: NUC K210/NUC* K211; NUC* K221.*
A study of the primary and secondary systems of a Pressurized Water Reactor (PWR), with emphasis on control and protective subsystems, plant start-up, normal plant operation, and critical shut-down procedures. Reactor "accident" analyses are stressed for total reactor system comprehension. This is the capstone event for the nuclear degree program.

NUC* K221 - Nuclear Simulator Lab °

1 CREDIT HOUR
Prerequisites: NUC K100; NUC* K110/NUC* K111; NUC* K117; NUC* K118; NUC* K250; NUC* K260/NUC* K261.*
Corequisites: NUC K210/NUC* K211; NUC* K220.*
A study of reactor plant primary and secondary systems, control and protective systems, plant start- up, normal plan operation, and critical shut-down procedures is covered through the extensive "hands-on" utilization of a modern nuclear reactor simulator. This is the capstone event for the nuclear degree program.

NUC* K230 - Nuclear Topics °

2 CREDIT HOURS
Prerequisites: NUC K100; NUC* K110/NUC* K111; NUC* K117; NUC* K118; NUC* K250; NUC* K260/NUC* K261.*
This course is a state-of-the-art survey course studying factors impacting modern nuclear power generation, including environmental impacts, fuel management, preventive maintenance, equipment operation, failure and analysis, safety engineering, human factors engineering, and emergency planning procedures. Additionally, an overview of other regional nuclear related business activities will be presented.

- _____- Humanities/Social Sciences/Fine Arts Elective **3 CREDIT HOURS**
- _____- Restricted Elective **3 CREDIT HOURS** ++

Total: 16

Note:

° Course has a prerequisite. Students should check course description.

+ Typical selections are CSA* K105 or CSC* K108 to support future employment and education.

Students may select another 3 credit Technology elective to replace NUC* K210/NUC* K211 to better meet their employment/ future education goals with the approval of the Program Coordinator.

++ An additional Humanities/Social Science/ Fine Arts Elective is recommended. Or, another course appropriate for future employment may be selected with approval of the Program Coordinator.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 67-68

Nuclear Engineering Technology, Associate in Science Degree Program Objectives

Graduates of the Nuclear Engineering Technology program will:

1. demonstrate a mastery of knowledge, skills and problem solving abilities required for entry level employment in the commercial nuclear power or health physics fields.
2. demonstrate technical strengths in the areas of nuclear processes and operations, nuclear systems and radiological safety.
3. adopt life long learning and intellectual growth as an integral part of a career in nuclear engineering technology due to continuing engineering and scientific reactor system technology improvements.
4. possess a solid nuclear knowledge base for a program base for a program graduate to transfer as an entering junior into a baccalaureate degree program in nuclear engineering or health physics.

Nuclear Engineering Technology, Associate in Science Degree Program Outcomes

By the time of graduation, students in the Manufacturing Engineering Technology program will:

1. apply an understanding of nuclear systems and operations
2. apply an understanding of radiological safety and radiation protection procedures.
3. know the applicable rules and regulations, and describe the roles of maintenance, control, performance, the human interface in the operations and quality assurance.
4. understand, demonstrate and value the safe operation of nuclear systems.
5. solve problems using foundation mathematics, physical sciences and nuclear technology for nuclear industry constituents served by the degree program.
6. conduct, analyze and interpret laboratory experiments.
7. interpret laboratory analyses that measure nuclear and radiation processes.
8. demonstrate effective oral and written communication skills.
9. demonstrate the use of library and on-line information sources in problem solving.
10. serve as productive team members.
11. recognize the need to be life long learners.

Nursing, A.S.

Degree Code: F30

Accredited by the Accreditation Commission for Education in Nursing (ACEN)
3343 Peachtree Rd NE, Suite 500, Atlanta, Georgia 30326
Telephone 404-975-5000
http://www.acenursing.org/

Associate in Science

Director of Nursing & Allied Health:
Edith Ouellet - 860-215-9460

The Connecticut Community Colleges Nursing Program:
Three Rivers Community College Campus

Three Rivers Community College is one of six campuses offering The Connecticut Community Colleges Nursing Program (CT-CCNP), an innovative associate degree nursing program offered at five Connecticut Community Colleges, and is designed to prepare registered nurses to function in the professional role utilizing current standards of nursing practice. As a campus site of CT-CCNP, TRCC is committed to the educational preparation of safe, competent, associate degree entry level practitioners of nursing. This is accomplished through an educational experience which involves active and diverse learning processes. Program graduates are prepared to assume the multi-faceted role of the professional nurse which includes planning and provision of care, client advocacy, communication, teaching, and

managing human, physical, financial and technological resources. Graduates possess the ability to recognize and respond to current trends and issues while upholding standards of care through lifelong learning.
Nursing is a dynamic profession that incorporates evidenced-based theory and skills required for safe practice. Nursing practice integrates the art and science of nursing with theoretical principles from the natural, social, behavioral biological and physical sciences. Six core values provide the framework for organizing the curriculum. The core values are:

- Critical Thinking
- Safe and Competent Practice
- Caring
- Professionalism
- Communication
- Holistic Care

The CT-CCNP is a two-year four semester program which, upon successful completion, awards an Associate in Science Degree. Sixty-eight credits are required for graduation. These include general education courses and nursing courses sequenced to build from fundamental skills to complex critical thinking skills. The program is challenging in nature, demanding mathematics, science, social science and English skills as building blocks to all that encompasses nursing practice.

The Role of the Associate Degree Graduate within the Scope of Nursing Practice
The CT-CCNP will provide the student with the knowledge and technical skills to practice in a safe, effective and competent manner within the legal and ethical framework for an entry-level Registered Nurse. The scope of practice for the Associate Degree graduate is to provide and manage care for a diverse group of individuals, families and communities in collaboration with members of the heath care team consistent with CT-CCNP core values. The course of study prepares graduates for employment in a variety of settings, extended-care facilities, acute-care hospitals, clinics, doctor's offices, etc.

Nursing Admission Requirements
See the catalog section on Selective Nursing Admission Criteria for explanation of nursing admissions criteria and process. Please visit us online at http://www.trcc.commnet.edu/Div_StudentServices/admissions/NursingStudent.shtml to obtain additional information. Please plan to attend a Nursing Information Session at the college, schedule is available on the website.

Articulation
Three Rivers Community College fully participates in the Connecticut Nursing Articulation Model for the educational advancement of all nurses. Licensed Practical Nurses may take the Connecticut League for Nursing/Charter Oak State College Bridge Course upon acceptance and enter as far along as the third semester of the program. Upon acceptance into the CT-CCNP at Three Rivers Community College, all LPN candidates are individually assessed by our Admissions Department and by specialized nursing advisors to determine appropriate placement in the program. All graduates are encouraged to advance their education in nursing toward the baccalaureate degree or further. Information about these opportunities is available at http://www.ct.edu/academics/nursing#agreements.

Nursing Curriculum Requirements

Admission Requirements

BIO* K211 - Anatomy & Physiology I °

4 CREDIT HOURS
Prerequisites: BIO K121 and CHE* K111 or higher passed with a "C" grade or better.*
This course is a comprehensive study of the gross anatomical structure and physiology of the human body pertaining to cells, tissues, membranes, organs, and the following systems: integumentary, skeletal, articular, muscular and nervous

including special senses. Anatomy and Physiology is a two semester course. Students must enroll in both BIO* K211 and BIO* K212 for transfer credits to other institutions. Three-hour lecture; one three-hour laboratory period per week.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

Pre-requisite Requirement

BIO* K212 - Anatomy & Physiology II °

4 CREDIT HOURS
Prerequisite: BIO K211 with a "C-" grade or better*
This course is a continuation of *BIO* K211 - Anatomy & Physiology I* °, and covers the following systems: endocrine, circulatory, lymphatic, respiratory, digestive (nutrition), urinary (including fluids and electrolytes), and reproduction, as well as human development and genetics. Anatomy and Physiology is a two semester course. Students must enroll in both *BIO* K211* and *BIO* K212* for transfer credit to other institutions. Three-hour lecture; one three-hour laboratory period per week.

Semester I

BIO* K235 - Microbiology °

4 CREDIT HOURS
Prerequisites: BIO K121 and CHE* K111 or CHE* K121 or permission of the instructor, all courses passed with a "C" grade or better. BIO* K122 is recommended.*
This course covers a comprehensive study of microorganisms. Topics covered will include the basic characteristics, morphology, physiology, growth, reproduction, and genetics of bacteria, as well as a brief taxonomical survey of the following microbial life forms: Archaea, Eubacteria (Cyanobacteria, Mycoplasms, Rickettsia, Chlamydia), Fungi, Algae, Protozoans, and Viruses. Emphasis will be on species that affect humans. Laboratory activities will include various techniques of staining, culturing, and isolating bacteria. The morphology and metabolic processes of select microbial groups will be studied. Students will learn to apply various modern bio- techniques that are used for controlling the growth of microbes, and to identify unknowns. Three hours of lecture; three hours of lab each week.

PSY* K111 - General Psychology I

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course provides an overview of the theories and research findings pertaining to scientific psychology with an emphasis on: the origins of psychology, nature and nurture, human diversity, theoretical models, research methodology, biological bases of thought and behavior, learning theory, sensation and perception, memory, stress and health as well as emotion and motivation.

NUR* K101 - Introduction to Nursing Practice °

8 CREDIT HOURS
Prerequisites: BIO K211; BIO* K212; ENG* K101 or ENG* K101S.*
Corequisites: BIO K235 and PSY* K111.*
The student will focus on concepts basic to nursing practice. Emphasis is placed on application of the nursing process, communication skills, and nursing practice procedure acquisition. Clinical and laboratory experiences offer opportunities to integrate theoretical principles and demonstrate caring and competence in beginning professional role development. Theory: 60 hours Clinical: 180 hours.

Total: 15

Semester II

PSY* K201 - Life Span Development °

3 CREDIT HOURS
Prerequisite: PSY K111.*
This course will study the physical, psychosocial and cognitive development of humans from birth to death. There will be an emphasis on distinct time periods such as conception and development of the fetus, infancy, childhood, puberty and adolescence, young, middle, and late adulthood, and gerontology.

SOC* K101 - Principles of Sociology

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a study of the major concepts used in the field of sociology. The nature of institutions will be examined both individually and in their dynamic interrelationship. Emphasis is placed on understanding the impact of society on our lives, and on increasing our effectiveness in controlling our destinies within it.

NUR* K102 - Family Health Nursing °

8 CREDIT HOURS
Prerequisites: NUR K101; BIO* K235; ENG* K101 or ENG* K101S; PSY* K111.*
Corequisites: *NUR* K103*; *PSY* K201*; *SOC* K101*.
The student will focus on issues affecting the family, including childbearing, childrearing, geriatric care and intermediate health care needs of limited duration. The medical surgical health problems include care for the client in the perioperative period and the client experiencing orthopedic and simple genito-urinary conditions. The course addresses several psychiatric disorders: anxiety and cognitive disorders, common child and adolescent psychiatric disorders. The student will have clinical rotations that provide experience caring for the childbearing family as well as caring for medical-surgical clients across the lifespan. Theory: 60 hours Clinical: 180 hours.

NUR* K103 - Pharmacology for Families across the Lifespan °

1 CREDIT HOUR
Prerequisites: NUR K101; BIO* K235; PSY* K111.*
Corequisites: NUR K102; PSY* K201; SOC* K101.*
The student will focus on the safe use, pharmacological principles, indications and nursing implications related to drug therapy when caring for individuals and families. Emphasis will be placed on medications used with perinatal, neonatal, pediatric, geriatric and peri-operative clients. The course will stress the general characteristics of selected

medications and will include indications, pharmacokinetics, side effects, adverse effects, contraindications, administration, nursing implications across the lifespan, client education and relationship to prior learning. Theory: 15 hours.

Total: 15

Semester III

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

NUR* K201 - Nursing Care Of Individuals And Families I °

9 CREDIT HOURS
Prerequisites: NUR K102; NUR* K103; (or for LPN Articulation NUR* K131); PSY* K201; SOC* K101; BIO* K211; BIO* K212; ENG* K101 or ENG* K101S.*
Corequisites: NUR K202 and ENG* K102.*
The student will focus on holistic care of individuals and families across the lifespan with a variety of health care needs. The needs of clients experiencing endocrine, respiratory, gastrointestinal, cardiovascular conditions and selected mental health disorders are examined. Bioterrorism as a health care issue will be addressed. Clinical laboratory experience provides the student an opportunity to administer care to a diverse population of clients in a variety of acute care and community health care settings. The student will utilize critical thinking, caring, professionalism and communication skills in the care of the client. Emphasis is placed on provision of safe and competent care and development of the professional role as a member of a multidisciplinary health care team. Over the semester, the student is increasingly challenged with more complex client assignments in the clinical area. Theory: 60 hours Clinical: 225 hours.

NUR* K202 - Pharmacology for Individuals and Families with Intermediate Health Care Needs °

1 CREDIT HOUR
Prerequisites: NUR K102; NUR* K103 (or for LPN Articulation NUR* K131; PSY* K201; SOC* K101; BIO* K211; BIO* K212; ENG* K101 or ENG* K101S.*
Corequisites: NUR K201 and ENG* K102.*
The student will focus on pharmacologic principles related to the care of individuals and families across the lifespan with intermediate health care needs. Emphasis will be placed on medications used for clients who have endocrine, gastrointestinal, respiratory, cardiovascular, autoimmune, and psychiatric conditions and clients who are survivors of bioterrorism. Theory: 15 hours.

Total: 13

Semester IV

NUR* K203 - Nursing Care of Individuals And Families II °

8 CREDIT HOURS
Prerequisites: NUR K201; NUR* K202; ENG* K102.*
Corequisites: NUR K204; NUR* K205; a Humanities or Fine Arts elective.*
The student will focus on the holistic care of individuals, families, and groups with complex health care needs. The student will incorporate critical thinking, caring behaviors, professionalism, and communication skills when providing nursing care in a variety of acute, long-term and/ or community settings. The student will have an opportunity to manage a multi-client assignment with an emphasis on safe and competent practice. An observational experience with a visiting nurse agency, a dialysis unit and/or a cancer center will be provided. Theory: 45 hours Clinical: 225 hours.

NUR* K204 - Pharmacology for Individuals, Families and Groups with Complex Health Care Needs °

1 CREDIT HOUR
Prerequisites: NUR K201; NUR* K202; ENG* K102.*
Corequisites: NUR K203; NUR* K205; a Humanities or Fine Arts elective.*
The student will focus on safe use, pharmacologic principles, indications and nursing implications related to drug therapy in the care of individuals, families, and groups with complex health care needs. Emphasis will be placed on medications used for clients who have acute and chronic renal failure, oncology and neurological conditions, and multi-system dysfunction and clients who choose an alternative therapy. Theory: 15 hours.

NUR* K205 - Nursing Management and Trends °

2 CREDIT HOURS
Prerequisites: NUR K201; NUR* K202; ENG* K102.*
Corequisites: NUR K203; NUR* K204; a Humanities or Fine Arts elective.*
The student will explore the basic principles of management, leadership and collaborative relationships as they relate to providing safe and competent care. The focus is on the utilization of critical thinking skills to make decisions, priority setting, delegation, legal parameters of nursing practice and ethical issues. The student will expand the concept of caring to the profession of nursing through collegial and interdisciplinary communication. The course facilitates the transition of the student into the profession and his/her role in contemporary nursing practice. Theory: 30 hours.

- _____- Humanities or Fine Arts Elective **3 CREDIT HOURS** #

Total: 14

Note:

Students must be enrolled in the Nursing program in order to enroll in Nursing courses.

° Course has a prerequisite. Students should check course description.

May be taken prior to admission to the nursing program.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 68

Nursing, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. integrate the principles of the natural, physical, social, biological and behavioral sciences and nursing theory to provide holistic care to individuals, families and groups across the wellness-illness continuum.
2. integrate nursing process and critical thinking skills for decision making in nursing practice.
3. provide safe and competent care to clients utilizing evidenced-based practice, quantitative reasoning and technological proficiency.
4. integrate effective communication skills through professional interactions with individuals, families, groups and the health care team.
5. create an environment where therapeutic interventions reflect a respect for human dignity.
6. collaborate as a member of a multidisciplinary health team.
7. integrate accountability and responsibility for practice within the legal and ethical standards of the nursing profession.
8. function in the professional role utilizing current standards of nursing practice.

Waiver of Licensure Guarantee

Upon successful completion of the Associate of Sciences degree with a major in Nursing, the graduate is eligible to take the National Council of State Boards of Nursing's Licensure Examination for Registered Nurse (NCLEX-RN). Graduation from the CT-CCNP does not guarantee licensure to practice nursing. Licensure requirements and procedures are the responsibility of the Connecticut Department of Public Health, State Board of Examiners for Nursing. Permission to take the NCLEX-RN examination is established by law and granted by the Connecticut State Board of Examiners for Nursing.

Felony Conviction

At the time of application for RN licensure an applicant will be asked the following question by the Connecticut Department of Public Health: "Have you ever been found guilty or convicted as a result of an act which constitutes a felony under the laws of this state, federal law or the laws of another jurisdiction and which, if committed within this state, would have constituted a felony under the laws of this state? If your answer is "yes", give full details, dates, etc., on a separate notarized statement and furnish a Certified Court Copy (with court seal affixed) or the original complaint, the answer, the judgment, the settlement, and/or the disposition."

Pathway to Teaching Careers, A.A.

Degree Code: C35

Associate in Science

Program Contact: Jennifer Nally - 860-215-9421

This program is designed to provide education and experiences which will allow students to transfer to Eastern Connecticut State University, and to meet the requirements to be accepted into a teacher training program. The field of education is a growing profession. The National Center for Education Statistics predicts increases in the annual numbers of new school teacher hires, both in public and private schools. This transfer program closely parallels the core requirements of the first two years of most four-year college teacher preparation programs in Connecticut. Students are advised to review the requirements of the transfer institution prior to course selection.

Pathway to Teaching Careers Curriculum Requirements

Composition, Literature and Speech: 9 CREDIT HOURS

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

Fine Arts: 3 CREDIT HOURS

Select one course from the following:

ARC* K102 - Architecture of the World

3 CREDIT HOURS
The course offers a global perspective of buildings, their settings, and the dissemination of ideas about architecture from the late Neolithic period to the present. Particular attention is given to the relationships of architectural expression, meaning and building technology and to issues arising when architectural traditions of one culture are imposed upon or otherwise adapted by another. Students will explore the impact of climate, economy, philosophy, social structure and technology on architecture by becoming familiar with some of the world's major monuments in architectural history. The course also integrates the visual arts that paralleled each era, exploring the fundamental elements of each movement as illustrated through aesthetic expression.

ART* K107 - Introduction to Studio Art

3 CREDIT HOURS
This is a course covering the fundamentals of visual art through hands-on experience. The course includes basic design and composition, color theory, study of three-dimensional form, and a thorough exploration of the creative process through the use of a wide variety of media and techniques, including drawing, painting, collage and mixed media sculpture. Not recommended for art majors. Meets 3 hours per week.

ART* K111 - Drawing I

3 CREDIT HOURS
This course is an introduction to basic drawing skills. The course includes work with still life, landscape, self-portrait, and interior space in black and white media. Emphasis is placed on the importance of drawing through careful observation. A variety of techniques and styles are covered to arrange compositions and create the illusion of volume and perspective. Studio: Meets 6 hours per week.

ART* K121 - Two-Dimensional Design

3 CREDIT HOURS
This course is an introduction to the theory and practice of two-dimensional design. Students will use the principles of design as an expressive tool to communicate visually. A variety of black and white and color mediums will be used including drawing, painting and collage. Studio: Meets 6 hours per week.

THR* K101 - Introduction to Theater °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a basic survey of theatre including: the literature, history, structure, critical theory, theatre arts, and important figures. Note: This course satisfies the fine arts requirement.

THR* K110 - Acting I

3 CREDIT HOURS
Acting is the art of giving tangible life to the characters in a play. To do this actors use their physical, mental, and emotional apparatus individually and in concert with their peers. This course deals with these basic issues as well as the many other related topics that arise naturally from them.

THR* K121 - Play in Production I

3 CREDIT HOURS
This course will examine all aspects of production of a play. Students will work within the limitations of the college environment and explore stage management, publicity, costuming, makeup, limited set design, lighting, script analysis, and of course, acting. One play will be the focus of the course and will be presented at the end of the session.

MUS* K104 - World Music °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
A comparative survey of musical concepts, style, and performance practices of various world cultures. Course content

will emphasize the context of musical expression within the different cultures examined. This course is equivalent to ANT* K136. Course fulfills International/ Intercultural Requirement.

ANT* K136 - Music Cultures of the World °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
A comparative survey of musical concepts, style, and performance practices of various world cultures. Course content will emphasize the context of musical expression within the different cultures examined. This course is equivalent to MUS* K104. Course fulfills International/ Intercultural Requirement.

Humanities (Foreign Language Requirement): 6 CREDIT HOURS

- Two semesters of the same foreign language are required. Only **Liberal Arts and Sciences electives** may be substituted if two years of the same language, with a grade of "C" or better, were completed at the high school level. High school transcript and college verification required for substitution.
- _____ **3 CREDIT HOURS**
- _____ **3 CREDIT HOURS**

Mathematics: 6 CREDIT HOURS

MAT* K137 - Intermediate Algebra °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "B-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course cultivates understanding and different representations of functions. Topics covered include linear, quadratic, exponential, rational, radical functions, equations, and expressions with emphasis on modeling and solving real world problems. A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). Please refer to online schedule and click on the CRN hyperlink and/or review the printed schedule to determine which faculty require math software in their section.

MAT* K143 - Math for Elementary Education: Algebra and Number Systems °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. A TI-84(Plus) or TI-83(Plus) or TI-82 or TI-73 graphing calculator is strongly recommended.*
This course is designed for students planning to become certified in early childhood, elementary or middle school level education. Problem solving strategies will be developed and integrated throughout, in accordance with the NCTM Principles and Standards for School Mathematics. Topics include conceptual and relational understanding of the real numbers, including the subsets of whole numbers, integers, rational and irrational numbers, with an emphasis on place value and the associated operations. Topics from numeration systems, number theory and set theory will be developed as needed, with regular use of manipulatives and technology.

or

MAT* K146 - Math for the Liberal Arts °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-*

measures assessment process and eligible for either ENG K101S or ENG* K101.*
This is a survey course designed to acquaint the liberal arts student with a broad spectrum of mathematical ideas not emphasized in traditional algebra courses. As a terminal mathematics course, it conveys the nature and diversity of mathematics, its methods, applications, and roles in society. Topics are selected from problem solving and critical thinking skills, graph theory, voting and apportionment, introduction to probability, linear programming, patterns and symmetry, linear and exponential applications; others may include fractal geometry, financial management, fair division schemes, game theory, or codes.

Sciences: 4 CREDIT HOURS

Select one course from the following:

AST* K111 - Introduction to Astronomy °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S with a "C" grade or better; MAT* K095 or MAT* K095I with a "C#" grade or better.*
In addition to understanding the mechanisms involved in ascertaining distance, temperature and movements of celestial bodies, students will be able to orientate themselves with the night sky by using constellations as guides. This material will also cover the ideas that account for the earth and heavenly bodies and their characteristics. This course is designed to develop an appreciation of the beauty and order of the universe. The laboratory portion of the course consists of activities in elementary astronomy designed to reinforce and extend knowledge of selected topics covered in the lecture portion of the course. Students who have taken AST* K101 will not receive credit for this course.

BIO* K115 - Human Biology

4 CREDIT HOURS
Corequisite: ENG K096 or higher. Please note: if completing ENG* K096 prior to enrolling in BIO* K115, a grade of "C#" or better is required for registration into this course.*
This introductory course focuses on a presentation of human structure and function, including a survey of the body's system for students who want to be more knowledgeable about the life processes of their own bodies. Lab procedures do not involve animal dissections. This course does not meet the pre-admission requirement for the Nursing Program. Three-hour lecture; one three- hour laboratory period.

EAS* K110 - The Earth Sciences

4 CREDIT HOURS
Corequisite: ENG K096. Please note: if completing ENG* K096 prior to enrolling in EAS* K110, a grade of "C#" or better is required for registration into this course.*
In this course, scientific studies of earth systems will be discussed. The topics to be covered will include astronomy, meteorology, geology, and oceanography. The fundamental principles of all four disciplines will be explored. This course is designed for students majoring in education or business, or any student desiring to meet the lab science requirement for the LAS degree. Some fieldwork is involved. Three hours lecture, three hours lab each week.

Earth or Physical Science: 3 CREDIT HOURS

Select one course from the following:

AST* K101 - Principles of Astronomy

3 CREDIT HOURS
Corequisite: ENG K096 or higher. Please note: if completing ENG* K096 prior to enrolling in AST* K101, a grade of "C#" or better is required for registration into this course.*
This course covers the ideas that account for the earth and heavenly bodies and their characteristics. This course is designed to develop an appreciation of the beauty and order of the universe. Observational exercises, including star identifications and use of the telescope, are included.

CHE* K111 - Concepts of Chemistry °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K137 or MAT* K137S with a "C" grade or better (or permission of the instructor on math requirement).*
This course offers a brief and comprehensive survey of important chemical theories and some of the applications of chemistry. Topics covered will include measurements in chemistry, atomic structures and chemical bonding, chemical reactions, states of matter, stoichiometry, theories of solution, and basic organic and biochemical concepts. Course Design: CHE* K111 is meant for students with little or no background in chemistry who need the course in preparation for General Chemistry, or for students who need to meet a pre-admission requirement for nursing or other allied health programs, or those who need a lab science course.

OCE* K101 - Oceanography

3 CREDIT HOURS
Corequisite: ENG K096 or higher. Please note: if completing ENG* K096 prior to enrolling in OCE* K101, a grade of "C#" or better is required for registration into this course.*
This course covers the following topics: properties of sea water, marine ecology, waves, tides, currents, meteorology, ocean circulation, origin of the Long Island Sound, chemical oceanographic processes, life in the sea, and environmental modification and control.

Social Sciences: 9 CREDIT HOURS

HIS* K201 - U.S. History I °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a survey of American history from colonial times to 1877 including the major political, economic, social, cultural, and diplomatic developments in American history, such as the revolution, the Constitution, Jefferson, Hamilton, Jackson, Sectionalism, slavery, mid-century expansionism and the Civil War, and Reconstruction.

or

HIS* K202 - U.S. History II °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
ey of United States history from Reconstruction to Bush with special emphasis on the development of the American economy, United States expansionism, race relations, the world wars, women's rights, the cities, the sixties, the depression, the Cold War, Watergate, Vietnam, and the 1980's. (HIS* K201 is not a prerequisite course for HIS* K202).

PSY* K111 - General Psychology I

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course provides an overview of the theories and research findings pertaining to scientific psychology with an emphasis on: the origins of psychology, nature and nurture, human diversity, theoretical models, research methodology, biological bases of thought and behavior, learning theory, sensation and perception, memory, stress and health as well as emotion and motivation.

SOC* K101 - Principles of Sociology

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a study of the major concepts used in the field of sociology. The nature of institutions will be examined both individually and in their dynamic interrelationship. Emphasis is placed on understanding the impact of society on our lives, and on increasing our effectiveness in controlling our destinies within it.

Education: 15 CREDIT HOURS

EDU* K110 - Teaching In the 21st Century °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor or program coordinator.*
This course is designed for students considering education as a major and teaching as a profession. Students will have an opportunity to experience primary, middle and secondary education through site visits, guest speakers and varied media. Students will obtain a systematic body of knowledge from which they can develop a repertoire of teaching practices to meet the learning needs of students with diverse learning styles, developmental needs, cultural and socioeconomic backgrounds.

ECE* K182 - Child Development °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better or permission of the program coordinator based on ECE work experience.*
This course presents the basic principles, current research, and traditional theories of child development, from the prenatal period to the onset of adolescence, with an emphasis on the earlier years of childhood. Students will be guided in the development of a scientific and objective attitude toward the interpretation of child behavior and will study various methods of conducting research in child development. They will observe children and analyze their behavior in each of the following areas: physical abilities and motor skills, cognitive abilities, as well as social and emotional development. An additional 10 hours of field observations will be required outside of class.

or

PSY* K200 - Child Psychology °

3 CREDIT HOURS
Prerequisite: PSY K111.*
This course presents the basic principles, current research and traditional theories of child development, from the prenatal period to the onset of adolescence, with an emphasis on the earlier years of childhood. Students will be guided in the development of a scientific and objective attitude toward the interpretation of child behavior and will study various methods of conducting research in child development. They will observe children and analyze their behavior in each of the following areas: physical abilities and motor skills, cognitive abilities as well as social and emotional developments.

BBG* K115 - Business Software Applications °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K123 or higher with a "C" grade or better.*
Using Microsoft Suite application software, students in this hands-on course will learn to use each of the software packages as they relate to the business environment. These software packages include an emphasis on Excel to build flexible spreadsheets used in business decision making, supplemented with Word to produce professional-looking documents, Access to select and analyze data to produce valid results, and Powerpoint to effectively present and communicate.

HLT* K155 - Personal Health °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This is a course on the physiological principles involved in the maintenance of individual health. Students will learn principles of hygiene, nutrition, communicable disease prevention, stress management, exercise, and other elements of personal life style that affects health.

PSY* K216 - Normal and Exceptional Child and Adolescent Development

3 CREDIT HOURS
Prerequisite: PSY K111 or PSY* K112.*
This course examines changes in the individual from conception through adolescence, including both typical and atypical aspects of physical, cognitive, linguistic, and social/ emotional development. Traditional and contemporary theories of psychology, as well as current research and methodology, will form the basis of the course content.

Other Electives: 6 CREDIT HOURS

Other/Electives (Courses applicable in the intended major, see advisor. Recommendations are ENG* K211 or above and other HIS course for elementary education)

- _____- Other Elective **3 CREDIT HOURS**
- _____- Other Elective **3 CREDIT HOURS**

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 61

Pathway to Teaching Careers, Associate in Arts Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. Work with others, think critically and gain an appreciation for learning.

2. Read, write, and communicate analytically in forms that involve the collection and documentation of outside sources.

3. Identify the role of the teacher in the classroom. Describe the route to becoming a successful teacher in Connecticut. List the requirements for teaching based on academic program requirements and state certification requirements.

4. Recognize broader historical, cultural, global and scientific perspectives as they relate to education.

5. Promote a respect for others, coupled with an understanding of ethical behavior and civic responsibility.

Sports and Leisure Management, A.S.

Degree Code: A10

Associate in Science

Program Coordinator: Heidi Zenie - 860-215-9485

This program is designed to provide knowledge in the areas of recreational management, fitness and training, nutrition, facility design and management, marketing, business law, accounting, and risk management. Students receiving this degree could pursue careers as Athletic Directors or Facilities Managers, or in careers in professional sports management or in travel and leisure.

Sports and Leisure Management Curriculum Requirements

Semester I

ACC* K115 - Financial Accounting °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement ∞ or completion of ENG* K096 with a "C#" grade or better. ∞; MAT* K095 or MAT* K095I with a "C#" grade or better.*

This course is designed to cover basic accounting theory and practice as applied to the complete accounting cycle, including the use of current accounting systems and procedures and the preparation of financial statements. The course also covers Long-term Assets, Current & Long-Term Liabilities, and Corporate Reporting and Analysis.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

RLS* K110 - Introduction to Sports Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course explores the field of Sports Management. The student will learn the history, current trends, and career opportunities. Other topics include: an introduction to sports law, event mangement, sports marketing, and ethics.

PSY* K111 - General Psychology I

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course provides an overview of the theories and research findings pertaining to scientific psychology with an emphasis on: the origins of psychology, nature and nurture, human diversity, theoretical models, research methodology, biological bases of thought and behavior, learning theory, sensation and perception, memory, stress and health as well as emotion and motivation.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

Total: 16

Semester II

BIO* K115 - Human Biology

4 CREDIT HOURS
Corequisite: ENG K096 or higher. Please note: if completing ENG* K096 prior to enrolling in BIO* K115, a grade of "C#" or better is required for registration into this course.*
This introductory course focuses on a presentation of human structure and function, including a survey of the body's system for students who want to be more knowledgeable about the life processes of their own bodies. Lab procedures do not involve animal dissections. This course does not meet the pre-admission requirement for the Nursing Program. Three-hour lecture; one three- hour laboratory period.

RLS* K101 - Introduction to Recreation and Leisure Services °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course surveys the organization and operation of recreational programs offered by community agencies, recreation service centers, industry, hospitals, camps and municipal and state recreation departments. Field experience to acquaint students with the nature and diversity of programs and services are included.

ECN* K101 - Principles of Macroeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces students to the basic concepts of the economic system. The first semester is primarily macroeconomics, with the emphasis on the economic thought process. Discussion of money and banking, national income, fiscal measures, and stabilizing the economy are all included.

HPE* K235 - Prevention Treatment of Athletic Injuries

3 CREDIT HOURS
This course covers risk management, injury prevention, medical conditions and disabilities and illnesses. Protective wrapping and strapping will be introduced. The course emphasizes the management of specific injuries, sports liability and basic rehabilitation. Student will become certified in First Aid and CPR/AED.

MAT* K146 - Math for the Liberal Arts °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process and eligible for either ENG* K101S or ENG* K101.*
This is a survey course designed to acquaint the liberal arts student with a broad spectrum of mathematical ideas not emphasized in traditional algebra courses. As a terminal mathematics course, it conveys the nature and diversity of mathematics, its methods, applications, and roles in society. Topics are selected from problem solving and critical thinking skills, graph theory, voting and apportionment, introduction to probability, linear programming, patterns and symmetry, linear and exponential applications; others may include fractal geometry, financial management, fair division schemes, game theory, or codes.

Total: 16

Semester III

RLS* K218 - Organization and Administration of Sport and Leisure °

3 CREDIT HOURS
Pre-requisite: RLS K101.*
This course will focus on the many administrative roles that an Athletic Director/ Manager assumes when developing, maintaining or improving sports programs. Topics will include facility design, staffing, equipment, operating practices, risk management, programming, budgeting and insurance.

BIO* K111 - Introduction to Nutrition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course covers the principles of nutrition, nutrients, their sources, the interaction between those nutrients and the human body, and the selection of adequate diets for different age groups.

BMK* K201 - Principles of Marketing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces the four elements of the marketing mix: product decisions, pricing decisions, promotional decisions and distribution decisions. Emphasis is on the importance of marketing research and consumer behavior in the formulation of marketing strategies. Students study marketing principles and practices as they are applied to consumer and industrial products and services as well as in not-for-profit organizations. Additional topics include marketing in a global economy, ethics, and marketing information systems. The marketing campaigns of small and large companies are discussed as practical examples. Students develop their own marketing plans using strategy and principles learned in the course.

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

HLT* K155 - Personal Health °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This is a course on the physiological principles involved in the maintenance of individual health. Students will learn principles of hygiene, nutrition, communicable disease prevention, stress management, exercise, and other elements of personal life style that affects health.

Total: 15

Semester IV

BBG* K231 - Business Law I °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course provides the student with an understanding of fundamental legal principles and their applications to business transactions and to individual rights and obligations. Crimes and torts are examined, and special emphasis is placed on the study of the law of contracts.

HPE* K247 - Aspects of Strength and Conditioning

3 CREDIT HOURS
Prerequisite: HPE K245 or BIO* K115.*

This course will offer the student an understanding of physiological adaptations seen with functional resistance and anaerobic exercise to improve daily function and performance-related health components (power, speed, agility, coordination, and balance). Students will be exposed to a variety of scientific principles associated with resistance training design, periodization and functional training. New training methods and equipment will also be discussed as part of the special topics component of this course.

BMG* K202 - Principles of Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Fundamental principles of management and business operations are discussed with emphasis placed on management orientation, policy making, practical problem analysis, and philosophy. Attention also centers on the following: planning, organizing, directing, controlling, budgeting functions, qualitative and quantitative decision-making and financial analyses.

- _____- Fine Arts Elective **3 CREDIT HOURS**
- RLS* K294- Sport and Leisure Management Practicum ° **1 CREDIT HOUR**

Total: 13

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

Sports and Leisure Management, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. demonstrate an understanding of management issues and trends in the sport and exercise field.
2. understand the connection between various management functions and coordination of agency resources, programs and resources.
3. apply the concept areas related to personnel process, including candidate recruitment, candidate selection, orientation, training and development and performance appraisal.
4. demonstrate a mastery of the basic principles, concepts and terminology of today's marketing strategy.
5. develop an awareness of the importance of marketing in today's competitive, consumer-oriented society.
6. understand the importance of societal issues of computer security risks, privacy risks, identity theft and technological impacts on our culture.
7. demonstrate knowledge of the history and principles governing business law in the United States.
8. evaluate target populations to further understand the needs and options of a variety of participants.
9. have knowledge of the concept of activities of daily living and its importance in the overall health of the individual.

10. analyze the developmental characteristics for each stage life stage that are the most relevant to the design and delivery of leisure and recreation service.
11. identify key aspects of facility and equipment maintenance and cleaning, implement appropriate maintenance and cleaning schedules.
12. evaluate various strategies for effectively scheduling of facilities and programs.
13. identify common areas of potential litigation in the strength and conditioning facility.
14. demonstrate knowledge and application of inventory (cost flows; periodic; perpetual) accounting and reporting.

Technology Studies, A.S.

Degree Code: F11

A College of Technology Pathway

The Connecticut College of Technology is an innovative program leading to a Bachelor of Science Degree in engineering or technology. The program consists of two distinct pathways, one in Engineering Science and one in Technology Studies. After completing the Technology Studies Pathway Program at Three Rivers, students may enter directly into technical fields at Central Connecticut State University or Charter Oak State College (Connecticut's External Degree Program). The Engineering Science Pathway leads directly into the School of Engineering at the University of Connecticut or the University of New Haven.

The pathway courses will transfer to engineering and technology programs at many other public and private universities as well.

Associate Degree

Program Contact: Mark Vesligaj - 860-215-9442

This program is designed for entry into Central Connecticut State University's School of Technology or Charter Oak State College. The "Technology Studies Pathway" consists of courses which provide the foundation for:

- A Bachelor of Science Degree from Central Connecticut State University in engineering technology, industrial technology or technology education.
- A Bachelor of Science Degree from Charter Oak State College. A minimum course grade of "C" and college credit, as described below, are required for continuing at CCSU's School of Technology or at Charter Oak.

Technolgy Studies Curriculum Requirements

General Education:

Arts/Humanities

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also

exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

- _____- Fine Arts Elective **(art, music) 3 CREDIT HOURS**
- _____- Philosophy Elective **3 CREDIT HOURS**

Total: 15

Math and Science

CHE* K111 - Concepts of Chemistry °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K137 or MAT* K137S with a "C" grade or better (or permission of the instructor on math requirement).*
This course offers a brief and comprehensive survey of important chemical theories and some of the applications of chemistry. Topics covered will include measurements in chemistry, atomic structures and chemical bonding, chemical reactions, states of matter, stoichiometry, theories of solution, and basic organic and biochemical concepts. Course Design: CHE* K111 is meant for students with little or no background in chemistry who need the course in preparation for General Chemistry, or for students who need to meet a pre-admission requirement for nursing or other allied health programs, or those who need a lab science course.

or

CHE* K121 - General Chemistry I °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K172 and high school chemistry or CHE* K111 all passed with a "C" grade or better; or permission of the instructor or department chairperson.*
Corequisite: MAT K186.*
In this course, students will study the fundamental principles, theories, and laws of chemistry. Topics include

atomictheory and the structure of the atom, the aggregated states of matter, kinetic molecular theory, chemical bonding, stoichiometry and periodicity, solutions, and colloids. Three- hour lecture; one three-hour laboratory period.

MAT* K167 - Principles of Statistics °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. Please refer to online schedule and click on the CRN hyperlink and/or review printed schedule in determining which faculty require math software in their course(s).*
This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations and confidence intervals.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

PHY* K114 - Mechanics °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172.*
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry. Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion. Three-hour lecture; one two-hour laboratory.

Total: 15

Social/Behavioral Sciences

- _____- Behavioral Sciences Elective **(psychology or sociology) 3 CREDIT HOURS**
- _____- Social Sciences Elective **(economics or history recommended) 3 CREDIT HOURS**
- _____- Social Sciences Elective **(geography, political science or history recommended) 3 CREDIT HOURS**
- _____- Social Sciences Elective **(economics recommended) 3 CREDIT HOURS**

Total: 12

Specialized Core

Total: 9

Options

- _____- Technical Elective **3 CREDIT HOURS**
- _____- Technical Elective **3 CREDIT HOURS**
- _____- Technical Elective **3 CREDIT HOURS**
- _____- Technical Elective **3 CREDIT HOURS**
- _____- Technical Elective **3 CREDIT HOURS**

Total: 15

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 66

Technology Studies, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. transition seamlessly into a Bachelor of Science Degree Program in Technology with junior level status in the receiving institution as part of the Technology Studies Pathway Program.
2. demonstrate team-oriented skills that permit effective participation in multicultural work and social environments.
3. apply appropriate mathematical and scientific principles to industrial technology applications.
4. perform competently in mathematics.
5. express ideas effectively through written and oral communications.
6. demonstrate proficiency in technical fundamentals to analyze industrial technology problems and make appropriate decisions.
7. maintain a practical knowledge of state-of-the-art hardware and software.
8. apply skills and knowledge to effectively and efficiently plan, organize, implement, measure and manage technology.
9. demonstrate a thorough knowledge and understanding of engineering graphics as well as conventional drafting practices, such as orthographic and isometric projection, section, detail, auxiliary views, descriptive geometry, as well as geometric dimensioning and tolerancing basics.
10. demonstrate a high level of proficiency in the use of stateof- the art computer aided design (CAD) software and be able to respond positively to continuous software revisions and upgrades.

Technology Studies: Biomolecular Science Option, A.S.

Degree Code: F21

A College of Technology Pathway

The Connecticut College of Technology is an innovative program leading to a Bachelor of Science Degree in engineering or technology. The program consists of two distinct pathways, one in Engineering Science and one in Technology Studies. After completing the Technology Studies Pathway Program at Three Rivers, students may enter directly into technical fields at Central Connecticut State University or Charter Oak State College (Connecticut's External Degree Program). The Engineering Science Pathway leads directly into the School of Engineering at the University of Connecticut or the University of New Haven.

The pathway courses will transfer to engineering and technology programs at many other public and private universities as well.

Associate in Science

Program Contact: Mark Vesligaj - 860-215-9442

This option will create a new area of emphasis for the College of Technology, providing an area of specialty for students who wish to go into a biomolecular science career as a laboratory technician and/or pursue a baccalaureate degree through the Pathways program at Central Connecticut State University in Biomolecular Sciences. The associate's degree can also serve as a career-oriented degree for students who choose to enter workforce in various laboratory environments such as an academic research laboratory, environmental laboratory, or medical laboratory.

Biomolecular Science Option Curriculum Requirements

General Education:

Arts/Humanities

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ECN* K102 - Principles of Microeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces students to microeconomics theory, with a focus on understanding how business, social, and policy decisions are made. The basic theories of distribution of income, international economics, labor, and comparative economic systems are studied.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

- HIS* K___- History Elective **3 CREDIT HOURS**

PHL* K111 - Ethics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course will cover the fundamentals of ethics, including an introduction to the origins and nature of moral right and responsibility. Students will analyze and formulate positions on contemporary ethical issues.

- _____- Fine Arts Elective **3 CREDIT HOURS**
- _____- GEO* or POL* Elective **3 CREDIT HOURS**
- _____- PSY* or SOC* Elective **3 CREDIT HOURS**

Total: 27

Math and Science Core

CHE* K121 - General Chemistry I °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K172 and high school chemistry or CHE* K111 all passed with a "C" grade or better; or permission of the instructor or department chairperson.*
Corequisite: MAT K186.*
In this course, students will study the fundamental principles, theories, and laws of chemistry. Topics include atomictheory and the structure of the atom, the aggregated states of matter, kinetic molecular theory, chemical bonding, stoichiometry and periodicity, solutions, and colloids. Three- hour lecture; one three-hour laboratory period.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*

The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

PHY* K121 - General Physics I °

4 CREDIT HOURS
Prerequisite: MAT K186. A prior physics (PHY* K114 or high school physics) strongly recommended.*
This course will cover the fundamental principles of classical mechanics, properties of matter, heat, harmonic motion, waves, and sound.

Total: 12

Specialized Core

BIO* K121 - General Biology I °

4 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Corequisites: CHE K111 or CHE* K121, either course with a "C" grade or better; or permission of the department chair. Please note: If completing CHE* K111 or CHE* K121 prior to enrolling in BIO* K121, a grade of "C" or better is required for registration into this course.*
This course introduces the major principles and concepts of modern biology. Topics to be covered include molecular and cellular biology, cell division, cellular transport systems, cellular metabolism, the specialization and differentiation of both plant and animal cells, and modern genetics. Three-hour lecture; one three-hour laboratory period.

BIO* K122 - General Biology II °

4 CREDIT HOURS
Prerequisite: BIO K121 with a "C" grade or better or permission of the instructor.*
Corequisite: None required; CHE K122 is recommended.*
This course is a continuation of General Biology I. Topics to be covered include taxonomy, the diversity of life forms from the microbes to the animals, the structures and functions of both plant and animal systems, as well as ecology, ecosystems and evolution. (For transfer credit, student should take both BIO* K121 and BIO* K122.) Three-hour lecture; one three-hour laboratory period.

PHY* K122 - General Physics II °

4 CREDIT HOURS
Prerequisites: MAT K186 and PHY* K121.*
This course will cover the fundamental principles of electricity and magnetism, AC & DC circuits, electromagnetic fields and waves, optics, relativity and quantum and atomic physics.

Total: 12

Options:

Please choose four courses from the following specialized electives:

BIO* K235 - Microbiology °

4 CREDIT HOURS
Prerequisites: BIO K121 and CHE* K111 or CHE* K121 or permission of the instructor, all courses passed with a "C" grade or better. BIO* K122 is recommended.*
This course covers a comprehensive study of microorganisms. Topics covered will include the basic characteristics, morphology, physiology, growth, reproduction, and genetics of bacteria, as well as a brief taxonomical survey of the following microbial life forms: Archaea, Eubacteria (Cyanobacteria, Mycoplasms, Rickettsia, Chlamydia), Fungi, Algae, Protozoans, and Viruses. Emphasis will be on species that affect humans. Laboratory activities will include various techniques of staining, culturing, and isolating bacteria. The morphology and metabolic processes of select microbial groups will be studied. Students will learn to apply various modern bio- techniques that are used for controlling the growth of microbes, and to identify unknowns. Three hours of lecture; three hours of lab each week.

BIO* K260 - Principles of Genetics °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; MAT* K137 or MAT* K137S; BIO* K121; CHE* K111 or CHE* K121; all courses passed with a "C" grade or better.*
This course is designed to cover the basic concepts of genetics, including the theory of chromosomes, classical Mendelian inheritance, principles of human genetics, the genetic code, the role of the nucleic acids in gene expression, genetic mutations, and topics in modern genetics in areas such as recombinant DNA, biotechnology, gene mapping and diagnosis of human genetic disease.

or

BIO* K262 - Genetics °

4 CREDIT HOURS
Prerequisites: BIO K121; BIO* K122; MAT* K186 or higher; CHE* K111 or CHE* K121 & CHE* K122; or completion of BIO* K121, MAT* K137 or MAT* K137S, CHE* K111 or CHE* K121 and the written permission of the instructor, ALL courses passed with a "C" grade or better.*
This introductory course covers the basic principles, theories and laws of heredity. Topics to be covered will include mitosis, meiosis, DNA & RNA and their role in protein synthesis, chromosomes, genes, recombinant DNA, and Mendelian and Human Genetics. Laboratory experience will incorporate the use of fruit flies to examine the ways in which traits are inherited, as well as gel electrophoresis and recombinant DNA procedures to explore modern concepts of cytogenetic technology.

- BIO* 264 - Molecular and Cellular Biology

CHE* K122 - General Chemistry II °

4 CREDIT HOURS
Prerequisites: CHE K121 with a "C" or better; MAT* K186 with "C" grade or better.*
This course includes further study of the principles, theories, and laws of chemistry. Topics include thermo-chemistry, kinetics, chemical equilibrium, oxidation reduction and electro-chemistry, introduction to organic and nuclear chemistry, and the chemistry of the elements and their compounds. Three-hour lecture; one three-hour laboratory period. CHE* K121 - General Chemistry I ° and II are ordinarily both taken for transfer credit.

CHE* K211 - Organic Chem I

4 CREDIT HOURS
Prerequisites: CHE K121 and CHE* K122, courses passed with a "C" grade or better.*
This course is a comprehensive study of organic compounds. Topics covered will include bonding, formulation and

molecular shapes of organic molecules, reaction mechanisms, and nomenclature. Reactions of alkanes, cyclolkanes, alkenes, alkynes, and aromatic hydrocarbons will be presented. The laboratory exercises will be integrated with the theory through preparations and reactions. Three-hour lecture; one three-hour lab period each week.

CHE* K212 - Organic Chemistry II

4 CREDIT HOURS
Prerequisite: CHE K211 with a "C" grade or better.*
A continuation of CHE* K211 that covers organic compounds having key functional groups such as alcohols, organic halides, ethers, aldehydes, ketones, carboxylic acids, carboxylic acid derivatives, and amines. The classifications of compounds, classic named reactions and stereochemistry will be presented. Laboratory exercises will include preparation and reactions of alcohols, alky halides, ethers, esters, aldehydes, ketones, carboxylic acids, and amines. Three-hour lecture; one three-hour lab each week.

MAT* K254 - Calculus I °

4 CREDIT HOURS
Prerequisite: MAT K186 with a 'C" grade or better.*
This is a first course in the calculus sequence intended for students who plan on majoring in mathematics, physical sciences, or engineering technology. Topics include: rate of change, limits, continuity, differentiation of algebraic, trigonometric, exponential, and logarithmic functions, differentials, applications of differentiation, definite and indefinite integrals, and applications of integration.

Total: 16

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 67

Technology Studies, Biomolecular Science Option, Associate in Science Degree Program Outcomes

In addition to the outcomes listed for the Technology Studies degree, students who complete the Biomolecular Science Option will be able to achieve the following outcomes:

1. understand and apply the scientific method.
2. comprehend and apply basic techniques of scientific investigation.
3. complete laboratory analyses, compile data, and construct technical reports.
4. understand the classifications of organisms in the six kingdoms.
5. complete a systematic study of human anatomy and physiology.
6. understand and apply the principles of microbiology.

7. understand and the principles and implications of genetics and research.

Technology Studies: Computer Aided Design Option, A.S.

Degree Code: F15

A College of Technology Pathway

The Connecticut College of Technology is an innovative program leading to a Bachelor of Science Degree in engineering or technology. The program consists of two distinct pathways, one in Engineering Science and one in Technology Studies. After completing the Technology Studies Pathway Program at Three Rivers, students may enter directly into technical fields at Central Connecticut State University or Charter Oak State College (Connecticut's External Degree Program). The Engineering Science Pathway leads directly into the School of Engineering at the University of Connecticut or the University of New Haven. The pathway courses will transfer to engineering and technology programs at many other public and private universities as well.

Associate Degree

Program Contact: Mark Vesligaj - 860-215-9442

Computer Aided Drafting and Design is a technology that is reliant upon basic drafting technologies that have emerged with technological advances in the computer world. The proposed CADD Engineering Associate Degree supports Three Rivers Community College's purpose and mission.: The mission of Three Rivers Community College is to :"Meet the diverse educational needs of the community by creating an environment that stimulates learning. The college provides educational opportunities that are affordable and accessible. Additionally, Three Rivers develops regional partnerships and initiatives that contribute to the educational, economic, and cultural growth of Southeastern Connecticut." The curriculum for the CADD Engineering Associate Degree is structured to prepare individuals for positions as Drafters and Designers.

Computer Aided Design Option Curriculum Requirements

General Education:

Arts/Humanities

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for

the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

- _____- Fine Arts Elective **3 CREDIT HOURS**
- _____- Philosophy Elective **3 CREDIT HOURS**

Total: 15

Math and Science Core

CHE* K111 - Concepts of Chemistry °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K137 or MAT* K137S with a "C" grade or better (or permission of the instructor on math requirement).*
This course offers a brief and comprehensive survey of important chemical theories and some of the applications of chemistry. Topics covered will include measurements in chemistry, atomic structures and chemical bonding, chemical reactions, states of matter, stoichiometry, theories of solution, and basic organic and biochemical concepts. Course Design: CHE* K111 is meant for students with little or no background in chemistry who need the course in preparation for General Chemistry, or for students who need to meet a pre-admission requirement for nursing or other allied health programs, or those who need a lab science course.

or

CHE* K121 - General Chemistry I °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K172 and high school chemistry or CHE* K111 all passed with a "C" grade or better; or permission of the instructor or department chairperson.*
Corequisite: MAT K186.*
In this course, students will study the fundamental principles, theories, and laws of chemistry. Topics include atomictheory and the structure of the atom, the aggregated states of matter, kinetic molecular theory, chemical bonding, stoichiometry and periodicity, solutions, and colloids. Three- hour lecture; one three-hour laboratory period.

MAT* K167 - Principles of Statistics °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. Please refer to online schedule and click on the CRN hyperlink and/or review printed schedule in determining which faculty require math software in their course(s).*

This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations and confidence intervals.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

PHY* K114 - Mechanics °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172.*
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry. Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion. Three-hour lecture; one two-hour laboratory.

Total: 15

Social/Behavioral Sciences

- _____- Behavioral Sciences Elective **(psychology or sociology) 3 CREDIT HOURS**
- _____- Social Science Elective **(economics or history recommended) 3 CREDIT HOURS**
- _____- Social Science Elective **(geography, political science or history recommended) 3 CREDIT HOURS**
- _____- Social Science Elective **(economics recommended) 3 CREDIT HOURS**

Total: 12

Specialized Core

CAD* K106 - Basic CAD - AutoCad

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S or higher*
This course, with the included lab, exposes the student to the current means of generating graphic images with computers. Topics covered include CAD* overview, computer terminology, hardware descriptions and requirements, file manipulation and management, 2D and 3D geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail, and assembly drawings.

CAD* K107 - Computer-Aided Drafting Lab

2 CREDIT HOURS
Corequisite: CAD K106.*
This laboratory utilizes software in an IBM-PC environment. Topics given in the lecture will be learned through solving application problems on the computer.

CSA* K105 - Introduction to Software Applications °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces some popular software packages currently being used in industry, business, and government such as Microsoft Word, Excel, Access, and PowerPoint. A small amount of time will be devoted to the Windows operating system environment. Recent versions of the software packages will be used. Strong reading, good writing, and basic math skills are required. Prior computer usage experience (e.g. keyboard and mouse actions, file and folder management, Internet browsing) is assumed. Digital learning technologies will be used throughout the course.

MEC* K114 - Statics °

3 CREDIT HOURS
Prerequisites: MAT K172 and PHY* K114.*
Corequisite: MAT K186.*
This course helps students develop the ability to analyze problems using the basic principles of static systems in order to provide a foundation for stress analysis. The forces on structures in equilibrium and concepts of centroids, center of gravity, and moment of inertia are studied. The concept of stress and strain in axial torsional and bending loading is also introduced.

Total: 9

Option Courses

Please choose 5 courses from the following course options:

CAD* K130 - Computer-Aided Drafting - Industrial °

1 CREDIT HOUR
Prerequisites: CAD K106/CAD* K107 and the latest CAD release working knowledge.*
Corequisite: CAD K131.*
This course allows students to continue to learn and practice industrial drafting concepts using a CAD system. Typical industrial topics such as threads, gears, cams, piping systems, structural, welding, jigs, fixtures, and assembly are given as problems for the student to solve.

CAD* K131 - Computer-Aided Drafting - Industrial Lab °

2 CREDIT HOURS
Prerequisites: CAD K106/CAD* K107 and the latest CAD release working knowledge.*
Corequisite: CAD* K130.
There is a CAD station for each student to use to solve the application problems given. Typical problems will be preparing drawings utilizing the topics in lecture.

CAD* K202 - CAD Advanced Topics

3 CREDIT HOURS
Prerequisites: **CAD* K106**
Corequisite: MAT K137 or MAT* K137S or higher*
This course is designed to expose the student to advanced CAD techniques. Typical topics will include three dimensional drawing, solid modeling, rendering, and customizing AutoCAD.

MEC* K152 - Fundamentals of Engineering Graphics °

1 CREDIT HOUR
Prerequisite: MAT K095 OR MAT* K095I or higher.*
Corequisite: MEC K153.*
This course teaches the basic concepts of orthographic projection, isometric, and oblique drawings and basic drafting terminology. Emphasis will also be placed on free hand sketching using the above concepts and terminology. Basic principles of simplified board drafting practices will be covered. A major component of this course will focus on descriptive geometry which will nurture the visualization skills of students by identifying points, planes, and perpendiculars in various perspectives. Some of the techniques will be accompanied with CAD as a comparison.

MEC* K153 - Fundamentals of Engineering Graphics Lab °

2 CREDIT HOURS
Prerequisite: MAT K095 OR MAT* K095I or higher.*
Corequisite: MEC K152.*
This lab and accompanying lecture is designed to introduce students to the concept of applying mechanical design principles with computer designed techniques and capabilities. This course teaches the basic concepts of orthographic projection, isometric, and oblique drawings and basic drafting terminology. A component of this course will focus on descriptive geometry which will nurture the visualization skills of students by identifying points, planes and perpendiculars in various perspectives. Introducing the mechanical design software SolidWorks, this course begins to examine the basic functionally of drawing automation. One hour lecture/discussion and four hours of lab per week.

MFG* K239 - Geometric Dimensioning and Tolerancing °

3 CREDIT HOURS
Prerequisites: CAD K106/CAD* K107 and latest CAD release working knowledge.*
This course will introduce the concepts of Geometric Dimensioning and Tolerance with respect to design and inspection considerations. The entire content will be based upon the ASME Y14.5M- 1994 standards. The concepts of proper dimensioning and tolerance methods with clear distinct outcomes will be defined. The use of computer aided drafting will aid in the delivery of the GDT concepts. This course is equivalent to CAD* K239.

Note:

° Course has a prerequisite. Students should check course description.

Note: Students should be familiar with the latest CAD release within two years of graduation.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 66

Technology Studies, CAD Option, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. become proficient in the use of Computer-Aided drafting Software.
2. have a thorough knowledge and expertise in multiple CAD programs, to include but not limited to AutoCAD, Inventor, Revit and Master Cam.
3. demonstrate knowledge of drafting standards set forth by the American National Standards Institute (ANSI).
4. demonstrate knowledge of drafting standards set forth by the International Standards Organization (ISO).
5. provide a general understanding of standard drafting principles such as alphabet of lines, precedence of lines, dimensioning standards and projection techniques.
6. apply appropriate mathematical and scientific principles to solve problems utilizing a CAD program, particularly descriptive geometry.
7. demonstrate the ability to develop an engineering concept. through detail and assembly drafting techniques to produce professionally finished engineering drawings suitable for use in industry.
8. demonstrate a thorough knowledge in the use of 3-D Parametric Modeling packages, such as Inventor and Revit.
9. readily adapt the necessary skills required for an entry-level position in the discipline of drafting.
10. provide an education that integrates a core curriculum with drafting theory, computer theory, technical background, and practice elements, for students who will seek advanced degrees.
11. expand life long learning opportunities in the drafting area for those with previous experience in other fields.
12. demonstrate and apply skills necessary for visual thinking and graphic problem solving.
13. work cooperatively and productively in groups to solve problems.
14. foster a learning environment that emulates industrial standards.
15. demonstrate working knowledge to translate engineering sketches into accurate scaled drawings.
16. be able to implement engineering change orders.
17. be able to plan methods and processes of production.
18. be able to select and demonstrate the appropriate characteristics of a particular material.
19. demonstrate a working knowledge of the use of Geometric Dimensioning and Tolerancing (GDT) techniques used in industry.
20. become efficient with the use of ISO 9000 standards as they relate to the Drafting and Design field.

Technology Studies: Electrical Option, A.S.

Degree Code: F06

A College of Technology Pathway
The Connecticut College of Technology is an innovative program leading to a Bachelor of Science Degree in engineering or technology. The program consists of two disti nct pathways, one in Engineering Science and one in Technology Studies. After completing the Technology Studies Pathway Program at Three Rivers, students may enter directly into technical fields at Central Connecticut State University or Charter Oak State College (Connecticut's External Degree Program). The Engineering Science Pathway leads directly into the School of Engineering at the University of Connecticut or the University of New Haven.

The pathway courses will transfer to engineering and technology programs at many other public and private universities as well.

Associate in Science

Program Contact: Mark Vesligaj - 860-215-9442

The College of Technology - Electrical Option pathway offers a core of courses that will provide the foundation for the Bachelor of Science degree in Electrical Engineering Technology at Central Connecticut State University. Continuation requirements include a minimum grade of "C" and credits as listed below.

Offered in conjunction with other Connecticut Community Colleges, this program provides an opportunity for individuals who have completed the apprenticeship training program available through the Independent Electrical Contractors of Connecticut to receive credit for their Electrical Contractors Certificate. Upon completion of the training program, students will receive credit toward fulfillment of the credits required for a degree in the Technology Studies Pathway Program. Upon graduation, students may choose to transfer to Central Connecticut State University, where their credits will be accepted into the Industrial Technology bachelors degree program.

Electrical Option Curriculum Requirements

General Education:

Arts/Humanities

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

- _____- Fine Arts Elective **3 CREDIT HOURS**
- _____- Humanities Elective **(art history, foreign languages, literature, philosophy) 3 CREDIT HOURS**
- _____- Humanities Elective **(art history, foreign languages, literature, philosophy) 3 CREDIT HOURS**

Total: 15

Science

CHE* K111 - Concepts of Chemistry °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K137 or MAT* K137S with a "C" grade or better (or permission of the instructor on math requirement).*
This course offers a brief and comprehensive survey of important chemical theories and some of the applications of chemistry. Topics covered will include measurements in chemistry, atomic structures and chemical bonding, chemical reactions, states of matter, stoichiometry, theories of solution, and basic organic and biochemical concepts. Course Design: CHE* K111 is meant for students with little or no background in chemistry who need the course in preparation for General Chemistry, or for students who need to meet a pre-admission requirement for nursing or other allied health programs, or those who need a lab science course.

PHY* K114 - Mechanics °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172.*
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry. Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion. Three-hour lecture; one two-hour laboratory.

Total: 8

Mathematics

MAT* K137 - Intermediate Algebra °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "B-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course cultivates understanding and different representations of functions. Topics covered include linear, quadratic, exponential, rational, radical functions, equations, and expressions with emphasis on modeling and solving real world problems. A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). Please refer to online schedule and click on the CRN hyperlink and/or review the printed schedule to determine which faculty require math software in their section.

MAT* K167 - Principles of Statistics °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. Please refer to online schedule and click on the CRN hyperlink and/or review printed schedule in determining which faculty require math software in their course(s).*
This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations and confidence intervals.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*

The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

Total: 10

Social/Behavioral Sciences

- _____- Behavioral Sciences Elective **(psychology or sociology) 3 CREDIT HOURS**
- _____- Social Science Elective **(anthropology, economics geography, government, history) 3 CREDIT HOURS**
- SOS* K2___- Technology and Society **3 CREDIT HOURS**

Total: 9

Specialized Core

CAD* K106 - Basic CAD - AutoCad

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S or higher*
This course, with the included lab, exposes the student to the current means of generating graphic images with computers. Topics covered include CAD* overview, computer terminology, hardware descriptions and requirements, file manipulation and management, 2D and 3D geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail, and assembly drawings.

CAD* K107 - Computer-Aided Drafting Lab

2 CREDIT HOURS
Corequisite: CAD K106.*
This laboratory utilizes software in an IBM-PC environment. Topics given in the lecture will be learned through solving application problems on the computer.

CSA* K105 - Introduction to Software Applications °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces some popular software packages currently being used in industry, business, and government such as Microsoft Word, Excel, Access, and PowerPoint. A small amount of time will be devoted to the Windows operating system environment. Recent versions of the software packages will be used. Strong reading, good writing, and basic math skills are required. Prior computer usage experience (e.g. keyboard and mouse actions, file and folder management, Internet browsing) is assumed. Digital learning technologies will be used throughout the course.

MEC* K262 - Materials Science °

3 CREDIT HOURS
Prerequisites: MFG K102*
Corequisite: MEC K263.*
This course studies the structure and properties of engineering materials, and incorporates the presentation of materials

selection, processing, and heat treatment. The changes in structure and properties during forming, machining, and heat treating operations are discussed.

MEC* K263 - Materials Science Lab °

1 CREDIT HOUR
Prerequisites: MFG K102; TCN* K105.*
Corequisite: MEC K262.*
In this lab, students will be exposed to selected experiments demonstrating the effects of processing, including heat treatment, on the properties of engineering materials. Standard materials tests are also performed.

MEC* K241 - Thermodynamics °

3 CREDIT HOURS
Prerequisites: PHY K115 and MAT* K186.*
This course studies the thermodynamic principles of heat, work, non-flow and steady flow processes, and cycles. The use of thermodynamics data tables and charts will be stressed.

- _____- Certification: Independent Electrical Contractors **12 CREDIT HOURS**

Total: 25

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 67

Technology Studies, Electrical Option, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. transition seamlessly into a Bachelor of Science Degree program in Technology with junior level status in the receiving institution as part of the Technological Studies Pathway Program.
2. demonstrate team-oriented skills that permit effective participation in multicultural work and social environments.
3. apply appropriate mathematical and scientific principles to industrial technology applications.
4. perform competently in mathematics.
5. express ideas effectively through written and oral communications.
6. demonstrate proficiency in technical fundamentals to analyze industrial technology problems and make appropriate decisions.
7. maintain a practical knowledge of state-of-the-art hardware and software.

8. apply skills and knowledge to effectively and efficiently plan, organize, implement, measure and manage technology.
9. demonstrate a thorough knowledge and understanding of engineering graphics as well as conventional drafting practices, such as orthographic and isometric projection, section, detail, auxiliary views, descriptive geometry, as well as geometric dimensioning and tolerancing basics.
10. demonstrate a high level of proficiency in the use of state-of-the-art computer aided design (CAD) software and be able to respond positively to continuous software revisions and upgrades.

Technology Studies: Engineering Technology Option, A.S.

Degree Code: F12

A College of Technology Pathway
The Connecticut College of Technology is an innovative program leading to a Bachelor of Science Degree in engineering or technology. The program consists of two distinct pathways, one in Engineering Science and one in Technology Studies. After completing the Technology Studies Pathway Program at Three Rivers, students may enter directly into technical fields at Central Connecticut State University or Charter Oak State College (Connecticut's External Degree Program). The Engineering Science Pathway leads directly into the School of Engineering at the University of Connecticut or the University of New Haven.

The pathway courses will transfer to engineering and technology programs at many other public and private universities as well.

Associate in Science

Program Contact: Mark Vesligaj - 860-215-9442

The Engineering Technology option to the Technology Studies associate degree program provides rigorous preparation and the specific coursework students need to pursue a B.S. degree in Engineering Technology at Central Connecticut State University. The courses for this option were also approved by the CCSU for articulation into their B.S. in Industrial Technology programs.

A minimum course grade of "C" is required in all courses below for continuing at CCSU's School of Engineering and Technology.

Engineering Technology Option Curriculum Requirements

General Education:

Arts/Humanities

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

- _____- Fine Arts Elective **(art or music) 3 CREDIT HOURS**
- _____- Philosophy Elective **3 CREDIT HOURS**

Total: 15

Math and Science

CHE* K121 - General Chemistry I °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K172 and high school chemistry or CHE* K111 all passed with a "C" grade or better; or permission of the instructor or department chairperson.*
Corequisite: MAT K186.*
In this course, students will study the fundamental principles, theories, and laws of chemistry. Topics include atomictheory and the structure of the atom, the aggregated states of matter, kinetic molecular theory, chemical bonding, stoichiometry and periodicity, solutions, and colloids. Three- hour lecture; one three-hour laboratory period.

MAT* K167 - Principles of Statistics °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. Please refer to online schedule and click on the CRN hyperlink and/or review printed schedule in determining which faculty require math software in their course(s).*
This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations and confidence intervals.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

PHY* K114 - Mechanics °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172.*
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry. Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion. Three-hour lecture; one two-hour laboratory.

or

PHY* K221 - Calculus-Based Physics I °

4 CREDIT HOURS
Prerequisite: MAT K254 highly recommended.*
Corequisite: MAT K254.*
This is a calculus-based introduction to the basic concepts of classical mechanics. Major topics will include Newton's laws, motion in n-dimensions, periodic motion, thermodynamics, energy, hydrodynamics, and an introduction to material science. The course will emphasize the theoretical aspects of physics and will help the student develop effective problem solving strategies. Laboratories will be designed to allow the student to visualize the important concepts introduced in lecture and to increase student understanding of the scientific process. There will be two hours of lecture, one hour of problem solving, and three hours of lab each week.

Total: 15

Social/Behavioral Sciences

- _____- Behavioral Sciences Elective **(psychology or sociology) 3 CREDIT HOURS**
- _____- Social Science Elective **(economics or history recommended) 3 CREDIT HOURS**
- _____- Social Science Elective **(geography, political science or history recommended) 3 CREDIT HOURS**
- _____- Social Science Elective **(economics recommended) 3 CREDIT HOURS**

Total: 12

Specialized Core

EGR* K211 - Engineering Statics °

3 CREDIT HOURS
Prerequisite: MAT K254.*
Corequisite: MAT K254.*
Students will be introduced to engineering mechanics via vector approach to static forces and their resolution. Topics

include: properties of force systems, free-body analysis, first and second moments of areas and mass and static friction. Applications to trusses, frames, beams and cables are included.

- _____- Directed Elective **3 CREDIT HOURS**

Total: 9

Option Courses

PHY* K115 - Heat Sound Light °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172. Please note if MAT* K172 is completed prior to registration into PHY* K115, students must complete MAT* K172 with a "C" grade or better.*
This course covers three broad areas of physics including thermal equilibrium, heat transfer, harmonic motion and wave properties of sound and light. Three-hour lecture; one two-hour laboratory.

or

PHY* K222 - Calculus-Based Physics II °

4 CREDIT HOURS
Prerequisite: PHY K221.*
This is a continuation of PHY* K221. Major topics will include continuation of the study of solids, electromagnetic phenomena, Maxwell's equations, and atomic and sub-atomic phenomena. Laboratories will center around studying electromagnetic phenomena and enhancing student knowledge of the relationship between electricity, magnetism and light. There will be two hours of lecture, one hour of problem solving, and three hours of lab each week.

or

CHE* K122 - General Chemistry II °

4 CREDIT HOURS
Prerequisites: CHE K121 with a "C" or better; MAT* K186 with "C" grade or better.*
This course includes further study of the principles, theories, and laws of chemistry. Topics include thermo-chemistry, kinetics, chemical equilibrium, oxidation reduction and electro-chemistry, introduction to organic and nuclear chemistry, and the chemistry of the elements and their compounds. Three-hour lecture; one three-hour laboratory period. CHE* K121 - General Chemistry I ° and II are ordinarily both taken for transfer credit.

MAT* K254 - Calculus I °

4 CREDIT HOURS
Prerequisite: MAT K186 with a 'C" grade or better.*
This is a first course in the calculus sequence intended for students who plan on majoring in mathematics, physical sciences, or engineering technology. Topics include: rate of change, limits, continuity, differentiation of algebraic, trigonometric, exponential, and logarithmic functions, differentials, applications of differentiation, definite and indefinite integrals, and applications of integration.

MAT* K256 - Calculus II °

4 CREDIT HOURS
Prerequisite: MAT K254 with a "C" grade or better.*

This course is the second semester of calculus intended for students who plan on majoring in mathematics, physical science, or engineering technologies. The topics include the definite integral, applications of integration, methods of integration, sequences, series and vectors.

- _____- Technical Elective **3 CREDIT HOURS**

Total: 15

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 66

Technology Studies, Engineering Technology Option, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements,
graduates will be able to:

1. enter a Bachelor of Science Program in Engineering Technology with junior level status in the receiving institution as part of the Technology Studies Pathway Program.
2. demonstrate team-oriented skills that permit effective participation in multicultural work and social environments
3. apply appropriate mathematical and scientific principles to engineering technology applications.
4. perform competently in mathematics.
5. express ideas effectively through written and oral communications.
6. demonstrate proficiency in technical fundamentals to analyze engineering technology problems and make appropriate decisions.
7. maintain a practical knowledge of state-of-the-art hardware and software.
8. apply skills and knowledge to effectively and efficiently plan, organize, implement, measure and manage technology.
9. demonstrate a thorough knowledge and understanding of engineering graphics as well as conventional drafting practices, such as orthographic and isometric projection, section, detail, auxiliary views, descriptive geometry, as well as geometric dimensioning and tolerancing basics.
10. demonstrate a high level of proficiency in the use of state-of-the-art computer aided design (CAD) software and be able to respond positively to continuous software revisions and upgrades.

Technology Studies: Lean Manufacturing and Supply Chain Management Option, A.S.

Degree Code: F20

A College of Technology Pathway
The Connecticut College of Technology is an innovative program leading to a Bachelor of Science Degree in engineering or technology. The program consists of two distinct pathways, one in Engineering Science and one in Technology Studies. After completing the Technology Studies Pathway Program at Three Rivers, students may enter directly into technical fields at Central Connecticut State University or Charter Oak State College (Connecticut's External Degree Program). The Engineering Science Pathway leads directly into the School of Engineering at the University of Connecticut or the University of New Haven.

The pathway courses will transfer to engineering and technology programs at many other public and private universities as well.

Associate in Science

Program Contact: Mark Vesligaj - 860-215-9442

The Technology Studies Lean Manufacturing and Supply Chain Management Option was created in response to the expressed future and current needs of the manufacturing community. The U.S. Department of Labor along with local industry has demonstrated a demand and need for courses in the areas of lean and supply chain management.

The courses within this plan of study were developed by members of the College of Technology in conjunction with industry partners. The courses in lean are intended to ensure students have knowledge of current continuous process of improvement methodologies in use today within competitive manufacturing environments. The courses in supply chain management are intended to review the lean manufacturing principles needed to understand and maintain the supply chain and to cover the benefits and elements needed for implementing supply chain management.

This degree program provides students with the skills that will increase their employability in the field as well as set them on a path that will enable them to further their education

Lean Manufacturing and Supply Chain Management Option Curriculum Requirements

General Education Core

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

- ECN* K____- Economics Elective **3 CREDIT HOURS**
- ECN* K____- Economics Elective **3 CREDIT HOURS**
  or
- HIS* K____- History Elective **3 CREDIT HOURS**

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*

College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

- HIS* K____ History Elective **3 CREDIT HOURS**
  or
- GEO* K____ Geography Elective **3 CREDIT HOURS**
  or
- POL* K____ Political Science Elective **3 CREDIT HOURS**

PHL* K111 - Ethics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course will cover the fundamentals of ethics, including an introduction to the origins and nature of moral right and responsibility. Students will analyze and formulate positions on contemporary ethical issues.

or

- PHL* K____- Philosophy Elective 3 CREDIT HOURS
- PSY* K____- Psychology Elective **3 CREDIT HOURS**
  or
- SOC* K____- Sociology Elective **3 CREDIT HOURS**
- _____- Fine Arts Elective **3 CREDIT HOURS**

Total: 27

Science and Math Core

CHE* K111 - Concepts of Chemistry °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K137 or MAT* K137S with a "C" grade or better (or permission of the instructor on math requirement).*
This course offers a brief and comprehensive survey of important chemical theories and some of the applications of chemistry. Topics covered will include measurements in chemistry, atomic structures and chemical bonding, chemical reactions, states of matter, stoichiometry, theories of solution, and basic organic and biochemical concepts. Course Design: CHE* K111 is meant for students with little or no background in chemistry who need the course in preparation for General Chemistry, or for students who need to meet a pre-admission requirement for nursing or other allied health programs, or those who need a lab science course.

or

CHE* K121 - General Chemistry I °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K172 and high school chemistry or CHE* K111 all passed with a "C" grade or better; or permission of the instructor or department chairperson.*
Corequisite: MAT K186.*
In this course, students will study the fundamental principles, theories, and laws of chemistry. Topics include atomictheory and the structure of the atom, the aggregated states of matter, kinetic molecular theory, chemical bonding, stoichiometry and periodicity, solutions, and colloids. Three- hour lecture; one three-hour laboratory period.

MAT* K167 - Principles of Statistics °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. Please refer to online schedule and click on the CRN hyperlink and/or review printed schedule in determining which faculty require math software in their course(s).*
This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations and confidence intervals.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

PHY* K110 - Introductory Physics °

4 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I or equivalent.*
This course is a one semester exploration of the basic principles of classical physics. Topics will include classical mechanics, electricity, vibrations and waves. Students will have the opportunity to discover and explore the laws of physics using state-of-the-art instrumentation. Three-hour lecture; one two-hour laboratory.

or

PHY* K221 - Calculus-Based Physics I °

4 CREDIT HOURS
Prerequisite: MAT K254 highly recommended.*
Corequisite: MAT K254.*
This is a calculus-based introduction to the basic concepts of classical mechanics. Major topics will include Newton's laws, motion in n-dimensions, periodic motion, thermodynamics, energy, hydrodynamics, and an introduction to material science. The course will emphasize the theoretical aspects of physics and will help the student develop effective problem solving strategies. Laboratories will be designed to allow the student to visualize the important

concepts introduced in lecture and to increase student understanding of the scientific process. There will be two hours of lecture, one hour of problem solving, and three hours of lab each week.

Total: 15

Technology/Management Core

- _____- Technical Drafting or CAD **3 CREDIT HOURS**
- _____- Directed Elective **3 CREDIT HOURS**
- _____- Directed Elective **3 CREDIT HOURS**

Total: 9

Courses in Option

MFG* K171 - Introduction to Lean Manufacturing

3 CREDIT HOURS
The purpose of this course is to provide the student with the fundamental knowledge of current continuous process improvement methodologies in use today within competitive manufacturing environments. This introductory course will expose the student to the basic concepts of Lean Manufacturing theory and the various tools and techniques involved with a lean implementation. This course will be presented following the lean six sigma process methodology of DMAIC (Define, Measure, Analyze, Improve, Control) to ensure that at the completion of the course, the student will be competent to participate effectively as a team member in lean implementation projects.

MFG* K172 - Introduction to Lean Supply Chain Management

3 CREDIT HOURS
This course is an introduction to the basic principles and methodologies of Supply Chain Management. The course reviews the lean manufacturing principles needed to understand and maintain the supply chain. Key concepts are covered such as Value Stream Mapping, customer/supplier roles, supplier types, metrics, quality systems, quality audits, communication, and information flow. Class activities, group assignments, and case studies are emphasized for real- world learning experiences.

MFG* K271 - Advanced Lean Manufacturing °

3 CREDIT HOURS
Prerequisite: MFG K171.*
The purpose of this course is to provide the student with the knowledge to implement lean improvements within the production environment using a systematic approach. This course will follow an improvement project (from the student's current employer or case study) through the five stages of the DMAIC problem solving methodology. At the completion of the course, the student will be competent to effectively lead a lean implementation project within a company.

MFG* K272 - Implementing Lean Supply Chain Management °

3 CREDIT HOURS
Prerequisites: MFG K172.*
This course covers the benefits and elements needed for implementing supply chain management. Team building and

communication skills are shown as crucial factors in supply chain management. Topics emphasized in the course are measuring the velocity of the supply chain, developing partnerships, logistics, software tools, hardware, and continuous improvement. Class activities, group assignments and case studies are emphasized for real world learning experiences.

Total: 12

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 63

Technology Studies: Technology and Engineering Education Option, A.S.

Degree Code: F13

A College of Technology Pathway
The Connecticut College of Technology is an innovative program leading to a Bachelor of Science Degree in engineering or technology. The program consists of two distinct pathways, one in Engineering Science and one in Technology Studies.

After completing the Technology Studies Pathway Program at Three Rivers, students may enter directly into technical fields at Central Connecticut State University or Charter Oak State College (Connecticut's External Degree Program). The Engineering Science Pathway leads directly into the School of Engineering at the University of Connecticut or the University of New Haven.

The Associate in Science

Program Contact: Mark Vesligaj - 860-215-9442

The Technology and Engineering Education option to the Technology studies associate degree program provides specific course work students need to pursue a B.S. degree in Technology and Engineering Education at Central Connecticut State University. The courses for this option were also approved by CCSU for articulation into their B.S. in Industrial Technology.

A minimum course grade of "C" is required in all courses below for continuing at CCSU's School of Engineering and Technology.

Technology and Engineering Education Option Curriculum Requirements

General Education:

Arts/Humanities

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

- _____- Fine Arts Elective **3 CREDIT HOURS**
- _____- Philosophy Elective **3 CREDIT HOURS**

Total: 15

Science and Math Core

CHE* K111 - Concepts of Chemistry °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K137 or MAT* K137S with a "C" grade or better (or permission of the instructor on math requirement).*
This course offers a brief and comprehensive survey of important chemical theories and some of the applications of chemistry. Topics covered will include measurements in chemistry, atomic structures and chemical bonding, chemical reactions, states of matter, stoichiometry, theories of solution, and basic organic and biochemical concepts. Course Design: CHE* K111 is meant for students with little or no background in chemistry who need the course in preparation for General Chemistry, or for students who need to meet a pre-admission requirement for nursing or other allied health programs, or those who need a lab science course.

MAT* K167 - Principles of Statistics °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. Please refer to online schedule and click on the CRN hyperlink and/or review printed schedule in determining which faculty require math software in their course(s).*
This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations and confidence intervals.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

PHY* K114 - Mechanics °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172.*
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry. Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion. Three-hour lecture; one two-hour laboratory.

Total: 15

Social/Behavioral Sciences

- _____- Behavioral Sciences Elective **(psychology or sociology) 3 CREDIT HOURS**
- _____- Social Science Elective **(economics or history recommended) 3 CREDIT HOURS**
- _____- Social Science Elective **(geography, political science or history recommended) 3 CREDIT HOURS**
- _____- Social Science Elective **(economics recommended) 3 CREDIT HOURS**

Total: 12

Specialized Core

CAD* K106 - Basic CAD - AutoCad

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S or higher*
This course, with the included lab, exposes the student to the current means of generating graphic images with

computers. Topics covered include CAD* overview, computer terminology, hardware descriptions and requirements, file manipulation and management, 2D and 3D geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail, and assembly drawings.

CAD* K107 - Computer-Aided Drafting Lab

2 CREDIT HOURS
Corequisite: CAD K106.*
This laboratory utilizes software in an IBM-PC environment. Topics given in the lecture will be learned through solving application problems on the computer.

MFG* K102 - Manufacturing Processes and Lab

3 CREDIT HOURS
Corequisite: TCN K105*
This course studies manufacturing: making goods and wares by industrial processes. The course will provide theoretical experience in the scientific, engineering, and economic principles on which the various manufacturing processes are based.This laboratory portion provides emphasis on common metal cutting tools and lathe operations, as well as on associated precision measuring tools and instruments. The labs will also involve set-ups and procedures for various manufacturing processes including plasma cutting, sheet metal, molding and additive manufacturing.

TCN* K105 - Laser and Lab Safety

1 CREDIT HOUR
This course introduces important concepts and regulations for safety in laser and manufacturing labs and other work settings. Topics include safe handling of lasers, safe use of hand and power tools, hazard awareness and accident prevention, exposure limits, administrative and engineering controls, chemical hygiene and safety planning. The course is a requirement for all students beginning the Manufacturing Engineering Technology or Laser & Fiber Optic Technology associate degree programs.

- _____- Directed Elective **3 CREDIT HOURS**

Total: 11

Courses in Option

EET* K105 - Electric Circuits & Systems °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I.*
Corequisites: MAT K137 or MAT* K137S.*
This course provides an introduction to the basic concepts of DC and AC electric circuits. Voltage, current, resistance, energy, and power relationships are introduced. Circuit analysis of basic series and parallel circuits is covered. Instruments and techniques of electrical measurement for both DC and AC circuits are also discussed. Other topics include semiconductor devices, transformers and power supplies, microcontrollers, motors and drive circuits, and electrical power generation/distribution. The lab portion of this course will supplement the course Electric Circuits & Systems. Students will apply the concepts learned in the classroom and gain practical hands-on experience making electrical measurements using a variety of test instruments.

MEC* K114 - Statics °

3 CREDIT HOURS
Prerequisites: MAT K172 and PHY* K114.*
Corequisite: MAT K186.*
This course helps students develop the ability to analyze problems using the basic principles of static systems in order to provide a foundation for stress analysis. The forces on structures in equilibrium and concepts of centroids, center of gravity, and moment of inertia are studied. The concept of stress and strain in axial torsional and bending loading is also introduced.

MEC* K250 - Strength of Materials °

3 CREDIT HOURS
Prerequisites: MEC K114.*
This course instills knowledge of moments of inertia, torsion, bending, and columns, and how it applies to stress and the structural properties of materials. The relationship of these properties to common engineering problems is reviewed.

MEC* K262 - Materials Science °

3 CREDIT HOURS
Prerequisites: MFG K102*
Corequisite: MEC K263.*
This course studies the structure and properties of engineering materials, and incorporates the presentation of materials selection, processing, and heat treatment. The changes in structure and properties during forming, machining, and heat treating operations are discussed.

MEC* K263 - Materials Science Lab °

1 CREDIT HOUR
Prerequisites: MFG K102; TCN* K105.*
Corequisite: MEC K262.*
In this lab, students will be exposed to selected experiments demonstrating the effects of processing, including heat treatment, on the properties of engineering materials. Standard materials tests are also performed.

Total: 15

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 68

Technology Studies, Technlogy and Engineering Education Option, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. enter a Bachelor of Science Program in Technology Education with junior level status in the receiving institution as part of the Technology Studies Pathway Program.
2. demonstrate team-oriented skills that permit effective participation in multicultural work and social environments.
3. apply appropriate mathematical and scientific principles to industrial technology applications.
4. perform competently in mathematics.
5. express ideas effectively through written and oral communications.
6. demonstrate proficiency in technical fundamentals to analyze industrial technology problems and make appropriate decisions.
7. maintain a practical knowledge of state-of-the-art hardware and software.
8. apply skills and knowledge to effectively and efficiently plan, organize, implement, measure and manage technology.
9. demonstrate a thorough knowledge and understanding of engineering graphics as well as conventional drafting practices, such as orthographic and isometric projection, section, detail, auxiliary views, descriptive geometry, as well as geometric dimensioning and tolerancing basics.
10. demonstrate a high level of proficiency in the use of state-ofthe-art computer aided design (CAD) software and be able to respond positively to continuous software and revisions and upgrades.

Visual Fine Arts, A.A.

Degree Code: A60

Associate in Arts

Program Coordinator: Sandra Jeknavorian - 860-215-9439

This program is designed to provide both a strong basic foundation in the visual arts and a broad background in general education. For those students seeking a professional career, the Visual Fine Arts Program offers a transfer-oriented course of studies that leads to enrollment in an art school or other baccalaureate institution. Careers in commercial art, art education and fine arts are open to graduates with bachelors degrees. This program allows students to pursue education and gain personal enjoyment through the creative learning process.

Visual Fine Arts Curriculum Requirements

Semester I

ART* K111 - Drawing I

3 CREDIT HOURS
This course is an introduction to basic drawing skills. The course includes work with still life, landscape, self-portrait, and interior space in black and white media. Emphasis is placed on the importance of drawing through careful observation. A variety of techniques and styles are covered to arrange compositions and create the illusion of volume and perspective. Studio: Meets 6 hours per week.

ART* K121 - Two-Dimensional Design

3 CREDIT HOURS
This course is an introduction to the theory and practice of two-dimensional design. Students will use the principles of

design as an expressive tool to communicate visually. A variety of black and white and color mediums will be used including drawing, painting and collage. Studio: Meets 6 hours per week.

ART* K122 - Three Dimensional Design

3 CREDIT HOURS
Students will explore basic three-dimensional art elements: line, plane, mass, volume, space, size, color, light, surface and context. Students will experiment with materials and processes through assignments exploring artistic themes while solving various design problems. Studio: Meets 6 hours per week.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

IDS K105 - The First Year Experience °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# or higher.*
This course is designed to engage students as active participants within the college environment. Students will have the opportunity to acquire academic skills, attributes, awareness of self as learner, and to engage with the resources and activities within the Three Rivers Community College community. You can expect regular reading, writing and research assignments along with classroom discussion as you investigate how to be successful in this environment.

Total: 15

Semester II

ART* K101 - Art History I °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course provides an introduction to the history of art from prehistoric through to the mid-15th century from a global perspective. Major works in many media including painting, sculpture, and architecture will be covered. By the end of this course, students will have a visual vocabulary with which they can intelligently discuss and write about works of art. Regardless of whether the work is accessible and easy to admire or difficult and not readily understood, students will understand how to evaluate works of art not only for their beauty, but for other intrinsic values such as power of expression and boldness of communication. Outside readings and papers required.

ART* K151 - Painting I °

3 CREDIT HOURS
Prerequisite: ART K111 or permission of the instructor.*
This course is an intensive introduction to representational painting with acrylics. Students are given a firm foundation in painting through an introduction to the materials of painting and thorough study of color theory and color mixing.

The knowledge of color theory will be put into practice with the painting of the still life. A variety of exercises and techniques will be explored including preparing different surfaces on which to paint as well as aesthetic explorations. It will be emphasized that the skills of drawing are an integral painting tool. Studio: Meets 6 hours per week.

ART* K161 - Ceramics I

3 CREDIT HOURS
This course is an introduction to the methods and nature of working with clay as an artistic medium. Emphasis is placed on the practical use of design principals such as: line, symmetry, balance, visual mass, texture, ground/foreground relationships, and spatial relationships. Various artistic movements such as surrealism, minimalism, and abstraction, will be explored. Assignments allow the exploration of artistic themes while solving various design problems. The class includes discussions and demonstrations on various glazing and finishing techniques. Studio: Meets 6 hours per week.

ART* K112 - Drawing II °

3 CREDIT HOURS
Prerequisite: ART K111.*
This course is an exploration of drawing basics in various media including color, with an emphasis on composition and technique. Both representation and abstraction are explored. Students work with still life, portraiture, and the figure and a final project series of their own choice. Studio: Meets 6 hours per week.

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

Total: 15

Semester III

ART* K102 - Art History II °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course provides an introduction to the history of art from the mid-15th century through to contemporary from a global perspective. Major works in many media including painting, sculpture, installation art, and performance art will be covered. By the end of this course, students will have a visual vocabulary with which they can intelligently discuss and write about works of art. Regardless of whether the work is accessible and easy to admire or difficult and not readily understood, students will understand how to evaluate works of art not only for their beauty, but for other intrinsic values such as power of expression and boldness of communication. Outside readings and papers required.

ART* K288 - Portfolio Development I °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better;*

ART K111.*
Students will prepare a portfolio stressing the individual's career and/or education goals. This course is recommended for any student preparing to transfer, apply for graduate study or apply for a job in art or architecture. Students will become familiar with the essential business practices of the visual arts profession and will learn how to professionally photograph and present their work. Studio: Meets 6 hours per week.

GRA* K131 - Digital Photography

3 CREDIT HOURS
This course is an introduction to digital photography and basic photo-editing features of Adobe Photoshop. Students shoot digital images for specific assignments emphasizing exposure, depth-of-field, composition, and image quality. The introduction of digital photography techniques, editing, and creative approaches will be the focus. Students will read and report on famous photographers and photography literature. Each student is required to have a camera in which they can manually control the focus, shutter speed, aperture and ISO.

or

GRA* K140 - Publication Design °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; or permission of the instructor and knowledge of a word processing program.*
This course provides an introduction to graphic design. Proper file management, Macintosh computer navigation basics and fundamental techniques of the design process will be covered. Students will learn to create a graphic identity through proper typography, image editing and page layout. Graphic Design industry standard software will be used including Adobe Photoshop, Illustrator and InDesign. Classes consist of lectures, demonstrations, applied practice and critiques.

MAT* K137 - Intermediate Algebra °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "B-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course cultivates understanding and different representations of functions. Topics covered include linear, quadratic, exponential, rational, radical functions, equations, and expressions with emphasis on modeling and solving real world problems. A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). Please refer to online schedule and click on the CRN hyperlink and/or review the printed schedule to determine which faculty require math software in their section.

- _____- Social Science Elective **3 CREDIT HOURS**

Total: 15

Semester IV

ART* K152 - Painting II °

3 CREDIT HOURS
Prerequisite: ART K151 or permission of the instructor.*
In this class, students will get the opportunity to further their exploration of painting with acrylics through a variety of

approaches including abstraction. Students will be encouraged to experiment with a variety of subject matter and themes as well as to develop their own individual styles. Studio: Meets 6 hours per week.

or

ART* K162 - Ceramics II °

3 CREDIT HOURS
Prerequisite: ART K161 or permission of instructor.*
This course is a continuation of Ceramics I, with the addition of advanced concepts and techniques. Students are required to develop a unified portfolio of work using a combination of sketches, research, and experiments to develop a theme. Studio: Meets 6 hours per week.

- _____- Art or Graphic Arts Elective **3 CREDIT HOURS**
- _____- Liberal Arts, Art or Graphics Elective **3 CREDIT HOURS**
- _____- Natural Science Elective **3 CREDIT HOURS**

GRA* K230 - Digital Imaging 1 °

3 CREDIT HOURS
Prerequisite: GRA K140 or GRA* K131 or permission of the instructor.*
Adobe Photoshop is the focus of this course which will provide students with a foundation in image manipulation and graphic design. This course concentrates on the high end capabilities of Photoshop as an illustration, design and photo retouching tool. Students will explore a wide range of manipulation techniques that can be applied to photos and graphics. Students will also study design principles and read and report on Photoshop artists.

Total: 15

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

Visual Fine Arts, Associate in Arts Degree Program Outcomes

Upon successful completion of all program requirements, students will be able to:

1. effectively utilize the fundamental elements and principles of two-dimensional and three-dimensional design, color, composition, line, form, texture, pattern, value and space to arrange effective compositions and communicate ideas.
2. demonstrate the skills and techniques necessary for studio art including the ability to safely use materials, tools and equipment specific to various media.
3. demonstrate the ability to visually represent a conceptual idea.
4. demonstrate the ability to follow a creative project from conception to completion.

5. compile a comprehensive portfolio of work that reflects the breadth of their study and prepares them for transfer to a baccalaureate institution and knowledge of the process of presenting ones work to the public.
6. possess desirable work habits, critical thinking, creative problem solving, good aesthetic judgment, self reliance and self discipline.
7. be able to critique, speak and write about their own work and the visual arts of others using an informed visual vocabulary.
8. demonstrate an understanding and appreciation of the relationship of works of art to the diversity of human culture, history and experience.

Certificate

Accounting Certificate

Degree Code: J05

Certificate Program

Contact: Edwin Muenzner- 860-215-9456

This certificate program is designed for students who wish for specific training in accounting and other business subjects, to upgrade their present positions or to enter into business or industry.
Students may complete this certificate by completing the courses that are listed below.

English Competency Requirement met by: _____

Accounting Certificate Curriculum Requirements

ACC* K115 - Financial Accounting °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement ∞ or completion of ENG* K096 with a "C#" grade or better. ∞; MAT* K095 or MAT* K095I with a "C#" grade or better.*

This course is designed to cover basic accounting theory and practice as applied to the complete accounting cycle, including the use of current accounting systems and procedures and the preparation of financial statements. The course also covers Long-term Assets, Current & Long-Term Liabilities, and Corporate Reporting and Analysis.

ACC* K118 - Managerial Accounting °

4 CREDIT HOURS
Prerequisite: ACC K111 or ACC* K115 with a "C" grade or better.*
This course is designed to cover the application of accounting principles and procedures to the cost control function of manufacturing business management. Emphasis is placed on managerial analysis and control, job order costing, process cost, standard cost, and variance analysis.

ACC* K125 - Accounting Computer Applications I °

3 CREDIT HOURS
Prerequisite: ACC K111 or ACC* K115.*
This course is designed to teach accounting students about computerized integrated accounting and accounting spreadsheet applications using a standard Windows interface. Students will learn to operate the software by entering realistic accounting transactions for a variety of business applications and by generating financial statements, spreadsheets, and other management information reports. The techniques and terminology learned can be applied to other Window-based software packages.

ACC* K233 - Principles of Cost Accounting °

4 CREDIT HOURS
Prerequisite: ACC K111 or ACC* K115.*
This course encompasses fundamental principles and procedures needed for planning, evaluating, and controlling the organization's internal activities. Students will be exposed to accounting systems that are designed to provide information for managers as they relate to decision making. Topics include: budgeting, relevant costing, absorption and direct costing models, production levels, and inventory evaluations. Students work with accounting information that includes job-order costing, process costing, and standard costs.

ACC* K241 - Federal Taxes I °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K123 or MAT* K146 or MAT* K167 or MAT* K172 or MAT* K186.*
This course examines federal income taxation as it relates to individuals. Emphasis is on tax law, researching tax questions, the determination of taxable income, deductions, and the preparation of tax returns.

or

BFN* K201 - Principles of Finance °

3 CREDIT HOURS
Prerequisites: ACC K118; MAT* K123 or MAT* K167; ECN* K101;ECN* K102 (CCSU Transfer only).*
This course offers an introduction to the basic principles of finance with an emphasis on the role a finance manager plays in the corporate world. Areas covered are financial analysis and forecasting, operating and financial leverage, short and long term financing alternatives, capital budgeting, time value of money, mergers and acquisitions, and international financial management.

ACC* K271 - Intermediate Accounting I °

3 CREDIT HOURS
Prerequisite: ACC K112 or ACC* K118.*
In this course, students will engage in an intensive study of financial accounting theory, focusing on revenue and expense recognition and the valuation and disclosure of financial statement elements.

BBG* K115 - Business Software Applications °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K123 or higher with a "C" grade or better.*
Using Microsoft Suite application software, students in this hands-on course will learn to use each of the software

packages as they relate to the business environment. These software packages include an emphasis on Excel to build flexible spreadsheets used in business decision making, supplemented with Word to produce professional-looking documents, Access to select and analyze data to produce valid results, and Powerpoint to effectively present and communicate.

BBG* K231 - Business Law I °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course provides the student with an understanding of fundamental legal principles and their applications to business transactions and to individual rights and obligations. Crimes and torts are examined, and special emphasis is placed on the study of the law of contracts.

BFN* K110 - Personal Finance °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; ∞ MAT* K095 or MAT* K095I placement∞.*
This course provides, in a non-technical presentation, a basic understanding of personal finance. The choices that consumers face in managing their finances are examined. The topics include personal income and budgeting, consumer credit, investing, taxes, housing, insurance, retirement, and estate planning.

or

ECN* K101 - Principles of Macroeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces students to the basic concepts of the economic system. The first semester is primarily macroeconomics, with the emphasis on the economic thought process. Discussion of money and banking, national income, fiscal measures, and stabilizing the economy are all included.

Note:

° Course has a prerequisite. Students should check course description.

The English Competency Requirement is met by placement score in ENG* K101, or transfer credit or completion of ENG* K096.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 30

Accounting, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. demonstrate the use of generally accepted accounting principles, concepts and techniques in the recording and reporting of financial statements.
2. analyze accounting information for decision making, including the areas of job cost, process cost, absorption and variable costing approaches, and relevant costs.
3. use accounting software and spreadsheets.
4. obtain successful employment in the Accounting field or upgrade skills for current employment.

Basic Business Skills Certificate

Degree Code: K25

Certificate Program

Contact: James O'Shea - 860-215-9459

This certificate program is designed to give students not majoring in business sufficient basic business skills to be able to function adequately at a rudimentary level in a workplace environment immediately upon completion. This certificate is comprised of courses designed to provide students with a basic understanding of commerce in society, basic business structures and functions, communication skills (both oral and written), math and computer skills. This certificate is tailored to meet individual student needs and interests by incorporating a business elective course. Students are encouraged to develop their individual areas of interest or maximize employment opportunities by choosing a specific elective option.

Students may complete this certificate by completing the courses that are listed below.

Basic Business Skills Certificate Curriculum Requirements

BBG* K101 - Intro to Business

3 CREDIT HOURS
In this course, the focus for students will be on a practical understanding and application of how business works, how it contributes to quality of life, the rewards of entrepreneurship, its legal framework, trade terminology, and business operations including marketing, finance, accounting, and management. This course gives an orientation to business curriculum. This course will emphasize the relationship of business to an individual's everyday life in American society. Students required to take BBG* K101 should enroll in it prior to or in the first semester that they take a BBG*, BMG* or BMK* course. This course is open to all General Studies students as an elective. Certain restrictions apply to this course for business majors. Please refer to your program of study prior to registration.

BBG* K115 - Business Software Applications °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K123 or higher with a "C" grade or better.*
Using Microsoft Suite application software, students in this hands-on course will learn to use each of the software packages as they relate to the business environment. These software packages include an emphasis on Excel to build flexible spreadsheets used in business decision making, supplemented with Word to produce professional-looking

documents, Access to select and analyze data to produce valid results, and Powerpoint to effectively present and communicate.

or

CSA* K105 - Introduction to Software Applications °

3 CREDIT HOURS

Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*

This course introduces some popular software packages currently being used in industry, business, and government such as Microsoft Word, Excel, Access, and PowerPoint. A small amount of time will be devoted to the Windows operating system environment. Recent versions of the software packages will be used. Strong reading, good writing, and basic math skills are required. Prior computer usage experience (e.g. keyboard and mouse actions, file and folder management, Internet browsing) is assumed. Digital learning technologies will be used throughout the course.

BFN* K110 - Personal Finance °

3 CREDIT HOURS

Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; ∞ MAT* K095 or MAT* K095I placement∞.*

This course provides, in a non-technical presentation, a basic understanding of personal finance. The choices that consumers face in managing their finances are examined. The topics include personal income and budgeting, consumer credit, investing, taxes, housing, insurance, retirement, and estate planning.

COM* K173 - Public Speaking °

3 CREDIT HOURS

Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*

Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

or

ENG* K202 - Technical Writing °

3 CREDIT HOURS

Prerequisite: ENG K101 or ENG* K101S.*

This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

ECN* K101 - Principles of Macroeconomics °

3 CREDIT HOURS

Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*

This course introduces students to the basic concepts of the economic system. The first semester is primarily

macroeconomics, with the emphasis on the economic thought process. Discussion of money and banking, national income, fiscal measures, and stabilizing the economy are all included.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

MAT* K135 - Topics in Contemporary Math °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "C#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). This course will expose students to topics in mathematics that are useable and relevant in today's world. Students will apply mathematical ideas while working within a social context. Examples of topics will include: concerns about the growth of the national debt, environmental issues, probability, statistical implications in our lives, and current events issues.

- _____- Business Elective **3-4 CREDIT HOURS**

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 24-25

Basic Business Skills, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. demonstrate knowledge of the role of commerce in U.S. society and the world community.
2. demonstrate knowledge of how businesses are structured and function.
3. exhibit fluency in oral and written communication skills.
4. exhibit competency in basic math skills.
5. exhibit competency in computer skills specific to a business environment.

Business Administration Certificate

Degree Code: J42

Certificate Program

Contact: James O'Shea - 860-215-9459

This certificate program is designed for students who seek concentrated study in the field of management. Practical application to job situations will be stressed.

Students may complete this certificate by completing the courses that are listed below.

Business Administration Certificate Curriculum Requirements

ACC* K115 - Financial Accounting °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement ∞ or completion of ENG* K096 with a "C#" grade or better. ∞; MAT* K095 or MAT* K095I with a "C#" grade or better.*

This course is designed to cover basic accounting theory and practice as applied to the complete accounting cycle, including the use of current accounting systems and procedures and the preparation of financial statements. The course also covers Long-term Assets, Current & Long-Term Liabilities, and Corporate Reporting and Analysis.

ACC* K118 - Managerial Accounting °

4 CREDIT HOURS
Prerequisite: ACC K111 or ACC* K115 with a "C" grade or better.*
This course is designed to cover the application of accounting principles and procedures to the cost control function of manufacturing business management. Emphasis is placed on managerial analysis and control, job order costing, process cost, standard cost, and variance analysis.

BBG* K115 - Business Software Applications °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K123 or higher with a "C" grade or better.*
Using Microsoft Suite application software, students in this hands-on course will learn to use each of the software packages as they relate to the business environment. These software packages include an emphasis on Excel to build flexible spreadsheets used in business decision making, supplemented with Word to produce professional-looking documents, Access to select and analyze data to produce valid results, and Powerpoint to effectively present and communicate.

BMG* K202 - Principles of Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Fundamental principles of management and business operations are discussed with emphasis placed on management orientation, policy making, practical problem analysis, and philosophy. Attention also centers on the following:

planning, organizing, directing, controlling, budgeting functions, qualitative and quantitative decision-making and financial analyses.

BMK* K201 - Principles of Marketing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces the four elements of the marketing mix: product decisions, pricing decisions, promotional decisions and distribution decisions. Emphasis is on the importance of marketing research and consumer behavior in the formulation of marketing strategies. Students study marketing principles and practices as they are applied to consumer and industrial products and services as well as in not-for-profit organizations. Additional topics include marketing in a global economy, ethics, and marketing information systems. The marketing campaigns of small and large companies are discussed as practical examples. Students develop their own marketing plans using strategy and principles learned in the course.

ECN* K101 - Principles of Macroeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces students to the basic concepts of the economic system. The first semester is primarily macroeconomics, with the emphasis on the economic thought process. Discussion of money and banking, national income, fiscal measures, and stabilizing the economy are all included.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

Select Two (2) Courses from the Following Five Courses: 6 CREDIT HOURS

BBG* K101 - Intro to Business

3 CREDIT HOURS
In this course, the focus for students will be on a practical understanding and application of how business works, how it contributes to quality of life, the rewards of entrepreneurship, its legal framework, trade terminology, and business operations including marketing, finance, accounting, and management. This course gives an orientation to business curriculum. This course will emphasize the relationship of business to an individual's everyday life in American society. Students required to take BBG* K101 should enroll in it prior to or in the first semester that they take a BBG*, BMG* or BMK* course. This course is open to all General Studies students as an elective. Certain restrictions apply to this course for business majors. Please refer to your program of study prior to registration.

BES* K218 - Entrepreneurship °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better. ∞.*
The course is designed especially for those students who wish to start a business. A strong emphasis is placed on the practical applications of financing a new business, marketing goods and services, dealing with competitors, and handling leases and landlords. Understanding legal elements for the new business person and other topics make up the bulk of this course. Reality-based projects and instruction enable students to practice immediate application of content.

BMG* K218 - Operations Management °

3 CREDIT HOURS
Prerequisites: ACC K118 or ACC* K233 with a "C" grade or better.*
Fundamental principles and concepts of operations management and business operations are discussed as they relate to the planning and controlling of the operating processes and work flow activities in private and public organizations. Key Topics include production and work planning, capacity planning, inventory control, quality control, scheduling, distribution, plant location, maintenance management, the roles of efficiency and effectiveness and decision making. This course is equivalent to MFG* K230.

BMG* K220 - Human Resources Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course deals with the development and direction of human resources. Areas of discussion include affirmative action, recruitment, selection, placement∞, grievances, wages, discipline, instruction of employees and their evaluations, OSHA, ERISA, and time management and other topics (Previously called Personnel Management).

ECN* K102 - Principles of Microeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces students to microeconomics theory, with a focus on understanding how business, social, and policy decisions are made. The basic theories of distribution of income, international economics, labor, and comparative economic systems are studied.

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 29

Business Administration, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. explain the role of management and its interrelationship with other functional areas in order to achieve organizational goals.
2. identify the elements of management and their application to organizational activities and goals.
3. discuss the role of ethical issues and the importance of the global perspective, and their impact on the success of a business.
4. explain the importance of information technology in business.
5. demonstrate skills in problem solving, in decision-making, and in teamwork, including the ability to work with diverse groups.
6. obtain successful employment in the business field or upgrade current job skills.

Case Management Certificate

Degree Code: K06

Certificate Program

Contact: Joyce Martin- 860-215-9451

This certificate program is designed to prepare students for entry-level case management positions in social service agencies. Students already employed in social service organizations performing case management will acquire specific skills that will improve their career advancement opportunities. Students will learn how to apply the standard functions performed in case management (outreach, referral, intake, assessment, goal-setting, intervention planning, resource identification, interagency coordination, supportive counseling and therapy referral, advocacy, linking clients to formal agencies and informal social support systems, monitoring, reassessment and outcome evaluation discharge). This program curriculum will help students to conduct inperson assessments in order to develop individual treatment plans for effective interventions with vulnerable populations. Students will focus on the comprehensive identification and indexing of community resources. They will be able to apply the case management model in various areas of direct practice, e.g., child welfare, gerontology, substance abuse, mental health, housing and income maintenance. Students may completed this certificate by completing the courses that are listed below.

Case Management Certificate Curriculum Requirements

CSA* K105 - Introduction to Software Applications °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces some popular software packages currently being used in industry, business, and government such as Microsoft Word, Excel, Access, and PowerPoint. A small amount of time will be devoted to the Windows operating system environment. Recent versions of the software packages will be used. Strong reading, good writing, and basic math skills are required. Prior computer usage experience (e.g. keyboard and mouse actions, file and folder management, Internet browsing) is assumed. Digital learning technologies will be used throughout the course.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex

ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

or

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

HLT* K155 - Personal Health °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This is a course on the physiological principles involved in the maintenance of individual health. Students will learn principles of hygiene, nutrition, communicable disease prevention, stress management, exercise, and other elements of personal life style that affects health.

HSE* K101 - Introduction to Human Services °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to familiarize students with the current theory and knowledge related to human services. The course will include a survey of the helping professions, including a history of social welfare and human service agencies. The course will include guest speakers and an opportunity to observe human service practice in local human services organizations. Students will be expected to complete 10 hours of volunteer service in the community.

HSE* K105 - Core Competencies in Community Health Work

3 CREDIT HOURS
This course provides an introduction to the role of the Community Health Outreach Worker within the healthcare delivery team. Emphasis is placed on cooperative service to provide effective, efficient, and appropriate services to underserved clients in diverse communities. Students will develop skills in areas of communication, data collection, documentation, time management, and providing linkages with referral agencies for health and social service related issues. Activities such as field trips, guest speakers, and class discussions will be integrated into course work.

HSE* K241 - Human Service Agencies & Organizations °

3 CREDIT HOURS
Prerequisite: HSE K210 or permission of the instructor.*
This course is an introduction to the study of community organization as a method in social work practice, which has as its major objective of practice the planning and implementation of programs directed toward some aspect of community change. The skills, methods, and functions of community service workers will be explored and integrated into the other skills and methods of social service practice, which are a part of a student's overall learning experiences in the social service program.

HSE* K251 - Work With Individuals & Families °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to provide an introduction to methods and skills leading to beginning competence in the social work process of helping individuals and families. The skills include assessment, planning, contracting, intervention, interviewing, and evaluation.

HSE* K281 - Human Services Field Work I °

3 CREDIT HOURS
Prerequisite: Permission of the instructor.
This course is a practicum/field work experience in human services which is defined as direct involvement in a non-classroom setting sponsored by the College and jointly supervised by the agency and faculty. Students are also expected to participate in a weekly seminar. Students must have completed a minimum of 30 credits with 12 credits in human service degree courses.

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 27

Case Management, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. demonstrate understanding of theories underlying social service practice.
2. demonstrate understanding of the case management method with vulnerable population groups.
3. demonstrate developmental, problem-solving, and coping capabilities of client-centered practice methods.
4. demonstrate ability to assess, plan for intervention, monitor, and evaluate outcomes in the case management method.

Computer Aided Drafting Certificate

For more information on the Plan of Study for the Computer Aided Drafting Certificate, please contact Michael Gentry at mgentry@threerivers.edu.

Degree Code: J46

Certificate Program

Contact: Michael Gentry - 860-215-9428

This certificate program is designed to prepare students with modern skills in drafting. There is a strong emphasis on computer applications in each drafting concentration. A unique feature of this certificate is that it pairs drafting with a technology such as Architectural, Civil, Electrical, Mechanical, or Industrial (Manufacturing, Mechanical). This provides a more meaningful education for the students. Students may complete this certificate and go to work as draftspersons or they may enter into an associate degree program of their choice with no less credit. Students may complete this certificate by completing the course that are listed below.

Computer Aided Drafting Certificate Curriculum Requirements

Semester I

CSA* K105 - Introduction to Software Applications °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces some popular software packages currently being used in industry, business, and government such as Microsoft Word, Excel, Access, and PowerPoint. A small amount of time will be devoted to the Windows operating system environment. Recent versions of the software packages will be used. Strong reading, good writing, and basic math skills are required. Prior computer usage experience (e.g. keyboard and mouse actions, file and folder management, Internet browsing) is assumed. Digital learning technologies will be used throughout the course.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex

ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

MAT* K137 - Intermediate Algebra °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "B-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course cultivates understanding and different representations of functions. Topics covered include linear, quadratic, exponential, rational, radical functions, equations, and expressions with emphasis on modeling and solving real world problems. A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). Please refer to online schedule and click on the CRN hyperlink and/or review the printed schedule to determine which faculty require math software in their section.

Please select from the following courses:

CAD* K106 - Basic CAD - AutoCad

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S or higher*
This course, with the included lab, exposes the student to the current means of generating graphic images with computers. Topics covered include CAD* overview, computer terminology, hardware descriptions and requirements, file manipulation and management, 2D and 3D geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail, and assembly drawings.

CAD* K141 - Basic 3D Parametric Modeling and Lab Solidworks

3 CREDIT HOURS
Prerequisite: MAT K137 or higher*
This course, and accompanying lab, is designed to expand and enhance the student's ability to combine and apply mechanical design principles with computer design techniques and capabilities. This course teaches the basic concepts of orthographic projection, isometrics, oblique drawings, and basic drafting technology. A component of this course will focus on descriptive geometry, which will nurture the visualization skills of students by identifiying points, planes, and perpendiculars in various perspectives. Introducing the mechanical design software SolidWorks, this course begins to examine the basic functionality of drawing automation.

CAD* K142 - Basic 3D Parametric Modeling Inventor

3 CREDIT HOURS
Prerequisite: MAT K137 or higher
This course, and accompanying lab, uses Computer Aided Drafting (CAD) software to create technical models and drawings of real-world design problems. These skills will then be fully synthesized into the world of parametric solid modeling with the use of Autodesk Inventor Professional. This program will allow students to develop various engineering skills as they create the increasingly detailed illustrations used in industry. Drawings of assemblies and exploded views, as well as changing the properties of materials for stress analysis comparisons, will be explored. Through final projects, students can explore the fields of Computer Aided Manufacturing (CAM), Rapid Prototyping, Parametric Modeling, stress analysis, simulation, sheet metal, or Geometric Dimensional and Tolerancing.

Total: 12

Semester II

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

_____ Technical Elective 3-4 CREDIT HOURS**

Please select from the following options:

Option 1:

CAD* K202 - CAD Advanced Topics

3 CREDIT HOURS
Prerequisites: **CAD* K106**
Corequisite: MAT K137 or MAT* K137S or higher*
This course is designed to expose the student to advanced CAD techniques. Typical topics will include three dimensional drawing, solid modeling, rendering, and customizing AutoCAD.

CAD* K214 - Cad - Construction °

1 CREDIT HOUR
Prerequisites: CAD K106/CAD* K107 and latest CAD release working knowledge.*
Corequisite: CAD K215.*
Students continue to learn and practice construction drafting concepts using a CAD system. Students will solve graphic problems typical to construction topics such as plan and elevation views, structuraland concrete detailing, construction section-details, topography and site planning, and schedules including structural members, finish, doors and windows. Creating and using symbol libraries will be introduced.

CAD* K215 - Cad - Construction Lab °

2 CREDIT HOUR
Prerequisites: CAD K106/CAD* K107 and latest CAD release working knowledge.*
Corequisite: CAD K214.*
Students will be assigned graphic problems typical to construction topics based on the lecture.

Option 2:

CAD* K231 - Advanced 3D Parametric Modeling NX

3 CREDIT HOURS
Prerequisite: CAD K141 and CAD* K142*
This course, and accompanying lab, is designed to expand and enhance the student's ability to combine and apply mechanical design principles with computer design techniques and capabilities. This course teaches the basic concepts

of orthographic projection, isometrics, oblique drawings, and basic drafting terminology. A component of this course will focus on descriptive geometry, which will nurture the visualization skills of students by identifying points, planes, and perpendiculars in various perspectives. Introducing the mechanical design software SolidWorks, this course begins to examine the basic functionality of drawing automation.

CAD* K239 - Geometric Dimensioning and Tolerancing °

3 CREDIT HOURS
Prerequisites: CAD K106/CAD* K107 and latest CAD release working knowledge.*
This course will introduce the concepts of Geometric Dimensioning and Tolerance with respect to design and inspection considerations. The entire content will be based upon the ASME Y14.5M- 1994 standards. The concepts of proper dimensioning and tolerance methods with clear distinct outcomes will be defined. The use of computer aided drafting will aid in the delivery of the GDT concepts. This course is equivalent to MFG* K239.

Option 3:

CAD* K222 - Advanced 3D Parametric Modeling and Lab Solidworks

3 CREDIT HOURS
Prerequisite: CAD K141 and CAD* K142*
This course, and accompanying lab, is designed to further enhance the student's ability to combine and apply mechanical design principles with Solidworks. This course continues to examine the basic functionality of drawing automation. In addition, this course will introduce the concepts of geometric dimensioning and tolerancing by presenting an overview of a positional tolerance system, its relationship to coordinate tolerance systems, and other aspects of industry-standard drafting practices.

CAD* K239 - Geometric Dimensioning and Tolerancing 3 CREDIT HOURS +++

Total: 12 - 13

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

+ For students on architectural or construction career path.

++ For solid modeling students on career path to work for a mechanical or manufacturing company that utilizes Siemens NX software.

+++ For solid modeling students on career path to work for a mechanical or manufacturing company that utilizes Solidworks software.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

** Tech elective requires approval of the Program Advisor. Recommended choices include CAD* K130/CAD* K131, CAD* K141/CAD K142, or ARC* K135/ARC* K135L.

Grand Total: 24-25

Computer-Aided Drafting, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. become proficient in the use of Computer-Aided Drafting Software.
2. demonstrate knowledge of drafting standards set forth by the American National Standards Institute (ANSI).
3. demonstrate knowledge of drafting standards set forth by the International Standards Organization (ISO).
4. provide a general understanding of standard drafting principles such as alphabet of lines, precedence of lines, dimensioning standards and projection techniques.
5. readily adapt the necessary skills required for an entry-level position in the discipline of drafting.
6. provide an education that integrates a core curriculum with drafting theory, computer theory, technical background, and practice elements, for students who will seek advanced degrees.
7. expand life long learning opportunities in the drafting area for those with previous experience in other fields.
8. demonstrate and apply skills necessary for visual thinking and graphic problem solving.
9. work cooperatively and productively in groups to solve problems.
10. foster a learning environment that emulates industrial standards.

Construction Management Certificate

Degree Code: J02

Certificate Program

Contact: Mark Comeau - 860-215-9415

The certificate program is designed to provide students desiring a career in the construction industry with entry-level skills. This two-semester certificate program introduces students to a broad range of courses required for basic performance in offices which support the construction industry, including construction companies and architectural and engineering firms. Course subjects include drafting, computer-aided design, building codes, etc. In addition, students will gain exposure to the principal concepts of accounting and management.

Additionally, students will attain entry level knowledge in drafting, AutoCad™, construction materials and documents, codes, computer applications, and principles of accounting and management. Students completing this certificate will be qualified for employment with construction and development firms, architects, engineers and product suppliers, along with being prepared to transfer into universities offering bachelor degrees in construction management. Students must have ENG* K101 competency equivalent to complete certificate.

Students may complete this certificate by completing the courses that are listed below.

Construction Management Certificate Curriculum Requirements

Semester I

ARC* K108 - Construction Materials and Methods

3 CREDIT HOURS
This course introduces students to the sources, uses, physical properties and limitations of materials used in construction while exploring methods of assembly and systems from both a historical and contemporary persepctive. Emphasis is placed on concrete, masonry, steel, wood and material components and respective testing, use, and practical applications.

ARC* K135 - Construction Graphics

1 CREDIT HOUR
Corequisite: ARC K135L.*
This course introduces the fundamental concepts of drafting and working drawings for the construction industry, emphasizing set layout and sequencing, sheet image composition, drawing construction, line weights, conventions, symbols and projection. "Drafting" as a means to convey "design intent" and "constructability" to the construction industry is accomplished through the lab portion of this course by the execution of actual drawing types, including architectural, civil, structural, detail, and other drawings.

ARC* K135L - Construction Graphics Lab

2 CREDIT HOURS
Corequisite: ARC K135.*
This course implements the principles of construction graphics covered in the lecture portion of this course and the execution of actual drawing types, including architectural, civil, structural, detail, and other drawings.

CAD* K106 - Basic CAD - AutoCad

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S or higher*
This course, with the included lab, exposes the student to the current means of generating graphic images with computers. Topics covered include CAD* overview, computer terminology, hardware descriptions and requirements, file manipulation and management, 2D and 3D geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail, and assembly drawings.

CAD* K107 - Computer-Aided Drafting Lab

2 CREDIT HOURS
Corequisite: CAD K106.*
This laboratory utilizes software in an IBM-PC environment. Topics given in the lecture will be learned through solving application problems on the computer.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex

ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

- _____- Directed Elective (see program coordinator) **3 CREDIT HOURS**

Total: 15

Semester II

ARC* K227 - Codes & Ordinances

3 CREDIT HOURS
This course introduces students to the origins, scope, and administration of local, state, and federal codes and ordinances. Students will be exposed to the elements of these codes and ordinances and to the impacts they have on the design, construction and occupancy of a project. Students will develop a working knowledge of the subject material as they track a hypothetical project from preliminary zoning research, through design and construction and ultimately the issuance of a "certificate of occupancy."

CTC* K120 - Fundamentals of Construction Management

3 CREDIT HOURS
Introduces the fundamental aspects of construction management to students in a broad format, covering topics that include understanding the design vision, establishing team expectation, project planning, scheduling, estimating, organizational forms, contracts and risk management.

CTC* K229 - Construction Estimating °

3 CREDIT HOURS
Prerequisite: Recommended some knowledge of the construction industry.
The course examines the roles and responsibilities of a construction estimator. Using both traditional and industry standard digital methods, the course will cover the cost of labor, material, and equipment by unit and by square foot; the fundamentals and effects of scheduling, including critical path, bar and gant charts; and the effect of the global economy on overall construction costs.

MAT* K137 - Intermediate Algebra °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "B-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course cultivates understanding and different representations of functions. Topics covered include linear, quadratic, exponential, rational, radical functions, equations, and expressions with emphasis on modeling and solving real world problems. A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). Please refer to online schedule and click on the CRN hyperlink and/or review the printed schedule to determine which faculty require math software in their section.

Total: 15

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 30

Construction Management, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. attain mastery of the basic skill sets required for entry level in construction management.
2. provide an education that integrates a core curriculum with construction industry theory, technical background and application elements (for students who will seek advanced and professional training).
3. expand opportunities in the drafting and graphics fields (for those with previous experience in allied areas).
4. become competent in the specific traditional and computer drafting skills required in today's construction industry.
5. demonstrate and apply skills necessary for task management and scheduling.
6. become familiar and productive with industry standard software applications.
7. provide sufficient depth of understanding of construction means, method and assemblies.
8. adopt and understanding that life-long learning and intellectual growth is an integral part of a career in construction technology due to ever-evolving components and systems.
9. demonstrate workplace skills related to the occupation, including but not limited to maintaining a safe and healthy workplace environment and demonstrating workplace ethics and teamwork.
10. apply knowledge of theory and safety to accomplish tasks related to the occupation.
11. identify and use appropriate tools, such as testing and measurement equipment to accomplish tasks related to the occupation.
12. use current reference and training materials from accepted industry publications and standards to accomplish tasks related to the occupation.

Criminal Justice Certificate

Degree Code: J75

Certificate Program

Contact: Jeffrey Crouch - 860-215-9418

This certificate program is designed to provide an opportunity for students to participate in a program leading to a certificate in Criminal Justice.

Students may complete this certificate by completing the courses that are listed below.

English Competency Requirement met by: _____

Criminal Justice Certificate Curriculum Requirements

CJS* K101 - Introduction to Criminal Justice °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course provides an overview of the criminal justice system in the United States. Students will be exposed to the system's components: law enforcement, courts, and corrections from historical, theoretical, and philosophical perspectives. Students will have the opportunity to interact with criminal justice professionals and be challenged in both reading and writing

CJS* K201 - Criminology °

3 CREDIT HOURS
Prerequisite: CJS K101 or SOC* K101.*
Corequisite: ENG K101 or ENG* K101S.*
This course investigates the relationship between crime and society. Emphasis is placed on understanding theoretical explanations of deviant behaviors from multiple disciplinary perspectives. Students will have the opportunity to use current technologies and practices in assessing crime and crime patterns. They will engage in quantitative reasoning and social science methodologies. Students will explore public policy development and implementation as it relates to crime prevention, control and quality of life issues.

CJS* K211 - Criminal Law I °

3 CREDIT HOURS
Prerequisite: CJS K101.*
Corequisite: ENG K101 or ENG* K101S.*
This course involves comprehensive study of sources, distinctions, and limitations relating to criminal law; the development of criminal law in the United States; the principles of criminal liability; various crimes and their elements; and the criteria considered in determining capacity and defenses. Connecticut Penal Code is used to relate Model Penal Code and Common Law materials specifically to Connecticut. Case studies and briefs are used to emphasize the acts, the mental state, and the attendant circumstances that are necessary ingredients in proving crimes.

or

POL* K212 - Constitutional Law and Civil Rights °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
An intensive study and analysis of the United States Constitution and especially the Amendments to that Constitution; a study and review of court decisions which interpret the Constitution; a comprehensive study of court decisions which determine police policy and consideration of specific guidelines which must be followed in the criminal justice process.

CJS* K213 - Evidence & Criminal Procedure °

3 CREDIT HOURS
Prerequisite: CJS K101.*
Corequisite: ENG K101 or ENG* K101S.*
This course explores the historical background, kinds of evidence, and the development of the rules of evidence. Considered are the hearsay rule and its major exceptions, burden of proof, judicial notice, and presumptions. Students will examine the roles of the judge, jury, and prosecuting attorney. Other areas of study will include the grand jury, prosecution by indictment as well as other court procedures.

CJS* K220 - Criminal Investigation °

3 CREDIT HOURS
Prerequisite: CJS K101.*
Corequisite: ENG K101 or ENG* K101S.*
This course is designed to make the student aware of the fundamentals of criminal investigation. The student will learn correct procedures and conduct at the crime scene, how to preserve evidence, and chain of custody. Emphasis is on the responsibility of the first responder. Additionally, students will review documentation, preparation, and testimony in court.

CJS* K225 - Forensic Science °

3 CREDIT HOURS
Prerequisites: CJS K101.*
Corequisites: ENG K101 or ENG* K101S.*
This course involves the examination of physical evidence including collecting, identifying, preserving: and transportation it. They will be exposed to the crime laboratory and its capabilities and limitations. Additionally, they will participate in field testing and learn the various purposes of kits and their function and design. Laboratory procedures will be demonstrated depending on existing and available facilities.

CJS* K250 - Police Organization & Administration °

3 CREDIT HOURS
Prerequisites: CJS K101; ENG* K101 or ENG* K101S.*
This course exposes the student to the complexities inherent in the administration of modern law enforcement organizations by presenting and analyzing a variety of management styles and administrative techniques used in such organizations. Students will examine many of the internal and external factors that impact contemporary law enforcement organizations (e.g., federal regulations, political structures, community needs, press, etc.). Students will be exposed to theoretical perspectives, practical applications and designs in an environment that encourages discussion, writing, and networking with local and state agencies.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

Note:

° Course has a prerequisite. Students should check course description.

The English Competency Requirement is met by placement into ENG* K101, or transfer credit, or completion of ENG* K096.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 27

Criminal Justice, Certificate Program Outcomes

Upon successful completion of this certificate program, graduates will be able to:

1. identify and explain the basic structures and functions of the criminal justice system.
2. interpret the basic concepts and functions of criminal law.
3. integrate multidisciplinary theories with constitute the basis for understanding criminality and victimization.
4. apply constitutional principles that protect the rights of individuals and regulate criminal justice practices and procedures.
5. discuss the importance of social and ethical issues confronting the criminal justice system.

Environmental Health and Safety Management Certificate

Degree Code: K09

Certificate Program

Contact: Diba Khan-Bureau - 860-215-9443

This program is designed for to enable students to apply their EH&S management skills in any workplace setting. Environmental, occupational health and safety is an important factor in all workplaces today. In all workplaces and schools, the law requires environmental management and occupational, health, and safety standards to be met. Having an EH&S management certificate will afford the students the opportunity to obtain work, become promoted at their present workplace, or continue their education. All credits can be applied towards an associate of science degree in environmental or civil engineering technology.

Students may complete this certificate by completing the courses that are listed below.

Environmental Health and Safety Management Certificate Curriculum Requirements

BMG* K202 - Principles of Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*

Fundamental principles of management and business operations are discussed with emphasis placed on management orientation, policy making, practical problem analysis, and philosophy. Attention also centers on the following: planning, organizing, directing, controlling, budgeting functions, qualitative and quantitative decision-making and financial analyses.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

ENV* K110 - Environmental Regulations °

3 CREDIT HOURS
Prerequisite: ENV K101 .*
This course provides a broad view of federal, state, and municipal environmental regulations as they apply to industry, commercial establishments, local governmental facilities, and the individual citizen. It provides a practical approach to regulatory understanding to enable one to plan an effective and economically sound compliance program. Course topics include the Clean Air Act (CAA), Clean Water Act (CWA), Toxic Substance Control Act (TSCA), SARA Title III (Community Right-to-Know), and federal, state, and local regulations, covering such topics as hazardous material transportation, in-ground tank storage, and specific hazardous materials such as asbestos and PCBs.

ENV* K130 - Occupational Safety & Health

3 CREDIT HOURS
This course is an introduction to Occupational Safety & Health in the workplace. It will introduce students to the safety and health field and address the application of engineering, management principles, and techniques to safety, health, and loss control. The topics include general safety, health, and risk assessment concepts and terms. Discussions will include historical developments, program management, problem identification, engineering assessment, hazard recognition, evaluation, and control. The course work will also introduce the student to measurement and evaluation systems, legal and regulatory requirements, environmental health and safety, industrial hygiene, safety engineering, product safety and public health, risk assessment analysis and management, accident investigation, ergonomics, and ethics and professionalism. A visit to an industrial site will be included.

ENV* K220 - Hazardous Materials °

3 CREDIT HOURS
Prerequisite: None required; CHE K111 or CHE* K121 recommended.*
This course is a study of accident prevention, safety, industrial hygiene and proper procedures for handling hazardous materials. Properties of many industrial reagents and solvents are examined so they can be handled and stored properly. The following specific topics will be covered: Material Safety Data Sheets (MSDS), labeling, personnel training and records, emergency response program, toxicity routes of entry, storage, ventilation, personal protective equipment, barriers, and spills containment Requirements of OSHA, SPCC, RCRA, and TSCA will be reviewed to provide students with a working knowledge of the regulations. This course meets the requirements of 29 CFR 1910.120.

ENV* K295 - Environmental Issues Seminar

3 CREDIT HOURS
Corequisite: Recommended ENV K101 or BIO* K180 or by permission of instructor.*
This seminar consists of assigned readings and guest lecturers on various environmental topics that are important to the development of Environmental and Civil Engineering Technology students, but also valuable for anyone who wants to learn, understand, and write effectively about the environment. Some common seminar topics may include federal and state regulations, solid and municipal waste management, best management practices (BMPs), environmental restoration and remediation, alternative and renewable energy, sustainable landscape management, sustainable agriculture, stewardship, land use, water quality, stormwater management and global and local environmental quality trends. Students are required to discuss, think about, and write about the topics, carrying out their own library research, to support positions that they will develop.

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 24

Environmental Health and Safety Management, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. apply environmental, safety and health management skills in workplace settings.
2. implement written workplace procedures in the environmental, health and safety fields.
3. describe concepts of workplace safety and environmental management and be able to understand the roles and responsibilities of the EHS professionals and the decision-making process involved in everyday situations.
4. provide guidance in planning and implementing practices that promote safety and prevent workplace accidents.
5. use communication and interpersonal skills to establish the respect and authority an EHS professional needs to surmount institutional barriers for employee well-being and environmental protection.
6. recognize the limitations of human capabilities in the workplace.

7. identify workplace hazards, find the means to reform unsafe procedures and behaviors, and establish engineering and management controls to reduce hazards.
8. explain product safety requirements of the marketplace and describe engineering and management techniques to meet them.

General Studies Certificate

Degree Code: J57

Certificate Program

Contact: Steven Neufeld- 860-215-9457

This certificate program is designed for students who have not decided on a specific academic or professional/technical goal to explore the broadest range of courses offered at Three Rivers Community College. Students tailor the certificate program to meet their individual needs and interests.

Students may complete this certificate by completing the courses that are listed below.

General Studies Certificate Curriculum Requirements

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

IDS K105 - The First Year Experience °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# or higher.*
This course is designed to engage students as active participants within the college environment. Students will have the opportunity to acquire academic skills, attributes, awareness of self as learner, and to engage with the resources and activities within the Three Rivers Community College community. You can expect regular reading, writing and research assignments along with classroom discussion as you investigate how to be successful in this environment.

- _____- Math/Science elective **3-4 CREDIT HOURS**
- _____- Social Science elective **3 CREDIT HOURS**
- _____- Humanities/Speech elective **3 CREDIT HOURS**

Open Electives: 15-16 CREDIT HOURS

- _____- Open Elective **3 CREDIT HOURS**
- _____- Open Elective **3 CREDIT HOURS**
- _____- Open Elective **3 CREDIT HOURS**

- _____- Open Elective **3 CREDIT HOURS**
- _____- Open Elective **3 CREDIT HOURS**

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 30-32

General Studies, Certificate Program Outcomes

Upon successful completion of all program requirements graduates will be able to:

1. think critically, analytically and creatively.
2. communicate effectively in writing.
3. move beyond a narrow focus and recognize broader perspectives.
4. better understand the relationship between one's own self, others, and society in which we live.

Graphic and Communication Arts Certificate

Degree Code: J23

Certificate Program

Contact: Kevin Amenta - 860-215-9402

This certificate program is designed to allow students to take advantage of the tremendous demand for the media in southeastern Connecticut and along the eastern seaboard. Students' exposure to courses and experiences in this program will make them qualified for media-related jobs, or will prepare them to create materials for private and public organizations.

Students may complete this certificate by completing the courses that are listed below.

Graphic and Communications Arts Certificate Curriculum Requirements

BMK* K241 - Principles of Advertising °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*

This course surveys the basic elements, functions, and principles of advertising. Emphasis is on advertising's role as a marketing tool. Students study current advertising campaigns and marketing communication methods. Target marketing, image creation, and ethical aspects of advertising are discussed. Selection of print media, electronic media, and supportive promotional techniques are included. Students create their own comprehensive advertising campaigns using strategies learned in the course.

COM* K121 - Journalism °

3 CREDIT HOURS
Prerequisite: None required; ENG K101 or ENG* K101S recommended.*
This course is designed to give students an introduction to news writing. Students receive practice in writing hard news, feature stories, and editorials, as well as editorial decision-making. Word processing instruction is included. No previous experience necessary. COM* K121 meets the computer literacy requirement.

COM* K291 - Publications Practice I °

3 CREDIT HOURS
Prerequisite: COM K121 and GRA* K140 and GRA* K155 or permission of the instructor.*
This course is designed to train students to produce The Current, the student magazine. This involves researching, interviewing, writing, editing, photography, and proofreading. It also includes all the pre-press work (including digital imaging), which is done on computers, primarily using the Adobe Graphic Studio. Advertising (sales and design) is also part of this course.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

GRA* K140 - Publication Design °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; or permission of the instructor and knowledge of a word processing program.*
This course provides an introduction to graphic design. Proper file management, Macintosh computer navigation basics and fundamental techniques of the design process will be covered. Students will learn to create a graphic identity through proper typography, image editing and page layout. Graphic Design industry standard software will be used including Adobe Photoshop, Illustrator and InDesign. Classes consist of lectures, demonstrations, applied practice and critiques.

GRA* K155 - Advertising Design °

3 CREDIT HOURS
Prerequisite: Knowledge of a word processing program.

This computer graphics course focuses on using Adobe Photoshop to design various advertisements and prepare them for print and the web. Students will apply design principles, and type/image integration to complete design projects of moderate to increasing complexity. Emphasis is placed on project development and execution, the generation of ideas, concepts and teamwork in order to communicate persuasively and effectively. Student-designed computer lab projects include writing copy, brand positioning, client/agency relationship, copywriting, and proper research methods. GRA* K155 meets the Computer Literacy Requirement.

GRA* K230 - Digital Imaging 1 °

3 CREDIT HOURS
Prerequisite: GRA K140 or GRA* K131 or permission of the instructor.*
Adobe Photoshop is the focus of this course which will provide students with a foundation in image manipulation and graphic design. This course concentrates on the high end capabilities of Photoshop as an illustration, design and photo retouching tool. Students will explore a wide range of manipulation techniques that can be applied to photos and graphics. Students will also study design principles and read and report on Photoshop artists.

GRA* K260 - Web Design °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; GRA* K140 and GRA* K230; or permission of the instructor.*
This computers graphics course is an introduction to the concepts of professional web site design using the Industry-standards-based website development tools Dreamweaver and Adobe Photoshop. Students will be able to create, prepare, and manipulate documents, illustrations, and images for the web. The four design principles of contrast, repetition, alignment, and proximity will be discussed and utilized to create a web site using the authoring tools described above as well as the skills acquired in the prerequisite courses.

GRA* K131 - Digital Photography

3 CREDIT HOURS
This course is an introduction to digital photography and basic photo-editing features of Adobe Photoshop. Students shoot digital images for specific assignments emphasizing exposure, depth-of-field, composition, and image quality. The introduction of digital photography techniques, editing, and creative approaches will be the focus. Students will read and report on famous photographers and photography literature. Each student is required to have a camera in which they can manually control the focus, shutter speed, aperture and ISO.

COM* K166 - Video Filmmaking °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S and any 100-level Humanities or Social Sciences course.*
A creative workshop in which students will work with digital media to make their own movies. Students work with video camcorders and editing software. Students will learn scripting, shooting, editing and audio production techniques. Students will also research and write on various topics related to digital video and filmmaking. Each student is required to have access to a camera or camera phone which can shoot movies. This course is equivalent to ART* K185.

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 30

Graphic and Communication Arts, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. write news and feature stories.
2. edit the work of others.
3. use Adobe Pagemaker, a page layout program, to produce newsletters, brochures, flyers, advertisements, and a multipage tabloid publication.
4. use Adobe Photoshop to edit images, design images, combine text with images and prepare images for the web.
5. use Pagemaker, Photoshop and Multi-Ad creator to design and produce advertisements for print and the web.

Hotel Management Certificate

Degree Code: K03

Certificate Program

Contact: James O'Shea - 860-215-99459

Students may complete this certificate by completing the courses that are listed below.

Hotel Management Certificate Curriculum Requirements

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

HSP* K100 - Introduction to the Hospitality Industry

3 CREDIT HOURS
This course provides an overview of the structure and functions of the hospitality industry, including hotels, motels, inns, restaurants, resorts, casinos, and other tourist related concerns. Students will survey career options and the essential abilities needed to pursue these options. The course also introduces students to the many tourist attractions in southeastern Connecticut.

HSP* K108 - Sanitation & Safety

3 CREDIT HOURS
This course teaches students about the potential emergency situations in the hospitality industry and the appropriate and correct actions to take. Students will receive the National Restaurant Association's Certification in Food Sanitation and Safety required by law in the food service industry. Students will learn all aspects of sanitation including the ordering, receiving, storing, preparing, and serving of food.

HSP* K111 - Basic Food Preparation

4 CREDIT HOURS
Corequisite: HSP K108.*
This course introduces the fundamental theories and skills in basic food preparation and baking. Emphasis is on the identification of a standard quality product, cooking theories, equipment, recipe conversion, weights and measures, and safe and sanitary working habits.

HSP* K134 - Hospitality Customer Relations

3 CREDIT HOURS
This course will focus on the relationship and interaction between the customer and the hospitality employee. A thorough investigation of the various aspects of communications between people will be studied. Students will learn effective communication skills in customer service and will implement these skills through role-playing and hands-on training.

HSP* K245 - Hospitality Sales & Marketing °

4 CREDIT HOURS
Prerequisites: ACC K111 or ACC* K115.*
This course is designed to familiarize the students with the sales and marketing practices used in the tourism field. Market analysis, methods of advertising, promotion, pricing, and sales techniques will be addressed.

HSP* K296 - Cooperative Education °

3 CREDIT HOUR
Prerequisites: Permission of Program Coordinator.
This course is an on-the-job practical experience to reinforce the principal techniques and procedures presented in the classroom and lab. Students seek their own employment in an approved hospitality position and are evaluated by their employers, the program coordinator, and by the quality of their written assignments. Students meet for a cooperative, professional seminar and individually with the program coordinator several times throughout the semester.

MAT* K123 - Elementary Statistics °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "C-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course considers fundamental concepts of probability and statistics. The topics include exploratory data analysis (tables, graphs, measures of central tendency and dispersion), basic probability, applications of binomial and normal distributions, confidence intervals, hypothesis testing and Chi-Square Goodness-of-Fit Test.

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 26

Introduction to Manufacturing (Level 1)

Degree Code: K56

Certificate Program

Contact: Michael Gentry - 860-215-9428

This certificate program is designed to provide students with the opportunity to acquire the knowledge and skill in preparation for entry level work in manufacturing.

Students may complete this certificate by completing the courses that are listed below.

Introduction to Manufacturing (Level 1) Certificate Curriculum Requirements

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

CAD* K106 - Basic CAD - AutoCad

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S or higher*
This course, with the included lab, exposes the student to the current means of generating graphic images with computers. Topics covered include CAD* overview, computer terminology, hardware descriptions and requirements, file manipulation and management, 2D and 3D geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail, and assembly drawings.

CAD* K107 - Computer-Aided Drafting Lab

2 CREDIT HOURS
Corequisite: CAD K106.*
This laboratory utilizes software in an IBM-PC environment. Topics given in the lecture will be learned through solving application problems on the computer.

EET* K105 - Electric Circuits & Systems °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I.*
Corequisites: MAT K137 or MAT* K137S.*
This course provides an introduction to the basic concepts of DC and AC electric circuits. Voltage, current, resistance, energy, and power relationships are introduced. Circuit analysis of basic series and parallel circuits is covered. Instruments and techniques of electrical measurement for both DC and AC circuits are also discussed. Other topics include semiconductor devices, transformers and power supplies, microcontrollers, motors and drive circuits, and electrical power generation/distribution. The lab portion of this course will supplement the course Electric Circuits & Systems. Students will apply the concepts learned in the classroom and gain practical hands-on experience making electrical measurements using a variety of test instruments.

ENV* K130 - Occupational Safety & Health

3 CREDIT HOURS
This course is an introduction to Occupational Safety & Health in the workplace. It will introduce students to the safety and health field and address the application of engineering, management principles, and techniques to safety, health, and loss control. The topics include general safety, health, and risk assessment concepts and terms. Discussions will include historical developments, program management, problem identification, engineering assessment, hazard recognition, evaluation, and control. The course work will also introduce the student to measurement and evaluation systems, legal and regulatory requirements, environmental health and safety, industrial hygiene, safety engineering, product safety and public health, risk assessment analysis and management, accident investigation, ergonomics, and ethics and professionalism. A visit to an industrial site will be included.

- MAT* K095 - Elementary Algebra Foundations or higher **0-4 CREDIT HOURS**

MEC* K152 - Fundamentals of Engineering Graphics °

1 CREDIT HOUR
Prerequisite: MAT K095 OR MAT* K095I or higher.*
Corequisite: MEC K153.*
This course teaches the basic concepts of orthographic projection, isometric, and oblique drawings and basic drafting terminology. Emphasis will also be placed on free hand sketching using the above concepts and terminology. Basic principles of simplified board drafting practices will be covered. A major component of this course will focus on descriptive geometry which will nurture the visualization skills of students by identifying points, planes, and perpendiculars in various perspectives. Some of the techniques will be accompanied with CAD as a comparison.

MEC* K153 - Fundamentals of Engineering Graphics Lab °

2 CREDIT HOURS
Prerequisite: MAT K095 OR MAT* K095I or higher.*
Corequisite: MEC K152.*
This lab and accompanying lecture is designed to introduce students to the concept of applying mechanical design principles with computer designed techniques and capabilities. This course teaches the basic concepts of orthographic projection, isometric, and oblique drawings and basic drafting terminology. A component of this course will focus on descriptive geometry which will nurture the visualization skills of students by identifying points, planes and perpendiculars in various perspectives. Introducing the mechanical design software SolidWorks, this course begins to examine the basic functionally of drawing automation. One hour lecture/discussion and four hours of lab per week.

MEC* K262 - Materials Science °

3 CREDIT HOURS
Prerequisites: MFG K102*
Corequisite: MEC K263.*
This course studies the structure and properties of engineering materials, and incorporates the presentation of materials selection, processing, and heat treatment. The changes in structure and properties during forming, machining, and heat treating operations are discussed.

MEC* K263 - Materials Science Lab °

1 CREDIT HOUR
Prerequisites: MFG K102; TCN* K105.*
Corequisite: MEC K262.*
In this lab, students will be exposed to selected experiments demonstrating the effects of processing, including heat treatment, on the properties of engineering materials. Standard materials tests are also performed.

or

PHO* K101 - Intro to Light and Lasers

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S.*
This course is a comprehensive study of photonics designed as a one-semester course. It provides the foundation required to prepare technicians in the areas of optics, electro-optics, lasers, and photonics. Topics include: Nature and Properties of Light, Optical Handling and Positioning, Light Sources and Laser Safet, Basic Geometrical Optics, and Basic Physical Optics. The course covers the wave and particle properties of light, light interactions, fundamentals of laboratory safety, bulk optical materials and their properties, optical coatings and methods of coating deposition, laboratory mountings, positioning equipment, surface quality of optical components, inspection methods and procedures, the care and cleaning of optics, concepts of laser safety, laser safety standards, safety classifications, laws of reflection and refraction, image formation with lenses and mirrors, interference, diffraction, and polarization processes. The lab portion of the course provides students with hands on activities to demonstrate the various optical concepts. This course is equivalent to PHY* K103. One 2 hour lecture; one 3 hour lab.

MFG* K102 - Manufacturing Processes and Lab

3 CREDIT HOURS
Corequisite: TCN K105*
This course studies manufacturing: making goods and wares by industrial processes. The course will provide theoretical experience in the scientific, engineering, and economic principles on which the various manufacturing

processes are based.This laboratory portion provides emphasis on common metal cutting tools and lathe operations, as well as on associated precision measuring tools and instruments. The labs will also involve set-ups and procedures for various manufacturing processes including plasma cutting, sheet metal, molding and additive manufacturing.

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 26-31

Introduction to Manufacturing (Level 1), Certificate Program Outcomes

Upon successful completion of the program requirements graduates will be able to:

1. practice the skills needed to work effectively in teams and as an individual.
2. demonstrate the ability to use appropriate mathematical and computational skills needed for entry-level work in manufacturing.
3. combine oral, graphical, and written communication skills to present and exchange information effectively and to direct manufacturing activities.
4. know the professional code of ethics.
5. describe concepts relating to manufacturing quality, timeliness and continuous improvement.
6. describe how the concepts of metal manufacturing and other basic manufacturing processes affect manufacturing operations.
7. illustrate an ability to think critically and identify, evaluate and solve technical and non-technical problems.
8. recognize actions and acts of professionalism that allow them to become informed and participating citizens cognizant of ethics, civic duty and social responsibility.
9. recognize the need to be lifelong learners.

Laser and Fiber Optic Technology Certificate

Degree Code: K20

Certificate Program

Contact: Michael Gentry - 860-215-9428

This certificate program is designed for mechanical, manufacturing, and electronic technicians and engineers who require knowledge of optics/photonics principles for current or future employment. Some of the courses may be delivered by distance learning over the Internet. The courses in the certificate and may be used to fulfill electives in the General Engineering Technology, A.A.S. The prerequisite for this certificate is a placement score into ENG* K101, completion of ENG* K096 with "C#" or better, or an earned associate degree or higher.

Students may complete this certificate by completing the courses that are listed below.
English Competency Requirement met by _____

Laser and Fiber Optic Technology Certificate Curriculum Requirements

EET* K105 - Electric Circuits & Systems °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I.*
Corequisites: MAT K137 or MAT* K137S.*
This course provides an introduction to the basic concepts of DC and AC electric circuits. Voltage, current, resistance, energy, and power relationships are introduced. Circuit analysis of basic series and parallel circuits is covered. Instruments and techniques of electrical measurement for both DC and AC circuits are also discussed. Other topics include semiconductor devices, transformers and power supplies, microcontrollers, motors and drive circuits, and electrical power generation/distribution. The lab portion of this course will supplement the course Electric Circuits & Systems. Students will apply the concepts learned in the classroom and gain practical hands-on experience making electrical measurements using a variety of test instruments.

PHO* K102 - Applied Optics °

4 CREDIT HOURS
Prerequisites: PHO K101.*
Building on the foundation of PHO* K101, this course will introduce more sophisticated optical systems and mathematical analysis. Topics will include thick lenses, matrix methods of optics, aberrations, stops and pupils, interferometry, Fresnel and Fraunhofer diffraction and polarization. Emphasis will be on applications of optics in modern technology. All laboratory section will reinforce concepts through hands-on experiments and team projects.

PHO* K101 - Intro to Light and Lasers

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S.*
This course is a comprehensive study of photonics designed as a one-semester course. It provides the foundation required to prepare technicians in the areas of optics, electro-optics, lasers, and photonics. Topics include: Nature and Properties of Light, Optical Handling and Positioning, Light Sources and Laser Safet, Basic Geometrical Optics, and Basic Physical Optics. The course covers the wave and particle properties of light, light interactions, fundamentals of laboratory safety, bulk optical materials and their properties, optical coatings and methods of coating deposition, laboratory mountings, positioning equipment, surface quality of optical components, inspection methods and procedures, the care and cleaning of optics, concepts of laser safety, laser safety standards, safety classifications, laws of reflection and refraction, image formation with lenses and mirrors, interference, diffraction, and polarization processes. The lab portion of the course provides students with hands on activities to demonstrate the various optical concepts. This course is equivalent to PHY* K103. One 2 hour lecture; one 3 hour lab.

PHO* K241 - Introduction to Laser Technology

3 CREDIT HOURS
Corequisite: MAT K137.*
This course provides an introduction to the physics of lasers, laser output characteristics, and types of lasers. Application of lasers will be also be explored. Topics include solid state, gas, and semiconductor lasers. Laser pumps,

resonators, mode structures and power supplies are covered. Use of lasers in materials processing, communication systems, sensors and scientific analysis will be included.
The lab portion of this course will reinforce classroom physics and technology concepts and give students the opportunity to become familiar with common laser instrumentation. Lab projects will allow students to more deeply explore topics of interest. Lab exercises will include practice with Diode, HeNe, Argon, Fiber and CO2 lasers.

- EET/PHO Directed Elective- EET* K264 or EET* K274 or PHO* K251 **3 CREDIT HOURS**

Note:

° Course has a prerequisite. Students should check course description.

The English Competency Requirement is met by placement into ENG* K101, or transfer credit, or completion of ENG* K096 with a "C#" grade or better.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 16

Laser and Fiber Optic Technology, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. specify and operate optical test instrumentation, for example, optical spectrum analyzers and laser beam profilers.
2. align, maintain and operate optical components and support and positioning equipment.
3. survey a laser work area, citing unsafe conditions present.
4. read and interpret vendor catalogs and instruction manuals.

Lean Manufacturing Certificate

Degree Code: N13

Certificate Program

Contact: Michael Gentry- 860-215-9428

This certificate program is designed as a response to the expressed future and current needs of the manufacturing community. The U.S. Department of Labor along with local industry has demonstrated a demand and need for courses in the areas of lean management. This certificate provides students with the skills that will increase their employability in the manufacturing field as well as set them on a path that will enable them to further their education.

Students may complete this certificate by completing the courses that are listed below.

Lean Manufacturing Certificate Curriculum Requirements

MFG* K171 - Introduction to Lean Manufacturing

3 CREDIT HOURS
The purpose of this course is to provide the student with the fundamental knowledge of current continuous process improvement methodologies in use today within competitive manufacturing environments. This introductory course will expose the student to the basic concepts of Lean Manufacturing theory and the various tools and techniques involved with a lean implementation. This course will be presented following the lean six sigma process methodology of DMAIC (Define, Measure, Analyze, Improve, Control) to ensure that at the completion of the course, the student will be competent to participate effectively as a team member in lean implementation projects.

MFG* K271 - Advanced Lean Manufacturing °

3 CREDIT HOURS
Prerequisite: MFG K171.*
The purpose of this course is to provide the student with the knowledge to implement lean improvements within the production environment using a systematic approach. This course will follow an improvement project (from the student's current employer or case study) through the five stages of the DMAIC problem solving methodology. At the completion of the course, the student will be competent to effectively lead a lean implementation project within a company.

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 6

Library Technology Certificate

Degree Code: J66

Certificate Program

Contact: Marie Shaw- 860-449-4411

This certificate program is designed to prepare individuals for employment as library technical assistants, as well as to improve the knowledge and skills of those already working in public, academic and special libraries. Our Library Technology certificate program is nationally accredited by the American Library Association through their Library Support Staff Certification (LSSC). Students who complete the Library Technology certificate at Three Rivers Community College demonstrate nationally accepted competencies of library service and operations. Students benefit

from LSSC in many ways, such as it gives students proof of their achievements, their certification is portable in other states, and it provides students an edge on employment opportunities.

Students may complete this certificate by completing the courses that are listed below. Courses may be taken in any order with the exception of those that require a prerequisite.

Library Technology Certificate Curriculum Requirements

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

LIB* K101 - Introduction to Library Public Services

3 CREDIT HOURS
This course deals with the public service aspect of library work, which includes circulation, reserve, and publicity.

LIB* K104 - Introduction to Reference Services °

3 CREDIT HOURS
This course is designed to familiarize students with the use of general and specialized reference tools. Procedures and services in the library reference department are also discussed.

LIB* K116 - Cataloging and Classification °

3 CREDIT HOURS
Prerequisite: LIB K123.*
This course introduces both Dewey and Library of Congress Classification Systems. Also included are original descriptive and subject cataloging of print and non-print media, and copy cataloging by using MARC format.

LIB* K123 - Introduction to Library Tech Services

3 CREDIT HOURS
This course is designed to give students an understanding of the use of bibliographic tools, the skills to use them appropriately, and a basic knowledge of workflow in a technical processing department.

LIB* K125 - Digital Media

3 CREDIT HOURS
This course serves as an introduction to a variety of digital media forms as they are being used in the library and information service fields. Students will be exposed to such presentation software such as Facebook, Flickr, BitTorrent, Secondlife, podcasts, audiobooks, ebooks, Mp3 and Mp4 files. Students will also use digital cameras and sound recorders to create original content.

LIB* K127 - Management Strategies

3 CREDIT HOURS
This course covers the basic supervisory skills that are necessary for library technical assistants. Topics included are job descriptions, employee evaluation, motivation, conflict management, interpersonal communication, time management, training techniques, affirmative action, usage statistics, censorship, and Library Bill of Rights.

LIB* K201 - Digital Resources °

3 CREDIT HOURS
This course covers the theory and field practice of web sites, internet searching and search engines, online reference searches, shared databases, LANs, CD ROM technology, and library networks. LIB* K201 meets the computer literacy requirement.

- _____- Library Technology Elective **3 CREDIT HOURS +** *please choose from either course below:*
  - LIB* K120
  - LIB* K202 (contingent on advisor approval)

Note:

° Course has a prerequisite. Students should check college catalog course description.

LIB* K202 is required for students with no practical library experience.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 27

Library Technology, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. explain the mission of libraries, departments and services of libraries, and basic library policies.
2. demonstrate good customer service and communication skills.
3. recognize and explain common library terminology.
4. apply knowledge of basic technology skills (including online computer automation systems; word processing, email, Internet and other productivity software; and internet and database searching techniques) to assist patrons in a rapidly changing technological environment.
5. explain basic reference and information resources and referral procedures.
6. explain basic library classification systems and use them to catalog and retrieve materials.
7. demonstrate appropriate methods and techniques for material processing, storage, and preservation.

Marketing Certificate

Degree Code: J68

Certificate Program

Contact: James O'Shea - 860-215-9459

This certificate program is designed to prepare students for entry-level positions in marketing through a practical, skill-based, concentrated course of study. The program also offers employed students the opportunity to improve their background and skills. Students may complete this certificate program by completing the courses that are listed below. Students may complete this certificate by completing the courses that are listed below.

Marketing Certificate Curriculum Requirements

ACC* K115 - Financial Accounting °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement ∞ or completion of ENG* K096 with a "C#" grade or better. ∞; MAT* K095 or MAT* K095I with a "C#" grade or better.*

This course is designed to cover basic accounting theory and practice as applied to the complete accounting cycle, including the use of current accounting systems and procedures and the preparation of financial statements. The course also covers Long-term Assets, Current & Long-Term Liabilities, and Corporate Reporting and Analysis.

BMG* K202 - Principles of Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Fundamental principles of management and business operations are discussed with emphasis placed on management orientation, policy making, practical problem analysis, and philosophy. Attention also centers on the following: planning, organizing, directing, controlling, budgeting functions, qualitative and quantitative decision-making and financial analyses.

BMK* K201 - Principles of Marketing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces the four elements of the marketing mix: product decisions, pricing decisions, promotional decisions and distribution decisions. Emphasis is on the importance of marketing research and consumer behavior in the formulation of marketing strategies. Students study marketing principles and practices as they are applied to consumer and industrial products and services as well as in not-for-profit organizations. Additional topics include marketing in a global economy, ethics, and marketing information systems. The marketing campaigns of small and large companies are discussed as practical examples. Students develop their own marketing plans using strategy and principles learned in the course.

ECN* K101 - Principles of Macroeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*

This course introduces students to the basic concepts of the economic system. The first semester is primarily macroeconomics, with the emphasis on the economic thought process. Discussion of money and banking, national income, fiscal measures, and stabilizing the economy are all included.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

- _____- Business Elective (accounting, business, CSC, management, marketing, practicum) **3 CREDIT HOURS**

Select 3 Courses From the Following 5 Courses: 9 CREDIT HOURS

BMK* K103 - Principles of Retailing

3 CREDIT HOURS
This course covers a practical introduction to the principles and practices of retailing in today's competitive environment. Elements of retail marketing and management are studied including merchandising, store organization and policies, buying, promotion, image creation, pricing, and customer service. Additional concepts such as trends in retailing, site selection, and personnel policies are also discussed. Students utilize case studies and examples drawn from actual, current retailing activities. They also create their own retail store business plan.

BMK* K106 - Principles of Selling °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to prepare students for professional selling of products, services, and ideas. It concentrates on the mutual satisfaction of both buyers and sellers and the role of the salesperson. Topics studied include the communication process, sales territory management, and the seven steps in the selling process: prospecting, approach, presentation, demonstration, handling of objections, closing and follow-up. Practical application of these concepts in industrial sales, consumer sales, public service selling, and political campaigns is also examined through case studies, role-playing, and student participation exercises.

BMK* K123 - Principles of Customer Service °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is the study of the principles and practices involved in providing excellent customer service. Students learn effective verbal and nonverbal communication techniques, professional customer service behaviors, problem solving and the monitoring and measuring of customer service. Delivery of customer service by telephone, in person, by mail and via the Internet is studied.

BMK* K235 - Public Relations °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a study of the principles and practices of modern public relations as they apply to profit making and not for profit organizations. Students study a practical approach to the methods of establishing and maintaining a positive relationship between an organization and its stakeholders. These stakeholders or "publics" include customers, employees, competitors, stockholders, government, vendors, and society in general. Topics include special events planning, media relations planning, and corporate communications. Ethical and social responsibility and negative publicity are also discussed. Students apply their learning by providing public relations skills in a service learning community placement∞ or by developing a public relations campaign as a capstone project.

BMK* K241 - Principles of Advertising °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course surveys the basic elements, functions, and principles of advertising. Emphasis is on advertising's role as a marketing tool. Students study current advertising campaigns and marketing communication methods. Target marketing, image creation, and ethical aspects of advertising are discussed. Selection of print media, electronic media, and supportive promotional techniques are included. Students create their own comprehensive advertising campaigns using strategies learned in the course.

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 28

Marketing, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. identify the elements of marketing and their creative application in profit-making as well as in not-for-profit organizations in order to satisfy the needs and wants of society.
2. apply the practical use of marketing theories, tools, and strategies in order to pursue a professional career in marketing.
3. demonstrate skills in leadership, in decision-making and in teamwork, including the ability to work with diverse groups.
4. apply knowledge from other business disciplines to solve marketing problems.
5. demonstrate competency in all areas of business communication: oral, written, and technological.
6. explain the role of marketing and its interrelationship with other functional areas in order to achieve organizational goals.

Restaurant Management Certificate

Degree Code: K04

Certificate Program

Contact: James O'Shea - 860-215-9459

Students may complete this certificate by completing the courses that are listed below.

Restaurant Management Certificate Curriculum Requirements

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

HSP* K100 - Introduction to the Hospitality Industry

3 CREDIT HOURS
This course provides an overview of the structure and functions of the hospitality industry, including hotels, motels, inns, restaurants, resorts, casinos, and other tourist related concerns. Students will survey career options and the essential abilities needed to pursue these options. The course also introduces students to the many tourist attractions in southeastern Connecticut.

HSP* K108 - Sanitation & Safety

3 CREDIT HOURS
This course teaches students about the potential emergency situations in the hospitality industry and the appropriate and correct actions to take. Students will receive the National Restaurant Association's Certification in Food Sanitation and Safety required by law in the food service industry. Students will learn all aspects of sanitation including the ordering, receiving, storing, preparing, and serving of food.

HSP* K111 - Basic Food Preparation

4 CREDIT HOURS
Corequisite: HSP K108.*
This course introduces the fundamental theories and skills in basic food preparation and baking. Emphasis is on the identification of a standard quality product, cooking theories, equipment, recipe conversion, weights and measures, and safe and sanitary working habits.

HSP* K112 - Advanced Food Preparation °

4 CREDIT HOURS
Prerequisites: HSP K111 and HSP* K108.*
This course is a continuation and application of the culinary techniques and knowledge acquired in HSP* K111 - Basic

Food Preparation. Full course menus will be prepared and served to guests. Students will experience various positions in the dining room and kitchen. Emphasis is placed on menu planning and recipes, purchasing, food costing, and service while working as part of a team.

HSP* K117 - Beverage Management

3 CREDIT HOURS
This course introduces students to wines, beers, spirits, and the technical aspects of the products. Viticulture, wine making, the distillation process, and the methods of making malt beverages are investigated. Students will explore the business aspects of buying, selling, and serving these products and the implications of liability and health in a contemporary society.

HSP* K134 - Hospitality Customer Relations

3 CREDIT HOURS
This course will focus on the relationship and interaction between the customer and the hospitality employee. A thorough investigation of the various aspects of communications between people will be studied. Students will learn effective communication skills in customer service and will implement these skills through role-playing and hands-on training.

HSP* K296 - Cooperative Education °

3 CREDIT HOUR
Prerequisites: Permission of Program Coordinator.
This course is an on-the-job practical experience to reinforce the principal techniques and procedures presented in the classroom and lab. Students seek their own employment in an approved hospitality position and are evaluated by their employers, the program coordinator, and by the quality of their written assignments. Students meet for a cooperative, professional seminar and individually with the program coordinator several times throughout the semester.

MAT* K123 - Elementary Statistics °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "C-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course considers fundamental concepts of probability and statistics. The topics include exploratory data analysis (tables, graphs, measures of central tendency and dispersion), basic probability, applications of binomial and normal distributions, confidence intervals, hypothesis testing and Chi-Square Goodness-of-Fit Test.

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 29

Small Business and Entrepreneurial Studies Certificate

Degree Code: J07

Certificate Program

Contact: James O'Shea - 860-215-9459

This certificate program is designed for students who want to start and/or run their own business. Practical application to job situations will be stressed. Students may complete this certificate by completing the courses listed below.

Students may complete this certificate by completing the courses that are listed below.

Small Business and Entrepreneurial Studies Certificate Curriculum Requirements

ACC* K115 - Financial Accounting °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement ∞ or completion of ENG* K096 with a "C#" grade or better. ∞; MAT* K095 or MAT* K095I with a "C#" grade or better.*

This course is designed to cover basic accounting theory and practice as applied to the complete accounting cycle, including the use of current accounting systems and procedures and the preparation of financial statements. The course also covers Long-term Assets, Current & Long-Term Liabilities, and Corporate Reporting and Analysis.

BES* K118 - Small Business Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to assist students with the knowledge and skills needed to operate and/or develop a small business. Emphasis will be placed on the entrepreneurial aspects of creating, managing, and gaining profit from a small business.

BES* K218 - Entrepreneurship °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better. ∞.*
The course is designed especially for those students who wish to start a business. A strong emphasis is placed on the practical applications of financing a new business, marketing goods and services, dealing with competitors, and handling leases and landlords. Understanding legal elements for the new business person and other topics make up the bulk of this course. Reality-based projects and instruction enable students to practice immediate application of content.

BES* K239 - Business Plan Development °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course will teach the student the process of developing a business plan. This course will draw on knowledge obtained from previous business courses. The course will utilize business plan development software. Students will individually, and on a team basis, develop a complete business plan.

BMK* K201 - Principles of Marketing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces the four elements of the marketing mix: product decisions, pricing decisions, promotional decisions and distribution decisions. Emphasis is on the importance of marketing research and consumer behavior in the formulation of marketing strategies. Students study marketing principles and practices as they are applied to consumer and industrial products and services as well as in not-for-profit organizations. Additional topics include marketing in a global economy, ethics, and marketing information systems. The marketing campaigns of small and large companies are discussed as practical examples. Students develop their own marketing plans using strategy and principles learned in the course.

ECN* K101 - Principles of Macroeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces students to the basic concepts of the economic system. The first semester is primarily macroeconomics, with the emphasis on the economic thought process. Discussion of money and banking, national income, fiscal measures, and stabilizing the economy are all included.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

Please select two courses from the following list: 6-7 CREDIT HOURS

ACC* K118 - Managerial Accounting °

4 CREDIT HOURS
Prerequisite: ACC K111 or ACC* K115 with a "C" grade or better.*
This course is designed to cover the application of accounting principles and procedures to the cost control function of manufacturing business management. Emphasis is placed on managerial analysis and control, job order costing, process cost, standard cost, and variance analysis.

ACC* K125 - Accounting Computer Applications I °

3 CREDIT HOURS
Prerequisite: ACC K111 or ACC* K115.*
This course is designed to teach accounting students about computerized integrated accounting and accounting

spreadsheet applications using a standard Windows interface. Students will learn to operate the software by entering realistic accounting transactions for a variety of business applications and by generating financial statements, spreadsheets, and other management information reports. The techniques and terminology learned can be applied to other Window-based software packages.

BMG* K218 - Operations Management °

3 CREDIT HOURS
Prerequisites: ACC K118 or ACC* K233 with a "C" grade or better.*
Fundamental principles and concepts of operations management and business operations are discussed as they relate to the planning and controlling of the operating processes and work flow activities in private and public organizations. Key Topics include production and work planning, capacity planning, inventory control, quality control, scheduling, distribution, plant location, maintenance management, the roles of efficiency and effectiveness and decision making. This course is equivalent to MFG* K230.

BMG* K220 - Human Resources Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course deals with the development and direction of human resources. Areas of discussion include affirmative action, recruitment, selection, placement∞, grievances, wages, discipline, instruction of employees and their evaluations, OSHA, ERISA, and time management and other topics (Previously called Personnel Management).

BMK* K103 - Principles of Retailing

3 CREDIT HOURS
This course covers a practical introduction to the principles and practices of retailing in today's competitive environment. Elements of retail marketing and management are studied including merchandising, store organization and policies, buying, promotion, image creation, pricing, and customer service. Additional concepts such as trends in retailing, site selection, and personnel policies are also discussed. Students utilize case studies and examples drawn from actual, current retailing activities. They also create their own retail store business plan.

BMK* K106 - Principles of Selling °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to prepare students for professional selling of products, services, and ideas. It concentrates on the mutual satisfaction of both buyers and sellers and the role of the salesperson. Topics studied include the communication process, sales territory management, and the seven steps in the selling process: prospecting, approach, presentation, demonstration, handling of objections, closing and follow-up. Practical application of these concepts in industrial sales, consumer sales, public service selling, and political campaigns is also examined through case studies, role-playing, and student participation exercises.

BMK* K123 - Principles of Customer Service °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is the study of the principles and practices involved in providing excellent customer service. Students learn effective verbal and nonverbal communication techniques, professional customer service behaviors, problem solving and the monitoring and measuring of customer service. Delivery of customer service by telephone, in person, by mail and via the Internet is studied.

BMK* K241 - Principles of Advertising °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course surveys the basic elements, functions, and principles of advertising. Emphasis is on advertising's role as a marketing tool. Students study current advertising campaigns and marketing communication methods. Target marketing, image creation, and ethical aspects of advertising are discussed. Selection of print media, electronic media, and supportive promotional techniques are included. Students create their own comprehensive advertising campaigns using strategies learned in the course.

ECN* K102 - Principles of Microeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces students to microeconomics theory, with a focus on understanding how business, social, and policy decisions are made. The basic theories of distribution of income, international economics, labor, and comparative economic systems are studied.

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 28-29

Entrepreneurial Studies, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. understand the role of the entrepreneur in developing a business.
2. understand the basics of managing a small business. develop a small business plan.
3. understand basic accounting principles in order to do required bookkeeping.

Supply Chain Management Certificate

Degree Code: N14

Certificate Program

Contact: Michael Gentry- 860-215-9428

This certificate program is designed as a response to the expressed future and current needs of the manufacturing community. The U.S. Department of Labor along with local industry has demonstrated a demand and need for courses in supply chain management. This certificate provides students with the skills that will increase their employability in the manufacturing field as well as set them on a path that will enable them to further their education.

Students may complete this certificate by completing the courses that are listed below.

Supply Chain Management Certificate Curriculum Requirements

MFG* K172 - Introduction to Lean Supply Chain Management

3 CREDIT HOURS
This course is an introduction to the basic principles and methodologies of Supply Chain Management. The course reviews the lean manufacturing principles needed to understand and maintain the supply chain. Key concepts are covered such as Value Stream Mapping, customer/supplier roles, supplier types, metrics, quality systems, quality audits, communication, and information flow. Class activities, group assignments, and case studies are emphasized for real- world learning experiences.

MFG* K272 - Implementing Lean Supply Chain Management °

3 CREDIT HOURS
Prerequisites: MFG K172.*
This course covers the benefits and elements needed for implementing supply chain management. Team building and communication skills are shown as crucial factors in supply chain management. Topics emphasized in the course are measuring the velocity of the supply chain, developing partnerships, logistics, software tools, hardware, and continuous improvement. Class activities, group assignments and case studies are emphasized for real world learning experiences.

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 6

Women's Studies Certificate

Degree Code: J12

Certificate Program

Contact: Janet Hagen- 860-215-9433

This certificate program is designed to prepare students who are interested in Women's Studies to transfer to four-year institutions to pursue a major or minor. The certificate is also designed for students who may be interested in working in various private or non-profit sectors. Potential jobs may include working in domestic violence or welfare rights advocacy, public and community service, non-profit organization work, family counseling, sexual assault counseling, health care, public policy work, human resources, teaching, law, and public relations.

Students may complete this certificate by completing the courses that are listed below.

Women's Studies Certificate Curriculum Requirements

ART* K204 - History of Women in the Arts °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S and any 100-level Humanities, History or Anthropology class; or permission of the instructor.*
This course will cover a global history of women in the visual arts. Art terminology and visual language will be used to examine varied artworks by women from an assortment of historic, social and political and personal contexts. Because historically women have been underrepresented and excluded from participating in the visual arts, students will develop their abilities to critique and question the art historical tradition through a significant amount of writing, and thereby achieve a general level of knowledge and appreciation for the contributions of women artists throughout history.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

ENG* K261 - Women Writers Across Cultures °

3 CREDIT HOURS
Prerequisite: ENG K102 or permission of the instructor.*
This course is intended to broaden students' knowledge of literary traditions and themes from a non-western and multicultural approach through the lens of women's writing. Students will read numerous works by women and will explore the use of critical strategies in relation to those works. Writing assignments will stress critical analysis, including the incorporation of various critical strategies. Emphasis will be on the influence of geography, history, and social environments in shaping women's writing. Course fulfills International/Intercultural Requirement.

SOC* K103 - Social Problems

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to increase the understanding of the nature, scope, history, causes and complexity of contemporary social problems. The course emphasizes not only the problems but also proposed strategies for solution. Topics are studied in the context of many societies around the world, including those of Europe, Asia, Africa, and Latin America, in order to provide the student with a global and multicultural perspective on the issues. Topics vary from semester to semester according to current concerns and interests. Topics often included are poverty, crime, violence, substance abuse, racism, family issues, sexism, health care, environmental destruction, cities, and population. Course fulfills International/ Intercultural Requirement.

SOC* K211 - Sociology of Gender °

3 CREDIT HOURS
Prerequisite: Any 100-level anthropology, economics, history, political science, psychology, or sociology course; or permission of the instructor.
This course is designed for anyone interested in a better understanding of what it means to be male or female in societies, past and present, in the U.S. and around the world. Some topics to be explored include the transformation of gender roles; women's rights in education and at the workplace; the problems of rape and domestic violence; gender in politics, the military, and religion; the impact of gender on intimate relationships such as love, sexuality, friendship, marriage and family; the nature of sexual orientation and the problem of homophobia; and the global struggle for human rights of women and gays. Interrelationships of gender, sexual orientation, social class, race and ethnicity will be studied as an integral aspect of the course. The class format varies - lecture, discussion, films, and speakers.

WMS* K105 - Gender in the Everyday World °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course explores the core concepts central to the field of Women's and Gender Studies in connection to gender, sex and sexualities, race/ethnicity, and class. Some of the topics covered include feminism, social activism, sex trafficking, sexual assault and intimate-partner violence, influence of media, women in leadership, health care and reproductive rights, body image, and gender identity/expression. This course fulfills a liberal arts and sciences and/or humanities elective requirement. It does not fulfill a social sciences elective requirement.

Note:

°Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 24

Women's Studies, Certificate Program Outcomes

Upon successful completion of all program requirements graduates will be able to:

1. explain how women's positions are socially constructed through social identity locations (such as race/ethnicity, class, age, sexuality, abilities, etc.) and other social, cultural, and historical experiences and how these locations and experiences impact women's lives.
2. demonstrate strong written and oral communication skills by formulating and articulating ideas, developing positions, actively listening, and engaging in constructive dialogue on the topic of gender and women's issues.
3. identify and explain what career options and degree programs are available to women's studies major and minors.
4. demonstrate awareness of the importance of civic engagement by engaging in projects that promote the empowerment of women and girls.

Course Descriptions

* Indicates common course numbering across Connecticut Community Colleges.

∞ Appropriate placement through multiple-measures assessment process.

Accounting

ACC* K100 - Basic Accounting I

3 CREDIT HOURS
The course is designed to cover the basic structure, concepts, principles, and correct use of accounting terminology. The practical aspect of accounting is emphasized through recording, classifying, and summarizing the financial information that flows within a business enterprise. The accounting cycle is examined along with such areas as sales, purchases, cash, receivables, and payroll. **This course is not open to students who have completed ACC* K111 or higher.**

ACC* K110 - Introduction to Forensic Accounting

3 CREDIT HOURS
An introductory course in Forensic Accounting designed to provide students with the investigative tools, evidentiary requirements, litigation support and overview of the accounting and legal aspects of fraud including but not limited to fraud perpetrated against individuals and organizations (asset misappropriation), which includes employee theft, vender fraud, money laundering, customer fraud and management fraud with respect to the Sarbanes-Oxley Act.

ACC* K115 - Financial Accounting °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement ∞ or completion of ENG* K096 with a "C#" grade or better. ∞; MAT* K095 or MAT* K095I with a "C#" grade or better.*

This course is designed to cover basic accounting theory and practice as applied to the complete accounting cycle, including the use of current accounting systems and procedures and the preparation of financial statements. The course also covers Long-term Assets, Current & Long-Term Liabilities, and Corporate Reporting and Analysis.

ACC* K118 - Managerial Accounting °

4 CREDIT HOURS
Prerequisite: ACC K111 or ACC* K115 with a "C" grade or better.*
This course is designed to cover the application of accounting principles and procedures to the cost control function of manufacturing business management. Emphasis is placed on managerial analysis and control, job order costing, process cost, standard cost, and variance analysis.

ACC* K125 - Accounting Computer Applications I °

3 CREDIT HOURS
Prerequisite: ACC K111 or ACC* K115.*
This course is designed to teach accounting students about computerized integrated accounting and accounting spreadsheet applications using a standard Windows interface. Students will learn to operate the software by entering realistic accounting transactions for a variety of business applications and by generating financial statements, spreadsheets, and other management information reports. The techniques and terminology learned can be applied to other Window-based software packages.

ACC* K233 - Principles of Cost Accounting °

4 CREDIT HOURS
Prerequisite: ACC K111 or ACC* K115.*
This course encompasses fundamental principles and procedures needed for planning, evaluating, and controlling the organization's internal activities. Students will be exposed to accounting systems that are designed to provide information for managers as they relate to decision making. Topics include: budgeting, relevant costing, absorption and direct costing models, production levels, and inventory evaluations. Students work with accounting information that includes job-order costing, process costing, and standard costs.

ACC* K241 - Federal Taxes I °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K123 or MAT* K146 or MAT* K167 or MAT* K172 or MAT* K186.*
This course examines federal income taxation as it relates to individuals. Emphasis is on tax law, researching tax questions, the determination of taxable income, deductions, and the preparation of tax returns.

ACC* K271 - Intermediate Accounting I °

3 CREDIT HOURS
Prerequisite: ACC K112 or ACC* K118.*
In this course, students will engage in an intensive study of financial accounting theory, focusing on revenue and expense recognition and the valuation and disclosure of financial statement elements.

ACC* K272 - Intermediate Accounting II °

3 CREDIT HOURS
Prerequisite: ACC K271.*
In this course, students will engage in an intensive study of financial accounting theory focusing on inventory, fixed and intangible assets, as well as liabilities and the impact on Equity.

ACC* K292 - Practicum in Accounting °

3 CREDIT HOURS
Prerequisite: Permission of the program coordinator.
This course is based on on-the-job placement∞ in a business setting. This is a college-supervised experience based on a learning contract with evaluations by both the college faculty and the staff of the cooperating business.

Anthropology

ANT* K101 - Introduction to Anthropology °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course will approach the evolution of human beings from the perspectives of the four anthropology subfields (cultural, physical, archaeology, linguistics). The dawn of humanity will be traced from its early primate origins to the evolution of family, language, consciousness, and culture. Cultural evolution will trace the origins of bands, tribes, and state civilizations. The course will conclude with an examination of human variation.

ANT* K105 - Introduction to Cultural Anthropology °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course examines human life ways. Examples will be drawn cross-culturally to illustrate universal aspects of cultural life, such as marriage and family, art and religion, ecology and economy, and power and politics. Explanations for the existence of various kinds of human societies such as bands, tribes, and modern states will be addressed with a humanistic concern on how people view and experience life within them. Contemporary problems of cultural contact and change will be discussed with the objective of discovering ways and means of promoting intercultural understanding. Course fulfills International/Intercultural Requirement.

ANT* K136 - Music Cultures of the World °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
A comparative survey of musical concepts, style, and performance practices of various world cultures. Course content will emphasize the context of musical expression within the different cultures examined. This course is equivalent to MUS* K104. Course fulfills International/ Intercultural Requirement.

ANT* K296 - Teaching Assistantship in Anthropology °

3 CREDIT HOURS
Prerequisite: At least two prior courses in anthropology and permission of the instructor.
In this assistantship, students will assist a faculty member in conducting an academic course offered in the field of anthropology. Students may lead discussion groups, work with individual students, organize field trips, make presentations, and/or other work (to be arranged).

Architecture

ARC* K102 - Architecture of the World

3 CREDIT HOURS
The course offers a global perspective of buildings, their settings, and the dissemination of ideas about architecture from the late Neolithic period to the present. Particular attention is given to the relationships of architectural expression, meaning and building technology and to issues arising when architectural traditions of one culture are imposed upon or otherwise adapted by another. Students will explore the impact of climate, economy, philosophy, social structure and technology on architecture by becoming familiar with some of the world's major monuments in architectural history. The course also integrates the visual arts that paralleled each era, exploring the fundamental elements of each movement as illustrated through aesthetic expression.

ARC* K108 - Construction Materials and Methods

3 CREDIT HOURS
This course introduces students to the sources, uses, physical properties and limitations of materials used in construction while exploring methods of assembly and systems from both a historical and contemporary persepctive. Emphasis is placed on concrete, masonry, steel, wood and material components and respective testing, use, and practical applications.

ARC* K135 - Construction Graphics

1 CREDIT HOUR
Corequisite: ARC K135L.*
This course introduces the fundamental concepts of drafting and working drawings for the construction industry, emphasizing set layout and sequencing, sheet image composition, drawing construction, line weights, conventions, symbols and projection. "Drafting" as a means to convey "design intent" and "constructability" to the construction industry is accomplished through the lab portion of this course by the execution of actual drawing types, including architectural, civil, structural, detail, and other drawings.

ARC* K135L - Construction Graphics Lab

2 CREDIT HOURS
Corequisite: ARC K135.*
This course implements the principles of construction graphics covered in the lecture portion of this course and the execution of actual drawing types, including architectural, civil, structural, detail, and other drawings.

ARC* K211 - Architecture Design I °

1 CREDIT HOUR
This course introduces the student to the fundamental methodologies of a designer's decision making process. Students will work individually and in groups as they apply their studies to the solutions of small "vignette" architectural projects that explore the principles of form, space, and order in design.

ARC* K211L - Architecture Design I Lab °

2 CREDIT HOURS
This course implements the principles of architectural design covered in the lecture portion of this course. Emphasis in the Design I Lab is placed more upon the path of design and the decision making process than a "polished" design solution, through sketches, diagrams, and models.

ARC* K213 - Architecture Design II °

1 CREDIT HOUR
Prerequisites: ARC K211/ARC* K211L.*
Corequisite: ARC K213L.*
This course, along with Architectural Design I, forms the capstone of the Architectural program, as students continue implementing the principles of Design I. Students expand their design experience as they implement form, space, and order concepts in the design of building layouts, planning schemes, façade designs, and construction techniques

ARC* K213L - Architecture Design II Lab °

2 CREDIT HOURS
Prerequisites: ARC K211/ARC* K211L.*
Corequisite: ARC K213.*
This course implements the principles of architectural design covered in the lecture portion of this course. Students transition from designing small "vignette" projects in Design I to larger holistic design problems, including urban infill, single buildings, and planning projects.

ARC* K214 - Sustainable Construction °

3 CREDIT HOURS
Prerequisite: ARC K108*
Students will engage in the analysis of sustainable planning, design, and construction methods. Emphasis will be placed on both site and building aspects including walkability, heat-island effect, water management, material durability and performance, healthy buildings, renewables, and methods of performance validation. Credential rators (e.g. LEED, Energy Star, etc.), and other industry metrics will be studied and evaluated along with up and down-stream and life-cycle analyses.

ARC* K221 - Contracts & Specifications

3 CREDIT HOURS
This course introduces students to construction industry documents, including working drawings and the project manual which contains bidding documents, contract documents, contract conditions, and the specifications. Additional documents include cut sheets, shop drawings, and various AIA (American Institute of Architects) documents used in contract administration. Working knowledge is attained through actual execution of the documents.

ARC* K227 - Codes & Ordinances

3 CREDIT HOURS
This course introduces students to the origins, scope, and administration of local, state, and federal codes and ordinances. Students will be exposed to the elements of these codes and ordinances and to the impacts they have on the design, construction and occupancy of a project. Students will develop a working knowledge of the subject material as they track a hypothetical project from preliminary zoning research, through design and construction and ultimately the issuance of a "certificate of occupancy."

ARC* K241 - Site Analysis °

1 CREDIT HOUR
Prerequisites: ARC K135/ARC* K135L.*
Corequisite: ARC K241L.*
This course introduces students to an overview inventory of the systems and elements that are encountered in the analysis of site conditions. Students will explore how each element operates and what procedures are required to

maintain or improve the quality of the site environment. Students will develop a value system, which fosters the concept of fitness to human purpose and specific site context through an ecological approach to design.

ARC* K241L - Site Analysis Lab °

2 CREDIT HOURS
Prerequisites: ARC K135/ARC* K135L.*
Corequisite: ARC K241.*
This course implements the principles of site analysis covered in the lecture portion of this course, as students explore the relationship between land use and architectural design. Hands on experience is gained through a final project that explores site selection, orientation, climatology, natural and cultural features, topography, and regulatory issues.

ARC* K282 - Trends & Issues

3 CREDIT HOURS
A topics based course that explores current and evolving subjects that affect the architectural and construction industries. Areas of focus will include changes in technologies; building materials; regulations, codes and ordinances; delivery methods; graphic mediums; and other evolving subjects.

ARC* K295 - CO-OP Education Work Experience II°

3 CREDIT HOURS
Prerequisites: ARC K296 and permission of program coordinator.*

In this course, students will work in industry gaining enhanced hands-on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education along with hands-on experience gained in their initial co-op experience. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by the co-op student during the semester.

ARC* K296 - Co-Op Education Work Experience °

3 CREDIT HOURS
Prerequisite: Permission of the program coordinator.
Corequisite: Student must have completed all freshman level technology courses and have a GPA of 2.50 or better.
Students will work in industry gaining hands on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry hours must be completed by the co-op student during the semester internship.

Art

ART* K101 - Art History I °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course provides an introduction to the history of art from prehistoric through to the mid-15th century from a global perspective. Major works in many media including painting, sculpture, and architecture will be covered. By the end of this course, students will have a visual vocabulary with which they can intelligently discuss and write about works of

art. Regardless of whether the work is accessible and easy to admire or difficult and not readily understood, students will understand how to evaluate works of art not only for their beauty, but for other intrinsic values such as power of expression and boldness of communication. Outside readings and papers required.

ART* K102 - Art History II °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course provides an introduction to the history of art from the mid-15th century through to contemporary from a global perspective. Major works in many media including painting, sculpture, installation art, and performance art will be covered. By the end of this course, students will have a visual vocabulary with which they can intelligently discuss and write about works of art. Regardless of whether the work is accessible and easy to admire or difficult and not readily understood, students will understand how to evaluate works of art not only for their beauty, but for other intrinsic values such as power of expression and boldness of communication. Outside readings and papers required.

ART* K107 - Introduction to Studio Art

3 CREDIT HOURS
This is a course covering the fundamentals of visual art through hands-on experience. The course includes basic design and composition, color theory, study of three-dimensional form, and a thorough exploration of the creative process through the use of a wide variety of media and techniques, including drawing, painting, collage and mixed media sculpture. Not recommended for art majors. Meets 3 hours per week.

ART* K111 - Drawing I

3 CREDIT HOURS
This course is an introduction to basic drawing skills. The course includes work with still life, landscape, self-portrait, and interior space in black and white media. Emphasis is placed on the importance of drawing through careful observation. A variety of techniques and styles are covered to arrange compositions and create the illusion of volume and perspective. Studio: Meets 6 hours per week.

ART* K112 - Drawing II °

3 CREDIT HOURS
Prerequisite: ART K111.*
This course is an exploration of drawing basics in various media including color, with an emphasis on composition and technique. Both representation and abstraction are explored. Students work with still life, portraiture, and the figure and a final project series of their own choice. Studio: Meets 6 hours per week.

ART* K121 - Two-Dimensional Design

3 CREDIT HOURS
This course is an introduction to the theory and practice of two-dimensional design. Students will use the principles of design as an expressive tool to communicate visually. A variety of black and white and color mediums will be used including drawing, painting and collage. Studio: Meets 6 hours per week.

ART* K122 - Three Dimensional Design

3 CREDIT HOURS
Students will explore basic three-dimensional art elements: line, plane, mass, volume, space, size, color, light, surface

and context. Students will experiment with materials and processes through assignments exploring artistic themes while solving various design problems. Studio: Meets 6 hours per week.

ART* K131 - Sculpture I °

3 CREDIT HOURS
Prerequisite: ART K122.*
This course is an introduction to creative sculpture and includes instruction in the use of tools, materials and processes to create three-dimensional forms. A range of materials will be used to develop figurative, representational, and abstract sculpture. Studio: Meets 6 hours per week.

ART* K151 - Painting I °

3 CREDIT HOURS
Prerequisite: ART K111 or permission of the instructor.*
This course is an intensive introduction to representational painting with acrylics. Students are given a firm foundation in painting through an introduction to the materials of painting and thorough study of color theory and color mixing. The knowledge of color theory will be put into practice with the painting of the still life. A variety of exercises and techniques will be explored including preparing different surfaces on which to paint as well as aesthetic explorations. It will be emphasized that the skills of drawing are an integral painting tool. Studio: Meets 6 hours per week.

ART* K152 - Painting II °

3 CREDIT HOURS
Prerequisite: ART K151 or permission of the instructor.*
In this class, students will get the opportunity to further their exploration of painting with acrylics through a variety of approaches including abstraction. Students will be encouraged to experiment with a variety of subject matter and themes as well as to develop their own individual styles. Studio: Meets 6 hours per week.

ART* K161 - Ceramics I

3 CREDIT HOURS
This course is an introduction to the methods and nature of working with clay as an artistic medium. Emphasis is placed on the practical use of design principals such as: line, symmetry, balance, visual mass, texture, ground/foreground relationships, and spatial relationships. Various artistic movements such as surrealism, minimalism, and abstraction, will be explored. Assignments allow the exploration of artistic themes while solving various design problems. The class includes discussions and demonstrations on various glazing and finishing techniques. Studio: Meets 6 hours per week.

ART* K162 - Ceramics II °

3 CREDIT HOURS
Prerequisite: ART K161 or permission of instructor.*
This course is a continuation of Ceramics I, with the addition of advanced concepts and techniques. Students are required to develop a unified portfolio of work using a combination of sketches, research, and experiments to develop a theme. Studio: Meets 6 hours per week.

ART* K167 - Printmaking °

3 CREDIT HOURS
Prerequisite: ART K107 or ART* K111 or ART* K121.*

This course is an introduction to the materials, design and techniques of monotype, monoprint, and relief printing. Work is approached in a creative and individualistic manner and emphasis is placed on experimentation with various processes. Students will create editions of their original work using a mechanical press as well as individualized hand printing. The importance of studio safety is emphasized. Non-toxic, solvent free inks are used. Students will do a research project on the diversity of cultural expression, and will learn of printmaking concepts and processes that are used globally for artistic expression. Studio: Meets 6 hours per week.

ART* K185 - Video Filmmaking

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S; any 100-level Humanities or Social Sciences course.*
This course is a creative workshop in which students will work with digital media to make their own movies. Students work with video camcorders and editing software. Students will learn scripting, shooting, editing and audio production techniques. Students will also research and write on various topics related to digital video and filmmaking. Each student is required to have access to a camera or camera phone which can shoot movies. This course is equivalent to COM* K166.

ART* K186 - Introduction to Film °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
An aesthetic and critical approach to film study, this course helps students develop a cinematic vocabulary and apply analytic skills. Classroom screening provide texts for discussion and analysis; they are supplemented by lectures, readings and writing assignments. Representative international films from the early years of the industry to the present will be taught. This course is equivalent to COM* K154.

ART* K198 - Special Topics: History of Film °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course will survey the history of film from its beginnings to the present. Emphasis will be placed on the development of forms and techniques, production methods, and film's relationship to other arts and to social/political currents. Focus will be placed on critical analysis and discussion of selected films illustrating aesthetic principles that govern cinematic value and meaning.

ART* K204 - History of Women in the Arts °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S and any 100-level Humanities, History or Anthropology class; or permission of the instructor.*
This course will cover a global history of women in the visual arts. Art terminology and visual language will be used to examine varied artworks by women from an assortment of historic, social and political and personal contexts. Because historically women have been underrepresented and excluded from participating in the visual arts, students will develop their abilities to critique and question the art historical tradition through a significant amount of writing, and thereby achieve a general level of knowledge and appreciation for the contributions of women artists throughout history.

ART* K211 - Drawing III °

3 CREDIT HOURS
Prerequisite: ART K112.* This course will provide students who have taken
Drawing I & II the opportunity to continue to develop their drawing skills. Students will evolve their own style of

drawing while continuing to strengthen their observational and perceptual skills through focus and the live model. Students will begin to place conceptual importance on their drawings through intensive group and individual critiques. Studio: Meets 6 hours per week.

ART* K288 - Portfolio Development I °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; ART* K111.*
Students will prepare a portfolio stressing the individual's career and/or education goals. This course is recommended for any student preparing to transfer, apply for graduate study or apply for a job in art or architecture. Students will become familiar with the essential business practices of the visual arts profession and will learn how to professionally photograph and present their work. Studio: Meets 6 hours per week.

ART* K291 - Portfolio Development II °

3 CREDIT HOURS
Prerequisite: ART K288. Students who have completed Portfolio Development I will continue to work on a portfolio stressing the individual's career and/or education goals.*
This course is recommended for any student preparing to transfer, apply for graduate study or apply for a job in art or architecture. Students will become familiar with the essential business practices of the visual arts profession and will learn how to professionally photograph and present their work. Studio: Meets 6 hours per week.

American Sign Language

ASL* K101 - American Sign Language I

3 CREDIT HOURS
This is a first course of study of American Sign Language, the language used by the Deaf Community in the United States. ASL I introduces students to the fundamentals of ASL grammar, vocabulary, finger spelling, numbers, and visual-gestural communication. Introduction to Deaf Culture is integrated into this beginning level course.

ASL* K102 - American Sign Language II °

3 CREDIT HOURS
Prerequisite: ASL K101 with a "C" or better; or permission of the instructor.*
This is a continuation of American Sign Language I and further covers fundamentals of ASL grammar, vocabulary, fingerspelling, numbers, and visual-gestural communication. Continued study of Deaf Culture is integrated into this course.

Astronomy

AST* K101 - Principles of Astronomy

3 CREDIT HOURS
Corequisite: ENG K096 or higher. Please note: if completing ENG* K096 prior to enrolling in AST* K101, a grade of "C#" or better is required for registration into this course.*
This course covers the ideas that account for the earth and heavenly bodies and their characteristics. This course is designed to develop an appreciation of the beauty and order of the universe. Observational exercises, including star identifications and use of the telescope, are included.

AST* K111 - Introduction to Astronomy °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S with a "C" grade or better; MAT* K095 or MAT* K095I with a "C#" grade or better.*
In addition to understanding the mechanisms involved in ascertaining distance, temperature and movements of celestial bodies, students will be able to orientate themselves with the night sky by using constellations as guides. This material will also cover the ideas that account for the earth and heavenly bodies and their characteristics. This course is designed to develop an appreciation of the beauty and order of the universe. The laboratory portion of the course consists of activities in elementary astronomy designed to reinforce and extend knowledge of selected topics covered in the lecture portion of the course. Students who have taken AST* K101 will not receive credit for this course.

Business-General

BBG* K101 - Intro to Business

3 CREDIT HOURS
In this course, the focus for students will be on a practical understanding and application of how business works, how it contributes to quality of life, the rewards of entrepreneurship, its legal framework, trade terminology, and business operations including marketing, finance, accounting, and management. This course gives an orientation to business curriculum. This course will emphasize the relationship of business to an individual's everyday life in American society. Students required to take BBG* K101 should enroll in it prior to or in the first semester that they take a BBG*, BMG* or BMK* course. This course is open to all General Studies students as an elective. Certain restrictions apply to this course for business majors. Please refer to your program of study prior to registration.

BBG* K115 - Business Software Applications °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K123 or higher with a "C" grade or better.*
Using Microsoft Suite application software, students in this hands-on course will learn to use each of the software packages as they relate to the business environment. These software packages include an emphasis on Excel to build flexible spreadsheets used in business decision making, supplemented with Word to produce professional-looking documents, Access to select and analyze data to produce valid results, and Powerpoint to effectively present and communicate.

BBG* K210 - Business Communication °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
Emphasizes communication technology and business communication concepts in a business environment. After a review of grammar, punctuation and sentence structure, students will plan, organize and edit several forms of business communications, including memorandums, letters, resumes and reports. Oral presentations are part of the curriculum.

BBG* K231 - Business Law I °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course provides the student with an understanding of fundamental legal principles and their applications to business transactions and to individual rights and obligations. Crimes and torts are examined, and special emphasis is placed on the study of the law of contracts.

BBG* K232 - Business Law II °

3 CREDIT HOURS
Prerequisite: BBG K231.*
This course covers the basic principles of the substantive law governing real and personal property, sales transactions, and commercial paper.

BBG* K291 - Business Capstone °

3 CREDIT HOURS
Prerequisite: Permission of the program coordinator.
This course is designed to be taken during the last semester prior to graduation and is targeted for Business Administration, A.S. , Marketing/Career, A.S. and Accounting Career, A.S. students. The course will bring together all the aspects of business that the student has been exposed to so far (Accounting, Finance, Management, Marketing, Business Law, Operations, etc.) Pedagogy will combine a lecture, case studies and business simulations.

BBG* K294 - Business Internship °

1-3 CREDIT HOURS
Prerequisite: Permission of the program coordinator.
In this course, students receive on-the-job placement∞ in a business setting in one of many areas (accounting, management, or marketing). This is a college-supervised experience based on a learning contract with evaluations by both the college faculty and the staff of the cooperating business. A one-credit business practicum is required in the Public Administration and Business Certificate Programs, while a three-credit business practicum is required in the Business Administration Management Career and Business Administration Public Administration Option Associate Degree Programs.

Business-Entrepreneurship

BES* K118 - Small Business Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to assist students with the knowledge and skills needed to operate and/or develop a small business. Emphasis will be placed on the entrepreneurial aspects of creating, managing, and gaining profit from a small business.

BES* K218 - Entrepreneurship °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better. ∞.*
The course is designed especially for those students who wish to start a business. A strong emphasis is placed on the practical applications of financing a new business, marketing goods and services, dealing with competitors, and handling leases and landlords. Understanding legal elements for the new business person and other topics make up the bulk of this course. Reality-based projects and instruction enable students to practice immediate application of content.

BES* K239 - Business Plan Development °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*

This course will teach the student the process of developing a business plan. This course will draw on knowledge obtained from previous business courses. The course will utilize business plan development software. Students will individually, and on a team basis, develop a complete business plan.

Business-Finance

BFN* K110 - Personal Finance °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; ∞ MAT* K095 or MAT* K095I placement∞.*
This course provides, in a non-technical presentation, a basic understanding of personal finance. The choices that consumers face in managing their finances are examined. The topics include personal income and budgeting, consumer credit, investing, taxes, housing, insurance, retirement, and estate planning.

BFN* K201 - Principles of Finance °

3 CREDIT HOURS
Prerequisites: ACC K118; MAT* K123 or MAT* K167; ECN* K101;ECN* K102 (CCSU Transfer only).*
This course offers an introduction to the basic principles of finance with an emphasis on the role a finance manager plays in the corporate world. Areas covered are financial analysis and forecasting, operating and financial leverage, short and long term financing alternatives, capital budgeting, time value of money, mergers and acquisitions, and international financial management.

Biological Sciences

BIO* K111 - Introduction to Nutrition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course covers the principles of nutrition, nutrients, their sources, the interaction between those nutrients and the human body, and the selection of adequate diets for different age groups.

BIO* K115 - Human Biology

4 CREDIT HOURS
Corequisite: ENG K096 or higher. Please note: if completing ENG* K096 prior to enrolling in BIO* K115, a grade of "C#" or better is required for registration into this course.*
This introductory course focuses on a presentation of human structure and function, including a survey of the body's system for students who want to be more knowledgeable about the life processes of their own bodies. Lab procedures do not involve animal dissections. This course does not meet the pre-admission requirement for the Nursing Program. Three-hour lecture; one three- hour laboratory period.

BIO* K121 - General Biology I °

4 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better. Corequisites: CHE* K111 or CHE* K121, either course with a "C" grade or better; or permission of the department chair. Please note: If completing CHE* K111 or CHE* K121 prior to enrolling in BIO* K121, a grade of "C" or better is required for registration into this course.*

This course introduces the major principles and concepts of modern biology. Topics to be covered include molecular and cellular biology, cell division, cellular transport systems, cellular metabolism, the specialization and differentiation of both plant and animal cells, and modern genetics. Three-hour lecture; one three-hour laboratory period.

BIO* K122 - General Biology II °

4 CREDIT HOURS
Prerequisite: BIO K121 with a "C" grade or better or permission of the instructor.*
Corequisite: None required; CHE K122 is recommended.*
This course is a continuation of General Biology I. Topics to be covered include taxonomy, the diversity of life forms from the microbes to the animals, the structures and functions of both plant and animal systems, as well as ecology, ecosystems and evolution. (For transfer credit, student should take both BIO* K121 and BIO* K122.) Three-hour lecture; one three-hour laboratory period.

BIO* K155 - General Botany °

4 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces the study of plant life, including a phylogenetic survey from algae to the flowering plants. Aspects of anatomy, physiology, genetics, and reproduction of select plant life will be covered. Three-hour lecture; one three-hour laboratory period.

BIO* K175 - Introduction to Marine Science

3 CREDIT HOURS
Corequisite: ENG K096 or higher. Please note: if completing ENG* K096 prior to enrolling in BIO* K175, a grade of "C#" or better is required for registration into this course.*
This course is an introduction to marine science. Topics to be explored include general marine biology, intertidal ecology, plankton biology, marine communities, and the geomorphology of the New England coast. Some field work will be included.

BIO* K180 - Principles of Environmental Science

3 CREDIT HOURS
Corequisite: ENG K096 or higher. Please note: if completing ENG* K096 prior to enrolling in BIO* K180, a grade of "C#" or better is required for registration into this course.*
This is a basic course in environmental studies that introduces ecological principles and a global perspective on environmental problems such as deforestation, droughts, floods, soil erosion, overpopulation, food shortages and pollutants. Some field work will be included. Course fulfills International/Intercultural Requirement.

BIO* K198 - Special Topics: Tropical Biology °

4 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S with a "C" grade or better.*
Thirteen on campus lectures will introduce students to the biodiversity of a Caribbean reef and tropical rainforest species. The lecture will survey the varying habitats of tropical marine & terrestrial ecosystems, focusing on organisms that students would encounter in the laboratory component. The focal point of this course is travel-based to an International field station. The laboratory component includes 5 days of research at Marine Tropical Research and Education Center (TREC) in Ambergris Caye, Belize (scheduled during winter intercession). Activities will include swimming and snorkeling.

BIO* K211 - Anatomy & Physiology I °

4 CREDIT HOURS
Prerequisites: BIO K121 and CHE* K111 or higher passed with a "C" grade or better.*
This course is a comprehensive study of the gross anatomical structure and physiology of the human body pertaining to cells, tissues, membranes, organs, and the following systems: integumentary, skeletal, articular, muscular and nervous including special senses. Anatomy and Physiology is a two semester course. Students must enroll in both BIO* K211 and BIO* K212 for transfer credits to other institutions. Three-hour lecture; one three-hour laboratory period per week.

BIO* K212 - Anatomy & Physiology II °

4 CREDIT HOURS
Prerequisite: BIO K211 with a "C-" grade or better*
This course is a continuation of *BIO* K211 - Anatomy & Physiology I* °, and covers the following systems: endocrine, circulatory, lymphatic, respiratory, digestive (nutrition), urinary (including fluids and electrolytes), and reproduction, as well as human development and genetics. Anatomy and Physiology is a two semester course. Students must enroll in both *BIO* K211* and *BIO* K212* for transfer credit to other institutions. Three-hour lecture; one three-hour laboratory period per week.

BIO* K235 - Microbiology °

4 CREDIT HOURS
Prerequisites: BIO K121 and CHE* K111 or CHE* K121 or permission of the instructor, all courses passed with a "C" grade or better. BIO* K122 is recommended.*
This course covers a comprehensive study of microorganisms. Topics covered will include the basic characteristics, morphology, physiology, growth, reproduction, and genetics of bacteria, as well as a brief taxonomical survey of the following microbial life forms: Archaea, Eubacteria (Cyanobacteria, Mycoplasms, Rickettsia, Chlamydia), Fungi, Algae, Protozoans, and Viruses. Emphasis will be on species that affect humans. Laboratory activities will include various techniques of staining, culturing, and isolating bacteria. The morphology and metabolic processes of select microbial groups will be studied. Students will learn to apply various modern bio- techniques that are used for controlling the growth of microbes, and to identify unknowns. Three hours of lecture; three hours of lab each week.

BIO* K260 - Principles of Genetics °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; MAT* K137 or MAT* K137S; BIO* K121; CHE* K111 or CHE* K121; all courses passed with a "C" grade or better.*
This course is designed to cover the basic concepts of genetics, including the theory of chromosomes, classical Mendelian inheritance, principles of human genetics, the genetic code, the role of the nucleic acids in gene expression, genetic mutations, and topics in modern genetics in areas such as recombinant DNA, biotechnology, gene mapping and diagnosis of human genetic disease.

BIO* K262 - Genetics °

4 CREDIT HOURS
Prerequisites: BIO K121; BIO* K122; MAT* K186 or higher; CHE* K111 or CHE* K121 & CHE* K122; or completion of BIO* K121, MAT* K137 or MAT* K137S, CHE* K111 or CHE* K121 and the written permission of the instructor, ALL courses passed with a "C" grade or better.*
This introductory course covers the basic principles, theories and laws of heredity. Topics to be covered will include mitosis, meiosis, DNA & RNA and their role in protein synthesis, chromosomes, genes, recombinant DNA, and

Mendelian and Human Genetics. Laboratory experience will incorporate the use of fruit flies to examine the ways in which traits are inherited, as well as gel electrophoresis and recombinant DNA procedures to explore modern concepts of cytogenetic technology.

BIO* K270 - Ecology °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; MAT* K137 or MAT* K137S or higher; CHE* K111 or higher; and one of the following: BIO* K121 and BIO* K122, all courses passed with a "C" grade or better.*
This course looks at a study of the relationship between plants and animals and their environment and is designed to cover ecological concepts and their applications to life in aquatic and terrestrial environments. Laboratory work will include travel to off campus field-study locations. Three-hour lecture; one three-hour laboratory period per week.

BIO* K289 - Enviromental Science Seminar

3 CREDIT HOURS
Corequisite: Recommended BIO K180 or ENV* K101 ; or permission of the instructor.*
This seminar consists of assigned readings and guest lecturers on various environmental topics that are important to the development of all students who want to learn, to understand and to write effectively about the environment. Some common seminar topics may include federal and state regulations, solid and municipal waste management, best management practices (BMPs), environmental restoration and remediation, alternative and renewable energy, sustainable landscape management, sustainable agriculture, stewardship, land use, water quality, stormwater management and global and local environmental quality trends. Students are required to discuss, think about and write about the topics, carrying out their own library research to support positions that they will develop.

BIO* K294 - Biology Academic Internship °

1-5 CREDIT HOURS
Prerequisite: At least two prior courses in Biology or one course and previous experience, and permission of the instructor.
In this assistantship, students will assist a faculty member in conducting an academic course offered in the field of Biology. Students may lead discussion groups, work with individual students, organize field trips, make presentations, conduct research, coordinate tutoring sessions, evaluate and revise material, collaborate with the class, and/or other work to be arranged based on learning objectives.

Business-Management

BMG* K202 - Principles of Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Fundamental principles of management and business operations are discussed with emphasis placed on management orientation, policy making, practical problem analysis, and philosophy. Attention also centers on the following: planning, organizing, directing, controlling, budgeting functions, qualitative and quantitative decision-making and financial analyses.

BMG* K205 - Quantitative Business Analysis °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; MAT* K123 or MAT* K146 or MAT* K167 or MAT* K172 or MAT* K186.*
The course emphasizes quantitative and statistical concepts and their applications in a business environment, Emphasis is placed on developing skills in problem definition, problem solution and the application of the solution to decision making. The student will demonstrate these skills by presenting and defending their proposals to resolving specific business issues through individual and team projects.

BMG* K210 - Organizational Behavior °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course surveys psychological principles applied to work settings and organizational management. Topics include recruiting, employee selection, and measurement and performance development. Employee motivation, incentives and job satisfaction are explored. Theories of leadership, organizational communication and organizational development are investigated. Change adaptation, stress management as well as workplace violence are addressed. This course is equivalent to PSY* K247.

BMG* K218 - Operations Management °

3 CREDIT HOURS
Prerequisites: ACC K118 or ACC* K233 with a "C" grade or better.*
Fundamental principles and concepts of operations management and business operations are discussed as they relate to the planning and controlling of the operating processes and work flow activities in private and public organizations. Key Topics include production and work planning, capacity planning, inventory control, quality control, scheduling, distribution, plant location, maintenance management, the roles of efficiency and effectiveness and decision making. This course is equivalent to MFG* K230.

BMG* K220 - Human Resources Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course deals with the development and direction of human resources. Areas of discussion include affirmative action, recruitment, selection, placement∞, grievances, wages, discipline, instruction of employees and their evaluations, OSHA, ERISA, and time management and other topics (Previously called Personnel Management).

BMG* K228 - Labor and Employment Law °

3 CREDIT HOURS
Prerequisites: BBG K231 and BMG* K202.*
This course provides the student with an understanding of the legal principles and their applications to the employer-employee relationship including such topics as unionism and collective bargaining (including union organizing, contract negotiations, strikes and boycotts); wages, hours and benefits; dispute resolution (grievance and arbitration procedures); employment discrimination; and emloyee privacy.

Business-Marketing

BMK* K103 - Principles of Retailing

3 CREDIT HOURS
This course covers a practical introduction to the principles and practices of retailing in today's competitive environment. Elements of retail marketing and management are studied including merchandising, store organization and policies, buying, promotion, image creation, pricing, and customer service. Additional concepts such as trends in retailing, site selection, and personnel policies are also discussed. Students utilize case studies and examples drawn from actual, current retailing activities. They also create their own retail store business plan.

BMK* K106 - Principles of Selling °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to prepare students for professional selling of products, services, and ideas. It concentrates on the mutual satisfaction of both buyers and sellers and the role of the salesperson. Topics studied include the communication process, sales territory management, and the seven steps in the selling process: prospecting, approach, presentation, demonstration, handling of objections, closing and follow-up. Practical application of these concepts in industrial sales, consumer sales, public service selling, and political campaigns is also examined through case studies, role-playing, and student participation exercises.

BMK* K123 - Principles of Customer Service °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is the study of the principles and practices involved in providing excellent customer service. Students learn effective verbal and nonverbal communication techniques, professional customer service behaviors, problem solving and the monitoring and measuring of customer service. Delivery of customer service by telephone, in person, by mail and via the Internet is studied.

BMK* K201 - Principles of Marketing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces the four elements of the marketing mix: product decisions, pricing decisions, promotional decisions and distribution decisions. Emphasis is on the importance of marketing research and consumer behavior in the formulation of marketing strategies. Students study marketing principles and practices as they are applied to consumer and industrial products and services as well as in not-for-profit organizations. Additional topics include marketing in a global economy, ethics, and marketing information systems. The marketing campaigns of small and large companies are discussed as practical examples. Students develop their own marketing plans using strategy and principles learned in the course.

BMK* K235 - Public Relations °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a study of the principles and practices of modern public relations as they apply to profit making and not for profit organizations. Students study a practical approach to the methods of establishing and maintaining a positive relationship between an organization and its stakeholders. These stakeholders or "publics" include customers, employees, competitors, stockholders, government, vendors, and society in general. Topics include special events planning, media relations planning, and corporate communications. Ethical and social responsibility and negative publicity are also discussed. Students apply their learning by providing public relations skills in a service learning community placement∞ or by developing a public relations campaign as a capstone project.

BMK* K241 - Principles of Advertising °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course surveys the basic elements, functions, and principles of advertising. Emphasis is on advertising's role as a marketing tool. Students study current advertising campaigns and marketing communication methods. Target marketing, image creation, and ethical aspects of advertising are discussed. Selection of print media, electronic media, and supportive promotional techniques are included. Students create their own comprehensive advertising campaigns using strategies learned in the course.

BMK* K292 - Practicum in Marketing °

3 CREDIT HOURS
Prerequisite: Permission of the program coordinator.
This course is based on on-the-job placement∞ in a business setting. This is a college-supervised experience based on a learning contract with evaluations by both the college faculty and the staff of the cooperating business.

Computer-Aided Drafting

CAD* K106 - Basic CAD - AutoCad

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S or higher*
This course, with the included lab, exposes the student to the current means of generating graphic images with computers. Topics covered include CAD* overview, computer terminology, hardware descriptions and requirements, file manipulation and management, 2D and 3D geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail, and assembly drawings.

CAD* K107 - Computer-Aided Drafting Lab

2 CREDIT HOURS
Corequisite: CAD K106.*
This laboratory utilizes software in an IBM-PC environment. Topics given in the lecture will be learned through solving application problems on the computer.

CAD* K116 - Revit 3D Software

3 CREDIT HOURS
This course is Revit 3D software, an Autodesk platform course where students gain operational and productivity knowledge in this industry-leading parametric software application. Structured demonstrations will lead students through command of the software dashboard, execution of operations, and sheet setup and product output, while gaining working knowledge of BIM (building information modeling) and its capabilities.

CAD* K130 - Computer-Aided Drafting - Industrial °

1 CREDIT HOUR
Prerequisites: CAD K106/CAD* K107 and the latest CAD release working knowledge.*
Corequisite: CAD K131.*
This course allows students to continue to learn and practice industrial drafting concepts using a CAD system. Typical

industrial topics such as threads, gears, cams, piping systems, structural, welding, jigs, fixtures, and assembly are given as problems for the student to solve.

CAD* K131 - Computer-Aided Drafting - Industrial Lab °

2 CREDIT HOURS
Prerequisites: CAD K106/CAD* K107 and the latest CAD release working knowledge.*
Corequisite: CAD* K130.
There is a CAD station for each student to use to solve the application problems given. Typical problems will be preparing drawings utilizing the topics in lecture.

CAD* K141 - Basic 3D Parametric Modeling and Lab Solidworks

3 CREDIT HOURS
Prerequisite: MAT K137 or higher*
This course, and accompanying lab, is designed to expand and enhance the student's ability to combine and apply mechanical design principles with computer design techniques and capabilities. This course teaches the basic concepts of orthographic projection, isometrics, oblique drawings, and basic drafting technology. A component of this course will focus on descriptive geometry, which will nurture the visualization skills of students by identifiying points, planes, and perpendiculars in various perspectives. Introducing the mechanical design software SolidWorks, this course begins to examine the basic functionality of drawing automation.

CAD* K142 - Basic 3D Parametric Modeling Inventor

3 CREDIT HOURS
Prerequisite: MAT K137 or higher
This course, and accompanying lab, uses Computer Aided Drafting (CAD) software to create technical models and drawings of real-world design problems. These skills will then be fully synthesized into the world of parametric solid modeling with the use of Autodesk Inventor Professional. This program will allow students to develop various engineering skills as they create the increasingly detailed illustrations used in industry. Drawings of assemblies and exploded views, as well as changing the properties of materials for stress analysis comparisons, will be explored. Through final projects, students can explore the fields of Computer Aided Manufacturing (CAM), Rapid Prototyping, Parametric Modeling, stress analysis, simulation, sheet metal, or Geometric Dimensional and Tolerancing.

CAD* K201 - Advanced CAD - AutoCad

3 CREDIT HOURS
Prerequisite: CAD K106.*
Corequisite: MAT K137*
This course, and the included lab, is designed to expose the student to advanced CAD techniques. Typical topics will include three-dimensional drawing, solid modeling, rendering, and customizing AutoCAD.

CAD* K202 - CAD Advanced Topics

3 CREDIT HOURS
Prerequisites: **CAD* K106**
Corequisite: MAT K137 or MAT* K137S or higher*
This course is designed to expose the student to advanced CAD techniques. Typical topics will include three dimensional drawing, solid modeling, rendering, and customizing AutoCAD.

CAD* K214 - Cad - Construction °

1 CREDIT HOUR
Prerequisites: CAD K106/CAD* K107 and latest CAD release working knowledge.*
Corequisite: CAD K215.*
Students continue to learn and practice construction drafting concepts using a CAD system. Students will solve graphic problems typical to construction topics such as plan and elevation views, structuraland concrete detailing, construction section-details, topography and site planning, and schedules including structural members, finish, doors and windows. Creating and using symbol libraries will be introduced.

CAD* K215 - Cad - Construction Lab °

2 CREDIT HOUR
Prerequisites: CAD K106/CAD* K107 and latest CAD release working knowledge.*
Corequisite: CAD K214.*
Students will be assigned graphic problems typical to construction topics based on the lecture.

CAD* K222 - Advanced 3D Parametric Modeling and Lab Solidworks

3 CREDIT HOURS
Prerequisite: CAD K141 and CAD* K142*
This course, and accompanying lab, is designed to further enhance the student's ability to combine and apply mechanical design principles with Solidworks. This course continues to examine the basic functionality of drawing automation. In addition, this course will introduce the concepts of geometric dimensioning and tolerancing by presenting an overview of a positional tolerance system, its relationship to coordinate tolerance systems, and other aspects of industry-standard drafting practices.

CAD* K231 - Advanced 3D Parametric Modeling NX

3 CREDIT HOURS
Prerequisite: CAD K141 and CAD* K142*
This course, and accompanying lab, is designed to expand and enhance the student's ability to combine and apply mechanical design principles with computer design techniques and capabilities. This course teaches the basic concepts of orthographic projection, isometrics, oblique drawings, and basic drafting terminology. A component of this course will focus on descriptive geometry, which will nurture the visualization skills of students by identifying points, planes, and perpendiculars in various perspectives. Introducing the mechanical design software SolidWorks, this course begins to examine the basic functionality of drawing automation.

CAD* K239 - Geometric Dimensioning and Tolerancing °

3 CREDIT HOURS
Prerequisites: CAD K106/CAD* K107 and latest CAD release working knowledge.*
This course will introduce the concepts of Geometric Dimensioning and Tolerance with respect to design and inspection considerations. The entire content will be based upon the ASME Y14.5M- 1994 standards. The concepts of proper dimensioning and tolerance methods with clear distinct outcomes will be defined. The use of computer aided drafting will aid in the delivery of the GDT concepts. This course is equivalent to MFG* K239.

Chemistry

CHE* K101 - Introduction to Chemistry °

3 CREDIT HOURS
Prerequisites: ENG K096 with a "C#" grade or better; MAT* K095 or MAT* K095I with a "C#" grade or better.*
This course surveys the important chemical theories and applications. The topics covered will include metric units and measurements of matter, the atomic structure of matter, chemical bonding and energy changes, chemical formulas and the naming ionic compounds, chemical equations and stoichiometry, gas laws, solutions and very basic organic and biochemistry concepts. This course does not meet the chemistry prerequisite required for BIO* K211 or BIO* K235. The course is not open to students who have passed CHE* K111 or higher with a "C" grade or better.

CHE* K111 - Concepts of Chemistry °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K137 or MAT* K137S with a "C" grade or better (or permission of the instructor on math requirement).*
This course offers a brief and comprehensive survey of important chemical theories and some of the applications of chemistry. Topics covered will include measurements in chemistry, atomic structures and chemical bonding, chemical reactions, states of matter, stoichiometry, theories of solution, and basic organic and biochemical concepts. Course Design: CHE* K111 is meant for students with little or no background in chemistry who need the course in preparation for General Chemistry, or for students who need to meet a pre-admission requirement for nursing or other allied health programs, or those who need a lab science course.

CHE* K121 - General Chemistry I °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K172 and high school chemistry or CHE* K111 all passed with a "C" grade or better; or permission of the instructor or department chairperson.*
Corequisite: MAT K186.*
In this course, students will study the fundamental principles, theories, and laws of chemistry. Topics include atomictheory and the structure of the atom, the aggregated states of matter, kinetic molecular theory, chemical bonding, stoichiometry and periodicity, solutions, and colloids. Three- hour lecture; one three-hour laboratory period.

CHE* K122 - General Chemistry II °

4 CREDIT HOURS
Prerequisites: CHE K121 with a "C" or better; MAT* K186 with "C" grade or better.*
This course includes further study of the principles, theories, and laws of chemistry. Topics include thermo-chemistry, kinetics, chemical equilibrium, oxidation reduction and electro-chemistry, introduction to organic and nuclear chemistry, and the chemistry of the elements and their compounds. Three-hour lecture; one three-hour laboratory period. CHE* K121 - General Chemistry I ° and II are ordinarily both taken for transfer credit.

CHE* K210 - Introduction to Organic Chemistry °

4 CREDIT HOURS
Prerequisites: MAT K137 or MAT* K137S or higher; CHE* K111 or CHE* K121 & CHE* K122, all courses passed with a "C" grade or better.*
This course is a one semester introduction to organic chemistry designed for students that need a general knowledge of organic compounds in science and technology fields. Both theoretical and practical applications of carbon compounds will be studied. Topics include nomenclature; functional group of reaction mechanisms; the major groups of hydrocarbons and their derivatives; carbohydrates; lipids; proteins; nucleic acids; and modern laboratory techniques. (This course is not recommended for science and technology programs requiring two semesters of Organic Chemistry.)

CHE* K211 - Organic Chem I

4 CREDIT HOURS
Prerequisites: CHE K121 and CHE* K122, courses passed with a "C" grade or better.*
This course is a comprehensive study of organic compounds. Topics covered will include bonding, formulation and molecular shapes of organic molecules, reaction mechanisms, and nomenclature. Reactions of alkanes, cyclolkanes, alkenes, alkynes, and aromatic hydrocarbons will be presented. The laboratory exercises will be integrated with the theory through preparations and reactions. Three-hour lecture; one three-hour lab period each week.

CHE* K212 - Organic Chemistry II

4 CREDIT HOURS
Prerequisite: CHE K211 with a "C" grade or better.*
A continuation of CHE* K211 that covers organic compounds having key functional groups such as alcohols, organic halides, ethers, aldehydes, ketones, carboxylic acids, carboxylic acid derivatives, and amines. The classifications of compounds, classic named reactions and stereochemistry will be presented. Laboratory exercises will include preparation and reactions of alcohols, alky halides, ethers, esters, aldehydes, ketones, carboxylic acids, and amines. Three-hour lecture; one three-hour lab each week.

Chinese

CHI* K111 - Chinese I

4 CREDIT HOURS
Chinese I is the first of a two course sequence. It is designed to acquaint students with grammatical structures and vocabulary appropriate for beginning learners. Instruction focuses on development of all four skills (speaking, listening, reading and writing) and cultural knowledge. This course will help students develop language skills in Chinese and will help them understand Chinese culture and society.

CHI* K112 - Chinese II °

4 CREDIT HOURS
Prerequisite: CHI K111.*
Chinese II is the second of a two course sequence. It is designed to provide students with the grammatical structures and vocabulary appropriate for the intermediate learners. Instruction continues to focus on the development of all four skills (speaking, listening, reading and writing) and cultural knowledge. This course continues to help students develop language skills in Chinese and will help them understand Chinese culture and society.

Civil Engineering Technology

CIV* K150 - Surveying I

1 CREDIT HOUR
Corequisites: CIV K151 and MAT* K172.*
This course introduces the student to the proper use and care of surveying equipment used in making linear and angular measurements, including tapes, transits, theodolites, levels and total stations. This leads to the development of the basic principles of traversing as it relates to boundary surveying.

CIV* K151 - Surveying I Lab

2 CREDIT HOURS
Corequisites: CIV K150 and MAT* K172.*
This laboratory will familiarize the student with the proper use and care of the common instruments used by the surveying profession. The use of the equipment is then applied to a boundary traverse.

CIV* K200 - Soils °

1 CREDIT HOUR
Prerequisite: MAT K186.*
Corequisite: CIV K201.*
The principles of soil mechanics are identified as a basis for discussing and implementing the fundamentals and applications of geotechnical sub-surface exploration, analysis, and design. These include recognizing soil composition, texture, and classification; understanding permeability and seepage, consolidation, settlement, and shear strength; and applying concepts in lateral earth pressures, fundamentals of retaining structures, shallow and deep foundations, and slope stability.

CIV* K201 - Soils Lab °

2 CREDIT HOURS
Prerequisite: MAT K186.*
Corequisite: CIV K200.*
Lab projects are conducted in order to study the physical, mechanical, and hydraulic properties of soils as a means to predict soil behavior and to apply practical solutions in the design of geotechnical structures. Students will perform tests and operations similar to industry testing techniques to determine grain size distribution, specific gravity, Atterberg limits, permeability, compaction, consolidation, direct shear and triaxial tests.

CIV* K203 - Hydraulics

3 CREDIT HOURS
Corequisite: MAT K186.*
This course will familiarize the student with the basic principles of hydraulics as related to the field of civil engineering. The understanding of basic fluid properties and water movement is given. Detail work in hydrostatics, Bernoulli's equation, pressure pipe systems, and uniform open channel flow is given.

CIV* K222 - Structural Design °

3 CREDIT HOURS
Prerequisites: ARC K108*
Corequisite: PHY K114*
The names and functions of various statically-determined structural steel and concrete members and systems are discussed and analyzed including footings, columns, beams, slabs, trusses, and connections. Students will practice solving designs for shear, bending moment and deflection through analytic methods according to current specifications using appropriate design techniques, manuals, and theory, and practice graphical detailing of designs according to current practice.

CIV* K236 - Hydrology and Stormwater Drainage

1 CREDIT HOUR
Corequisite: CIV K237.*
Students will understand and analysis the hydrologic cycle as it pertains to civil engineering and site design and planning while engaging in the design of stormwater mitigation and management systems that implement

computational methods and the use of best-practices and application software for rainfall and runoff. Course outcomes are demonstrated through the design of a simulation project.

CIV* K237 - Hydrology and Stormwater Drainage Lab

2 CREDIT HOURS
Corequisite: CIV K236.*
Pending course description update.

CIV* K250 - Surveying II °

1 CREDIT HOUR
Prerequisites: CIV K150 and CIV* K151.*
Corequisite: CIV K251.*
Advancing the topics of Surveying I, students will expand their skills and mastery of surveying methods and equipment. Operations practiced include boundary surveying, project sequencing, construction layout, horizontal and vertical curve layout, computational geometrics, and GPS topics.

CIV* K251 - Surveying II Lab °

2 CREDIT HOURS
Prerequisites: CIV K150 and CIV* K151*
Corequisite: CIV K250.*
In the Lab component to Surveying II, students advance their application skills using surveying instrumentation and equipment by conducting exercises that practice and reinforce the learning initiatives covered in lecture. Lab projects include map creation, boundary determination and project stakeout, land use analysis and using GIS resources, researching deeds and records, road plan and profiling, and geodesy calculations.

CIV* K295 - CO-OP Work Experience - Civil Engineering °

3 CREDIT HOURS
Prerequisite: Permission of the program coordinator.
Corequisite: Student must have completed all freshman level technology courses and have a GPA of 2.50 or better.
Students will work in industry gaining hands-on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by the co-op student during the semester internship.

CIV* K296 - CO-OP Education Work Experience II - Civil Engineering

3 CREDIT HOURS
Prerequisites: CIV K295 and permission of program coordinator.*
In this course, students will work in industry gaining enhanced hands-on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education along with hands-on experience gained in their initial co-op experience. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by the co-op student during the semester.

Criminal Justice

CJS* K100 - Perspectives of Criminal Justice °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# grade or higher.*
Students will explore learning styles, develop college success strategies, engage in the practice of academic writing, reading and critical thinking within the context of the criminal justice system. This course satisfies the College's First-Year Experience requirement.

CJS* K101 - Introduction to Criminal Justice °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course provides an overview of the criminal justice system in the United States. Students will be exposed to the system's components: law enforcement, courts, and corrections from historical, theoretical, and philosophical perspectives. Students will have the opportunity to interact with criminal justice professionals and be challenged in both reading and writing

CJS* K103 - Introduction to Security

3 CREDIT HOURS
This course presents an introduction to the basic principles of security and loss prevention including, but not necessarily limited too, planning preparations and implementation. These principles are explained and discussed to ensure appreciation for and understanding each as well as correct appropriate application where and when indicated.

CJS* K172 - Introduction to Terrorism and Homeland Security °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a survey of domestic and international terrorism. Students will examine the history of terrorist organizations and the underlying social, political, religious and nationalistic conditions that gave rise to these organizations. The governmental responses in different countries to these organizations activities will also be reviewed.

CJS* K201 - Criminology °

3 CREDIT HOURS
Prerequisite: CJS K101 or SOC* K101.*
Corequisite: ENG K101 or ENG* K101S.*
This course investigates the relationship between crime and society. Emphasis is placed on understanding theoretical explanations of deviant behaviors from multiple disciplinary perspectives. Students will have the opportunity to use current technologies and practices in assessing crime and crime patterns. They will engage in quantitative reasoning and social science methodologies. Students will explore public policy development and implementation as it relates to crime prevention, control and quality of life issues.

CJS* K202 - Juvenile Delinquency °

3 CREDIT HOURS
Prerequisite: CJS* K101
Corequisite: ENG K101 or ENG* K101S. SOC* K101 recommended.*

This course presents an introduction to both the structure and process of juvenile justice and delinquency in the United States. The course will examine the changing philosophy and theoretical perspectives of juvenile justice and delinquency by presenting an overview of the social, psychological, and biological explanations of juvenile deviance.

CJS* K211 - Criminal Law I °

3 CREDIT HOURS
Prerequisite: CJS K101.*
Corequisite: ENG K101 or ENG* K101S.*
This course involves comprehensive study of sources, distinctions, and limitations relating to criminal law; the development of criminal law in the United States; the principles of criminal liability; various crimes and their elements; and the criteria considered in determining capacity and defenses. Connecticut Penal Code is used to relate Model Penal Code and Common Law materials specifically to Connecticut. Case studies and briefs are used to emphasize the acts, the mental state, and the attendant circumstances that are necessary ingredients in proving crimes.

CJS* K213 - Evidence & Criminal Procedure °

3 CREDIT HOURS
Prerequisite: CJS K101.*
Corequisite: ENG K101 or ENG* K101S.*
This course explores the historical background, kinds of evidence, and the development of the rules of evidence. Considered are the hearsay rule and its major exceptions, burden of proof, judicial notice, and presumptions. Students will examine the roles of the judge, jury, and prosecuting attorney. Other areas of study will include the grand jury, prosecution by indictment as well as other court procedures.

CJS* K220 - Criminal Investigation °

3 CREDIT HOURS
Prerequisite: CJS K101.*
Corequisite: ENG K101 or ENG* K101S.*
This course is designed to make the student aware of the fundamentals of criminal investigation. The student will learn correct procedures and conduct at the crime scene, how to preserve evidence, and chain of custody. Emphasis is on the responsibility of the first responder. Additionally, students will review documentation, preparation, and testimony in court.

CJS* K225 - Forensic Science °

3 CREDIT HOURS
Prerequisites: CJS K101.*
Corequisites: ENG K101 or ENG* K101S.*
This course involves the examination of physical evidence including collecting, identifying, preserving: and transportation it. They will be exposed to the crime laboratory and its capabilities and limitations. Additionally, they will participate in field testing and learn the various purposes of kits and their function and design. Laboratory procedures will be demonstrated depending on existing and available facilities.

CJS* K230 - Security Management °

3 CREDIT HOURS
Prerequisite: CJS K103.*
This course presents an introduction to the administration of a security department and a security program with specific emphasis on three areas: the administrative process (including the management and supervisory elements); security

operations; and staffing. Innovative approaches to solving the unique problems encountered in the security field are discussed, as are administrative responsibilities such as training, policy development, planning and budgeting.

CJS* K231 - Security Procedures °

3 CREDIT HOURS
Prerequisite: CJS K103.*
Designed as an introduction to various procedures often encountered in the security field. Security Procedures offers a forum for understanding the rationale, intent and purpose of such procedures as lock and key control, access control, searches, bomb threats, and emergency response. Several typical procedures are presented, explained and discussed to ensure appreciation for and understanding of each, as well as correct implementation where and when indicated. Particular emphasis is placed on the background and current status of private security in order to understand the basis and need for appropriate procedures. Liability for acts and the safe handling of weapons are also covered.

CJS* K250 - Police Organization & Administration °

3 CREDIT HOURS
Prerequisites: CJS K101; ENG* K101 or ENG* K101S.*
This course exposes the student to the complexities inherent in the administration of modern law enforcement organizations by presenting and analyzing a variety of management styles and administrative techniques used in such organizations. Students will examine many of the internal and external factors that impact contemporary law enforcement organizations (e.g., federal regulations, political structures, community needs, press, etc.). Students will be exposed to theoretical perspectives, practical applications and designs in an environment that encourages discussion, writing, and networking with local and state agencies.

CJS* K253 - Interpersonal Dynamics for Criminal Justice Professional °

3 CREDIT HOURS
Prerequisite: CJS K101.*
Corequisite: Any 200-level CJS course or POL K212.*
This course is designed to introduce the student to the major theories about interpersonal processes and their relevance to the problems within the criminal justice system. The course content flows from understanding the theories to techniques of interpersonal communication. Emphasis is placed on facilitating effective communication, sensitivity, decision-making and action planning in a multicultural society.

CJS* K291 - Criminal Justice Practicum °

3 CREDIT HOURS
Prerequisite: Permission of the instructor.
This practicum is a college-approved and supervised position related to the student's criminal justice program with public or private law enforcement or security occupations in which basic law enforcement, criminal investigation, probation, or corrections form a principal part of the work of the agency in which field work experience is undertaken. Students are evaluated by members of the college faculty and the staff of the cooperating agency. This is a capstone course.

CJS* K294 - Contemporary Issues in Criminal Justice °

3 CREDIT HOURS
Prerequisites: Permission of instructor or Criminal Justice program coordinator.
This capstone course is designed for students with a solid foundation of knowledge and exposure to practices in the field of Criminal Justice. The course provides students with opportunities to examine current issues in law enforcement,

the judicial system and corrections through discussions with experts in the field. The focus and content of the course will change each year to reflect the changes in political and social thought and their impact on public policy.

CJS* K298 - Special Topics: Introduction to Victimology °

3 CREDIT HOURS
Prerequisite: None required; CJS K101 recommended.*
Corequisite: ENG K096 or higher. Please note: if completing ENG* K096 prior to enrolling in CJS* K298, a grade of "C#" or better is required for registration into this course.*
Victimology is a field which studies the circumstance of the occurrence of crimes along with the characteristics of the victims of crime. The course also studies the effects of crime upon victims and the responses of society, government institutions and the criminal justice system with regard to the needs and goals of victims of crime.

Communication/Speech

COM* K101 - Introduction to Mass Communications °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S; any 100-level Humanities or Social Sciences course.*
This course is a survey of the American mass media and communication. Lectures and discussions will focus on the various print and electronic mass media industries, and the impact of mass communication on our society. The course is designed as an introductory course for those students who plans to major in graphic design and communication and for those who want to be informed about the development of the influence of modern mass media.

COM* K121 - Journalism °

3 CREDIT HOURS
Prerequisite: None required; ENG K101 or ENG* K101S recommended.*
This course is designed to give students an introduction to news writing. Students receive practice in writing hard news, feature stories, and editorials, as well as editorial decision-making. Word processing instruction is included. No previous experience necessary. COM* K121 meets the computer literacy requirement.

COM* K154 - Film Study and Appreciation °

3 CREDIT HOURS
Prerequisite: ENG* K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.
An aesthetic and critical approach to film study, this course helps students develop a cinematic vocabulary and apply analytic skills. Classroom screenings provide texts for discussion and analysis; they are supplemented by lectures, readings and writing assignments. Representative international films from the early years of the industry to the present will be taught. This course is equivalent to ART* K186.

COM* K166 - Video Filmmaking °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S and any 100-level Humanities or Social Sciences course.*
A creative workshop in which students will work with digital media to make their own movies. Students work with video camcorders and editing software. Students will learn scripting, shooting, editing and audio production techniques. Students will also research and write on various topics related to digital video and filmmaking. Each student is required to have access to a camera or camera phone which can shoot movies. This course is equivalent to ART* K185.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

COM* K198 - Special Topics: Democracy and Discourse °

3 CREDITS
Prerequisite: ENG K101 or ENG* K101S.*
This course will explore the connections between oral, written, and visual discourse within the context of social and political movements in American history. Emphasis will be placed on the history of civil discourse in America and Theoretical underpinnings of rhetoric, argument and persuasion. Finally, this course will track and analyze contemporary debates and campaigns related to major political elections and social movements.

COM* K202 - Intercultural Communication °

3 CREDIT HOURS
Prequisite: ENG* K101 or its equivalent.
An introduction to the field of intercultural communication. This course is designed to increase awareness of the cultural self and to help develop greater competence in communicating across cultural lines. Topics covered include an introduction to the profound impact of culture on learning styles, language and non-verbal communication, cognitive styles, communication styles, and values. Cultural privilege and power will be explored, as well as processes for mediating intercultural conflict. Finally, the course will examine models of how people establish cultural identity and develop intercultural empathy. Throughout the course, examples will be drawn from cultures of Europe, Asia, Africa, the Middle East and the Americas to help the student gain a global understanding of the issues involved in intercultural communication.

COM* K291 - Publications Practice I °

3 CREDIT HOURS
Prerequisite: COM K121 and GRA* K140 and GRA* K155 or permission of the instructor.*
This course is designed to train students to produce The Current, the student magazine. This involves researching, interviewing, writing, editing, photography, and proofreading. It also includes all the pre-press work (including digital imaging), which is done on computers, primarily using the Adobe Graphic Studio. Advertising (sales and design) is also part of this course.

Counseling

COU K101 - Life/Work Planning

1 CREDIT HOUR
This 5 week course is for all students making career choices. It is helpful for new students and returning "mature" students who are starting a first career, changing careers, or deciding on a college major. Topics covered will include personal interests and values, skills and abilities, decision making, career exploration, and goal setting.

COU K122 - Portfolio Development °

4 CREDIT HOURS
Prerequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed for adults who have achieved college-level learning through direct life/work experience. Students will have the opportunity to explore past learning experiences and to plan future education goals. Through exercises in learning styles, problem-solving, goal clarification, career-planning, and life experience analysis, each student will develop a Portfolio of Prior Learning. The Portfolio will then be presented to an assessment committee which awards college credit for the learning demonstrated. (Students interested in registering for this course must attend an information session prior to registering. See threerivers.edu/apl for more information and contact details.)

COU K130 - Career Choices: Work-Life Planning and Decision Making °

3 CREDIT HOURS
Prerequisite: ENG K096 placement∞*
This course is designed to help students maximize their college experience and promote self- development, career awareness, and occupational decision making. Content includes educational success strategies; college resources, planning, and problem solving; career development theory; self-assessment, personality, and career assessment inventories; and education and career planning techniques, resources, and decision making. The course format will be highly interactive and includes lectures, guest speakers, and individual projects.

Computer Applications

CSA* K105 - Introduction to Software Applications °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces some popular software packages currently being used in industry, business, and government such as Microsoft Word, Excel, Access, and PowerPoint. A small amount of time will be devoted to the Windows operating system environment. Recent versions of the software packages will be used. Strong reading, good writing, and basic math skills are required. Prior computer usage experience (e.g. keyboard and mouse actions, file and folder management, Internet browsing) is assumed. Digital learning technologies will be used throughout the course.

CSA* K205 - Advanced Applications °

3 CREDIT HOURS
Prerequisite: CSA K105 or BBG* K115 or permission of instructor.*
This course covers some popular software packages currently being used in industry, businesses, and government such as Microsoft Word, Excel, Access, and Power Point. Each package will be covered in greater depth than CSA* K105 - Introduction to Software Applications °, and will include more advanced features such as using VBA to write macros.

Computer Science

CSC* K108 - Introduction to Programming °

4 CREDIT HOURS
Prerequisites: Familiarity with Microsoft Windows operating system and basic word processing; MAT K095 or MAT* K095I with a "C#" grade or better.*
This course presents a broad introduction to computer science including computer design, programming, information processing and algorithmic problem solving. It is intended as a foundation for beginning computer science students and

others seeking to use computers as a tool in business, engineering, science and other disciplines. In addition, this course provides an introduction to high level computer programming language. The student will learn to design, develop and implement programs to solve various data processing problems. Topics covered include control structures, functions and parameter passing, file I/O, and an introduction to arrays and structures. In the lab, the student will use the computer to create and run programs to solveproblems discussed in the lecture portion. Three lecture hours, one two-hour lab.

CSC* K207 - Introduction to Visual Basic °

4 CREDIT HOURS
Prerequisite: CSC K108.*
This course is designed to provide the student with rapid application development technology using Microsoft Visual Basic software. Topics include GUI controls, event handling, graphics, exception handling, file I/O, data base access, and an introduction to ASP.NET applications and XML web services. Three lecture hours, one two-hour lab.

CSC* K215 - Object-oriented Programming with C++ °

4 CREDIT HOURS
Prerequisite: CSC K108.*
This course completes the introduction to programming in the C++ language. Object Oriented Programming concepts include objects and classes, instantiation, encapsulation, inheritance, polymorphism, overloading, pointers and class libraries. Additional topics include structures, recursion, namespaces, multi-file programming, and random access files. proficiency in structured programming at the level of CSC* K108.

CSC* K216 - Intermediate C++ Programming °

4 CREDIT HOURS
Prerequisite: CSC K108.*
This course is designed to provide the student with the fundamentals of object oriented programming using the language of C∞∞. Topics include inheritance, polymorphism, operator overloading, pointers, class templates, function templates, and exception handling. Some of these topics will be applied to Windows GUI programming with the NET library. Three lecture hours, one two-hour lab

CSC* K223 - Java Programming I °

4 CREDIT HOURS
Prerequisite: CSC K108.*
This course is designed to provide the student with the fundamentals of object oriented programming using the language of JAVA. Topics include applets, applications, inheritance, polymorphism, GUI components, event handling, graphics, multi-threading, exception handling, multi-media, file I/O, and networking. Three lecture hours, one two-hour lab.

CSC* K224 - Java Programming II °

4 CREDIT HOURS
Prerequisite: CSC K223.*
This course covers more advanced Java programming concepts, focusing on data structures and algorithms, with specific topics including lists, stacks, queues, priority queues, sets, maps (hash tables), and binary search trees, time complexity, space complexity, and recursion. The course also discusses building these data structures from scratch as well as leveraging the Java API.

CSC* K233 - Database Development I °

4 CREDIT HOURS
Prerequisite: CSC K108.*
The main objective of this course is to teach students the fundamental concepts underlying the current database technology. The course will cover the concepts behind the latest database technology - the relational database model. The course will attempt to solidify the concepts by exposing the student to a specific DATABASE Management System (DBMS) that employs the relational model, and by introducing the student to one or more query database languages. Three lecture hours, one two-hour lab.

CSC* K234 - Database Development II °

4 CREDIT HOURS
Prerequisite: CSC K233.*
In this course students will extend their knowledge of relational database programming by developing programming objects directly in the database (stored procedures, functions, data types and triggers) using the traditional SQL language as well as .NET languages. Students will also explore the use of the XML data type for the storage of XML documents and validation of these documents using XML schemas. OLAP (On-Line Analytical Processing) and Data Mining will also be explored. Three lecture hours, one two-hour lab. The lab is the hands-on component to Database II and will feature database programming object development using the SQL Server database management system.

CSC* K257 - Web Development with PHP °

4 CREDIT HOURS
Prerequisite: CSC K108*
This course will introduce students to web development using PHP. Students will learn how to design web sites according to the MVC (Model View Controller) model. Object-oriented PHP will serve as the means by which the model component of the MVC-based web application is implemented. Session management will be used to deliver customized content. Students will also use the MySQL database in conjunction with PHP to create dynamic web applications.

CSC* K295 - CO-OP Ed/Work Experience °

3 CREDIT HOURS
Prerequisite: Permission of the program coordinator.
Corequisites: Student must have completed all freshman level technology courses and have a GPA of 2.50 or better.
Students will work in industry gaining hands-on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by the co-op student during the semester internship.

CSC* K296 - CO-OP Ed/Work Experience II

3 CREDIT HOURS
Prerequisites: CSC K295 and permission of program coordinator.*
In this course, students will work in industry gaining enhanced hands-on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education along with hands-on experience gained in their initial co-op experience. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by the co-op student during the semester.

Computer Technology

CST* K145 - Digital Circuits and Logic °

4 CREDIT HOURS
*Pre*requisite: *CSC* K108*
A study of the elements of digital logic design, digital circuits, and the fundamentals of a modern digital system. The course begins with a history of computing, an explanation of binary number systems, and data representation, progresses through logical design and into PC systems. Logic design exercises and simulations are used to provide practical experience.

CST* K153 - Web Development And Design I °

4 CREDIT HOURS
Prerequisite: None required. Recommended BBG K115 or CSA* K105 or equivalent.*
This course offers a preliminary treatment of Web Design and Development concepts, with programs that yield visible and audible results in Web pages and Web-based applications. The course includes an introduction to Microsoft Internet Explorer and the World Wide Web, effective Web page design practices, XML, HTML, XHTML, web graphics, authoring software, and client- and server-side scripting. The course includes detailed discussion of graphics formats, the appropriate use of graphics and text, font selection, use of meta-tags, navigation techniques, and methods of optimizing websites.

CST* K252 - Web Development and Design II °

4 CREDIT HOURS
Prerequisite: CST K153 or permission of the instructor.*
The course will focus on the use of DHTML in conjunction with style sheets, both CSS and XSLT, to enhance Web page content. Client-side scripting to support DHTML and server-side scripting will be covered, introducing the basic concepts of computer programming techniques. Server database access and XML for web transactions will be introduced. The course will also introduce the process of requirements gathering, documentation, design and implementation of a web site, while introducing the concepts of the infrastructure used to support web based applications. The course will require each student to build a website, using the skills and tools taught in the course.

CST* K275 - Information Security °

4 CREDIT HOURS
Prerequisite: None required. Recommended BBG K115 or CSA* K105 or equivalent.*
Students will become knowledgeable of basic network security. Topics include general security concepts, including authentication methods along with common network attacks and how to safeguard against them; communication security, including remote access, e-mail, the Web, directory and file transfer, and wireless data; infrastructure security, including various network devices and media, and the proper use of perimeter topologies such as DMZs, extranets, and intranets to establish network security; cryptography basics, including the differences between asymmetric and symmetric algorithms, and the different types of PKI certificates and their usage; operational/organizational security, including its relationship to physical security, disaster recovery, and business continuity; and computer forensics.

Construction Technology

CTC* K120 - Fundamentals of Construction Management

3 CREDIT HOURS
Introduces the fundamental aspects of construction management to students in a broad format, covering topics that include understanding the design vision, establishing team expectation, project planning, scheduling, estimating, organizational forms, contracts and risk management.

CTC* K229 - Construction Estimating °

3 CREDIT HOURS
Prerequisite: Recommended some knowledge of the construction industry.
The course examines the roles and responsibilities of a construction estimator. Using both traditional and industry standard digital methods, the course will cover the cost of labor, material, and equipment by unit and by square foot; the fundamentals and effects of scheduling, including critical path, bar and gant charts; and the effect of the global economy on overall construction costs.

CTC* K296 - CO-OP Education Work Experience

1 CREDIT HOUR
Prerequisite: Permission of the program coordinator.
Co-requisite: Student must have completed all freshman level technology courses and have a GPA of 2.50 or better.
Students will work in industry gaining hands on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 75 documented industry hours must be completed by the co-op student during the semester internship.

Dental Hygiene

DNT* K105 - Introduction to Dental Hygiene I °

1 CREDIT HOUR
Prerequisite: ENG K096 placement∞.*
Corequisite: None required. ENG K096 and CSA* K105 recommended. Please note: if completing ENG* K096 prior to enrolling in DNT* K105, a grade of "C#" or better is required for registration into this course.*
This course provides students with a survey of contemporary issues encountered by health care professionals. Emphasis is placed upon personal oral self care, dental specialties, ethical and legal aspects of dentistry, an introduction to oral pathology disease transmission and infection control, principles and techniques of disinfection and sterilization, and an introduction to the dental hygiene treatment appointment.

DNT* K106 - Introduction to Dental Hygiene II °

1 CREDIT HOUR
Prerequisite: DNT K105.*
This course is a continuation of Dental Hygiene I and provides students with a survey of contemporary issues encountered by health care workers. Emphasis is placed on professional standards, health promotion, disease prevention, and ethical issues that are encountered by dental hygienists.

Earth Science

EAS* K110 - The Earth Sciences

4 CREDIT HOURS
Corequisite: ENG K096. Please note: if completing ENG* K096 prior to enrolling in EAS* K110, a grade of "C#" or better is required for registration into this course.*
In this course, scientific studies of earth systems will be discussed. The topics to be covered will include astronomy, meteorology, geology, and oceanography. The fundamental principles of all four disciplines will be explored. This course is designed for students majoring in education or business, or any student desiring to meet the lab science requirement for the LAS degree. Some fieldwork is involved. Three hours lecture, three hours lab each week.

Early Childhood Education

ECE* K101 - Introduction to Early Childhood Education °

3 CREDIT HOURS
Prerequisite: ENG K096 placement∞ or permission of the program coordinator based on ECE work experience.*
This course introduces students to a study of the historical, anthropological, psychological, philosophical, and social perspectives of early care and education for children ages 0-8. The course acquaints students with trends in educational settings including the organization, history, and governance of American schools. The course includes the study of child development, learning models, and the multiple roles in the early childhood education profession. An additional 10 hours of field observations will be required outside of class.

ECE* K103 - Creative Experiences/Children °

3 CREDIT HOURS
Prerequisite: ENG K096 placement∞; ECE* K101 and ECE* K182 recommended.*
This course is designed to study the concept of creativity and the artistic process as it applies to art and play and for young children. Theories and research on aspects of play and the Arts will be applied. The course will highlight teaching methods and curriculum development in visual arts, spontaneous play, theater, and dramatic play.

ECE* K109 - Science & Math for Children °

3 CREDIT HOURS
Prerequisite: ENG K096 placement∞; ECE* K101 and ECE* K182 recommended.*
In this course, students will acquire an understanding of the materials and methods of working with young children. The focus will be on math and science and their integration into the early childhood curriculum. Emphasis will be placed on understanding these areas from a child development perspective. Active participation working with children will be required.

ECE* K141 - Infant/Toddler Growth & Development °

3 CREDIT HOURS
Prerequisite: ENG K096 placement∞; ECE* K101 and ECE* K182 recommended.*
In this course, students will examine the growth and development of the child from birth to 3 years. Topics explored will include the development of the brain, attachment, emotions, cognition, social interactions, language, and motor skills. Observations of infant and toddlers in social settings will be required for this course.

ECE* K176 - Health, Safety & Nutrition °

3 CREDIT HOURS
Prerequisite: ENG K096 placement∞; ECE* K101 and ECE* K182 recommended.*
The relationship between health, safety and nutrition and child development will be examined. Emphasis will be on the

strategies needed to implement a safe, healthy and nutritionally sound program. Community agencies and resources that benefit the children through these domains will be explored through community service experiences.

ECE* K180 - Credential Preparation °

3 CREDIT HOURS
Prerequisite: None required; ECE K101 and ECE* K182 recommended.*
This course is designed for childcare providers who are preparing for their Child Development Associate (CDA) Credential through the Council for Professional Recognition in Washington, D.C. Students must be working or volunteering in a child care program and have completed at least 250 hours of work in this setting. The course will assist students an understanding of the nationally recognized Child Development Associate (CDA) and provide the foundation for acquiring the skills required for a CDA. This course will focus on the six CDA Competency Goals and thirteen Functional Areas and will assist students in the preparation of the required CDA resource file, parent opinion questionnaires, and CDA assessment observation instrument.

ECE* K182 - Child Development °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better or permission of the program coordinator based on ECE work experience.*
This course presents the basic principles, current research, and traditional theories of child development, from the prenatal period to the onset of adolescence, with an emphasis on the earlier years of childhood. Students will be guided in the development of a scientific and objective attitude toward the interpretation of child behavior and will study various methods of conducting research in child development. They will observe children and analyze their behavior in each of the following areas: physical abilities and motor skills, cognitive abilities, as well as social and emotional development. An additional 10 hours of field observations will be required outside of class.

ECE* K190 - ECE Behavior Management °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; ECE* K101; ECE* K182; or permission of the instructor.*
This course is designed for early childhood education teachers, child care providers and directors. It will review the many behavior management and discipline strategies that are available to be used with young children. Discipline approaches that go beyond rules and punishment will be examined. Students will study and create an environment that leads to respect and self-discipline. Participants learn to analyze teaching/ management styles so as to be able to incorporate the best techniques to help lead children to self-control.

ECE* K206 - Administration & Supervision of Early Childhood Programs °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; ECE* K101 and ECE* K182 recommended.*
This course will focus on administering an Early Childhood Program. It will explain and discuss the leadership role in administration and supervision of private, public, and federally funded schools. It will look at establishing the program's framework, the program's operational systems, and the overall implementation of quality early childhood personnel standards. This survey course is designed to meet the Connecticut Directors Credential.

ECE* K210 - Observation Participation & Seminar °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; ECE* K101; ECE* K182; or permission of the instructor.*

The course emphasizes techniques and strategies for recording children's (ages 0-8) behavior accurately and objectively through portfolio assessment. The course reviews CT Statewide Department of Education benchmarks and performance standards, and identifies the methodologies best used for assessment. The importance of child development from birth to eight years is emphasized and used in observation of children in a childcare setting, preschool programs, and K-3 classes. Observations of early childhood programs will be required. An additional 60 hours of field observations will be required outside of class.

ECE* K215 - The Exceptional Learner °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; ECE* K101; ECE* K182.*
This course provides an overview of the study of the exceptional child with an emphasis on the history, laws, concepts, practices, and terminology used by professionals in the field within inclusive settings. Causes, characteristics, needs, and implications of the intellectual, motor and sensory handicaps will be discussed. Additional topics will be addressed including diversification, multiculturalism, and parenting. Observations of early childhood programs will be required. An additional 5 hours of field observations will be required outside of class.

ECE* K222 - Methods and Techniques in Early Childhood Education °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; ECE* K101; ECE* K182; or permission of the instructor.*
The course is designed for those students who have an understanding and knowledge of child development and children. The course will review the philosophical, sociological and pedagogical foundations of education and their applications in early childhood education settings. Students will apply actual principles of learning to the analysis of instructional approaches and curriculum development. This course will expose students to the fundamentals of classroom strategies, effective teaching tools and techniques for children ages 0-8. Observations of early childhood programs will be required. An additional 10 hours of field observations will be required outside of class.

ECE* K231 - Early Language & Literacy Development °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; ECE* K101; ECE* K182; or permission of the instructor.*
The course introduces students to language and literacy development in the young child from birth to eight years old. Students will explore the early childhood language arts curriculum including speaking, listening, writing, and reading skills. An emphasis will be on the influence of child development milestones on an emerging literacy development. This course will also include experience in the creation of a literacy-rich environment that engages children in developmentally- appropriate language areas. Observations of early childhood programs will be required. An additional 5 hours of field observations will be required outside of class.

ECE* K241 - Methods and Techniques for Infants/Toddlers Care °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; ECE* K101; ECE* K182; or permission of the instructor. ECE* K141 recommended.*
In this course, students will be introduced to the concept of curriculum for infants and toddlers. Several curriculum models will be explored. Students will learn ways to interact and stimulate children under two. Learning games, language activities, music, movement, and dramatic play are some of the areas that will be studied. Developmentally appropriate practices will be reviewed. Topics explored will include curriculum benchmarks, development of the brain and attachment. Observations of early childhood programs will be required.

ECE* K252 - Children on the Autism Spectrum °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; ECE* K101; ECE* K182; or permission of the instructor. ECE* K215 or PSY* K245 recommended.*
This course introduces students to the application of a variety of autism teaching strategies and philosophies which may be applied within the context of a school, home or child care setting. Specific Diagnostic categories of ASD (Asperger's Disorder, Pervasive Developmental Disorder, Autism...) will be identified and aligned with both traditional and nontraditional strategies for engagement, learning and relationships. The identification process of ASD, general causes and symptoms and incidences of this disorder will be outlined before discussing classroom strategies. Samples of these strategies will include ABA (Applied Behavioral Analysis) DIR Model (Developmental, Individual-Differences, Relationship Based and Floor Time.

ECE* K295 - Student Teaching Practicum °

6 CREDIT HOURS
Prerequisite: Completion of seven ECE courses or permission of ECE advisor; letters of recommendation; GPA of 3.0 recommended.
Guided observation, participation and supervised student teaching in NAEYC accredited centers or public schools grades K-3. The purpose of student teaching is to enable the student to apply child development theory and methodologies in a learning environment with children. Students will manage a classroom independently, plan, organize, implement and evaluate classroom activities. Students will complete a minimum of 200 hours of student teaching. Weekly seminars devoted to issues in early childhood education, curriculum prep and the experience of the student teacher will extend the individuals learning experience. This course also requires 3 hours of class time each week. Please note the following: Students must fulfill specific health requirements mandated by CT State Licensing or SDE, including annual physical and TB requirements. Additionally, students are required to complete a criminal record check prior to the semester. These expenses must be assumed by the student.

Economics

ECN* K101 - Principles of Macroeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces students to the basic concepts of the economic system. The first semester is primarily macroeconomics, with the emphasis on the economic thought process. Discussion of money and banking, national income, fiscal measures, and stabilizing the economy are all included.

ECN* K102 - Principles of Microeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces students to microeconomics theory, with a focus on understanding how business, social, and policy decisions are made. The basic theories of distribution of income, international economics, labor, and comparative economic systems are studied.

ECN* K250 - Money and Banking °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; ECN* K101.*

This course examines the role that money, interest rates and financial intermediaries (in particular, the banking system) play in the operation of the U.S. economy. The aim of this course is to give students an overview of the U.S. financial system and an understanding of the theory and practice of monetary policy in the United States.

ECN* K296 - Teaching Assistantship in Economics °

3 CREDIT HOURS
Prerequisite: At least two prior courses in economics and/or permission of the instructor.
In this assistantship, students will assist a faculty member in conducting an academic course offered in the field of economics. Students may lead discussion groups, work with individual students, organize field trips, make presentations, and/or do other work (to be arranged by faculty member).

Education

EDU* K110 - Teaching In the 21st Century °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor or program coordinator.*
This course is designed for students considering education as a major and teaching as a profession. Students will have an opportunity to experience primary, middle and secondary education through site visits, guest speakers and varied media. Students will obtain a systematic body of knowledge from which they can develop a repertoire of teaching practices to meet the learning needs of students with diverse learning styles, developmental needs, cultural and socioeconomic backgrounds.

Electrical Engineering Technology

EET* K105 - Electric Circuits & Systems °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I.*
Corequisites: MAT K137 or MAT* K137S.*
This course provides an introduction to the basic concepts of DC and AC electric circuits. Voltage, current, resistance, energy, and power relationships are introduced. Circuit analysis of basic series and parallel circuits is covered. Instruments and techniques of electrical measurement for both DC and AC circuits are also discussed. Other topics include semiconductor devices, transformers and power supplies, microcontrollers, motors and drive circuits, and electrical power generation/distribution. The lab portion of this course will supplement the course Electric Circuits & Systems. Students will apply the concepts learned in the classroom and gain practical hands-on experience making electrical measurements using a variety of test instruments.

EET* K119 - Advanced Circuits and Systems °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
This course develops the concepts of DC and AC electric circuits introduced in Electric Circuits and Systems. More advanced configurations and applications of DC and AC principles are covered, including: transient behavior of capacitive and inductive circuits; power considerations in industrial AC system; network theorems, such as superposition and Thevenin's theorem applied to DC, AC, and mixed circuits; transformers, three phases circuits, and filters. Two hours lecture and three hours laboratory, course meets five hours per week. The lab portion of this course will supplement the course Electric Circuits and Systems. Students will apply the concepts learned in the classroom and develop their skills in making electrical measurements using a variety of test instruments.

EET* K134 - Electronics I °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
This course is an introduction to the internal physical behavior of semiconductor electronic devices. Topics include semiconductor physics, P-N junction operation, transistors and applications, amplifiers, op amps timers and specialty devices. Models, equivalent circuits, and applications are emphasized. Two hours lecture and three hours laboratory, course meets five hours per week. The lab portion of this course supports Electronics I by providing the student with practical experience in the handling and measurement of semi-conductor devices. Computer simulation and bench measurement experiments will be performed in studying the operational characteristics of basic semiconductor devices.

EET* K144 - Fundamentals Electrical Circuits and Machines °

3 CREDIT HOURS
Prerequisite: MAT K186.*
Corequisite: EET K145.*
This course covers the basics of DC and AC electricity in its first half and provides the foundation for the basics of power generation, distribution and conversion. Replaces Electricity and AC/DC Machinery.

EET* K145 - Fundamentals Electrical Circuits and Machines Lab °

1 CREDIT HOUR
Prerequisite: MAT K186.*
Corequisite: EET K144.*
Students will conduct laboratory experiments in electrical power, from basic principles through operation of AC and DC machinery; it is for students in Nuclear Engineering Technology and other non-electrical programs. Replaces Electricity and AC/DC Machinery Lab.

EET* K234 - Electronics II °

3 CREDIT HOURS
Prerequisites: EET K134*
Corequisite: EET K235.*
In this course, the design, analysis and synthesis of semiconductor circuits for various applications are presented. Bipolar and field effect transistors as well as integrated circuits are considered. High and low frequency effects are investigated. Various circuits and circuit functions will be addressed, including multistage and feedback amplifiers, operational amplifiers, power amplifiers, regulated power supplies, silicon controlled rectifiers, and oscillators.

EET* K235 - Electronics II Lab °

1.5 CREDIT HOURS
Prerequisites: EET K134*
Corequisite: EET K234.*
This course supports Electronics II by providing the student with practical experience in designing, building, and evaluating the operation of a variety of electronic circuits. Both computer simulation and bench experimentation are employed in gaining familiarization with circuit design, function, and operation.

EET* K254 - Digital Electronics I °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*

Students will engage in a comprehensive study of binary logic gates. The circuits for certain various gates are analyzed. The course also includes the study of codes, encoding, decoding, number systems, and various sequential logic circuits such as flip-flops, counters, and shift registers. Two hours lecture and three hours laboratory, course meets five hours per week. In the laboratory portion of the course, students will engage in a comprehensive study of logic circuitry. Circuits containing various logic gates are built and tested. Applications of logic circuitry in practical applications are also build and evaluated.

EET* K258 - Microprocessors & Controls °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
Students will be introduced to the concepts involved in single board microcomputers. Emphasis is placed upon using a microprocessor as a control device, and also in a microcomputer system. Various microcomputer and related integrated circuits are studied. Two hours lecture and three hours laboratory, course meets five hours per week. In the laboratory portion of this course, students will build and evaluate microcomputer based systems. Students will also develop assembly and high level code, program the systems, carry out performance tests and develop laboratory reports.

EET* K264 - Data Acquisition and Controls °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
This course provides an introduction to data acquisition circuits and systems as well as basic feedback control systems. Topics include measurements techniques, computerized data acquisitions, introduction to LabVIEW, Interfacing to microcontrollers and instrumentation, signal processing and communications, and feedback control techniques, mechanical systems and mechanical power transmission. Students will learn the basics of measurements and data acquisition using LabVIEW based exercises. This lab portion of this course provides students with hands-on experience with analog and digital closed loop automatic control components, circuits, and systems. It familiarizes students with analog and digital simulation techniques. LabVIEW and microcontrollers are used extensively with various sensors and actuators.

EET* K266 - Advanced Controls and Robotics °

3 CREDIT HOURS
Prerequisites: EET K264*
This course builds on topics from EET* K264 with the sensors, microcontrollers, actuators and programmable logic controllers, that make up modern day robots. Automatic control system techniques are used to implement robot analysis and design. Two hours lecture and three hours laboratory, course meets five hours per week. This lab provides students with hands-on experience with the components and systems used in robotics. Students build or refurbish robot arms, rovers, quadrotor or other robotic systems. A microcomputer controlled system design project is included. This course is equivalent to MFG* K221.

EET* K274 - Electronic Communication Systems °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
Students will study communications from an informational and circuit/systems point of view. Modulation theory and techniques will be covered. Noise considerations, bandwidth requirements, and the transmission, propagation, reception and detection of RF signals will be considered. Analog and digital considerations will be addressed. Modern digital communication systems including WiFi, Bluetooth and ZigBee will be evaluated. Two hours lecture and three hours laboratory, course meets five hours per week. The Laboratory portion of this course supports provides students with hands-on experience in the design, check-out, and evaluation of the various circuits and subsystems that comprise a

communications system. Students will use single board microcomputers and microcontrollers with Wifi, Bluetooth and other wireless formats to implement data acquisition, data logging and controls.

EET* K293 - Electrical CO-OP II°

3 CREDIT HOURS
Prerequisites: EET K295 and permission of program coordinator.*
In this course, students will work in industry gaining enhanced hands-on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education along with hands-on experience gained in their initial co-op experience. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by the co-op student during the semester.

EET* K295 - Electrical CO-OP °

3 CREDIT HOURS
Prerequisite: Permission of the program coordinator.
Corequisites: Student must have completed all freshman level technology courses and have a GPA of 2.50 or better.
Students will work in industry gaining hands-on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by each co-op student during the semester internship.

Engineering

EGR* K111 - Introduction to Engineering °

3 CREDIT HOURS
Prerequisite: MAT K137*
This course is designed to introduce students to the fields of engineering through design and graphics and comprehensive engineering projects. Topics include: sketching, charts, graphs, forces, energy, electrical circuits, mechanisms, robotics, manufacturing technologies, and fundamentals of engineering economics.

EGR* K118 - Material Science

3 CREDIT HOURS
Prerequisite: MAT K137 placement∞ or completion of MAT* K095 or MAT* K095I with a "B-#" grade or better.*
This course is designed to introduce the student to the structure and applications of engineering and commodity materials, and provide basic understanding and knowledge of materials, including classifications, properties, applications, treatments, processing techniques, and selection methods. Contrasts and comparisons will be drawn between materials to determine which is best for a given application. Emphasis will be placed on material properties and testing.

EGR* K211 - Engineering Statics °

3 CREDIT HOURS
Prerequisite: MAT K254.*
Corequisite: MAT K254.*
Students will be introduced to engineering mechanics via vector approach to static forces and their resolution. Topics

include: properties of force systems, free-body analysis, first and second moments of areas and mass and static friction. Applications to trusses, frames, beams and cables are included.

EGR* K212 - Engineering Dynamics °

3 CREDIT HOURS
Prerequisites: EGR K211 and MAT* K256.*
Engineering applications of Newtonian mechanics to dynamic forces, translational motion, work, impulse and momentum will be taught. Topics include: kinematics, kinetics of particles and rigid bodies, vibrations, energy and momentum conservation.

EGR* K215 - Engineering Thermodynamics I

4 CREDIT HOURS
Prerequisites: CHE K121, MAT* K254, and PHY* K221.*
Corequisite: Please note that MAT K254 may be taken concurrently.*

This course is designed to introduce students to the First and Second Laws of Thermodynamics. Topics include: energy concepts and balances, thermodynamic properties of pure substances and ideal gases, and analysis of ideal and real processes including turbines, pumps, heat exchangers, and compressors.

English

ENG* K096 - Introduction to College English °

6 CREDIT HOURS
Prerequisites: ESL K063 with a "C#" grade or better; or appropriate placement∞ through multiple measures assessment process.*
This course prepares students for the reading and writing demands in Composition and other college level courses by integrating reading, writing and critical thinking. Student writing will focus on understand reporting on, reacting to and analyzing the ideas of others. Texts will serve as models and sources for students to refine their skills in exposition, interpretation, and argumentation. Students learn and practice specific college-level skills through critical reading and writing, class discussions, lectures, group presentations or workshops. This course does not satisfy an English requirement or an elective in any degree program, nor do its credits count toward graduation.

ENG* K098 - Portfolio Workshop for Intro to College English

1 CREDIT HOUR
This course is designed as a pass/fail course with the same credit outcomes as ENG* 096. Students (by instructor recommendation) may be allowed to revise their 096 portfolios for a second chance at passing development English.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K101S - Composition Embedded Support °

6 CREDIT HOURS
Prerequisite: ENG K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
ENG* K101S is a Composition course with embedded support for students in need of additional reading and writing practice. It engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings. Recommended placement∞ in ENG* K101S may be based on multiple criteria including standardized test scores, entrance essays, high school transcripts or instructor/advisor suggestion. Students may also self-place into ENG* K101S. A grade of "C" or higher must be achieved to successfully complete ENG* K101S.

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

ENG* K200 - Advanced Composition °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S with a "C" grade or better; or permission of the instructor.*
This course is designed to further develop and refine expository writing skills for both academic and popular audiences. Assignments will stress interpretation, argumentation and critical thinking, with an emphasis on clarity, style and organization.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

ENG* K210 - Fiction °

3 CREDIT HOURS
Prerequisite: ENG K102 or permission of the instructor.*
This course surveys the elements, structure, technique and evolution of the novel in the Western literary tradition. Writing assignments will stress critical analysis including the incorporation of various critical approaches.

ENG* K211 - Short Story °

3 CREDIT HOURS
Prerequisite: ENG K102 or permission of the instructor.*
This course explores the unique elements of the short story form, its historical and artistic development, and the stories of outstanding writers. Writing assignments will stress critical analysis including the incorporation of various critical approaches.

ENG* K213 - Poetry °

3 CREDIT HOURS
Prerequisite: ENG K102 or permission of the instructor.*
This course explores the elements of poetry from traditional forms to contemporary ones. Readings will be selected from the ancients to the moderns, from different cultures, and from different historical and literary periods. Writing assignments will stress critical analysis including the incorporation of various critical approaches.

ENG* K222 - American Literature II °

3 CREDIT HOURS
Prerequisite: ENG K102 or permission of the instructor.*
This course is a survey of American writers beginning from approximately 1865 to the present. Students will read the fiction, poetry, and drama of selected writers, and examine the dominant themes and literary movements that have shaped American literature. The multicultural dimensions of American literature will be explored, and a variety of relevant critical strategies will be used. Writing assignments will stress critical analysis including the incorporation of various critical approaches.

ENG* K232 - British Literature II °

3 CREDIT HOURS
Prerequisite: ENG K102 or permission of the instructor.*
This course is a chronological survey of British Literature from 1790 through the twentieth century. Through reading selected works of the Romantic, Victorian, Modern and post-Modern periods, emphasis will be placed upon the unfolding British literary tradition and its intellectual background. Themes include British patriarchy, women's rights and the emergence of feminism, imperialism and nationalism, and the crisis of traditional belief systems, including religious, social, and political institutions. Writing assignments will stress critical analysis, including the incorporation of various critical approaches.

ENG* K240 - Studies in World Literature °

3 CREDIT HOURS
Prerequisite: ENG K102 or permission of the instructor.*
This course is intended to further develop the critical skills and knowledge students acquired in ENG* K102 by exploring recurring themes and various cultural perspectives. The emphasis is on works not covered in American and British literature courses, and particular topic selections will examine the impact of culture and history on the literary imagination. Writing assignments will stress critical analysis including the incorporation of various critical approaches. Course fulfills International/Intercultural Requirement.

ENG* K250 - Studies in Ethnic Literature °

3 CREDIT HOURS
Prerequisite: ENG K102 or permission of the instructor.*
This course explores social issues such as cultural identity and assimilation as they are presented in literature written by authors from different ethnic groups. Particular attention will be paid to international influences in the production of

"ethnic" literature. A study of critical strategies necessary for recognizing the unique elements of ethnic literature will also be provided. Writing assignments will stress critical analysis, including the incorporation of various critical approaches. Course fulfills International intercultural Requirement.

ENG* K261 - Women Writers Across Cultures °

3 CREDIT HOURS
Prerequisite: ENG K102 or permission of the instructor.*
This course is intended to broaden students' knowledge of literary traditions and themes from a non-western and multicultural approach through the lens of women's writing. Students will read numerous works by women and will explore the use of critical strategies in relation to those works. Writing assignments will stress critical analysis, including the incorporation of various critical strategies. Emphasis will be on the influence of geography, history, and social environments in shaping women's writing. Course fulfills International/Intercultural Requirement.

ENG* K281 - Creative Writing °

3 CREDIT HOURS
Prerequisite: ENG K102.*
Creative Writing is an advanced writing course. Students will read, study, and analyze the literary techniques and craft of great prose and poetry writers. In structured exercises, they will practice strategies for creating character, plot, dialogue, symbolic and figurative imagery, as well as other key narrative and poetic elements. Students will also create their own prose and poetry projects.

ENG* K284 - Advanced Creative Writing °

3 CREDIT HOURS
Prerequisite: ENG K281 or permission of the instructor.*
Advanced Creative writing is for students who have a well established understanding of literary form and the fundamental elements of writing prose and poetry. This course is designed to help students develop and expand their writing portfolios. Students are required to write in both prose and poetry, and they will participate in cooperative writing workshops.

ENG* K296 - Work Experience in English

3 CREDIT HOURS
This course allows students to apply their knowledge of English in a practical setting, such as tutoring or publications. The number of credits, course requirements, and means of evaluation are specified in a contract between the instructor and the student.

ESL* K064 - ESOL for Workforce Development

3 CREDIT HOURS
Prerequisite: ESL K064 placement or completion of ESL* K061 with a "C#" or better.*
This course is designed to prepare non-English speakers for entrance into the college's Workforce Development certificate programs. Students will be introduced to program related terms and contents through integrated speaking, listening, reading, and writing assignments; case studies; and guest speakers. This course does not satisfy an English requirement or elective in any degree program, nor do its credits count toward graduation.

Environmental Engineering Technology

ENV* K110 - Environmental Regulations °

3 CREDIT HOURS
Prerequisite: ENV K101 .*
This course provides a broad view of federal, state, and municipal environmental regulations as they apply to industry, commercial establishments, local governmental facilities, and the individual citizen. It provides a practical approach to regulatory understanding to enable one to plan an effective and economically sound compliance program. Course topics include the Clean Air Act (CAA), Clean Water Act (CWA), Toxic Substance Control Act (TSCA), SARA Title III (Community Right-to-Know), and federal, state, and local regulations, covering such topics as hazardous material transportation, in-ground tank storage, and specific hazardous materials such as asbestos and PCBs.

ENV* K130 - Occupational Safety & Health

3 CREDIT HOURS
This course is an introduction to Occupational Safety & Health in the workplace. It will introduce students to the safety and health field and address the application of engineering, management principles, and techniques to safety, health, and loss control. The topics include general safety, health, and risk assessment concepts and terms. Discussions will include historical developments, program management, problem identification, engineering assessment, hazard recognition, evaluation, and control. The course work will also introduce the student to measurement and evaluation systems, legal and regulatory requirements, environmental health and safety, industrial hygiene, safety engineering, product safety and public health, risk assessment analysis and management, accident investigation, ergonomics, and ethics and professionalism. A visit to an industrial site will be included.

ENV* K146 - Introduction to GIS

3 CREDIT HOURS
Students will learn the basic principles of Geographic Information Systems and explore and evaluate the various data models and structures used in the input management, analysis and output of geographic data. Students will develop hands-on experience through use of a microcomputer based vector system (ArcView GIS), and examine how the nature and character of spatial data can be used in studies of natural and socio-economic environments. This course is equivalent to GIS* K146.

ENV* K163 - Geomatics Spatial Analysis

3 CREDIT HOURS
This course will provide students with the fundamentals of the discipline of Geomatics, an amalgation of the sciences of geography, meaurement, and mapping. Coursework will include exercises utilizing geographic information systems (GIS) software, global navigation satellite systems (GNSS, commonly GPS) mobile units, and more traditional measurement surveying tools. Students will be introduced to the concept of three-dimensional modeling, and learn to develop simple and complex spatial models for multifaceted environmental processes and relationships.

ENV* K172 - Environmental Research Project I °

1 CREDIT HOUR
Prerequisite: Permission of the instructor.
This course introduces and develops skills in microscopy techniques, field research, literature searches, monitoring equipment usage, and teamwork, and provides hands-on experience in the field and laboratory.

ENV* K207 - Sustainable Landscape Ecology °

3 CREDIT HOURS
Prerequisite: BIO K180 or ENV* K101 .*
This course will cover the basic concepts, principles, and methods of landscape ecology, as well as its important applications in nature conservation, resource management, and landscape planning and design. Through reading and discussion students will explore the ecological relationships of biotic communities in heterogeneous environments and the importance of the landscape scale to ecosystem diversity and function in wetlands, forests and rangelands. Students will learn about the relationships of landscape ecology to plant ecology, animal ecology, population ecology, aquatic ecology, landscape architecture and geography. Students will specifically address sustainability, BMPs and conservation issues at the landscape scale. Students will perform field work and site visits. Students will examine the aspects of soil ecology relevant to environmental studies, especially focusing on sustainability and conservation of soils, soils as functional components of agricultural ecosystems and on the role of soils in the global biochemical cycling of organic carbon. The student will be introduced to fundamental concepts of soil science, soil organisms and ecosystem ecology of soils, and will apply their understanding of soil ecology to current environmental problems including coil stewardship and sustainability.

ENV* K208 - Long Island Sound Ecology °

3 CREDIT HOURS
Prerequisite: ENV K101 or permission of the instructor.*
This course is an ecological study of Long Island Sound marine environments. Emphasis is placed on the factors limiting the distribution of marine organisms and on the visual recognition of invertebrates, fish, and seaweeds. Extensive travel to off campus field study locations is featured. Pollution run-off to the Long Island Sound and urban areas will be discussed.

ENV* K220 - Hazardous Materials °

3 CREDIT HOURS
Prerequisite: None required; CHE K111 or CHE* K121 recommended.*
This course is a study of accident prevention, safety, industrial hygiene and proper procedures for handling hazardous materials. Properties of many industrial reagents and solvents are examined so they can be handled and stored properly. The following specific topics will be covered: Material Safety Data Sheets (MSDS), labeling, personnel training and records, emergency response program, toxicity routes of entry, storage, ventilation, personal protective equipment, barriers, and spills containment Requirements of OSHA, SPCC, RCRA, and TSCA will be reviewed to provide students with a working knowledge of the regulations. This course meets the requirements of 29 CFR 1910.120.

ENV* K230 - Environmental Control Processes °

3 CREDIT HOURS
Prerequisites: CHE K111 or CHE* K121; ENV* K101 ; MAT* K172 or higher.*
This course gives an introduction to the concepts and quantitative techniques of environmental engineering. The topics are presented as the basis for the operations and processes used to control air and water pollution, to treat supplied water, to remediate contaminated sites, and to dispose of or otherwise handle solid wastes. Course contents include mass balance, chemical equilibria, exponential growth and decay, surface and groundwater flow and transport, unit operations, and chemical and biological treatment processes, as well as discussions of risk assessment and application of environmental policies.

ENV* K238 - Air Quality °

3 CREDIT HOURS
Prerequisites: MAT K172; CHE* K111 or CHE* K121.*
This course gives a comprehensive overview of outdoor and indoor air pollution problems as well as noise pollution.

Topics include types and sources of pollutants and their effects on the atmosphere, human health, and vegetation. Regulation, surveillance, and control methods will be discussed.

ENV* K242 - Hydrology °

3 CREDIT HOURS
Prerequisite: MAT K172 or higher.*
This course features an emphasis on ground water. Topics include weather as it affects water resources, precipitation, stream flow, stream flow hydro graphics, rainfall run-off relationships, the impact of natural and man-made phenomena on water resources, and ground water hydrology.

ENV* K245 - Water Resources Engineering

3 CREDIT HOURS
Corequisite: ENV K245L.*
This course studies the methodology used in determining storm water runoff for small urban areas. The theory and logic of both the Rationale Method and the Soil Conservation Services TR-55 are studied in detail. The quantity computations are covered, as well as the understanding of gutter analysis. As part of the lab, the student will design a storm drain system, including a cost estimate for the project.

ENV* K245L - Water Resources Engineering Lab

1 CREDIT HOUR
Corequisite: ENV K245.*
This course gives the methodology used in determining storm water runoff for small urban areas. This lab is used as a practical exercise to develop the methods of Water Resources Engineering, including actual design of a storm water system with a cost estimate.

ENV* K254 - Nuclear Environmental Impact °

3 CREDIT HOURS
Prerequisites: CHE K111 or CHE* K121; MAT* K186, ENV* K101 , PHY* K115.*
This course introduces the effects of ionizing radiation on humans and ways to measure radiation in the environment. Topics include sources and properties of radiation environmental pathways, nuclear fuel cycle, high and low radioactive wastes, and nuclear power plants. Emphasis will be on the impact of waste on the environment.

ENV* K260 - Geomatics °

4 CREDIT HOURS
Prerequisite: ENV K163*
Geomatics is increasingly used to evaluate the various data models and structures used in the input management analysis and output of geographic data used in the sciences, environmental sciences and engineering and natural resources management. The Geomatics course will offer students further skills required in the study of Geographical Information Systems, GPS, spatial analyzes, photogrammetry & cartography providing understanding and field experience. Cartography is used in the area pertaining to preserving indigenous lands and documenting water and land rights, urban and transportation planning, wildlife habitat preservation and environmental impact analysis. This course will enable students to apply geomatics skills and knowledge in a growing field. Geomatics can be used to evaluate many issues, but not limited to, natural sciences and the environment. Research and modeling will be essential in the development, design and performance monitoring of a wide variety of spatial data. The Geomatics course will provide students with further knowledge of geographical information systems. Introduction to Geographical Information Systems is the preliminary course for students, which will lead to Geomatics giving the students further

understanding of geographical information sciences, GPS and cartography. The combined courses provide options to obtain work or to continue an education to acquire a certificate, an A.S. or an advanced degree. The Geomatics class supports the new paradigm for a renewed effort in geospatial analyzes for charting and measuring the world.

ENV* K265 - Fundamental Measurements and Applications Lab

3 CREDIT HOURS
Corequisites: MAT K172. Recommended High School Chemistry or CHE* K111.*
This course will familiarize students with environmental analysis, instrumentation, and sampling methods. Students will have hands-on training and experience with various sampling analysis equipment and techniques. Upon completion the participants will understand the basic concepts necessary to choose and conduct environmental measurements in streams, lakes, and wetlands and for stormwater runoff, wastewater, gasses and soils. The student will also be able to utilize computer applications to perform data analysis for all laboratory and field work methods completed.

ENV* K275 - Environmental Control Project °

3 CREDIT HOURS
Prerequisites: CHE K111 or CHE* K121; MAT* K172, ENV* K101 , ENV* K230.*
Corequisite: CHE K111 or CHE* K121.*
This course is designed to provide students with experience in designing an industrial environmental management system. Knowledge and application of regulations, sampling methods, waste minimization, hazardous materials, waste-water treatment, and pollution control techniques are required for successful completion of the project.

ENV* K277 - Environmental Research Project II °

1 CREDIT HOUR
Prerequisite: ENV K172.*
This course further enhances the skills learned in ENV* K172. The course will include field work and flexible hours.

ENV* K278 - Environmental Research Project III °

1 CREDIT HOUR
Prerequisite: ENV K277.*
This course further enhances the skills learned in ENV* K277. The course will include field work and flexible hours. Advanced students will mentor less advanced students in this course.

ENV* K279 - Environmental Research Project IV °

1 CREDIT HOUR
Prerequisite: ENV K278.*
This course further enhances the skills learned in ENV* K278. The course will include field work and flexible hours. Advanced students will mentor less advanced students in this course.

ENV* K280 - Environmental Surveying °

3 CREDIT HOURS
Prerequisite: MAT K172.*
Environmental Surveying introduces students to the concepts, technologies and techniques that allow us to collect, manage, analyze and represent spatial information for a wide variety of applications. The course will cover basic

concepts, definitions, and functions associated with Land Surveying. We will examine how surveying can be applied in different fields including urban planning, wetland delineation, environmental and natural resource management, site remediation, and land-use. We will also consider larger societal issues in this course, including how the increasing use of surveying, global positioning systems (GPS), and geographical information systems (GIS) technologies in public agencies, business and non-profit organizations has enabled business, government and the public to make more informed land-use decisions.

ENV* K291 - Environmental Engineering Technology Co-Op °

1 CREDIT HOUR
Prerequisite: Permission of the program coordinator.
Corequisite: Students must have completed all freshman level technology courses and have a GPA of 2.50 or better.
Students will work in industry gaining hands-on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by the co-op student during the semester internship.

ENV* K295 - Environmental Issues Seminar

3 CREDIT HOURS
Corequisite: Recommended ENV K101 or BIO* K180 or by permission of instructor.*
This seminar consists of assigned readings and guest lecturers on various environmental topics that are important to the development of Environmental and Civil Engineering Technology students, but also valuable for anyone who wants to learn, understand, and write effectively about the environment. Some common seminar topics may include federal and state regulations, solid and municipal waste management, best management practices (BMPs), environmental restoration and remediation, alternative and renewable energy, sustainable landscape management, sustainable agriculture, stewardship, land use, water quality, stormwater management and global and local environmental quality trends. Students are required to discuss, think about, and write about the topics, carrying out their own library research, to support positions that they will develop.

ENV* K296 - Environmental Engineering Technology CO-OP II°

3 CREDIT HOURS
Prerequisites: ENV K291 and permission of program coordinator.*

In this course, students will work in industry gaining enhanced hands-on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education along with hands-on experience gained in their initial co-op experience. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by the co-op student during the semester.

English as a Second Language

ESL* K060 - Writing With Oral Practice and Grammer I

4 CREDIT HOURS
This course prepares non-native English speakers for the progression to ESL* K061. Students will develop oral and written communication skills. Multidisciplinary reading and writing assignments will facilitate comprehension and vocabulary building. Students will demonstrate writing, oral and auditory skills through practical application. This

course does not satisfy an English requirement or elective in any degree program, nor do its credits count towards graduation.

ESL* K061 - Writing With Oral Practice and Grammar II

4 CREDIT HOURS
Prerequisite: ESL K060*
This course prepares non-native English speakers for the progression to *ESL* K063*. Students will build upon their oral and written communication skills. Multidisciplinary reading and writing assignments will promote comprehension and vocabulary building. Students will integrate their writing, oral and auditory skills through practical application. This course does not satisfy an English requirement or elective in any degree program, nor do its credits count towards graduation.

ESL* K062 - Sentence Structure

3 CREDIT HOURS
This course is a basic writing course, intended for the ESOL population, which will cover the mechanics of writing a well-structured sentence. Subject/verb agreement, subject/verb/object format, adjectival and prepositional phrases and vocabulary building will be the major skills covered in this course. A portion of the class time will be geared toward the A∞ Learning computer software program.

ESL* K063 - Writing With Oral Practice and Grammer III °

4 CREDIT HOURS
Prerequisite: ESL K061.*
This course prepares non-native English speakers for college success and advancement. Within the context of cross cultural awareness and a multidisciplinary framework, students will refine their academic writing, reading, oral,and auditory communication skills. This course does not satisfy an English requirement or elective in any degree program, nor do its credits count towards graduation.

French

FRE* K111 - Elementary French I °

4 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a grade of "C#" or better.*
This course introduces the basic principles of the French language and provides a cultural understanding of the Franco phonic world. The emphasis of the course is on developing and applying the basic skills of language learning: listening, speaking, writing, and reading through classroom activities. Language laboratory is available.

FRE* K112 - Elementary French II °

4 CREDIT HOURS
Prerequisite: FRE K111.*
This course is a continuation of Elementary French I. More advanced grammatical structures are introduced to help students continue to develop the skills of language learning, and to prepare them to begin expressing more complex thoughts in French. Cultural notes and literary readings will be included to offer a wide range of historical, social, political and artistic information to increase the knowledge and understanding of the French speaking world. Language laboratory is available.

Fire Technology and Administration

FTA* K112 - Introduction to Fire Technology

3 CREDIT HOURS
Corequisite: ENG K096 or permission of the program coordinator based on FTA work experience. Please note: if completing ENG* K096 prior to enrolling in FTA* K112, a grade of "C#" or better is required for registration into this course.*
This course covers the nature and extent of the fire problems in the United States with a focus on the organizational structure that addresses the fire control and prevention problems; the basic characteristics and behavior of fires; hazardous properties of materials; extinguishing agents; fire protection equipment, and fire test methods.

FTA* K116 - Building Construction °

3 CREDIT HOURS
Prerequisite: FTA K112 or permission of the program coordinator based on FTA work experience.*
This course covers the major types of building construction and their related problems under fire conditions. Fire resistance and flame spread ratings, fire walls and partitions, protection of openings, and fire test methods are major instructional subjects.

FTA* K118 - Fire Prevention and Inspection °

3 CREDIT HOURS
Prerequisite: FTA K112 or permission of the program coordinator based on FTA work experience.*
This course identifies the history and philosophy of fire prevention. Organizing for fire prevention and inspection, training inspectors, methods of inspection, reports and record keeping, fire prevention education, public relations in inspection work coordination with government agencies, and code administration are key instructional subjects.

FTA* K125 - Chemistry for Emergency Responders °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; FTA* K112; or permission of the program coordinator based on FTA work experience. MAT* K095 or MAT* K095I or high school algebra recommended.*
This course is designed to prepare the responder to function safely at the scene of a hazardous materials incident by understanding the potential hazards. This is accomplished by gaining recognition of chemical nomenclature and basic principles of chemistry in order to assess risks to responders and the public. The course seeks to convey to first responders or prevention personnel a sound understanding of the basic chemistry of hazardous materials to permit them to correctly assess the threat posed by hazardous materials incidents that may occur accidentally or intentionally. Problem-solving sessions and interactive discussion cover topics such as salts and inorganic nonsalts, hydrocarbons, hydrocarbon derivatives, and hydrocarbon radicals. Applying the science of chemistry to thermodynamics, volatility, and combustion provides real world opportunities.

FTA* K210 - Water Supply and Hydraulics °

3 CREDIT HOURS
Prerequisites: MAT K172; PHY* K114; or permission of the program coordinator based on FTA work experience.*
This course covers the basic properties of incompressible fluids, static and velocity pressures, and flow through orifices. Bernoulli's Theorem, Venturi principle, flow of water in pipes, Reynolds number, Hazen- Williams formula, head calculations, water distribution systems, and pumping problems constitute key subject areas.

FTA* K213 - Codes and Standards

3 CREDIT HOURS
Topics covered in this course covered are fire and building codes as a means for providing reasonable public safety; the code development and adoption process; code administration; major code producing organizations; national standards with particular concentration on the Life Safety Code of the NFPA and its referenced standards. Three class hours weekly.

FTA* K216 - Municipal Fire Administration °

3 CREDIT HOURS
Prerequisite: FTA K112 or permission of the program coordinator based on FTA work experience.*
This course focuses on the organization of municipal fire prevention and control services, needs analysis, master planning, organizational structuring, distribution of company's personnel requirements, hiring practices, training, record keeping, work scheduling, staff development, labor problems, physical equipment and facilities, and budget preparations.

FTA* K218 - Sprinklers & Fixed Extinguishing Systems °

3 CREDIT HOURS
Prerequisite: FTA K210 or permission of the program coordinator based on FTA work experience.*
This course focuses on wet and dry-pipe automatic sprinklers, both commercial and residential. Preaction and deluge systems, water spray and foam systems, standpipes, carbon dioxide dry chemical and halon fire extinguishing and explosion suppression systems are detailed. The use of appropriate NFPA standards is implemented.

FTA* K219 - Fire Investigation °

3 CREDIT HOURS
Prerequisites: CHE K111 or CHE* K121; FTA* K116; PHY* K115; or permission of the program coordinator based on FTA work experience.*
This course examines the determination of points of origin and causes of fire. Discriminating between fires of accidental and incendiary origin, managing operations at the fire scene, collecting and preserving evidence, recording information, and the use of scientific aids to investigation are course considerations.

FTA* K225 - Fire Alarm and Communication Systems

3 CREDIT HOURS
This course acquaints fire related personnel with various alarm systems and departmental procedures in working with the systems and also familiarizes students with NFPA standards relating to fire alarm systems.

FTA* K240 - Industrial Hazards & Procedures °

3 CREDIT HOURS
Prerequisite: CHE K111 or CHE* K121 or permission of the program coordinator based on FTA work experience.*
This course studies various industries, such as metal working, plastics fabrication, printing, textile manufacturing, and pharmaceutical manufacturing. An understanding of the various industrial processes utilized and their attendant fire and explosion hazards is afforded with the identification of applicable safety standards and measures to reduce potential problems.

FTA* K290 - FTA Cooperative Work °

3 CREDIT HOURS
Prerequisite: Permission of the program coordinator.
Corequisite: Student must have completed all freshman level technology courses and have a GPA of 2.50 or better.
Student will work in industry gaining hands-on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by the co-op student during the semester internship.

FTA* K291 - FTA CO-OP Work II°

3 CREDIT HOURS
Prerequisites: FTA K290 and permission of program coordinator.*

In this course, students will work in industry gaining enhanced hands-on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education along with hands-on experience gained in their initial co-op experience. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by the co-op student during the semester.

Geography

GEO* K111 - World Regional Geography °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course provides students with a survey of the lands, peoples, and places in the world's major cultural regions. Students explore the interaction between the physical environment and cultural, political, and economic conditions in the world's regions. Course fulfills International/Intercultural Requirement.

Geographic Information Systems

GIS* K146 - Introduction to GIS

3 CREDIT HOURS
This course introduces students to the basic principles, techniques, and applications of GIS (Geographic Information Systems), as a computer-based tool that utilizes spatial (geographic) data to analyze and solve multi-disciplinary problems. Students will understand methods of data capture and sources of data, characteristics of spatial data and objects, and demonstrate application through executing typical operations. The lab component will emphasize GIS data collection, entry, storage, analysis, and output using the industry standard application, ESRI ArcGIS. Students will become familiar with products/applications, various database models, and raster and vector systems.

Graphic Design

GRA* K131 - Digital Photography

3 CREDIT HOURS
This course is an introduction to digital photography and basic photo-editing features of Adobe Photoshop. Students shoot digital images for specific assignments emphasizing exposure, depth-of-field, composition, and image quality.

The introduction of digital photography techniques, editing, and creative approaches will be the focus. Students will read and report on famous photographers and photography literature. Each student is required to have a camera in which they can manually control the focus, shutter speed, aperture and ISO.

GRA* K140 - Publication Design °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; or permission of the instructor and knowledge of a word processing program.*
This course provides an introduction to graphic design. Proper file management, Macintosh computer navigation basics and fundamental techniques of the design process will be covered. Students will learn to create a graphic identity through proper typography, image editing and page layout. Graphic Design industry standard software will be used including Adobe Photoshop, Illustrator and InDesign. Classes consist of lectures, demonstrations, applied practice and critiques.

GRA* K151 - Graphic Design I

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better and any 100 level Humanities or Social Sciences course.*

This course is designed to introduce students to graphic design. Topics include: proper file management, Macintosh computer navigation basics, fundamental techniques of the design process, and digital plagiarism. Students will learn to create a graphic identify through proper typography, image editing, and page layout. Graphic Design industry standard software will be used, including Adobe Photoshop, Illustrator, and InDesign. Classes consist of lectures, demonstrations, applied practice, and critiques.

GRA* K155 - Advertising Design °

3 CREDIT HOURS
Prerequisite: Knowledge of a word processing program.
This computer graphics course focuses on using Adobe Photoshop to design various advertisements and prepare them for print and the web. Students will apply design principles, and type/image integration to complete design projects of moderate to increasing complexity. Emphasis is placed on project development and execution, the generation of ideas, concepts and teamwork in order to communicate persuasively and effectively. Student-designed computer lab projects include writing copy, brand positioning, client/agency relationship, copywriting, and proper research methods. GRA* K155 meets the Computer Literacy Requirement.

GRA* K230 - Digital Imaging 1 °

3 CREDIT HOURS
Prerequisite: GRA K140 or GRA* K131 or permission of the instructor.*
Adobe Photoshop is the focus of this course which will provide students with a foundation in image manipulation and graphic design. This course concentrates on the high end capabilities of Photoshop as an illustration, design and photo retouching tool. Students will explore a wide range of manipulation techniques that can be applied to photos and graphics. Students will also study design principles and read and report on Photoshop artists.

GRA* K260 - Web Design °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; GRA* K140 and GRA* K230; or permission of the instructor.*
This computers graphics course is an introduction to the concepts of professional web site design using the Industry-standards-based website development tools Dreamweaver and Adobe Photoshop. Students will be able to create, prepare, and manipulate documents, illustrations, and images for the web. The four design principles of contrast, repetition, alignment, and proximity will be discussed and utilized to create a web site using the authoring tools described above as well as the skills acquired in the prerequisite courses.

GRA* K296 - Graphic Arts Internship °

3 CREDIT HOURS
Prerequisites: GRA* K140; GRA* K230; GRA* K155; COM* K291; and one other course in the program
This practicum is a 200-level course which allows students to work in a faculty-approved position in a graphic arts, creative services, pre-press, or advertising or media outlet. The student will use their design skills as well as hardware and software skills acquired in their course work at the college to comprehensively study a selected technical area of graphics technology. Their supervisor as well as the assigned faculty member from Three Rivers will evaluate each student. As part of the evaluative process, students will present a portfolio of their work from their practicum.

History

HIS* K121 - World Civilization I °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a survey of world cultures that have contributed importantly to the development of Western and Eastern thought. Consideration is given to institutions and ideas from prehistoric times through the evolution of ancient civilizations to the formation of empires and modern nation states. Major economic, political, and social forces are examined for their influence upon modern society. Course fulfills International/Intercultural Requirement.

HIS* K122 - World Civilization II °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a continuation of the survey of world cultures (Early World Civilizations) from the Age of Discovery to the present. HIS* K121 is not a prerequisite course for HIS* K122. Course fulfills International/Intercultural Requirement.

HIS* K201 - U.S. History I °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a survey of American history from colonial times to 1877 including the major political, economic, social, cultural, and diplomatic developments in American history, such as the revolution, the Constitution, Jefferson, Hamilton, Jackson, Sectionalism, slavery, mid-century expansionism and the Civil War, and Reconstruction.

HIS* K202 - U.S. History II °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
ey of United States history from Reconstruction to Bush with special emphasis on the development of the American

economy, United States expansionism, race relations, the world wars, women's rights, the cities, the sixties, the depression, the Cold War, Watergate, Vietnam, and the 1980's. (HIS* K201 is not a prerequisite course for HIS* K202).

HIS* K211 - History of Connecticut °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; any 100 or 200 level Social Science course or permission of the instructor.*
This course covers the history of Connecticut from colonial times to the present. Emphasis is given to how Connecticut evolved from a colonial agricultural state to one of the largest manufacturing states in the Northeast. A sizable portion of the class is devoted to Southeastern Connecticut. Field trips to the many points of historical interest and outside speakers will be highlighted. This course is not a substitute for either HIS* K201 or HIS* K202.

HIS* K213 - The U.S. Since World War II °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; any 100 or 200 level Social Science course or permission of the instructor.*
This course examines recent United States history, beginning with World War II and continuing to the present. It will examine the important social, economic, cultural, and political developments that have shaped our world. It will also examine such themes as the United States rise as a super power, civil rights and civil disorder, social liberalism and conservatism, and labor and management in a changing world.

HIS* K218 - African American History °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; any 100 or 200 level Social Science course or permission of the instructor.*
This course will examine critical events that have given shape to the history of African Americans as they struggled and continue to struggle for equality, opportunity and full participation in American life. The course begins on the African continent before the intense and prolonged contact and penetration of Europeans. We will discuss events that brought Africans to the new world and the subsequent events that gave shape to the history of African Americans in the United States. Correspondingly, we will identify key themes and issues, and discuss the contributions of important personalities and institutions that also gave shape and direction to the African American experience. Course fulfills International/Intercultural Requirement.

HIS* K220 - History of the American West °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; any 100 or 200 level Social Science course or permission of the instructor.*
This course examines the region west of the Mississippi River, beginning with an overview of the Native Americans and continuing with each new culture coming into the region. The major focus of the course will be an examination of the diverse cultures that have come together in the region and made the American West a unique place in American history. The course will also examine such themes as the role of the west in American history, the role of myth in Western history, women in the West, the "frontier," and the environment versus the economy.

HIS* K226 - U.S. Civil War °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; any 100 or 200 level Social Science course or permission of the instructor.*
This course will be an examination of the origins of the U.S. Civil War, its immediate consequences, and lasting effects for the nation, closely examining the social, political, economic and cultural forces during the period. Students will review such topics as slavery and the Constitution, industrialization and the market economy, sectional conflict, reform and abolitionism, and issues including race, class and gender.

HIS* K244 - Europe in the 20th Century °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S; any 100 or 200 level Social Science course or permission of the instructor.*
This course will be a survey of the diplomatic, economic, political, social and intellectual history of Europe from 1914 to the present, highlighting its relationship with the rest of the world. Course fulfills International/Intercultural Requirement.

HIS* K246 - World History Through Film °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S; any 100 or 200 level Social Science course or permission of the instructor.*
As primary documents of their time, films are studied to illuminate the historical era which they are made. This course will look at the political, social and intellectual history of world societies reflected in the films of various countries. This course fulfills the International/Intercultural course requirement.

HIS* K271 - Modern Asia °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S; any 100 or 200 level Social Science course or permission of the instructor.*
This course will concentrate on developments in China and Japan since 1900, including the Chinese Revolution of 1911, the rise of militarism in Japan, World War II in the Pacific, the growth and triumph of communism in China, and the defeat and recovery of Japan. In addition, the course will examine both the Korean and Vietnam conflicts as well as contemporary problems in East Asia. Course fulfills International/Intercultural Requirement.

HIS* K296 - Teaching Assistantship in History °

3 CREDIT HOURS
Prerequisites: At least two prior courses in history and permission of the instructor.
In this assistantship, students will assist a faculty member in conducting an academic course offered in the field of history. Students may lead discussion groups, work with individual students, organize field trips, make presentations, and/or other work to be arranged.

Health Science

HLT* K155 - Personal Health °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This is a course on the physiological principles involved in the maintenance of individual health. Students will learn principles of hygiene, nutrition, communicable disease prevention, stress management, exercise, and other elements of personal life style that affects health.

Health Physical Education

HPE* K105 - Introduction to Exercise Science °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
An introduction of the profession of Fitness Training and the five components of physical fitness, as it relates human anatomy and physiology, exercise, and nutrition to fitness and its effects on the body.

HPE* K128 - Lifetime Fitness

3 CREDIT HOURS
This course is designed to evaluate the 5 components of physical fitness. A physical fitness pretest will be conducted on each student and an individualized exercise program will be developed and implemented. Information involving nutrition, fitness and lifestyle will be presented so to educate the student to the aspects of lifetime fitness. Each student is required to take a physical fitness post test. A goal of the course will be to achieve a fitness level equal to or exceeding levels required by the Connecticut Police Officers Standards and Training Council Fitness Test Standard.

HPE* K130 - Weight Training/Fitness °

3 CREDIT HOURS
Prerequisite: ENG K096 placement∞; MAT* K095 or MAT* K095I placement∞.*
The student will gain knowledge of the muscular-skeletal system and the importance of exercise physiology, biochemistry, anatomy, biomechanics, and sports nutrition. Primarily, the student may apply these principles to design a safe, effective strength and conditioning program through weight training.

HPE* K136 - Tai Chi

1 CREDIT HOUR
Tai Chi was a form of internal Chinese martial art practiced for both its defense training and health benefits. Tai Chi today has become a modified exercise using all the techniques as a means to attain healing qualities rather than combative awareness. The slow and fluid movements practiced in Tai Chi improve the body's alignment, posture, strength, flexibility, coordination, balance and stamina. Tai Chi provides practitioners with an overall toning and strengthened of specific muscles.

HPE* K138 - Tai Chi II °

1 CREDIT HOUR
Prerequisite: HPE K136 or permission of the instructor.*
Tai Chi II, although not a continuation of Tai Chi, is a program designed for students who have taken at least one Tai Chi class or other Tai Chi classes approved by the instructor. This course may cover two sections of learning: a Tai Chi bare-hand routine and/or a Tai Chi weapon routine. For a bare-hand routine in this course, an in-depth explanation of the theory and the applications of each movement will be covered. For a weapon routine, students will be introduced to the use of some Chinese martial arts weapons, which include a fan, sword, a saber, a long staff, or a short staff. Students will learn k274 the basic skills in using the weapon they are going to use in the routine before they start to learn the routine. The weapons to be used in class will be either of a wooden or a blunt and rounded material that is safe to use in the classroom environment. Safe use of the weapon will be stressed. The movements used in all Tai Chi weapon routines taught in this course will be soft, slow and non-explosive, just like its other Tai Chi bare-hand routine counterpart. Since there are so many different styles and kinds of Tai Chi and bare-hand and weapon routines, this course can be repeated by those students who wish to obtain a more in depth learning experience in the Tai Chi art form.

HPE* K139 - Introduction to Bio-Energetics

1 CREDIT HOUR

The students will explore the relationship of energy and biology. Students will discover how bio- energy is utilized by the physical, spiritual and emotional body and how to maintain energetic health. Students will explore current energy practices and methods to enhance bio-energy.

HPE* K155 - Introduction to Whole Foods and Nutrition

1 CREDIT HOUR

The focus of this introductory course is to allow the students the opportunity to begin to develop an awareness of whole foods and sound nutrition to create a balanced diet. The class will explore the relationship between food and health. Students will be introduced to cultural and economic influences in the creation of health through nutrition. The class will discuss safe use and benefits of nutraceuticals, supplements and herbal preparations, review potential side effects, drug interactions and hazards.

HPE* K232 - First Aid & Sports Injury °

2 CREDIT HOURS

Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Introduction to basic life support skills and designed to certify each student in CPR with AED. The student will also be exposed to the most prevalent sports related injuries and their treatment, rehabilitation and strengthening protocols.

HPE* K235 - Prevention Treatment of Athletic Injuries

3 CREDIT HOURS

This course covers risk management, injury prevention, medical conditions and disabilities and illnesses. Protective wrapping and strapping will be introduced. The course emphasizes the management of specific injuries, sports liability and basic rehabilitation. Student will become certified in First Aid and CPR/AED.

HPE* K241 - Exercise Physiology with lab °

4 CREDIT HOURS

Prerequisites: ENG K101 or ENG* K101S.*
Corequisite: BIO K211.*
This class will cover physiological responses/adaptations to exercise. Topics in this course include neuromuscular, metabolic, cardiovascular, hormonal and respiratory systems as they pertain to acute and chronic exercise. The major goal of the class is to develop a basic understanding of exercise physiology that will 1) allow the student to utilize exercise physiology in their daily lives and future profession, 2) prepare the student to take additional courses in exercise science.

HPE* K243 - Kinesiology with lab °

4 CREDIT HOURS

Prerequisites: ENG K101 or ENG* K101S; BIO* K211.*
This course will be designed as a basic introduction to the fundamentals of Kinesiology. The integration of the anatomy of human movement and the mechanics of human movement will be the focal point of the course. Knowledge will be obtained through classroom lecture, hands on practical experiences, lab activities and other various assessment techniques. A broader understanding of human anatomy, through active movement and the application of this knowledge, in education, coaching, medicine and other areas of life in a practical method will be obtained.

HPE* K245 - Programming and Prescription I °

4 CREDIT HOURS
Prerequisite: HPE K105.*
Students will be introduced to fitness assessment, testing and exercise criteria as well as guidelines for safe and efficient cardiovascular resistance and speed and agility training techniques. Exercise testing and prescription for healthy cardiovascular, respiratory, endocrine, skeletal and nervous systems will be stressed. Pulmonary diseases and post orthopedic injuries will also be included in the context of this course. The need for essential nutrient intake is another important aspect of this course.

HPE* K246 - Programming and Prescription II °

3 CREDIT HOURS
Prerequisite: HPE K245.*
This course is designed to introduce students to theories and techniques of exercise prescription for a variety of special populations (obese, diabetic, arthritic, pregnant, elderly, and the widely symptomatic). Guidelines for appropriate cardiovascular and resistance training for these groups will be discussed in detail. Protocols for prevention, diagnosis, treatment and rehabilitation will be stressed.

HPE* K247 - Aspects of Strength and Conditioning

3 CREDIT HOURS
Prerequisite: HPE K245 or BIO* K115.*
This course will offer the student an understanding of physiological adaptations seen with functional resistance and anaerobic exercise to improve daily function and performance-related health components (power, speed, agility, coordination, and balance). Students will be exposed to a variety of scientific principles associated with resistance training design, periodization and functional training. New training methods and equipment will also be discussed as part of the special topics component of this course.

HPE* K261 - Yoga

1 CREDIT HOUR
This 6,000 year old, ancient practice, will teach the student the true meaning of union by combining physical, mental and spiritual states of wellness. The course is designed to provide the history of yoga, its theory and benefits, and afford the student an opportunity to experience this art first hard.

HPE* K266 - Therapeutic Yoga

1 CREDIT HOUR
Students will learn key components of spinal health and experience yoga practices fashioned around the major movements of the spine, hips and shoulders. The concepts and appropriate, mindful use of props for passive stretching to enable a meaningful, healing practice as well as the fundamentals of restorative yoga will be presented.

HPE* K267 - Introduction to Pranayama and Meditation

1 CREDIT HOUR
This course will introduce the ancient practice of Pranayama (breath control) as a means of modulating our mental and physical activity levels. We will also explore meditation and the practice of Yoga Nidra (yoga sleep) as a means of rejuvenating our bodies and tapping into our inherent creativity. Both of these practices will be part of a traditional asana (movement) practice.

HPE* K295 - Field Practice and Seminar °

3 CREDIT HOURS
Prerequisite: HPE K105 with a "C" grade or better; Two 200-level Exercise Science courses; ENG* K101 or ENG* K101S ; student must have completed at least 30 credits of the Exercise Science program with a GPA of 2.5 or greater or have the permission of the program coordinator.*
This practicum is designed to give the student an opportunity to implement the skills and knowledge gathered through their course work. This real world experience will enable the student grow their knowledge, increase their professional development and gain valuable work experience.

Human Services

HSE* K101 - Introduction to Human Services °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to familiarize students with the current theory and knowledge related to human services. The course will include a survey of the helping professions, including a history of social welfare and human service agencies. The course will include guest speakers and an opportunity to observe human service practice in local human services organizations. Students will be expected to complete 10 hours of volunteer service in the community.

HSE* K105 - Core Competencies in Community Health Work

3 CREDIT HOURS
This course provides an introduction to the role of the Community Health Outreach Worker within the healthcare delivery team. Emphasis is placed on cooperative service to provide effective, efficient, and appropriate services to underserved clients in diverse communities. Students will develop skills in areas of communication, data collection, documentation, time management, and providing linkages with referral agencies for health and social service related issues. Activities such as field trips, guest speakers, and class discussions will be integrated into course work.

HSE* K171 - Death & Dying

3 CREDIT HOURS
This course is designed to familiarize students with attitudes toward death, dying, grief, and loss. Students will be given an opportunity to understand approaching death from several perspectives. The issues will include both the organizational context of dying, cross cultural studies of death, and the personal struggles of terminally ill people and their families.

HSE* K173 - Aging & Mental Health °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course focuses on the unique physiological, social, and emotional factors of aging that can affect the mental well-being of older adults. It also includes diagnosing and treating mental deterioration and studying its impact on the family.

HSE* K181 - Understanding Sexual Abuse °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*

This course is designed to introduce the student to the problem of sexual abuse and assault, the psychology of the offender, and the impact on the victim. It will also provide a preliminary orientation to sex offender treatment and victim treatment.

HSE* K183 - Substance Abuse °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This is a basic course in substance abuse and dependency. Topics will include an overview of physiological, psychological and social aspects of substance abuse. This course will have application for human service majors and others interested in the field of chemical addiction.

HSE* K210 - Group & Interpersonal Relations °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course provides an overview of current group theory and knowledge of methods and skills leading to a beginning competence in group work practice. The course will combine theoretical and empirical concepts of group dynamics to be applied to a wide range of groups in a variety of settings.

HSE* K241 - Human Service Agencies & Organizations °

3 CREDIT HOURS
Prerequisite: HSE K210 or permission of the instructor.*
This course is an introduction to the study of community organization as a method in social work practice, which has as its major objective of practice the planning and implementation of programs directed toward some aspect of community change. The skills, methods, and functions of community service workers will be explored and integrated into the other skills and methods of social service practice, which are a part of a student's overall learning experiences in the social service program.

HSE* K251 - Work With Individuals & Families °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to provide an introduction to methods and skills leading to beginning competence in the social work process of helping individuals and families. The skills include assessment, planning, contracting, intervention, interviewing, and evaluation.

HSE* K281 - Human Services Field Work I °

3 CREDIT HOURS
Prerequisite: Permission of the instructor.
This course is a practicum/field work experience in human services which is defined as direct involvement in a non-classroom setting sponsored by the College and jointly supervised by the agency and faculty. Students are also expected to participate in a weekly seminar. Students must have completed a minimum of 30 credits with 12 credits in human service degree courses.

Hospitality Management

HSP* K100 - Introduction to the Hospitality Industry

3 CREDIT HOURS
This course provides an overview of the structure and functions of the hospitality industry, including hotels, motels, inns, restaurants, resorts, casinos, and other tourist related concerns. Students will survey career options and the essential abilities needed to pursue these options. The course also introduces students to the many tourist attractions in southeastern Connecticut.

HSP* K108 - Sanitation & Safety

3 CREDIT HOURS
This course teaches students about the potential emergency situations in the hospitality industry and the appropriate and correct actions to take. Students will receive the National Restaurant Association's Certification in Food Sanitation and Safety required by law in the food service industry. Students will learn all aspects of sanitation including the ordering, receiving, storing, preparing, and serving of food.

HSP* K111 - Basic Food Preparation

4 CREDIT HOURS
Corequisite: HSP K108.*
This course introduces the fundamental theories and skills in basic food preparation and baking. Emphasis is on the identification of a standard quality product, cooking theories, equipment, recipe conversion, weights and measures, and safe and sanitary working habits.

HSP* K112 - Advanced Food Preparation °

4 CREDIT HOURS
Prerequisites: HSP K111 and HSP* K108.*
This course is a continuation and application of the culinary techniques and knowledge acquired in HSP* K111 - Basic Food Preparation. Full course menus will be prepared and served to guests. Students will experience various positions in the dining room and kitchen. Emphasis is placed on menu planning and recipes, purchasing, food costing, and service while working as part of a team.

HSP* K113 - Baking and Pastry Arts I °

4 CREDIT HOURS
Prerequisite: HSP K108.*
This course is an introduction to the production and quality control of baked items and pastries with intensive hands-on laboratory training.

HSP* K117 - Beverage Management

3 CREDIT HOURS
This course introduces students to wines, beers, spirits, and the technical aspects of the products. Viticulture, wine making, the distillation process, and the methods of making malt beverages are investigated. Students will explore the business aspects of buying, selling, and serving these products and the implications of liability and health in a contemporary society.

HSP* K134 - Hospitality Customer Relations

3 CREDIT HOURS
This course will focus on the relationship and interaction between the customer and the hospitality employee. A thorough investigation of the various aspects of communications between people will be studied. Students will learn

effective communication skills in customer service and will implement these skills through role-playing and hands-on training.

HSP* K151 - Introduction to Gaming Industry

3 CREDIT HOURS
This course introduces the student to the various operational aspects of the gaming industry. An overview of the current trends in the industry, the casino environment, marketing and financial concepts relevant to the industry will be addressed.

HSP* K152 - Introduction to Casino Management

4 CREDIT HOURS
Corequisite: HSP K100.*
This course introduces the students to the management of a casino including staffing, the floor pit, credit control, cash and chip control, and internal security. Students are introduced to the basic rules and supervision of the major casino games.

HSP* K201 - International Foods °

4 CREDIT HOURS
Prerequisites: HSP K108 and HSP* K112.*
This course teaches students to plan, prepare, and serve full-course ethnic meals. Student teams have the opportunity to practice advanced culinary, and management techniques. An analysis of costs, labor, production, management, and success of the team effort will be completed.

HSP* K243 - Hotel Operations °

4 CREDIT HOURS
Prerequisite: HSP K100.*
This course focuses on the management of the various lodging options available to commercial and leisure travelers. The course will also focus on hotel/motel front office supervision and other management considerations in arranging the lodging.

HSP* K245 - Hospitality Sales & Marketing °

4 CREDIT HOURS
Prerequisites: ACC K111 or ACC* K115.*
This course is designed to familiarize the students with the sales and marketing practices used in the tourism field. Market analysis, methods of advertising, promotion, pricing, and sales techniques will be addressed.

HSP* K247 - Travel Agency Operations °

4 CREDIT HOURS
Prerequisite: HSP K100.*
This course is an introduction to the operations of the retail travel agency. Students will be provided an overview of computerized airline reservation systems, passenger tariffs, and ticketing procedures.

HSP* K296 - Cooperative Education °

3 CREDIT HOUR
Prerequisites: Permission of Program Coordinator.
This course is an on-the-job practical experience to reinforce the principal techniques and procedures presented in the classroom and lab. Students seek their own employment in an approved hospitality position and are evaluated by their employers, the program coordinator, and by the quality of their written assignments. Students meet for a cooperative, professional seminar and individually with the program coordinator several times throughout the semester.

Interdisciplinary Studies

IDS K105 - The First Year Experience °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# or higher.*
This course is designed to engage students as active participants within the college environment. Students will have the opportunity to acquire academic skills, attributes, awareness of self as learner, and to engage with the resources and activities within the Three Rivers Community College community. You can expect regular reading, writing and research assignments along with classroom discussion as you investigate how to be successful in this environment.

IDS K123 - International Study/Travel

3 CREDIT HOURS
This course is designed to focus on a particular country or region of the world, combining classroom instruction with an actual group tour of the country/region under consideration. The courses are organized around various themes such as culture, history, architecture, ecology, art, politics, or the economy of the region. Additional travel costs will be incurred by the student.

Library Technology

LIB* K101 - Introduction to Library Public Services

3 CREDIT HOURS
This course deals with the public service aspect of library work, which includes circulation, reserve, and publicity.

LIB* K104 - Introduction to Reference Services °

3 CREDIT HOURS
This course is designed to familiarize students with the use of general and specialized reference tools. Procedures and services in the library reference department are also discussed.

LIB* K116 - Cataloging and Classification °

3 CREDIT HOURS
Prerequisite: LIB K123.*
This course introduces both Dewey and Library of Congress Classification Systems. Also included are original descriptive and subject cataloging of print and non-print media, and copy cataloging by using MARC format.

LIB* K120 - Literature for Children

3 CREDIT HOURS
This course is a critical study of literature for children. Included are literary forms such as folklore, poetry, fiction, drama, and nonfiction. Discussions of writers, illustrators, storytelling, and Children's Room programming are also incorporated.

LIB* K123 - Introduction to Library Tech Services

3 CREDIT HOURS
This course is designed to give students an understanding of the use of bibliographic tools, the skills to use them appropriately, and a basic knowledge of workflow in a technical processing department.

LIB* K125 - Digital Media

3 CREDIT HOURS
This course serves as an introduction to a variety of digital media forms as they are being used in the library and information service fields. Students will be exposed to such presentation software such as Facebook, Flickr, BitTorrent, Secondlife, podcasts, audiobooks, ebooks, Mp3 and Mp4 files. Students will also use digital cameras and sound recorders to create original content.

LIB* K127 - Management Strategies

3 CREDIT HOURS
This course covers the basic supervisory skills that are necessary for library technical assistants. Topics included are job descriptions, employee evaluation, motivation, conflict management, interpersonal communication, time management, training techniques, affirmative action, usage statistics, censorship, and Library Bill of Rights.

LIB* K201 - Digital Resources °

3 CREDIT HOURS
This course covers the theory and field practice of web sites, internet searching and search engines, online reference searches, shared databases, LANs, CD ROM technology, and library networks. LIB* K201 meets the computer literacy requirement.

LIB* K202 - Supervised Field Placement∞ °

3 CREDIT HOURS
Prerequisite: Completion of five library technology courses.
This course is a work assignment under actual library conditions that gives students practical experience. During the semester, students will work 90 hours in a library of their choice. This course is required for students with no practical library experience.

Mathematics

MAT* K095 - Elementary Algebra Foundations °

3 CREDIT HOURS
This course develops understanding of number systems, different representations of numbers, and operations on numbers, including numbers exprssed in scientific notation. The course introduces functions, their graphs, and modeling relationships between quantities using functions. Topics also include solving equations; simplifying expressions with integer exponents; using square roots; solving, analyzing, and modeling linear equations; and using

systems of linear equations, Pythagorean Theorem, and geometric formulas to solve real world problems. This course does not satisfy a math requirement or an elective in any degree program, nor do its credits count toward graduation. Please refer to online schedule and click on the CRN hyperlink and/or review the printed schedule to determine which faculty require math software in their section.

MAT* K095I - Elementary Algebra Intensive College Readiness

6 CREDIT HOURS
This course is designed to build understanding and skills in algebra and to provide embedded pre-algebra support. This course develops understanding of number systems, different representations of numbers, and operations on numbers, including numbers exprssed in scientific notation. The course introduces functions, their graphs, and modeling relationships between quantities using functions. Topics also include solving equations; simplifying expressions with integer exponents; using square roots; solving, analyzing, and modeling linear equations; and using systems of linear equations, Pythagorean Theorem, and geometric formulas to solve real world problems. This course does not satisfy a math requirement or an elective in any degree program, nor do its credits count toward graduation. Please refer to online schedule and click on the CRN hyperlink and/or review the printed schedule to determine which faculty require math software in their section.

MAT* K123 - Elementary Statistics °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "C-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course considers fundamental concepts of probability and statistics. The topics include exploratory data analysis (tables, graphs, measures of central tendency and dispersion), basic probability, applications of binomial and normal distributions, confidence intervals, hypothesis testing and Chi-Square Goodness-of-Fit Test.

MAT* K123S - Elementary Statistics Embedded

4 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "C-#" grade or better or appropriate placement through multiple-measures assessment process.*
In this course, students will learn fundamental concepts of probability and statistics. The topics include exploratory data analysis (tables, graphs, measures of central tendency and dispersion), basic probability, applications of binomial and normal distributions, confidence intervals, hypothesis testing and Chi-Square Goodness-of-Fit Test.This course presents the Elementary Statistics content with embedded support.

MAT* K135 - Topics in Contemporary Math °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "C#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). This course will expose students to topics in mathematics that are useable and relevant in today's world. Students will apply mathematical ideas while working within a social context. Examples of topics will include: concerns about the growth of the national debt, environmental issues, probability, statistical implications in our lives, and current events issues.

MAT* K137 - Intermediate Algebra °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "B-#" grade or better or appropriate placement∞ through multiple-*

measures assessment process.
This course cultivates understanding and different representations of functions. Topics covered include linear, quadratic, exponential, rational, radical functions, equations, and expressions with emphasis on modeling and solving real world problems. A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). Please refer to online schedule and click on the CRN hyperlink and/or review the printed schedule to determine which faculty require math software in their section.

MAT* K137S - Intermediate Algebra Embedded °

4 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "C-#" or higher, or appropriate placement∞ through multiple measures assessment process.*
This course represents the Intermediate Algebra instruction with embedded support. The course cultivates understanding and different representations of functions. Topics covered include linear, quadratic, exponential, rational, radical functions, equations, and expressions and operations on them with emphasis on modeling and solving real world problems. A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). All sections of MAT* K137S require the use of software.

MAT* K143 - Math for Elementary Education: Algebra and Number Systems °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. A TI-84(Plus) or TI-83(Plus) or TI-82 or TI-73 graphing calculator is strongly recommended.*
This course is designed for students planning to become certified in early childhood, elementary or middle school level education. Problem solving strategies will be developed and integrated throughout, in accordance with the NCTM Principles and Standards for School Mathematics. Topics include conceptual and relational understanding of the real numbers, including the subsets of whole numbers, integers, rational and irrational numbers, with an emphasis on place value and the associated operations. Topics from numeration systems, number theory and set theory will be developed as needed, with regular use of manipulatives and technology.

MAT* K146 - Math for the Liberal Arts °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process and eligible for either ENG* K101S or ENG* K101.*
This is a survey course designed to acquaint the liberal arts student with a broad spectrum of mathematical ideas not emphasized in traditional algebra courses. As a terminal mathematics course, it conveys the nature and diversity of mathematics, its methods, applications, and roles in society. Topics are selected from problem solving and critical thinking skills, graph theory, voting and apportionment, introduction to probability, linear programming, patterns and symmetry, linear and exponential applications; others may include fractal geometry, financial management, fair division schemes, game theory, or codes.

MAT* K158 - Functions, Graphs and Matrices

3 CREDIT HOURS
Prerequisite: MAT K137/MAT* K137S with a "C" grade or higher.*
A course in select topics from contemporary math focused on applications in business, economics and finances. Topics include the concept of function and its rate of change, a review of algebraic and graphical aspects of polynomial functions, a study of exponential and logarithmic functions, mathematical modeling, and operations on systems of linear equations including matrix operations. A graphing calculator is used throughout the course.

MAT* K167 - Principles of Statistics °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. Please refer to online schedule and click on the CRN hyperlink and/or review printed schedule in determining which faculty require math software in their course(s).*
This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations and confidence intervals.

MAT* K172 - College Algebra °

3 CREDIT HOURS
Prerequisites: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course is a thorough and rigorous algebra course that strengthens the understanding of functions, their properties, multiple representations, and operations with functions. The function families studied include: polynomial, exponential, logarithmic, rational, and radical functions. Students will also learn linear and quadratic inequalities, absolute value equations and inequalities, linear and noninear systems.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

MAT* K198 - Special Topics: Math Preparation for Non-STEM Programs

3 CREDIT HOURS
Prerequisite: MAT K095 placement.*
This course is designed to prepare students for college-level courses required for non-STEM majors. The course develops understanding of number systems, different representations of numbers, and operations on numbers, including numbers expressed in scientific notation. The course introduces linear functions, their graphs, and modeling relationships between quantities using functions. Topics include: simplifying polynomial, radical, and exponential equations; writing and solving systems of linear equations; and using geometric formulas. There will be an emphasis on modeling and solving real world problems.

MAT* K210 - Discrete Math °

3 CREDIT HOURS
Prerequisite: MAT K186 or permission of the instructor.*
This course provides an introduction to set theory, logic and number theory. The ideas of algorithms and proof will be developed through the content.

MAT* K254 - Calculus I °

4 CREDIT HOURS
Prerequisite: MAT K186 with a 'C" grade or better.*
This is a first course in the calculus sequence intended for students who plan on majoring in mathematics, physical sciences, or engineering technology. Topics include: rate of change, limits, continuity, differentiation of algebraic, trigonometric, exponential, and logarithmic functions, differentials, applications of differentiation, definite and indefinite integrals, and applications of integration.

MAT* K256 - Calculus II °

4 CREDIT HOURS
Prerequisite: MAT K254 with a "C" grade or better.*
This course is the second semester of calculus intended for students who plan on majoring in mathematics, physical science, or engineering technologies. The topics include the definite integral, applications of integration, methods of integration, sequences, series and vectors.

MAT* K268 - Calculus III: Multivariable °

4 CREDIT HOURS
Prerequisite: MAT K256 with a "C" grade or better.*
This third semester of calculus is intended for students who plan on majoring in mathematics, science or engineering technologies. It exposes students to the calculus of several variables. Topics include vectors, dot and cross product, equations of lines and planes, functions of several variables, limits and continuity, partial derivatives, chain rule, gradient, maximizing and minimizing functions of several variables, Lagrange multipliers, multiple integrals, polar, cylindrical, spherical coordinate systems, vector fields, line integrals, Green's and Stokes' and the Divergence Theorems.

MAT* K272 - Linear Algebra °

3 CREDIT HOURS
Prerequisite: MAT K256 with a "C" grade or better.*
A first course in linear algebra for students in mathematics, science and engineering. Topics include: systems of linear equations, matrices, determinants, vectors and vector spaces, linear transformations, eigenvalues and eigenvectors. The course is an introduction to the techniques of linear algebra with elementary applications.

MAT* K285 - Differential Equations °

3 CREDIT HOURS
Prerequisite: MAT K256 with a "C" grade or better.*
A continuation of calculus with an introduction to standard techniques of solving differential equations. The following topics will be introduced: first-order differential equations, linear equations of higher order, power series methods, Laplace transform methods, linear systems of differential equations, numerical methods, and modeling by differential equations in a variety of applications in physics, chemistry, engineering, biology, social sciences and finances.

Mechanical Engineering Technology

MEC* K114 - Statics °

3 CREDIT HOURS
Prerequisites: MAT K172 and PHY* K114.*
Corequisite: MAT K186.*

This course helps students develop the ability to analyze problems using the basic principles of static systems in order to provide a foundation for stress analysis. The forces on structures in equilibrium and concepts of centroids, center of gravity, and moment of inertia are studied. The concept of stress and strain in axial torsional and bending loading is also introduced.

MEC* K152 - Fundamentals of Engineering Graphics °

1 CREDIT HOUR
Prerequisite: MAT K095 OR MAT* K095I or higher.*
Corequisite: MEC K153.*
This course teaches the basic concepts of orthographic projection, isometric, and oblique drawings and basic drafting terminology. Emphasis will also be placed on free hand sketching using the above concepts and terminology. Basic principles of simplified board drafting practices will be covered. A major component of this course will focus on descriptive geometry which will nurture the visualization skills of students by identifying points, planes, and perpendiculars in various perspectives. Some of the techniques will be accompanied with CAD as a comparison.

MEC* K153 - Fundamentals of Engineering Graphics Lab °

2 CREDIT HOURS
Prerequisite: MAT K095 OR MAT* K095I or higher.*
Corequisite: MEC K152.*
This lab and accompanying lecture is designed to introduce students to the concept of applying mechanical design principles with computer designed techniques and capabilities. This course teaches the basic concepts of orthographic projection, isometric, and oblique drawings and basic drafting terminology. A component of this course will focus on descriptive geometry which will nurture the visualization skills of students by identifying points, planes and perpendiculars in various perspectives. Introducing the mechanical design software SolidWorks, this course begins to examine the basic functionally of drawing automation. One hour lecture/discussion and four hours of lab per week.

MEC* K231 - Computer-Aided Engineering °

1 CREDIT HOUR
Prerequisite: CSA K105.*
Corequisite: MEC K232.*
This course is a continuation of Computer Application I with a primary emphasis upon the personal computer as a problem solving tool for mechanical students. Upon completion of this course, students will have an awareness of (1) existing mechanical software on the market, (2) an application media for concepts learned in Computer Applications I, and (3) computer solution methods for complex mechanical problems.

MEC* K232 - Computer-Aided Engineering Lab °

2 CREDIT HOURS
Prerequisite: CSA K105.*
Corequisite: MEC K231.*
This course teaches students to performs laboratory exercises to fulfill the goals of MEC* K231. The purpose of the lab is to provide relevant projects for computer applications as applied to the mechanical discipline.

MEC* K241 - Thermodynamics °

3 CREDIT HOURS
Prerequisites: PHY K115 and MAT* K186.*

This course studies the thermodynamic principles of heat, work, non-flow and steady flow processes, and cycles. The use of thermodynamics data tables and charts will be stressed.

MEC* K250 - Strength of Materials °

3 CREDIT HOURS
Prerequisites: MEC K114.*
This course instills knowledge of moments of inertia, torsion, bending, and columns, and how it applies to stress and the structural properties of materials. The relationship of these properties to common engineering problems is reviewed.

MEC* K262 - Materials Science °

3 CREDIT HOURS
Prerequisites: MFG K102*
Corequisite: MEC K263.*
This course studies the structure and properties of engineering materials, and incorporates the presentation of materials selection, processing, and heat treatment. The changes in structure and properties during forming, machining, and heat treating operations are discussed.

MEC* K263 - Materials Science Lab °

1 CREDIT HOUR
Prerequisites: MFG K102; TCN* K105.*
Corequisite: MEC K262.*
In this lab, students will be exposed to selected experiments demonstrating the effects of processing, including heat treatment, on the properties of engineering materials. Standard materials tests are also performed.

MEC* K270 - Introduction to Fluid Mechanics °

3 CREDIT HOURS
Prerequisites: MAT K186.*
Corequisite: MEC K275.*
This course introduces the mechanics of fluids. Basic characteristics of fluids, hydrostatics, pressure, centers of pressure, and pressure measuring devices are discussed. The application of the general energy equation to fluids in motion is also shown, along with the modifications necessary to introduce the effects of viscosity and friction on fluid flow, pressure heads, and pump calculations.

MEC* K272 - Fluid Mechanics/Thermodynamics °

4 CREDIT HOURS
Prerequisite: PHY K115.*
This course investigates the behavior of fluids from a fluid mechanics and thermodynamics point of view, including the concepts of enthalpy, entropy, and energy balances.

MEC* K274 - Heat Transfer °

2 CREDIT HOURS
Prerequisites: MAT K254; MEC* K272; PHY* K115.*
Corequisite: MEC K275.*
This course will include one and two dimension flow, and principles of convection, conduction, and radiation. Steady state conditions will be investigated.

MEC* K275 - Thermal Sciences Lab

1 CREDIT HOUR
Corequisites: MAT K254; MEC* K241 or MEC* K270 or MEC* K272.*
This course studies selected labs from the fields of fluid mechanics, thermodynamics, and heat transfer.

MEC* K281 - Machine Design °

3 CREDIT HOURS
Prerequisite: MEC K250.*
This course utilizes skills from previous courses and gives students the opportunity to investigate the design of machine elements. Actual design conditions are studied along with classical engineering design practice utilizing the concepts of stress, materials, unimatics, economy, safety, strength, and appearance.

MEC* K286 - Welding Engineering Applications °

3 CREDIT HOURS
Prerequisites: MFG K102; MEC* K262/MEC* K263.*
Corequisite: MEC K287.*
This course introduces basic welding techniques as applied to various welding materials. It includes ARC welding, filler materials, steel welding, non-ferrous metal welding, and problems in welding with solutions.

MEC* K287 - Welding Engineering Applications Lab °

1 CREDIT HOUR
Prerequisites: MFG K102; MEC* K262/MEC* K263.*
Corequisite: MEC K286.*
This course applies the basic weld to various welding materials. It includes lectures, film strips, and various welding projects.

MEC* K295 - Mechanical Engineering Technology Co-Op °

3 CREDIT HOURS
Prerequisite: Permission of the program coordinator.
Corequisite: Student must have completed all freshman level technology courses and have a GPA of 2.50 or better.
This course gives students the opportunity to work in industry gaining hands-on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by the co- op student during the semester internship.

MEC* K297 - Mechanical Engineering Technology CO-OP II°

3 CREDIT HOURS
Prerequisites: MEC K295 and permission of program coordinator.*

In this course, students will work in industry gaining enhanced hands-on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education along with hands-on experience gained in their initial co-op experience. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by the co-op student during the semester.

Medical

MED* K111 - Administrative Medical Assisting

3 CREDIT HOURS
This course is designed to cover the theory, practice, and techniques of fundamental office management, and to provide an overview of the profession of medical assisting and its role in providing quality health care. Healthcare administrative functions, including office responsibilities, safety in the office environment, commuication techniques, medical records management, schedule management, professionalism, and legal and ethical issues will be emphasized.

MED* K125 - Medical Terminology °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is intended for students interested in obtaining a knowledge and understanding of basic medical terminology as the language of the health care professional. The student learns basic medical word roots and combining forms, suffices, prefixes, and abbreviations. Correct spelling, forming singulars and plurals, understanding definitions, and using terms correctly are important components of the course. This course is especially useful for individuals working in the healthcare or pursuing a degree in an allied health area.

Meteorology

MET* K198 - Special Topics: Intro to Meteorology°

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
The concepts of atmospheric temperature, pressure, humidity, wind, and how these factors are measured. Investigation of the physical processes of the atmosphere in such areas as heat transfer, condensation, and precipitation. In treatment of these ecosystems the course will apply hypothesis-testing approaches, and will rely heavily on the previous lecture portion for examples used in class.

Manufacturing Engineering Technology

MFG* K102 - Manufacturing Processes and Lab

3 CREDIT HOURS
Corequisite: TCN K105*
This course studies manufacturing: making goods and wares by industrial processes. The course will provide theoretical experience in the scientific, engineering, and economic principles on which the various manufacturing processes are based.This laboratory portion provides emphasis on common metal cutting tools and lathe operations, as well as on associated precision measuring tools and instruments. The labs will also involve set-ups and procedures for various manufacturing processes including plasma cutting, sheet metal, molding and additive manufacturing.

MFG* K105 - Manufacturing Math II

3 CREDIT HOURS
A study of arithmetic and algebraic operations applied to manufacturing circumstances. Fractions, decimals, tolerances,

percentages, signed numbers, powers and roots, the metric system, as well as ratios and proportions are studied in depth. Introduction to algebraic, geometric and trigonometric functions necessary for sheet metal layout and fabrication.

MFG* K116 - Workplace Skills

3 CREDIT HOURS
Most metal fabrication programs require students to learn communication skills for the workplace, stressing the importance of instruction, teamwork and safety in the metal shop environment. Classes focus on listening and speaking, including giving and following instructions. Attendance, attire, personal hygene, teamwork skills, communication skills safety and adherence to rules and paperwork requirements are topics to be covered. Participants also learn about human relationships, cooperation and may practice group problem-solving exercises.

MFG* K117 - Quality Control/Metrology

3 CREDIT HOURS
In this course students will learn how to choose, use, and read the appropriate method of metrology. They will understand tolerance and the capability of metrology equipment. Inspection reports and corrective actions will also be covered. Topics include Inspection, Following Work Order Instructions in order to achieve quality requirements, Inspection Processes, Root Cause Analysis, Corrective Actions, Lean and Efficiency.

MFG* K121 - Sheet Metal Blueprint Reading

2 CREDIT HOURS
Two important aspects of metalwork are reading and interrupting dimensions, tolerances, bend lines, and welding symbols in order to fabricate parts to the specifications on the blueprint. Metal fabricators must be skilled at visualizing a 3-dimensional structure from 2-dimensional figures and creating drawings, including hand sketches and orthographic projections. In this course, students complete classroom study and lab work, practicing identification of structural shapes, surface features, forming details weld positions, and weld symbols on actual blueprints. Lessons explore the relationship and coordination between blueprint draftsmen and metal fabricators.

MFG* K129 - Introduction to Sheet Metal Fabrication

4 CREDIT HOURS
In this course, students gain a comprehensive overview of metal fabrication techniques. Through lab projects, students develop skills learned in previous classes, such as using blueprints and taking accurate measurements. Labs allow for experimentation with fabrication tools, especially automated devices, such as shears, plasma cutter, punch press, and press brakes, as well as those that use computer numerical control (CNC). Includes Metallurgy of sheet metal. Students will learn basic regular maintenance and trouble shooting of the equipment. Embedded in the course will be lessons on quality control and application of lean principals, and following work place standard operating procedures, such as work order instruction and employment standards.

MFG* K130 - Manufacturing Processes and Tool Use

3 CREDIT HOURS
Shop Safety practices will be emphasized. The use of shop hand tools and power tools will be utilized. Band saws, drill presses, grinding, tapping, countersinking, rolling and other hand operations will be covered.

MFG* K131 - Advanced Sheet Metal Fabrication

4 CREDIT HOURS
In this continuation of the fundamentals course, students gain further skills in metal fabrication techniques. Advanced cutting and bending are covered. Through lab projects, they develop skills learned in previous classes, such as using blueprints and taking accurate measurements. Labs allow for experimentation with fabrication tools, especially automated devices, such as shears, lasers and press brakes, as well as those that use computer numerical control (CNC). Embedded in the course will be additional lessons on metallurgy, quality control, application of lean principals, and following work place standard operating procedures, such as work order instruction and employment standards.

MFG* K134 - Sheet Metal Layout

2 CREDIT HOURS
A basic course in the fundamentals, principles, practices and tools used in semi-precision and precision layout and in various tools used in the methods and procedures for common sheet metal shop bench work. Topics include measurement systems, layout principals, hand tools, and power tools, as work order instruction and employment standards.

MFG* K157 - Welding I

3 CREDIT HOURS
Introduction to theory and lab activities in welding areas of Shielded Metal Arc Welding, Gas Tungsten Arc Welding, Gas Metal Arc Welding processes. Safety issues, equipment knowledge and demonstration of various welding processes/techniques will be explored.

MFG* K171 - Introduction to Lean Manufacturing

3 CREDIT HOURS
The purpose of this course is to provide the student with the fundamental knowledge of current continuous process improvement methodologies in use today within competitive manufacturing environments. This introductory course will expose the student to the basic concepts of Lean Manufacturing theory and the various tools and techniques involved with a lean implementation. This course will be presented following the lean six sigma process methodology of DMAIC (Define, Measure, Analyze, Improve, Control) to ensure that at the completion of the course, the student will be competent to participate effectively as a team member in lean implementation projects.

MFG* K172 - Introduction to Lean Supply Chain Management

3 CREDIT HOURS
This course is an introduction to the basic principles and methodologies of Supply Chain Management. The course reviews the lean manufacturing principles needed to understand and maintain the supply chain. Key concepts are covered such as Value Stream Mapping, customer/supplier roles, supplier types, metrics, quality systems, quality audits, communication, and information flow. Class activities, group assignments, and case studies are emphasized for real- world learning experiences.

MFG* K221 - Mechatronics

3 CREDIT HOURS
Prequisites: EET K264*
This interdisciplinary course with lab exposes students to the design, instrumentation, and control of high- precision, computer-controlled automation equipment, using concrete examples drawn from the photonics, biotech, manufacturing and semiconductor industries. Topics covered include design strategy, high-precision mechanical components, sensors and measurement, servo control, design for controllability, control software development,

controller hardware, as well as automated error detection and recovery. Students will work individually and in teams on hands-on experiences reinforcing and supplementing the course content. This course is equivalent to EET* K266.

MFG* K230 - Statistical Process Control

3 CREDIT HOURS
Corequisite: MAT K167.*
This course presents the application of fundamental statistical concepts to manufacturing production control, tolerance analysis and acceptance sampling. Emphasis is placed on the application of statistics through control chart development, sampling size determination and frequency evaluation. The course incorporates computer hardware and software, particularly spread sheets and database programs in SPC applications to manual, automated and flexible manufacturing systems in a computer integrated environment. This course is equivalent to BMG* K218.

MFG* K236 - Non-Destructive Testing I

3 CREDIT HOURS
Corequisite: MFG K237.*
This course is an introduction to the non-destructive testing techniques most commonly used in industry. These include liquid penetrate, magnetic particle, eddy current, ultrasonic's, radiography, and others. Requirements for personnel certification are also addressed.

MFG* K237 - Non-Destructive Testing I Lab

1 CREDIT HOUR
Corequisite: MFG K236.*
This lab is an introduction to the practical application of non-destructive testing equipment and techniques. Liquid penetrate, magnetic particle, eddy current, ultrasonic's, and radiographic inspection will be performed, evaluated, and documented.

MFG* K239 - Geometric Dimensioning and Tolerancing °

3 CREDIT HOURS
Prerequisites: CAD K106/CAD* K107 and latest CAD release working knowledge.*
This course will introduce the concepts of Geometric Dimensioning and Tolerance with respect to design and inspection considerations. The entire content will be based upon the ASME Y14.5M- 1994 standards. The concepts of proper dimensioning and tolerance methods with clear distinct outcomes will be defined. The use of computer aided drafting will aid in the delivery of the GDT concepts. This course is equivalent to CAD* K239.

MFG* K271 - Advanced Lean Manufacturing °

3 CREDIT HOURS
Prerequisite: MFG K171.*
The purpose of this course is to provide the student with the knowledge to implement lean improvements within the production environment using a systematic approach. This course will follow an improvement project (from the student's current employer or case study) through the five stages of the DMAIC problem solving methodology. At the completion of the course, the student will be competent to effectively lead a lean implementation project within a company.

MFG* K272 - Implementing Lean Supply Chain Management °

3 CREDIT HOURS
Prerequisites: MFG K172.*
This course covers the benefits and elements needed for implementing supply chain management. Team building and communication skills are shown as crucial factors in supply chain management. Topics emphasized in the course are measuring the velocity of the supply chain, developing partnerships, logistics, software tools, hardware, and continuous improvement. Class activities, group assignments and case studies are emphasized for real world learning experiences.

MFG* K294 - Manufacturing Engineering Technology CO-OP II°

3 CREDIT HOURS
Prerequisites: MFG K295 and permission of program coordinator*

In this course, students will work in industry gaining enhanced hands-on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education along with hands-on experience gained in their initial co-op experience. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by the co-op student during the semester.

MFG* K295 - Manufacturing Engineering Technology Co-Op °

3 CREDIT HOURS
Prerequisite: Permission of the program coordinator.
Corequisites: Students must have completed all freshman level technology courses and have a GPA of 2.50 or better.
In this course, students will work in industry gaining hands-on experience while applying academic knowledge acquired during their first year of classroom/ laboratory college education. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by the co-op student during the semester internship.

Music

MUS* K101 - Music History & Appreciation I °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to introduce the student to the elements of music: melody, rhythm, harmony, tone, color, and form. A repertory of music literature is surveyed to trace both the development of Western music and the heritage of contemporary popular music.

MUS* K104 - World Music °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
A comparative survey of musical concepts, style, and performance practices of various world cultures. Course content will emphasize the context of musical expression within the different cultures examined. This course is equivalent to ANT* K136. Course fulfills International/ Intercultural Requirement.

Nuclear Engineering Technology

NUC* K100 - Introduction to Nuclear Systems

3 CREDIT HOURS
This course is an introduction to the major systems of a commercial nuclear power plant. Designed for the student with no prior knowledge of engineering principles, it adheres to a systematic approach to operations and explains the underlying theoretical principles. The course focuses on Pressurized Water Reactor (PWR) and Boiling Water Reactor (BWR) plant design. The course also presents an overview of the Pressurized Heavy Water Reactor (PHWR), Fast Breeder Reactor (FBR), and High Temperature Gas-cooled Reactor (HTGR).

NUC* K110 - Radiation Health Safety °

2 CREDIT HOURS
Prerequisites: MAT K186 and CHE* K121.*
Corequisites: NUC K111 and NUC* K117.*
This course is an introduction to basic concepts associated with nuclear physics and nuclear radiation, health, and safety. Topics include nuclear structure, radioactivity, and interaction of radiation with matter, shielding, radiation measurement, exposure, and biological effects.

NUC* K111 - Radiation Health Safety Lab °

1 CREDIT HOUR
Prerequisites: MAT K186 and CHE* K121.*
Corequisites: NUC K110 and NUC* K117.*
This course is designed to give the student hands-on experience working with a variety of radiation monitoring devices. The students will also gain experience in the processing and analysis of counting data.

NUC* K112 - Introduction to Radiological Science

3 CREDIT HOURS
This course will provide students with an understanding of the nature, sources, uses, and biological effects of natural and man-made radiations. Radiation topics will include ionizing radiation typically produced by radon in homes and radionuclide releases from nuclear power plants, as well as non-ionizing radiation such as ultraviolet and microwave sources. Students will gain an understanding and appreciation of the risks and benefits of radiation in the modern world. This course is expected to satisfy the natural science elective as outlined in the general education requirements of any degree program and will be approved by the General Education Committee.

NUC* K117 - Atomic and Reactor Physics °

4 CREDIT HOURS
Prerequisites: MAT K186; NUC* K100; PHY* K114.*
Corequisites: MAT K254; PHY* K115; NUC* K110/NUC* K111.*
This course is an introduction to modern physics concepts of the structure of the atom, the properties of atomic particles, the nature of light, relativity theory and elementary quantum mechanics. An understanding of fission energy concepts and transmutations will be provided.

NUC* K118 - Nuclear Chemistry °

1 CREDIT HOUR
Prerequisites: CHE K121; MAT* K186; NUC* K100.*
Corequisite: NUC K117.*

This course is an introduction to the basic concepts of nuclear reactor chemistry. Topics covered include oxidation-reduction reactions, principles of corrosion, corrosion control practices, and important nuclear chemical reactions.

NUC* K210 - Nuclear Instruments and Control °

2 CREDIT HOURS
Prerequisites: EET K144/EET* K145; NUC* K100; NUC* K110/NUC* K111; NUC* K117; NUC* K250.*
Corequisites: NUC K211; NUC* K220/NUC* K221.*
The study of the underlying electrical, mechanical, physical, and chemical principles by which the instrumentation and modern PWR (pressurized water reactor) and BWR (boiling water reactor) systems control the safe generation of nuclear-based power. Emphasis is placed on the full understanding of the nuclear fission process and the interactions of the numerous subsystems required monitoring and controlling this important energy technology.

NUC* K211 - Nuclear Instruments and Control Lab °

1 CREDIT HOUR
Prerequisites: EET K144/EET* K145; NUC* K100; NUC* K110/NUC* K111; NUC* K117; NUC* K250.*
Corequisites: NUC K210; NUC* K220/NUC* K221.*
These laboratory exercises transfer acquired electrical, mechanical, physical, and chemical technology gained in earlier courses in hands-on applications to 15 selected nuclear instrument controlled subsystems. Emphasis is placed on the full understanding of the detection capabilities and subsequent safe nuclear system control.

NUC* K220 - Nuclear Simulator °

1 CREDIT HOUR
Prerequisites: NUC K100; NUC* K110/NUC* K111; NUC* K117; NUC* K118; NUC* K250; NUC* K260/NUC* K261.*
Corequisites: NUC K210/NUC* K211; NUC* K221.*
A study of the primary and secondary systems of a Pressurized Water Reactor (PWR), with emphasis on control and protective subsystems, plant start-up, normal plant operation, and critical shut-down procedures. Reactor "accident" analyses are stressed for total reactor system comprehension. This is the capstone event for the nuclear degree program.

NUC* K221 - Nuclear Simulator Lab °

1 CREDIT HOUR
Prerequisites: NUC K100; NUC* K110/NUC* K111; NUC* K117; NUC* K118; NUC* K250; NUC* K260/NUC* K261.*
Corequisites: NUC K210/NUC* K211; NUC* K220.*
A study of reactor plant primary and secondary systems, control and protective systems, plant start- up, normal plan operation, and critical shut-down procedures is covered through the extensive "hands-on" utilization of a modern nuclear reactor simulator. This is the capstone event for the nuclear degree program.

NUC* K230 - Nuclear Topics °

2 CREDIT HOURS
Prerequisites: NUC K100; NUC* K110/NUC* K111; NUC* K117; NUC* K118; NUC* K250; NUC* K260/NUC* K261.*
This course is a state-of-the-art survey course studying factors impacting modern nuclear power generation, including environmental impacts, fuel management, preventive maintenance, equipment operation, failure and analysis, safety engineering, human factors engineering, and emergency planning procedures. Additionally, an overview of other regional nuclear related business activities will be presented.

NUC* K240 - Advanced Nuclear Chemistry °

3 CREDIT HOURS
Prerequisites: CHE K121; MAT* K254; NUC* K100; NUC* K110/NUC* K111; NUC* K117; NUC* K250.*
This course is a specific nuclear elective to comprehensively study concepts associated with nuclear reactor chemistry. The sophisticated analysis of chemistry principles on the safe and economical operation of commercial nuclear reactors will be the emphasis of this elective course.

NUC* K250 - Reactor Theory °

4 CREDIT HOURS
Prerequisites: MAT K254; NUC* K110/NUC* K111; NUC* K117; NUC* K118; PHY* K114; PHY* K115.*
Corequisites: MAT K256; NUC* K260/NUC* K261.*
This course studies nuclear energy with emphasis on fission, reactor types, moderation of neutrons, activation and decay schemes, transmutations, neutron diffusion theory, and theoretical reactor operation including heat transfer, power transients, instrumentation and resultant radiation.

NUC* K260 - Nuclear Materials Science °

2 CREDIT HOURS
Prerequisites: MAT K254; NUC* K100; NUC* K110/NUC* K111; NUC* K117; NUC* K118.*
Corequisites: MAT K256; NUC* K250; NUC* K261.*
This course will acquaint the student with constitution, properties and characteristics of engineering materials and provide a foundation for stress analysis on structures in equilibrium with emphasis on applications to nuclear power, including effects of material irradiation.

NUC* K261 - Nuclear Materials Science Lab °

1 CREDIT HOUR
Prerequisites: MAT K254; NUC* K100; NUC* K110/NUC* K111; NUC* K117; NUC* K118.*
MAT K256; NUC* K250; NUC* K260.*
This lab will focus on performing experiments in metallographic examination, mechanical testing, and heat treatment of a variety of ferrous and nonferrous metals. Experiments to determine properties of materials such as strain, fatigue, corrosion, compression and tensions will also be conducted. Brittle fracture and thermal stress will be performed as well as effects of irradiating materials.

NUC* K270 - Nuclear Health Physics °

3 CREDIT HOURS
Prerequisites: MAT K186; NUC* K110/NUC* K111.*
This course is offered to provide the nuclear/environmental technology student as well as the general student with a working knowledge of radiation and its interaction with matter. Topics will include types of biological effects of radiation, radiation standards, and regulations, instrumentation, shielding, dosimeter, and practices and principles of radiation protection.

NUC* K295 - Nuclear Co-Op °

3 CREDIT HOURS
Prerequisite: Permission of the program coordinator.
Corequisite: Students must have completed all freshman level technology courses and have a GPA of 2.50 or better.
In this course, students will work in industry gaining hands-on experience while applying academic knowledge

acquired during their first year of classroom/ laboratory college education. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by the co-op student during the semester internship.

NUC* K296 - Nuclear Co-Op II °

3 CREDIT HOURS
Prerequisites: Consent of Program Coordinator. Students must have completed all freshman level technology courses, a summer internship and NUC K295.*
In this course, students will work in industry gaining enhanced hands-on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education along with hands-on experience gained in their 12-week summer internship, as well as from initial nuclear co-op experience. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by the co-op student during the semester.

Nursing

NUR* K101 - Introduction to Nursing Practice °

8 CREDIT HOURS
Prerequisites: BIO K211; BIO* K212; ENG* K101 or ENG* K101S.*
Corequisites: BIO K235 and PSY* K111.*
The student will focus on concepts basic to nursing practice. Emphasis is placed on application of the nursing process, communication skills, and nursing practice procedure acquisition. Clinical and laboratory experiences offer opportunities to integrate theoretical principles and demonstrate caring and competence in beginning professional role development. Theory: 60 hours Clinical: 180 hours.

NUR* K102 - Family Health Nursing °

8 CREDIT HOURS
Prerequisites: NUR K101; BIO* K235; ENG* K101 or ENG* K101S; PSY* K111.*
Corequisites: *NUR* K103*; *PSY* K201*; *SOC* K101*.
The student will focus on issues affecting the family, including childbearing, childrearing, geriatric care and intermediate health care needs of limited duration. The medical surgical health problems include care for the client in the perioperative period and the client experiencing orthopedic and simple genito-urinary conditions. The course addresses several psychiatric disorders: anxiety and cognitive disorders, common child and adolescent psychiatric disorders. The student will have clinical rotations that provide experience caring for the childbearing family as well as caring for medical-surgical clients across the lifespan. Theory: 60 hours Clinical: 180 hours.

NUR* K103 - Pharmacology for Families across the Lifespan °

1 CREDIT HOUR
Prerequisites: NUR K101; BIO* K235; PSY* K111.*
Corequisites: NUR K102; PSY* K201; SOC* K101.*
The student will focus on the safe use, pharmacological principles, indications and nursing implications related to drug therapy when caring for individuals and families. Emphasis will be placed on medications used with perinatal, neonatal, pediatric, geriatric and peri-operative clients. The course will stress the general characteristics of selected medications and will include indications, pharmacokinetics, side effects, adverse effects, contraindications, administration, nursing implications across the lifespan, client education and relationship to prior learning. Theory: 15 hours.

NUR* K108 - Perspectives of Nursing °

3 CREDIT HOURS
Prerequisite: ENG K096 placement∞ or completion of ESL* K063 with a "C#" grade or higher.*
This course will enable students to assess their potential to complete the nursing curriculum as well as give students an introduction to nursing roles, skills and responsibilities. Emphasis will be on defining the role of the nurse and exploring baseline skills such as problem solving, interpersonal relations, mathematical calculations and basic medical terminology. Site visits will be included in the course to observe various health care settings and the role of the nurse within those settings. Perspectives courses are most appropriate for degree students enrolled in any of the career programs, including Liberal Arts or General Studies students. This course is not open to students who have completed any nursing course. This course satisfies the College's First-Year Experience requirement.

NUR* K130 - LPN to RN Transition I °

1 CREDIT HOUR
Prerequisite: Charter Oak State College NUR 190: LPN to RN Articulation Bridge Course.
This course is the final component of the CT League of Nursing LPN to RN Articulation plan for the CT Community Colleges Nursing Program (CT-CCNP) which prepares LPNs to enter into the CT-CCNP in the second year of study. Students enrolling in this course have been accepted for admission into the CT-CCNP and have chosen the option to enter the third semester. This course builds upon the content of Charter Oak State College NUR 190: LPN to RN Articulation Bridge Course by providing and integrating content that is specific to the CT-CCNP curriculum. Upon successful completion of Charter Oak State College Nursing 190, this course and the CT-CCNP prerequisites and concurrent general education courses up to the second year of study, articulation credits are awarded per the escrow model and the LPN advances to NUR* K201 and NUR* K202. Clinical: 45 hours (Clinical and laboratory distribution is at the discretion of the college attended).

NUR* K131 - LPN to RN Transition II °

1 CREDIT HOUR
Prerequisites: Charter Oak State College NUR 190; NUR K130; BIO* K235; PSY* K111; PSY* K201; SOC* K101.*
This course represents a mechanism to award credit equivalent to the first year of CT-CCNP to the LPN who has successfully completed the CT League for Nursing Articulation Plan for LPN to RN.

NUR* K201 - Nursing Care Of Individuals And Families I °

9 CREDIT HOURS
Prerequisites: NUR K102; NUR* K103; (or for LPN Articulation NUR* K131); PSY* K201; SOC* K101; BIO* K211; BIO* K212; ENG* K101 or ENG* K101S.*
Corequisites: NUR K202 and ENG* K102.*
The student will focus on holistic care of individuals and families across the lifespan with a variety of health care needs. The needs of clients experiencing endocrine, respiratory, gastrointestinal, cardiovascular conditions and selected mental health disorders are examined. Bioterrorism as a health care issue will be addressed. Clinical laboratory experience provides the student an opportunity to administer care to a diverse population of clients in a variety of acute care and community health care settings. The student will utilize critical thinking, caring, professionalism and communication skills in the care of the client. Emphasis is placed on provision of safe and competent care and development of the professional role as a member of a multidisciplinary health care team. Over the semester, the student is increasingly challenged with more complex client assignments in the clinical area. Theory: 60 hours Clinical: 225 hours.

NUR* K202 - Pharmacology for Individuals and Families with Intermediate Health Care Needs °

1 CREDIT HOUR
Prerequisites: NUR K102; NUR* K103 (or for LPN Articulation NUR* K131; PSY* K201; SOC* K101; BIO* K211; BIO* K212; ENG* K101 or ENG* K101S.*
Corequisites: NUR K201 and ENG* K102.*
The student will focus on pharmacologic principles related to the care of individuals and families across the lifespan with intermediate health care needs. Emphasis will be placed on medications used for clients who have endocrine, gastrointestinal, respiratory, cardiovascular, autoimmune, and psychiatric conditions and clients who are survivors of bioterrorism. Theory: 15 hours.

NUR* K203 - Nursing Care of Individuals And Families II °

8 CREDIT HOURS
Prerequisites: NUR K201; NUR* K202; ENG* K102.*
Corequisites: NUR K204; NUR* K205; a Humanities or Fine Arts elective.*
The student will focus on the holistic care of individuals, families, and groups with complex health care needs. The student will incorporate critical thinking, caring behaviors, professionalism, and communication skills when providing nursing care in a variety of acute, long-term and/ or community settings. The student will have an opportunity to manage a multi-client assignment with an emphasis on safe and competent practice. An observational experience with a visiting nurse agency, a dialysis unit and/or a cancer center will be provided. Theory: 45 hours Clinical: 225 hours.

NUR* K204 - Pharmacology for Individuals, Families and Groups with Complex Health Care Needs °

1 CREDIT HOUR
Prerequisites: NUR K201; NUR* K202; ENG* K102.*
Corequisites: NUR K203; NUR* K205; a Humanities or Fine Arts elective.*
The student will focus on safe use, pharmacologic principles, indications and nursing implications related to drug therapy in the care of individuals, families, and groups with complex health care needs. Emphasis will be placed on medications used for clients who have acute and chronic renal failure, oncology and neurological conditions, and multi-system dysfunction and clients who choose an alternative therapy. Theory: 15 hours.

NUR* K205 - Nursing Management and Trends °

2 CREDIT HOURS
Prerequisites: NUR K201; NUR* K202; ENG* K102.*
Corequisites: NUR K203; NUR* K204; a Humanities or Fine Arts elective.*
The student will explore the basic principles of management, leadership and collaborative relationships as they relate to providing safe and competent care. The focus is on the utilization of critical thinking skills to make decisions, priority setting, delegation, legal parameters of nursing practice and ethical issues. The student will expand the concept of caring to the profession of nursing through collegial and interdisciplinary communication. The course facilitates the transition of the student into the profession and his/her role in contemporary nursing practice. Theory: 30 hours.

Physical Science

OCE* K101 - Oceanography

3 CREDIT HOURS
Corequisite: ENG K096 or higher. Please note: if completing ENG* K096 prior to enrolling in OCE* K101, a grade of "C#" or better is required for registration into this course.*
This course covers the following topics: properties of sea water, marine ecology, waves, tides, currents, meteorology,

ocean circulation, origin of the Long Island Sound, chemical oceanographic processes, life in the sea, and environmental modification and control.

Philosophy

PHL* K101 - Introduction to Philosophy °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is an introduction to the content and process of epistemology, metaphysics, and ethics is presented. The course will portray philosophizing as an active and dynamic life experience aimed at the creation of a world view. The course is designed to represent philosophy as an integrated experience of mind, body, feeling, and intuition.

PHL* K111 - Ethics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course will cover the fundamentals of ethics, including an introduction to the origins and nature of moral right and responsibility. Students will analyze and formulate positions on contemporary ethical issues.

PHL* K151 - World Religions °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course will begin by providing students with a philosophical framework that will be used to understand the world's major religious traditions. What is religion? How do each of the traditions considered illustrate the workings of myth, practice, experience, and community and how do all of these elements come together in the construction of a worldview particular to each? We will focus on Indigenous religious traditions, Hinduism, Buddhism, Taoism, Confucianism, Judaism, Christianity, and Islam. We may also examine other religious expressions including emerging visions. Many topics will be interwoven into our studies including theistic, non-theistic, mystical, and devotional approaches, theological problems such as theodicy, as well as many social and ethical issues of current concern, particularly the role of women in traditional and emerging expressions. Course fulfills International/Intercultural Requirement.

PHL* K225 - Science, Religion, and the Human Experience °

3 CREDIT HOURS
Prerequisites: Completion of ENG K101 or ENG* K101S with "C" or better; any 100-level humanities or social science course.*
Historically, the cultural forces of scientific inquiry and religious tradition have been at odds over explanations of the world and how humans interact with it. This has become increasingly evident in the 21st century as interactions between social, political and religious agendas have become more strained. This course will examine the complex dynamic between the scientific worldview and religious alternatives. Can they be reconciled? Should they be? Specific areas to be studied include, but are not limited to, the nature of scientific and religious dialogue, the role of religion and spirituality, empirical studies of religious practices and the development of secular ethics.

Photonics

PHO* K101 - Intro to Light and Lasers

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S.*
This course is a comprehensive study of photonics designed as a one-semester course. It provides the foundation required to prepare technicians in the areas of optics, electro-optics, lasers, and photonics. Topics include: Nature and Properties of Light, Optical Handling and Positioning, Light Sources and Laser Safet, Basic Geometrical Optics, and Basic Physical Optics. The course covers the wave and particle properties of light, light interactions, fundamentals of laboratory safety, bulk optical materials and their properties, optical coatings and methods of coating deposition, laboratory mountings, positioning equipment, surface quality of optical components, inspection methods and procedures, the care and cleaning of optics, concepts of laser safety, laser safety standards, safety classifications, laws of reflection and refraction, image formation with lenses and mirrors, interference, diffraction, and polarization processes. The lab portion of the course provides students with hands on activities to demonstrate the various optical concepts. This course is equivalent to PHY* K103. One 2 hour lecture; one 3 hour lab.

PHO* K102 - Applied Optics °

4 CREDIT HOURS
Prerequisites: PHO K101.*
Building on the foundation of PHO* K101, this course will introduce more sophisticated optical systems and mathematical analysis. Topics will include thick lenses, matrix methods of optics, aberrations, stops and pupils, interferometry, Fresnel and Fraunhofer diffraction and polarization. Emphasis will be on applications of optics in modern technology. All laboratory section will reinforce concepts through hands-on experiments and team projects.

PHO* K241 - Introduction to Laser Technology

3 CREDIT HOURS
Corequisite: MAT K137.*
This course provides an introduction to the physics of lasers, laser output characteristics, and types of lasers. Application of lasers will be also be explored. Topics include solid state, gas, and semiconductor lasers. Laser pumps, resonators, mode structures and power supplies are covered. Use of lasers in materials processing, communication systems, sensors and scientific analysis will be included.
The lab portion of this course will reinforce classroom physics and technology concepts and give students the opportunity to become familiar with common laser instrumentation. Lab projects will allow students to more deeply explore topics of interest. Lab exercises will include practice with Diode, HeNe, Argon, Fiber and CO2 lasers.

PHO* K251 - Fiber Optic Systems and Devices

3 CREDIT HOURS
Corequisites: MAT K137.*
This course will introduce parameters describing optical fibers, waveguide transmission, fiber optic components, and fiber system applications. Fiber coupling, splicing, and testing and test equipment will also be covered. Topics include total internal reflection, propogation modes, fiber types, fiber and integrated optical devices. Sources and detectors for fiber optics systems will also be included. Applications will also be covered and include communication systems as well as sensor and lighting applications.

PHO* K252 - Fiber Optic Systems and Devices Lab

1 CREDIT HOURS
Corequisite: MAT K137*
This laboratory course provides practical experience applying and testing fiber optic connectors and splices, fusion splicing, and using instrumentation such as optical loss test sets. Students will measure fiber optic parameters and work active and passive devices commonly found in fiber optic systems. The course may also include an individual project assignment in addition to laboratory exercises.

PHO* K295 - Photonics Co-Op °

3 CREDIT HOURS
Prerequisite: Permission of the program coordinator.
In this course, students will work in industry gaining hands-on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by each co-op student during the semester internship.

PHO* K296 - Photonics CO-OP II°

3 CREDIT HOURS
Prerequisites: PHO K295 and permission of program coordinator.*
In this course, students will work in industry gaining enhanced hands-on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education along with hands-on experience gained in their initial co-op experience. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by the co-op student during the semester.

Physics

PHY* K103 - Introduction to Light and Lasers

4 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S.*
Optics is the science underlying technologies such as laser manufacturing, 3-D holograms, arthroscopic surgery, CD and DVD technology, fiber optic telecommunications and high efficiency LED Lighting. In this course we will explore the nature, production and behavior of light while learning about light sources and application in technology and nature. Hands-on activities, problem-based learning projects and demonstrations are used to illustrate concepts. (The online courses use "home labs" for this purpose.) Algebra and some trigonometry will be used. This course is equivalent to PHO* K101. One 3 hour lecture; one 2 hour lab.

PHY* K110 - Introductory Physics °

4 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I or equivalent.*
This course is a one semester exploration of the basic principles of classical physics. Topics will include classical mechanics, electricity, vibrations and waves. Students will have the opportunity to discover and explore the laws of physics using state-of-the-art instrumentation. Three-hour lecture; one two-hour laboratory.

PHY* K114 - Mechanics °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172.*
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry. Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion. Three-hour lecture; one two-hour laboratory.

PHY* K115 - Heat Sound Light °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172. Please note if MAT* K172 is completed prior to registration into PHY* K115, students must complete MAT* K172 with a "C" grade or better.*
This course covers three broad areas of physics including thermal equilibrium, heat transfer, harmonic motion and wave properties of sound and light. Three-hour lecture; one two-hour laboratory.

PHY* K121 - General Physics I °

4 CREDIT HOURS
Prerequisite: MAT K186. A prior physics (PHY* K114 or high school physics) strongly recommended.*
This course will cover the fundamental principles of classical mechanics, properties of matter, heat, harmonic motion, waves, and sound.

PHY* K122 - General Physics II °

4 CREDIT HOURS
Prerequisites: MAT K186 and PHY* K121.*
This course will cover the fundamental principles of electricity and magnetism, AC & DC circuits, electromagnetic fields and waves, optics, relativity and quantum and atomic physics.

PHY* K221 - Calculus-Based Physics I °

4 CREDIT HOURS
Prerequisite: MAT K254 highly recommended.*
Corequisite: MAT K254.*
This is a calculus-based introduction to the basic concepts of classical mechanics. Major topics will include Newton's laws, motion in n-dimensions, periodic motion, thermodynamics, energy, hydrodynamics, and an introduction to material science. The course will emphasize the theoretical aspects of physics and will help the student develop effective problem solving strategies. Laboratories will be designed to allow the student to visualize the important concepts introduced in lecture and to increase student understanding of the scientific process. There will be two hours of lecture, one hour of problem solving, and three hours of lab each week.

PHY* K222 - Calculus-Based Physics II °

4 CREDIT HOURS
Prerequisite: PHY K221.*
This is a continuation of PHY* K221. Major topics will include continuation of the study of solids, electromagnetic phenomena, Maxwell's equations, and atomic and sub-atomic phenomena. Laboratories will center around studying electromagnetic phenomena and enhancing student knowledge of the relationship between electricity, magnetism and light. There will be two hours of lecture, one hour of problem solving, and three hours of lab each week.

Political Science

POL* K103 - Introduction to International Relations °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a survey of the factors which influence the policies of modern nation states. Concepts in world politics, such as balance of power, imperialism, diplomacy, international law, and international organizations will be analyzed.

The causes of international tensions with emphasis on contemporary conflict situations will also be considered. Course fulfills International/Intercultural Requirement.

POL* K111 - American Government °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Through open discussion of political issues and controversies, this course examines the framework of our democracy. The broad study focuses on the strengths and weaknesses of American national government. Topics such as election campaigns, political parties, presidential power, and individual liberties are explored.

POL* K112 - State and Local Government °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course will examine the forms, functions, processes and challenges of state and local government in the United States. Emphasis will be placed on the efforts of state and local governments to cope with the contemporary social, economic, and political problems. Particular attention will be given to the history and structure of state and municipal government in Connecticut, including the legislative process of the Connecticut General Assembly.

POL* K200 - Issues in Contemporary American Politics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better, and completion of any 100-level Social Science course.*
This course will explore all sides of the various issues that are currently being discussed by politicians and the electorate in America. These issues may include immigration policies, anti- poverty programs, gay and lesbian rights, legalization of marijuana, campaign finance reform, America's health care system, the USA Patriot Act, stem cell research, global warming, US military intervention abroad, abortion, gun control, crime. Since this is a seminar class, students will be expected to prepare multimedia presentations and participate in political debates to encourage independent thinking, critical analysis, and scholarly discussions.

POL* K212 - Constitutional Law and Civil Rights °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
An intensive study and analysis of the United States Constitution and especially the Amendments to that Constitution; a study and review of court decisions which interpret the Constitution; a comprehensive study of court decisions which determine police policy and consideration of specific guidelines which must be followed in the criminal justice process.

POL* K289 - Teaching Assistantship in Politics °

3 CREDIT HOURS
Prerequisite: At least two prior courses in politics, and permission of the instructor.
In this assistantship, students will assist a faculty member in conducting an academic course offered in the field of politics. Students may lead discussion groups, work with individual students, organize field trips, make presentations, and/or other work to be arranged.

POL* K295 - Connecticut Legislative Internship °

1 - 12 CREDITS HOURS
Prerequisite: Permission of the instructor.
This course is an active learning experience for the student as intern in the state legislature. A student must apply to be an intern by contacting Three Rivers Community College's faculty representative to the Legislative Intern program. In the classroom, students will learn about the General Assembly's lawmaking processes and skills that will help them to assist their appointed state legislator in servicing his/ her constituents. There will be an orientation in January prior to the start of this internship.

Psychology

PSY* K104 - Psychology of Adjustment

3 CREDIT HOURS
This course is a theoretical and experiential exploration and understanding of the self-encountering the self and the self-encountering the other. The course is designed to facilitate students' progress beyond "insight" to initiating constructive change where so desired. Topics include: the healthy personality, the body, emotion, self-disclosure, social roles, love, work, play, religion and self, communication patterns, families and healthy personality, and loss and death.

PSY* K111 - General Psychology I

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course provides an overview of the theories and research findings pertaining to scientific psychology with an emphasis on: the origins of psychology, nature and nurture, human diversity, theoretical models, research methodology, biological bases of thought and behavior, learning theory, sensation and perception, memory, stress and health as well as emotion and motivation.

PSY* K112 - General Psychology II

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course provides an overview of the applied and social aspects of scientific psychology with an emphasis on consciousness and cognition, human development, personality, theory and assessment, psychological disorders and therapy, social psychology and thinking, language and intelligence.

PSY* K200 - Child Psychology °

3 CREDIT HOURS
Prerequisite: PSY K111.*
This course presents the basic principles, current research and traditional theories of child development, from the prenatal period to the onset of adolescence, with an emphasis on the earlier years of childhood. Students will be guided in the development of a scientific and objective attitude toward the interpretation of child behavior and will study various methods of conducting research in child development. They will observe children and analyze their behavior in each of the following areas: physical abilities and motor skills, cognitive abilities as well as social and emotional developments.

PSY* K201 - Life Span Development °

3 CREDIT HOURS
Prerequisite: PSY K111.*

This course will study the physical, psychosocial and cognitive development of humans from birth to death. There will be an emphasis on distinct time periods such as conception and development of the fetus, infancy, childhood, puberty and adolescence, young, middle, and late adulthood, and gerontology.

PSY* K204 - Child and Adolescent Development °

3 CREDIT HOURS
Prerequisite: PSY K111.*
This course will examine childhood from conception through adolescence, with emphasis on the areas of emotional, social(personality), cognitive, language and physical development.

PSY* K216 - Normal and Exceptional Child and Adolescent Development

3 CREDIT HOURS
Prerequisite: PSY K111 or PSY* K112.*
This course examines changes in the individual from conception through adolescence, including both typical and atypical aspects of physical, cognitive, linguistic, and social/ emotional development. Traditional and contemporary theories of psychology, as well as current research and methodology, will form the basis of the course content.

PSY* K220 - Educational Psychology °

3 CREDIT HOURS
Prerequisite: PSY K111 or PSY* K112.*
Educational psychology encompasses learning, human development, motivation, and assessment. The major areas of emphasis for this course include evaluation of individual differences, theories of learning, developmental psychology's impact on education, effective teaching strategies, peer- reviewed educational research, behavior management and discipline, as well as tests and measurements. The course provides an overview of teaching, learning and classroom dynamics.

PSY* K240 - Social Psychology °

3 CREDIT HOURS
Prerequisite: PSY K111 or PSY* K112.*
This course presents an in-depth and extensive psychological study of social behavior. The major thrust of this course will focus upon attitude formation, language and communication, group interaction, leadership roles, and cultural forces. These factors will be examined as they affect individuals in contemporary society.

PSY* K243 - Theories of Personality °

3 CREDIT HOURS
Prerequisite: PSY K111 or PSY* K112.*
This course will study the major theories of personality, with emphasis on psychoanalytic theory, and descendants, learning theory, and phenomenological theories. Models in literature will be examined in the context of the major theories of personality.

PSY* K244 - Sport Psychology °

3 CREDIT HOURS
Prerequisite: PSY K111 or PSY* K112.*
A comprehensive study of the psychological concepts related to fitness and sports behavior.The course covers the history and evolution of this emerging field of study and practice. The course includes elements of experimental

psychology such as motivation, cognition, and learning which are also apparent in sports psychology. Additional topics include personal goalsetting, competitive anxiety, personality characteristic of athletes, psychology of coaching, team cohesion, and the effects of sports on spectators.

PSY* K245 - Abnormal Psychology °

3 CREDIT HOURS
Prerequisite: PSY K111 or PSY* K112.*
This course offers an introduction to psychopathology and psychotherapy. A study of emotional disturbance includes: neuroses and personality disorders, psychoses, psycho diagnosis, and psychotherapy with an emphasis on how disorders begin and various treatments that are used. Topics in the course are: the nature of neurosis, anxiety reactions, obsessive-compulsive reactions, depressive reactions, hysteria and psycho-physiological reactions, personality disturbance, sexual deviance, addictions, theories of psychosis, forms of psychosis, somatic therapies, psychoanalytic therapies, behavior therapy, client-centered therapy, and group therapies.

PSY* K247 - Industrial & Organizational Psychology °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better, or permission of the instructor.*
This course provides an examination of the structure and property of organizations with emphasis on business and industrial organizational functioning. Psychological factors include: motivation, leadership, group processes, incentives, and conflict resolution. This course is equivalent to BMG* K210.

PSY* K296 - Teaching Assistantship in Psychology °

3 CREDIT HOURS
Prerequisites: At least two prior courses in psychology and permission of the instructor.
In this assistantship, students will assist a faculty member in conducting an academic course offered in the field of psychology. Students may lead discussion groups, work with individual students, organize field trips, make presentations, and/or other work to be arranged.

Recreation and Leisure Services

RLS* K101 - Introduction to Recreation and Leisure Services °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course surveys the organization and operation of recreational programs offered by community agencies, recreation service centers, industry, hospitals, camps and municipal and state recreation departments. Field experience to acquaint students with the nature and diversity of programs and services are included.

RLS* K110 - Introduction to Sports Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course explores the field of Sports Management. The student will learn the history, current trends, and career opportunities. Other topics include: an introduction to sports law, event mangement, sports marketing, and ethics.

RLS* K218 - Organization and Administration of Sport and Leisure °

3 CREDIT HOURS
Pre-requisite: RLS K101.*
This course will focus on the many administrative roles that an Athletic Director/ Manager assumes when developing, maintaining or improving sports programs. Topics will include facility design, staffing, equipment, operating practices, risk management, programming, budgeting and insurance.

RLS* K294 - Sports and Leisure Management Practicum °

1-3 CREDIT HOUR(S)
Pre-requisite: Completion of 30 credits with a GPA of at least 2.5; completion RLS K101 with a grade of "C"; ENG* K101 or ENG* K101S; and two 200-level Sports and Leisure Management courses; or permission of instructor.*
This practicum is designed to give the student an opportunity to implement the skills an knowledge gathered through their Sports and Leisure Management course work. This real world experience will enable the student grow their knowledge, increase their professional development and gain valuable work experience.

Science

SCI* K250 - Integrated Science °

4 CREDIT HOURS
Prerequisites: Completion of ENG K101 or ENG* K101S with a "C" grade or better; completion of MAT* K095 OR MAT* K095I with a "C#" grade or better or a higher level math course.*
This course stresses the processes common to all earth sciences and organisms. Topics include scientific method, chemical principles, physical principles, biological principles and methods of discovery. Upon completion of this course, the student will be able to recognize terminology, specific facts, and general principles associated with the natural sciences. The student will develop basic science concepts, knowledge and skills, and the ability to carry out their own scientific inquiries. The content will be drawn from a wide range of scientific topics. This course is open to all non-science majors. This course does not meet the pre-admission requirement for the Nursing Program. Three hour lecture; one three hour laboratory.

Sociology

SOC* K101 - Principles of Sociology

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a study of the major concepts used in the field of sociology. The nature of institutions will be examined both individually and in their dynamic interrelationship. Emphasis is placed on understanding the impact of society on our lives, and on increasing our effectiveness in controlling our destinies within it.

SOC* K103 - Social Problems

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to increase the understanding of the nature, scope, history, causes and complexity of contemporary social problems. The course emphasizes not only the problems but also proposed strategies for solution. Topics are studied in the context of many societies around the world, including those of Europe, Asia, Africa, and Latin America, in order to provide the student with a global and multicultural perspective on the issues. Topics vary from

semester to semester according to current concerns and interests. Topics often included are poverty, crime, violence, substance abuse, racism, family issues, sexism, health care, environmental destruction, cities, and population. Course fulfills International/ Intercultural Requirement.

SOC* K210 - Sociology of the Family °

3 CREDIT HOURS
Prerequisite: Any 100-level anthropology, economics, history, political science, psychology, or sociology course; or permission of the instructor.
This course examines the history, structure, functions, and varieties of modern American families. Changing definitions of marriage, sexual expression, child rearing, sex roles, and divorce rates will be examined from a sociological perspective. Emphasis is less on personal adjustment in marriage and more on sociological explanations for why current trends are occurring and what implications they hold for the individual, family, and society.

SOC* K211 - Sociology of Gender °

3 CREDIT HOURS
Prerequisite: Any 100-level anthropology, economics, history, political science, psychology, or sociology course; or permission of the instructor.
This course is designed for anyone interested in a better understanding of what it means to be male or female in societies, past and present, in the U.S. and around the world. Some topics to be explored include the transformation of gender roles; women's rights in education and at the workplace; the problems of rape and domestic violence; gender in politics, the military, and religion; the impact of gender on intimate relationships such as love, sexuality, friendship, marriage and family; the nature of sexual orientation and the problem of homophobia; and the global struggle for human rights of women and gays. Interrelationships of gender, sexual orientation, social class, race and ethnicity will be studied as an integral aspect of the course. The class format varies - lecture, discussion, films, and speakers.

SOC* K213 - Human Sexuality °

3 CREDIT HOURS
Prerequisite: Any 100-level anthropology, psychology or sociology course.
This course explores the social aspects of sexualities as they exist across different social groups. Students will analyze the Western hegemonic ideal of "sexuality" and expand their understanding of the many influences on patterns of sexual behavior. This includes a close examination of sexualities in relation to ethnic and racial boundaries and evolutionary, historical and cross-cultural perspectives.

SOC* K218 - World Issues

3 CREDIT HOURS
Prerequisite: Any 100-level Social Science course, or permission of the instructor.
This course surveys social issues confronting the people of the United States and other nations due to ever-increasing global interdependence. Topics vary from semester to semester depending on current concerns and interests, but often include global poverty, economic globalization, sustainability, population growth, global health issues, the survival of indigenous peoples, and women's rights as human rights. Attention is paid to both the underlying social patterns giving rise to world problems, and to solutions proposed by actors on the world scene, including elites, grassroots movements, and international organizations such as the United Nations.

SOC* K220 - Racial & Ethnic Diversity °

3 CREDIT HOURS
Prerequisite: Any 100-level anthropology, economics, history, political science, psychology, or sociology course; or

permission of the instructor.
This course studies the relationships between racial and ethnic groups in diverse, multi-ethnic societies. It emphasizes the historical and social causes of prejudice and discrimination and their impact on the life experiences of the members of both dominant and subordinate groups in society. It also focuses on social movments to bring about racial/ethnic equality. The course also examines the issues in the context of many societies, including societies in Africa, Europe, South America, and the Middle East to provide the student with a broad-based understanding. Format of the course includes lectures, videos, speakers, and discussion. Course fulfills International/Intercultural Requirement.

SOC* K230 - The City °

3 CREDIT HOURS
Prerequisite: Any 100-level anthropology, economics, history, political science, psychology, or sociology course; or permission of the instructor.
This course will discuss the development of modern cities in both developed and developing countries, focusing on urban social issues such as housing and homelessness, racial and ethnic segregation, urban sprawl, environmental issues, and urban redevelopment.

SOC* K278 - Community Research °

3 CREDIT HOURS
Prerequisite: Any 100-level anthropology, economics, history, political science, psychology, or sociology course; or permission of the instructor.
Students volunteer with a community organization in a town of their choice, carrying out activities that will have some concrete result in addressing a social problem and meeting the needs of the community. Students may locate their own placement∞, with the instructor's approval, or work in a program of community research the instructor has developed with a local agency. Much of the work takes place at off-campus sites in the region. Students will gain experience in one or more primary research methods used by sociologists: participant observation, interviews, survey research, content analysis, or the use of existing documents. Students meet in a seminar a number of times to reflect on their experiences.

Spanish

SPA* K111 - Elementary Spanish I °

4 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces the basic principles of the Spanish language and provides a cultural understanding of the Hispanic world. The emphasis of the course is on developing and applying the basic skills of language learning: listening, speaking, writing and reading, through classroom activities. Language laboratory is available.

SPA* K112 - Elementary Spanish II °

4 CREDIT HOURS
Prerequisite: SPA K111.*
This course is a continuation of Elementary Spanish I. More advanced grammatical structures are introduced to continue developing the skills of language learning, to prepare students to begin expressing more complex thoughts in Spanish. Cultural topics and literary readings offer a wide range of historical, social, political and artistic information to increase the student's knowledge and understanding of the Spanish speaking world. Language laboratory is available.

SPA* K123 - Spanish For Professionals °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; or permission of the instructor.*
This course is an introductory course designed for students seeking a professional career in the areas of: healthcare, business, human services, customer service, management, criminal justice, hospitality, education, social work, travel and tourism among others. The course is focused on authentic and real-life situations. Students will learn the necessary grammar and vocabulary to be able to communicate in each field and in different situations. Hispanic culture will be the context of the speaking practice and students will utilize a variety of materials to encourage oral communication.

SPA* K204 - Spanish Conversation °

4 CREDIT HOURS
Prerequisites: SPA K112; ENG* K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; or permission of the instructor.*
This course is an intermediate level course designed for students who want to practice and improve their conversational skills in Spanish. The course is focused on authentic and real-life conversations about different topics. Hispanic culture will be the context of the speaking practice and students will utilize a variety of materials to encourage oral communication.

SPA* K211 - Intermediate Spanish I °

4 CREDIT HOURS
Prerequisite: SPA K112.*
Corequisite: ENG K101 or ENG* K101S.*
This course is an intensive and extensive review of grammatical principles offered in previous semester. More emphasis is given to communicative, writing and reading skills, and introduces selected readings from Spanish and Latin American writers. Course fulfills International/ Intercultural Requirement.

SPA* K212 - Intermediate Spanish II °

4 CREDIT HOURS
Prerequisite: SPA K211.*
Corequisite: ENG K101 or ENG* K101S.*
This course is a continuation of Intermediate Spanish I. It offers further practice and review, continued work on communicative skills, composition, and readings from Spanish and Latin American authors. Course fulfills International/Intercultural Requirement.

SPA* K296 - Teaching Assistantship in Spanish °

4 CREDIT HOURS
Prerequisite: At least two prior courses in Spanish or one course and previous experience, and permission of the instructor.
In this assistantship, students will assist a faculty member in conducting an academic course offered in the field of Spanish. Students may lead discussion groups, work with individual students, organize field trips, make presentations, conduct research, coordinate tutoring sessions, evaluate and revise material, collaborate with the class, and/or other work to be arranged based on learning objectives.

Social Science

SSC* K108 - Perspectives of Social Science °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞. Please note: Students who are concurrently enrolled in, or have completed career Introduction 101-level courses are not eligible.*
This team-taught course has a twofold purpose. The first is to introduce students to the major ideas in the social sciences and to the similarities and differences in emphasis among the fields of anthropology, economics, history, psychology, political science, and sociology. The second goal is to develop students' abilities to think critically in the social sciences, to evaluate evidence, identify assumptions, and in general, to learn how we know what we know. Perspectives courses are most appropriate for degree students enrolled in any of the career programs. However, Liberal Arts or General Studies students are eligible.

Technology (General)

TCN* K101 - Introduction to Engineering Technology

3 CREDIT HOURS
Corequisites: ENG K096; MAT* K095 or MAT* K095I. Please note: if completing ENG* K096 prior to enrolling in TCN* K101, a grade of "C#" or better is required for registration into this course.*
The course begins college level technological studies and shows the potential of further education and careers in technology fields. In particular the course introduces students to: the history of technology; the various fields of technology; the purpose and application of technology; the ethics of technology, and the limits and failures of technology. The course is team taught by technology faculty from several disciplines at the college with frequent guest speakers from local industry, government agencies, and other educational institutions. The course is composed of modules containing projects based on problems and challenges faced by local industry and case studies drawn from technology education resources such as NETEC, the South Carolina Advanced Technology Education Center for Excellence, and the Manufacturing Education Resource Center. Field trips and laboratory exercises give students opportunities to carry out measurements and apply technological principles. Measurement results will be used in the paired algebra course and in class and homework exercises.

TCN* K105 - Laser and Lab Safety

1 CREDIT HOUR
This course introduces important concepts and regulations for safety in laser and manufacturing labs and other work settings. Topics include safe handling of lasers, safe use of hand and power tools, hazard awareness and accident prevention, exposure limits, administrative and engineering controls, chemical hygiene and safety planning. The course is a requirement for all students beginning the Manufacturing Engineering Technology or Laser & Fiber Optic Technology associate degree programs.

TCN* K198 - Special Topics: Introduction to Solidworks

3 CREDIT HOURS
Co-requisites: CAD K106 and CAD* K107.*
This course and accompanying lab are designed to expand and enhance the student's ability to combine and apply mechanical design principles with Solid Works computer design techniques and capabilities. This course covers all the basic functionality of drawing automation: view creation, section design, drawing creation, creation of families of parts varying assembly configurations, collision/ interference detection, assembly motion modeling and animation, 3D photorealistic rendering of design, capture design intent in meaningful relationships between dimensions and geometries, mass properties, calculations: Mass, Volume, Surface Area, Center of Mass, Moments of Inertia, performs #D finite element and other kinds of analysis, ability to generate 3D CNC machine parts, rapid prototyping files, and accurate drawing. One hour lecture/discussion and four hours of lab per week.

TCN* K291 - Interdisciplinary Capstone Design Project °

3 CREDIT HOURS
Prerequisites: Permission of the department chair.
This course provides students the opportunity to apply the concepts, theories, and practices developed throughout their Technology course of study in a one-semester capstone interdisciplinary project. Students will work together in teams to solve real world problems related to their interrelated field(s) of study. Students will learn how to develop and present effective written and oral technical communications. A major portion of the course will be dedicated to hands-on lab time during which students will work on their projects. Throughout the course, faculty members will serve as consultants to guide the students and provide formative feedback. The course will culminate with a final technical presentation to faculty, students and invited industry guests. This course is intended for students in the second year of study.

TCN* K295 - General Engineering Technology Co-Op °

3 CREDIT HOURS
Prerequisite: Permission of the program coordinator.
Corequisite: Students must have completed all freshman level technology courses and have a GPA of 2.50 or better.
In this course, students will work in industry gaining hands-on experience while applying academic knowledge acquired during their first year of classroom/ laboratory college education. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by the co-op student during the semester internship.

TCN* K296 - General Engineering CO-OP II°

3 CREDIT HOURS
Prerequisites: TCN K295 and permission of program coordinator*

In this course, students will work in industry gaining enhanced hands-on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education along with hands-on experience gained in their initial co-op experience. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by the co-op student during the semester.

TCN* K298 - Special Topics: Parametric Modeling NX 10 °

3 CREDIT HOURS
Prerequisites: CAD K106/CAD* K107 or CAD* K250 /CAD* K251 or MEC* K150 /MEC* K151 . Prior industry experience in a CAD program will be evaluated by instructor.*
This course instills knowledge of Parametric Solid Modeling through the use of industry standard processes and programs. We will use Siemens NX 10/11as the software platform. Most work required will be computer based. Projects can be collaborative and turned in collectively.

Theatre

THR* K101 - Introduction to Theater °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a basic survey of theatre including: the literature, history, structure, critical theory, theatre arts, and important figures. Note: This course satisfies the fine arts requirement.

THR* K110 - Acting I

3 CREDIT HOURS
Acting is the art of giving tangible life to the characters in a play. To do this actors use their physical, mental, and emotional apparatus individually and in concert with their peers. This course deals with these basic issues as well as the many other related topics that arise naturally from them.

THR* K115 - Improvisation

3 CREDIT HOURS
This is a workshop course designed to make actors aware of themselves as creative instruments, working in orchestration with others to develop theater pieces.

THR* K121 - Play in Production I

3 CREDIT HOURS
This course will examine all aspects of production of a play. Students will work within the limitations of the college environment and explore stage management, publicity, costuming, makeup, limited set design, lighting, script analysis, and of course, acting. One play will be the focus of the course and will be presented at the end of the session.

THR* K210 - Acting II °

3 CREDIT HOURS
Prerequisite: THR K110 or permission of the instructor.*
This course builds on the skills and content taught in THR* K110 - Acting I with greater emphasis on movement and expression in historical "period" acting pieces from 1400 to 1880 as well as in post-modern pieces. The concentration will be on European styles of acting.

THR* K223 - Play In Production II °

3 CREDIT HOURS
Prerequisite: THR K121.*
This course is a continuation of THR* K121. Students will assume a leadership role in the production of a play, such as a more advanced acting role, publicity coordinator, stage manager, producer, technical supervisor, or assistant to the faculty director.

Women's Studies

WMS* K105 - Gender in the Everyday World °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course explores the core concepts central to the field of Women's and Gender Studies in connection to gender, sex and sexualities, race/ethnicity, and class. Some of the topics covered include feminism, social activism, sex trafficking, sexual assault and intimate-partner violence, influence of media, women in leadership, health care and reproductive rights, body image, and gender identity/expression. This course fulfills a liberal arts and sciences and/or humanities elective requirement. It does not fulfill a social sciences elective requirement.

Admissions

Admissions Office

Three Rivers Community College
574 New London Turnpike
Norwich, CT 06360
Phone: (860) 215-9016
Email: admissions@threerivers.edu
Visit: www.threerivers.edu/enroll

Three Rivers Community College has an open enrollment admissions policy. Applications for enrollment are accepted year round for the fall, spring, summer and winter sessions. Additional information on how to enroll, including requirements for enrollment, are described in this catalog under the How To Enroll section below. Applications for enrollment are also available at all high school guidance offices in the College's service area and at the College's off site office located at the Naval Submarine Base in Groton Connecticut.

Admission to the Nursing, Associate in Science degree is selective and governed by special admissions criteria as described in the admissions section of this catalog under Connecticut Community Colleges Nursing Program.

How to Enroll

Degree or Certificate Students

Step 1: Enroll in a Degree or Certificate Program

Enroll for the Fall and Spring semesters and Summer and Winter Sessions. Please be sure to complete your application at least two weeks before the semester or session begins. Your acknowledgment and acceptance letters will be sent to the email address you provide.

Three Ways To Enroll

- **Online**

  A credit/debit card is required (as well as a valid email) to complete the online application. However, former Three Rivers students or applicants of any Connecticut Community College do not need to pay the $20 application fee.
  Online enrollment is available for first-time college students and students with prior college experience (transfer in or readmit).

  # Go to Three Rivers online application

  International Students: refer to the International Student Application Process

- # By Mail

  Download the enrollment application and view our degree and certificate programs including the enrollment steps at: www.threerivers.edu/enroll.

Mail to:

Admissions Office
Three Rivers Community College
574 New London Turnpike
Norwich, CT 06360

- # In-Person

If you need help completing your application, please come to the Admissions Office/Welcome Center. You can complete an application in person or download the application and view our degree and certificate programs including the enrollment steps at: www.threerivers.edu/enroll.

Check the Three Rivers events page to see any upcoming enrollment events. Also, check our Hours, Important Dates and Contacts.

Step 2: Apply For Financial Aid

Students are strongly encouraged to complete the online Free Application for Federal Student Aid (FASFA) using the Three Rivers Community College school code **"009765".** The first step is to create a Federal Student Aid (FSA) ID. Your FSA ID is made up of your user name and password and is used to confirm your identity when accessing your financial aid information. After completing your FSA ID, you can complete the financial aid application at: www.FAFSA.ed.gov. Seven days after completing this process, contact the Three Rivers Financial Aid Office at (860) 215-9040 or log into www.my.commnet.edu to find out your eligibility status. Instructions for logging into myCommNet will be provided with your emailed acceptance letter. For more information on creating a FSA ID and completing your FASFA application, please visit our Financial Aid website.

Recommended Financial Aid Deadline - to be eligible for maximum grant aid is **May 1**.

Step 3: Submit Supporting Documentation

- **Proof of high school completion or equivalent -** Required for students seeking a degree or certificate, as well as students applying for financial aid. Please submit a copy of your high school transcript with graduation date **(required only if you graduated within the last 5 years),** high school diploma, General Education Diploma (GED) certificate or State High School Equivalency diploma. **High school seniors** should request from their guidance counselors that a copy of their current transcript be sent to TRCC to assist in course placement. The final transcript should be sent after graduation. Once an applicant has submitted official transcripts from another school, they become the property of the College and will not be returned to the student. This applies even if the applicant does not enroll.

- **Immunization requirements -** Connecticut State Law requires all students born after 1956 who are enrolled in a degree and certificate program to provide proof of adequate immunization against **measles, mumps and rubella; and varicella** (chicken pox) for those born in the United States after 1979, and for all those born outside the United States. Students must have two doses of each vaccine administered at least one month apart with the first dose given on or after the first birthday. For more information, including exemptions download and review the State Immunization Policy Form (pdf).

NOTE: Three Rivers recommends that you provide us with these documents at the time of application, but we can begin the admission process if these items are still pending. However, proof must be provided before you can register for classes.

- **Course Placement and Testing** - Course Placement is a multiple measures assessment of basic skills in English and mathematics. Assessment for course placement may be necessary to help advisors assess readiness for college-level classes and assist in selecting appropriate courses.

Every incoming student is assessed for math and English skills, which may be evaluated in several ways:

- **Accuplacer Placement Test:** all new, first-time students are required to complete this test.

- **SAT and/or ACT scores (optional):** if you took these tests, your scores will be included for placement consideration.
  Students who have taken the SAT within the past *5 years* may be waived from the **English portion** of the Accuplacer placement test if the following test scores are met:

  - **Test date prior to March 2016:**
    SAT Critical Reading OR SAT Writing : 450 or higher
  - **Test date March 2016 or later:**
    SAT Reading: 25 or higher
    OR
    SAT Writing & Language: 26 or higher

  Note: If you are a *new first-time college student* and your SAT score meets the English placement test waiver, *you* will need to schedule the "math only" portion of the test. Please submit a copy of your scores to the Admissions Office.

- **High school transcript:** all students who graduated high school within the last five years must provide their transcript.

- **Prior college courses:** documentation of previously earned college-level credits may fulfill your requirement.

Learn more about our Testing Center.

NOTE: Multiple measures course placement assessments and prerequisite courses help to maintain the integrity of the level of instruction in the classroom. Applicants who lack the necessary math or English backgrounds may enroll with the understanding that they will take advantage of the college's developmental courses in math and English prior to pursuing the curricular of their chosen programs.

STEP 4: Register For Classes

Registration Deadline - Registration ends the day before the semester or session begins.

Detailed information on the course registration process will be provided in your acceptance letter.

- **New, First-Time college students** - After placement testing, students are invited to meet with an academic advisor to register for their first semester and learn about our degree programs and strategies for college success.

- **Transfer or Readmitted college students** (those who have previously attended college) will meet with an advisor to review previous college work and select classes. Students should bring copies of their prior college transcripts in order to facilitate the registration process.

After students register for their initial semester at TRCC, degree-seeking transfer students should have their official college transcripts sent to the Registrar's Office for an official transfer credit evaluation and to add these classes to their TRCC transcript.

Payment of fees is expected at the time of registration. Total tuition owed is payable by the payment date deadline specified by the college each semester. Your official financial aid award can be applied as payment. Payment plans are available if you register for 6 or more credits. Contact the Cashier's Office at (860) 215-9026 for more information.

Note: Students seeking readmission who have been on academic or disciplinary suspension should refer to the General Academic Information section of this catalog.

Once all of the above requirements have been met, and you are ready to register, you can meet with an advisor to select courses. Walk-in Advising and Registration Hours

Back to Top

Visiting or Non-Degree Students

You are a visiting or non-degree student if you are interested in enrolling in a credit course(s) at TRCC, but are not interested in pursuing a degree or certificate program here. Also, you are a visiting or non-degree student if you are taking a course at TRCC to transfer the credit to another college. You can enroll following one of the **Three Ways To Enroll** listed in the above section, or if you live out of the area, use the Combined Application and Registration Form under **Additional Information if you are a Visiting or Non-Degree Student** at www.threerivers.edu/enroll.

You will need to provide proof of completing any prerequisite required for the course(s) you select; these prerequisites are listed in the course descriptions.

Applicants admitted as non-degree students may subsequently become degree candidates by complying with the degree seeking student requirements and completing a Program Change form available from our website or from the Admissions Office/Welcome Center.

At Three Rivers, non-degree students generally include students pursuing credit courses for personal interest or skill development for career advancement, college students that are home for the summer, students fulfilling requirements for other colleges, and senior citizens.

Non-degree students may be required to take a placement test or provide additional course placement criteria. Information about registering for classes is sent to new non-degree students with their acceptance letter. The acceptance letter is sent to the email address that the student provides on the Application to the College. Non-degree students must provide proof of immunization when they register for 12 or more credits in a semester. For more information on the State Immunization Policy, including exemptions from this requirement, refer to the State Immunization Policy Form (pdf).

NOTE: Non-Degree students are not eligible for Financial Aid.

Back to Top

International Student Application Process

If you are applying for a student visa (F1), please complete the following procedures at least six weeks in advance of the semester in which you wish to enroll. Special circumstances may be considered on an individual basis.

Please submit the following documents to the Admissions office:

- **Download the Enrollment Application** and view our degree and certificate programs including the enrollment steps at: www.threerivers.edu/enroll.
- **Proof of High School Graduation:** Attach a copy of the original diploma that certifies high school graduation. A translation or statement of educational equivalency by an authorized official or service may be necessary.

  Credential Evaluation Services:
  World Education Services (WES)
  Center of Educational Documentation (CED)

- **Immunization:** Please refer to the State Immunization Policy Form (pdf) for detailed information on this requirement.

- **English Proficiency:** Three Rivers does not provide qualified intensive English as a Second Language instruction. For this reason, all international F-1 students must have sufficient proficiency in English to allow them to enroll in a full-time program. All new students are required to take a computerized placement test to assess basic skills in English and mathematics and demonstrate English proficiency. If you are *not* currently in the United States (U.S.), a **TOEFL (IBT79) or IELTS (6)** score is required. Learn more about our Testing Center.

- **A Copy of Your Passport** with expiration date including the attached I-94 and, if applicable a copy of your previously issued I-20.

International Student Expenses

Students living with a sponsor, provide a notarized affidavit of support by a sponsor who is a United States (U.S.) citizen or permanent resident stating that he or she will assume responsibility for room, board, and usual and emergency expenses. If you depend on funds from a source outside the United States, it may be necessary to determine if restrictions exist. You must submit copies of bank statements certifying that sufficient funds are available to cover your tuition, fees, and books for at least one year.

Students living independently, provide proof of your ability to cover educational and living expenses in U.S. currency. Submit copies of bank statements certifying that sufficient funds are available to cover your tuition, fees, and books for at least one year.

Applicants for a student F-1 visa should refer to the following International student web page for more information: www.threerivers.edu/international or contact the Admissions Office at (860) 215-9237.

Student Resource - The following page provides information on how to study in the United States and how to maintain your visa status: http://studyinthestates.dhs.gov/

- **Please Note**
  - Three Rivers Community College does not have dormitories available for students. Students are responsible for making their own housing arrangements.
  - Foreign Students on Student Visas do not qualify for Financial Aid.
  - Foreign Students on Student Visas are required to enroll in a full-time program of study each semester.

Back to Top

Connecticut Community College Nursing Program

Students seeking admission to the Three Rivers Community College Nursing Program must fulfill nursing admission criteria to qualify for this selective admission program. This criteria, in addition to the general admission policies of the college can be found in the Nursing Information Packet.

The application period for the nursing program is **November 1 - February 1 each year**. All CT-CCNP applicants must complete the online nursing program application and submit all related documentation to the Admissions Office at the College of First Choice by **the February 1st deadline**. The "College of First Choice" is the college that the applicant would most like to attend. www.ct.edu/academics/nursing#apply

Prospective nursing applicants are strongly encouraged to attend a nursing information session to learn more about this selective admission program. For upcoming sessions visit the college website at: www.threerivers.edu/nursing-admissions.

All documents regarding nursing admissions should be addressed to:

Nursing Admissions
Three Rivers Community College
574 New London Turnpike
Norwich, CT 06360

(860) 215-9056

Email: nursingadmissions@threerivers.edu

Back to Top

Early Admission Students

High school students can be accepted for early admission and may also participate in the **High School Partnership program** and the **College Careers Pathways** (Tech Prep) program through their local high school.Three Rivers' Admissions Director can provide information on High School Partnerships and the college program coordinators work with participating high school counseling offices.

1. High School Partnership Students

High school juniors and seniors attending schools participating in the High School Partnership Program are required to submit a special application available at participating high school guidance offices. Priority is given to high school seniors. Students are required to submit a current high school transcript and take a Placement Test in order to demonstrate ability to succeed in a college level course. Course selections are determined by placement test scores, *SAT or ACT test scores (if available)* and a review of your high school transcript.

Eligible students may enroll in one credit course in the designated fall or spring semester on a space available basis. Scholarships cover the cost of tuition, college service fee and student activity fee only. Special fees, such as course lab fee and art studio fee, book/supplies and transportation are the student's responsibility. To determine if a high school participates in this program and to learn about other opportunities, interested students should call the Admissions Office at (860) 215-9237 or visit the High School Partnership website.

2. College Career Pathways Students

The College Career Pathway program (CCP) is a concurrent, or dual enrollment program administered by Three Rivers Community College (TRCC). Students gain exposure to the academic challenges of college while in their supportive high school environment, earning college credit at the time they successfully pass the course. Concurrent enrollment also facilitates close collaboration between high school teachers and college faculty that fosters alignment of secondary and post-secondary curriculum. The CCP program allows credits you earn in high school to be applied toward your college education. These college credits can be applied toward a program of study at TRCC OR another college or university.

CCP courses are taught during the regular high school day by qualified high school teachers who have been certified as adjunct instructors for TRCC by corresponding academic departments. CCP courses taught by high school instructors are as rigorous as the TRCC on-campus counterpart. TRCC and each high school collaborate to ensure the content, assignments and assessments of CCP Courses are the same as courses offered on the TRCC campus. CCP students become a TRCC student once enrolled in a CCP course at their high school. As such, CCP students are given access to all college supports such as the Donald R. Welter Library, the tutoring center and fitness centers. For further information please contact the CCP program office at 860-215-9297 or visit The College Career Pathways website.

3. Early Admission Student

Select students from area high schools and/or home schooled students may be enrolled in credit courses at Three Rivers prior to graduating high school. A letter of recommendation from your school counselor or principal is required, as well as demonstration of academic ability and personal maturity. Placement testing and all course prerequisites must be satisfied.

Back to Top

First Year Experience Course

Many of TRCC's programs of study require new and/or first-time college students to take the **First Year Experience course** *(IDS K105)* in the first or second semester of their college program, or before attaining 12 credits. This course is designed to engage students as active participants within the college environment. Students will have the opportunity to acquire academic skills, attributes, awareness of self as a learner, and to engage with the resources and activities within the Three Rivers Community College community.

Admission to English as a Second Language Courses

English as a Second Language (ESL) courses at Three Rivers Community College are designed to serve the needs of non-native speakers of English who have already attained basic fluency in English. These courses have been developed to enhance students' fluency in English. Students are placed in these courses through multiple measures assessment including placement test scores and an essay.

Admission to Developmental Courses and Courses with Embedded Support

These courses are designed to help students whose academic skills need development before they take required courses in their plan of study. Students needing skill development in mathematics or English courses are required to complete specific courses determined by multiple measures assessment.

Back to Top

Veterans and Reservists Educational Benefits

a. Veterans and other students eligible for Veterans Administration (VA) education benefits must complete the College's application procedures for degree or certificate programs. In addition, such students MUST contact the VA Representative, Terri DeBarros at (860) 215-9235 or tdebarros@threerivers.edu to complete the VA's application form. Those students who have served on active duty must also submit copies of their separation papers (DD214). Reservists or National Guard members eligible for the Montgomery GI Bill (Chapter 1606 and 1607) must contact the College VA Representative and supply the Notice of Basic Eligibility form in order to file for benefits.

   See the **Tuition and Fees Information** section for specific dates and times of service to determine eligibility. Connecticut tuition waiver may apply to some veterans. You do not have to be in a degree or certificate program if you are only going to use the tuition waiver. Married veterans who are eligible for Montgomery GI Bill-Active Duty (Chapter 30) benefits and have remaining entitlement from old GI Bill (Chapter 34) benefits must have their marriage certificate and birth certificates of any children certified by either the Veterans Administration or the College VA Representative. Spouses and dependents who will be receiving transferred benefits under the Post 911 GI Bill or under Chapter 35, MUST also contact the VA Representative to complete the process.

   Since Veterans Administration benefits only cover courses which do not replicate any previously earned credits, students receiving VA benefits must have their official military and/or educational transcripts submitted for an evaluation of Military Learning.

b. Vocational Rehabilitation - For information, students should contact the Veterans Administration in Newington, CT at 800-827-1000

c. Veteran's Access, Choice and Accountability Act of 2014 provides the following students eligibility for in-state tuition.

   * A Veteran who lives in the state in which the institution of higher learning is located (regardless of his/her formal state of residence) and enrolls in the school within three years of discharge from a period of active duty service of 90 days or more.

   * A spouse or child using transferred benefits who lives in the state in which the institution of higher learning is located (regardless of his/her formal state of residence) and enrolls in the school within 3 years of the transferee's discharge from a period of active duty service of 90 days or more.

   * A spouse or child using benefits under the Marine Gunnery Sergeant John David Fry Scholarship who lives in the state in which the institution of higher learning is located (regardless of his/her formal state of residence) and enrolls in the school within three years of the Service member's death in the line of duty following a period of active duty service of 90 days or more.

   *** For more information please visit www.benefits.va.gov**

We are a Veteran Friendly Campus! Visit Three Rivers at: www.threerivers.edu/veterans-2

Back to Top

Students with Disabilities

Three Rivers Community College welcomes students with disabilities and strives to make their college experience successful. Students with documented disabilities have access to academic adjustments in accordance with all state and federal laws. Disclosure of a disability is voluntary. The link to the confidential disabilities disclosure form is provided to all newly admitted students in their emailed Acceptance letter or at our Disability Services website. Submission of this confidential disabilities disclosure form and appropriate documentation will start the eligibility process. Elevators are available and special parking areas and entrances are conveniently located near the elevators.

Services for students with disabilities are coordinated through the Counseling Center.

Phone: (860) 215-9017
Location: Room A-113

Back to Top

Regional Student Program of the New England Board of Higher Education [RSP/NEBHE]

Each New England State admits qualified out-of-state New England residents to its public, degree-granting two-year colleges providing that the students are eligible by either of the following rules:

Rule 1: When a degree or certificate program is not offered at an in-state institution, a qualified student may enroll at any participating out-of-state institution offering that program.

Rule 2: When a degree or certificate program is offered at both in-state and out-of-state institutions, and the out-of-state institution is closer in traveling time to a qualified student's legal residence, then the student may enroll out-of-state. Upon admission into a degree or certificate program at Three Rivers, qualified out-of-state students pay the in-state tuition plus a 50 percent surcharge. Additional information about the program may be obtained from the Three Rivers Admissions Office or from the New England Board of Higher Education, 45 Temple Place, Boston, MA 02111; 617-357-9620
Fax: 617-338-1577, or from the following website: www.nebhe.org/tuitionbreak

Note: NEBHE - a program for eligible Maine, New Hampshire and Vermont students. Rhode Island, Massachusetts and New York residents pay Connecticut In-State Tuition.

Back to Top

Public Disclosure

Student Right-To-Know Act

This page contains links to information reportable and disclosable under the Higher Education Act pf 1965 (HEA), as amended by the Higher Education Opportunity Act of 2008 (HEOA).

http://www.threerivers.edu/student-right-to-know-act-information/

Back to Top

Notice of Nondiscrimination

Title IX (Discussion, Reporting Process)

Three Rivers Community College does not discriminate on the basis of age, ancestry, color, genetic information, learning disability, marital status, past or present history of mental disability, intellectual disability, national origin, physical disability, race, religious creed, sex, including pregnancy, sexual harassment, transgender status, gender identity or expression, sexual orientation or civil union status, workplace hazards to reproductive systems, criminal record (in state employment and licensing), political beliefs, and/or Veteran status.

Three Rivers Community College strives to provide a safe and healthy environment for students, staff, and faculty. Sexual misconduct of any kind is not tolerated. If you or someone you know experiences any form of sexual misconduct, the college can provide assistance. For more information about Title IX and/or sexual misconduct, contact the Title IX Coordinator, Three Rivers Community College, 574 New London Turnpike, Norwich, CT 06360, (860) 215-9208.

Back to Top

Registration & Records

REGISTRATION WEBSITE:

Visit http://www.trcc.commnet.edu/Div_StudentServices/Registrar/Registrar.shtml

Registration Procedures

All students must be admitted to Three Rivers Community College in order to register for classes. Students should go to www.trcc.commnet.edu and click the "Registrar" link under the "Student Services" menu option to find registration dates, the schedule of classes, and specific registration procedures and policies.

New Students: For students who are attending college for the first time, course registration will take place after meeting with Advising staff. Advising staff will assess multiple factors, such as high school transcripts and placement test scores, in order to determine course placement. See the Admissions section for more details.

Transfer and Re-admitted Students: Transfer and readmitted students will meet with an advisor before registration. Students should bring test scores, unofficial transcripts, and/or grade reports of previous work to this meeting in order to register for classes at that time. Official copies of transcripts should also be sent directly to the Registrar's Office as soon as possible.

Continuing Students: Students enrolled in a degree program who have attended TRCC within the last two years may register online or in person during the Continuing Student Registration period, as defined on our Academic Calendar. Before a student may register for their second semester, they must meet with their assigned advisor. All students are encouraged to seek advisement whenever needed. TRCC also offers an electronic degree evaluation tool, found within "Banner Student & Faculty Self-Service," which may be used to assist students with course selection and graduation requirements. Please see the "Registrar" link under the "Student Services" menu option on our extranet page (www.trcc.commnet.edu) to access times, locations, and other information regarding registration.

Degree Candidate (Matriculated Student) - A Degree Candidate is a student who is in a plan of study at Three Rivers which, upon successful completion, will result in the award of either an associate degree or a certificate of completion. Degree Candidates qualify for Early Registration and are eligible for apply for financial aid.

Non-Degree Student (Non-Matriculated) - A student who is enrolled on a course-by-course basis and is not in a degree or certificate program at Three Rivers is considered a Non-Degree student.

Both matriculated and non-matriculated students may register for full-time (minimum of 12 credits per semester) or part-time (maximum of 11.5 credits per semester) enrollment.

Full-time students must meet College Immunization Requirements. **See the Admissions section for specific immunization requirements**.

Auditing Courses

A student who wishes to take a credit course without earning credit may register to audit the course. Audit requests must be submitted by the fourth week in the semester. Students who elect to audit may not reverse this choice at a later point. Auditors are charged regular tuition and fees but do not receive a final letter grade. Auditors attend class regularly but graded activities such as exams are limited. Audited courses are shown on a student's transcript with a grade of "AU." Students are not eligible to receive financial aid, Veteran Benefits, or Tuition Assistance for audited courses. Please check the Academic Calendar Fall 2018 - Summer 2019 for the specific Audit deadline.

Schedule Changes - Dropping and Adding Courses

Specific dates for semester and module courses are on the Academic Calendar Fall 2018 - Summer 2019 .

Adding Courses

Registered students may add courses in person through the first week of the spring and fall semesters, provided there is an opening in the desired class, and the student meets course prerequisites, where applicable.

Dropping Courses

Courses dropped in the Add/Drop period will not appear on the student's transcript. Students may drop courses online or in person through the first week of the spring and fall semesters. During the second week of the spring and fall semesters, students may only drop courses in person.

Withdrawing from Courses

Specific dates for semester and module courses are on the Academic Calendar Fall 2018 - Summer 2019 .

After the last drop date, as specified on the Academic Calendar, students may withdraw from courses online or by completing the appropriate form. Forms are available online or at the Registrar's Office. If you are unable to withdraw online or by submitting the withdrawal form, you may withdraw over the phone by calling the Registrar's Office. Withdrawals are accepted up until one week before classes end. Please be sure to check the specific date on the Academic Calendar. A grade of "W" will be entered for each course from which a student withdraws. The course(s) and grade of "W" will appear on the student's transcript, but will not affect GPA calculations.

Note: Failure to attend class is not an acceptable method of dropping or withdrawing. This will result in an "F" on the student's permanent transcript. This can seriously affect future reinstatement, transfer to another college, and/or financial aid. Non-attendance does not cancel the financial obligation of the student to pay the fees and tuition incurred at the time of registration for classes. Students will remain liable for any outstanding payments of tuition and fees due the College.

Registration between Connecticut Community Colleges

The Connecticut Community Colleges and the State Universities have adopted a coordinated policy that may broaden the student's education at a reduced total cost to the student.

- Full-time students (those paying maximum General Fund tuition) in one Connecticut Community College, Connecticut State University, or the University of Connecticut ("Home College") may enroll for courses at

another Connecticut College ("Host College") tuition free; if the Home College does not offer the course, and if space is available at the Host College offering the course. At Three Rivers Community College, cross-registration begins two weeks before the first day of the semester, as defined on the Academic Calendar.

- A student wishing to enroll in a Host College course must complete a Three Rivers Application for Admission and present a receipt at registration to show that the maximum full-time tuition was paid at the Home College. Cross-registration does not apply to self-supporting courses (courses offered by the College without financial assistance from the government) taken in the summer session and winter intersessions.

Summer & Winter Intersession Registration

Three Rivers Community College offers day and evening self-supporting courses during the summer and winter intersessions at a single tuition rate (Educational Extension Credit Program tuition rate). The College welcomes experienced students from other colleges and universities who wish to make up courses or earn advanced standing at their home institution. Credits earned at Three Rivers are generally acceptable to other colleges, but students are advised to consult their home institution for information regarding the transfer of credits. Students should follow the required admission and registration procedures. Generally, students enrolling in the summer session or winter intersession are admitted with non-degree status. Three Rivers students may attend the summer session to lighten their study load during the regular academic year, or to reduce the time needed to earn their degree(s). Students are encouraged to check the applicability of their course selection with their advisor. Information regarding summer session schedules and registration becomes available in March, and may be found online at www.trcc.commnet.edu.

Student Records

Retention of Records

Three Rivers Community College maintains the permanent records on all students: admission, academic, and financial aid. The records are retained in accordance with the State of Connecticut retention policies and schedules. Accordingly, secondary documents are periodically purged from student files after mandated periods of retention have expired.

Students Rights Under the Family Educational Rights And Privacy Act (FERPA)

1. **The right to inspect and review the student's education records within 45 days from the day the College receives a request for access.** Students should submit to the registrar, dean, head of the academic department, or other appropriate official, written requests that identify the record(s) they wish to inspect. The College official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the College official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. **The right to request amendment of an education record that the student believes is inaccurate.** Students may ask an appropriate College official to amend a record that they believe is inaccurate. However, FERPA is not intended to provide a process to question substantive judgments that are correctly recorded. Consequently, FERPA amendment requests do not allow a student to contest a grade in a course because the student believes that a higher grade should have been assigned.

   To request amendment of an education record, the student should write to the official, clearly identifying the part of the record he or she wants changed and specifying why he/she believes it is inaccurate. The institution will notify the student of the decision. If the institution decides not to amend the record as

requested by the student, a College official will advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when he or she is notified of the right to a hearing.

3. **The right to provide written consent before the College discloses personally identifiable information (PII) from the student's education records, except to the extent that FERPA authorizes disclosure without consent.** FERPA permits disclosure with a student's prior written consent under the FERPA exception for disclosure to school officials who have a legitimate educational interest. A "School Official" is a person employed by a College or University in an administrative, supervisory, academic, research, or support staff position (including law enforcement unit personnel and health staff); a person serving on the Board of Regents; an employee of the Board of Regents System Office; or, a student serving on an official committee, such as a disciplinary or grievance committee. A School Official also may include a volunteer or contractor outside of the College or University who performs an institutional service or function for which the College or University would otherwise use its own employees and who is under the direct control of the College or University with respect to the use and maintenance of PII from education records, such as an attorney, auditor, or collection agent or a student volunteering to assist another School Official in performing his or her tasks. A School Official has a legitimate educational interest if the Official needs to review an education record in order to fulfill his or her professional responsibilities for the College or University. Upon request, the College also discloses education records to Officials of another school in which a student seeks or intends to enroll without the prior consent of, or notice to, the student.

   FERPA also permits disclosure of education records without consent for circumstances including, but not limited to, the following:
   - To comply with a judicial order or a lawfully issued subpoena;
   - To appropriate parties in a health or safety emergency;
   - In connection with a student's request for or receipt of financial aid, as necessary to determine the eligibility, amount or conditions of the financial aid, or to enforce the terms and conditions of the aid;
   - To certain officials of the U.S. Department of Education, the Comptroller General, to state and local educational authorities, in connection with certain state or federally supported education programs;
   - To accrediting organizations to carry out their functions;
   - To organizations conducting certain studies for or on behalf of the College;
   - The results of an institutional disciplinary proceeding against the alleged perpetrator of a crime of violence to the alleged victim of that crime with respect to that crime;
   - Directory Information as defined in the policy of the Board of Regents.

4. **The right to refuse to permit the College to release directory information about the student, except to School Officials with a legitimate educational interest and others as indicated in paragraph 3 above.** This is called the "Opt-Out" option. A student exercising this right must notify the Registrar in writing. There is an "Opt Out" form on the college website at https://www.trcc.commnet.edu/wp-content/uploads/2017/06/ferpa-optout-form.pdf that can be used for this purpose. Once filed, this notification becomes a permanent part of the student's record until the student instructs the College, in writing, to remove it. A student may exercise his or her right to opt out of Directory Information, prohibiting disclosure of the student's information without the student's consent as noted in section 3, except however, that pursuant to the Solomon Amendment, military recruiters must be provided the same access to student information as is provided to nonmilitary recruiters.
5. **The right to file a complaint with the U.S. Department of Education concerning alleged failures by Colleges to comply with the requirements of FERPA.** The name and address of the Office is:

Family Policy Compliance Office

U.S. Department of Education

400 Maryland Avenue, SW

Washington, DC 20202-4605

Directory Information Policy

Acknowledging that Directory Information is FERPA-protected information that may be disclosed at the discretion of a College or University, it is the policy of the Board of Regents for Higher Education for the Connecticut State Colleges and Universities that disclosure of Directory Information is within the sole discretion of the College or University. Colleges and Universities may disclose Directory Information without the prior consent of the student only as provided herein.

The Board of Regents for Higher Education has designated the following as Directory Information:

For the purpose of access by military recruiters only, the following is designated as Directory Information (Student Recruiting Information):

- Student's name
- Permanent mailing address
- Telephone number
- Age
- Place of birth
- Class standing/year
- Major and/or program of study
- Degree(s) received
- Most recent educational institution attended

For the purposes of disclosure to, or access by, the general public, the following is designated as Directory Information:

- Student's name
- Permanent mailing address
- Photographs
- Dates of attendance
- Major, minor, concentration and/or program of study
- Degree/Certificate candidacy
- Degree(s)/Certificate(s) earned
- Awards
- Full or part-time enrollment status
- Anticipated graduation date(s)
- Graduation date(s)
- Student identification number

Financial Aid Information and Policies

Most financial aid at Three Rivers is provided by federal programs. Grants are considered "gift" aid and do not need to be repaid. Low interest loans are to be repaid over an extended period once a student ceases half-time attendance. Part-time employment is another form of assistance; the student is paid an hourly wage (Work-Study Program).

ANY INFORMATION PROVIDED TO THE FINANCIAL AID OFFICE IS TREATED CONFIDENTIALLY AND USED ONLY TO DETERMINE NEED AND AWARD OF AID.

The Financial Aid Office supplies information about the various forms of financial aid to students including grants, loans, scholarships, and work-study opportunities. This information is also fully described in the College catalog. Students must reapply each academic year for financial aid.

Applying for Financial Aid

The Free Application for Federal Student Aid (FAFSA) is available on-line at (www.fafsa.ed.gov). This application enables the student to apply for all sources of financial assistance awarded by the college as well as the Federal Pell Grant. The FSA ID - a username and password - has replaced the Federal Student Aid PIN and must be used to log in to certain U.S. Department of Education websites. Your FSA ID confirms your identity when you access your financial aid information and electronically sign Federal Student Aid documents. If you do not already have a FSA ID, you can create one when logging in to fafsa.gov or Studentaid.ed.gov. Upon completion of the application procedures outlined below, the applicant will have applied for all sources of aid available through the Financial Aid Office. Applications should be submitted to the Federal Government by May 1 for students enrolling in August (fall semester), or November 1 for students enrolling in January (spring semester). Adhering to these deadlines will assure students of priority consideration, and an answer concerning eligibility before the semester begins. However, applications are accepted throughout the academic year since financial aid is awarded to students until funds are depleted.

To be considered for financial aid, the applicant must complete the following steps:

1. Complete the process for admissions (see the Admissions section of this catalog for detailed instructions).
2. Create a FSA ID online at https://studentaid.ed.gov/sa/fafsa/filling-out/fsaid.
3. Complete and submit the Free Application for Federal Student Aid (FAFSA) on-line at www.fafsa.ed.gov.
4. Provide any additional documentation required by the Financial Aid Office after completion of the FAFSA application.

Determination of Need

Financial aid is granted on the basis of need. A student's financial need is the difference between the total cost of one academic year of study at the College and the total resources available to the student. This is based on information supplied on the Free Application for Federal Student Aid (FAFSA). The amount of aid awarded to a particular student is determined by the Financial Aid Office, and depends on the student's financial need and the availability of funds. The cost of education includes the direct costs of tuition, fees, books and supplies. It also includes indirect costs of personal expenses, transportation, meals, and housing costs.

Requirements for Financial Aid Recipients

Applicants must:

- be enrolled in a degree or certificate program by having completed all necessary admissions steps.
- be in good academic standing and making satisfactory academic progress. This is defined as a progression toward successful academic completion of course requirements for a degree or certificate by maintaining a minimum Grade Point Average (GPA) of 2.0 and successfully completing a percentage of the credits attempted on a cumulative basis. See the next section "Satisfactory Academic Progress Policy" for complete details.
- be a citizen or eligible non-citizen of the U.S. or Trust Territories.
- not be in default in the repayment of any educational loans or owe a refund on any Title IV grant program at any institution.
- be registered with the Selective Service if you are a male.

- have not been convicted of an illegal drug offense while receiving financial aid.

Satisfactory Academic Progress Policy

The Satisfactory Academic Progress Policy is available at:
http://www.commnet.edu/finaid/Documents/SAP%20Policy%201718%20-%20present.pdf

If you are currently suspended you can appeal your status by completing the following form:
www.commnet.edu/finaid/download/K/SAPappeal.pdf.

Satisfactory Academic Progress (SAP) Appeals Policy

Students may appeal any decision under the SAP Policy. A student must complete the Satisfactory Academic Progress Appeal form which one can obtain from the financial aid office and online at our website (http://www.commnet.edu/finaid/download/K/SAPappeal.pdf.). Appeals will be considered for emergency circumstances including illness, death of a family member or other unusual situations. All students MUST meet with an advisor first, and obtain the advisor's signature on the **Appeal Form** before the Financial Aid Office will consider their appeal. All students will be expected to provide clear evidence in their appeal form of the following issues: 1) state the reason for appeal 2) what has changed from the time when unsatisfactory academic progress occurred, and 3) how (s)he will be capable of overcoming past academic difficulties. In addition, students must provide third party documentation to support their claims (i.e., medical evidence of illness, death certificate, etc.).

Financial Aid Programs

Programs of Financial Aid described herein are subject to change due to Federal, State and local regulations or funding fluctuations.

Federal Pell Grant Program

This grant, based on need, is intended to be the "base" of a financial aid package, and may be combined with other forms of aid to meet the direct cost of education.

Federal Supplemental Educational Opportunity Grant (SEOG)

This program provides grants to eligible students demonstrating financial need. Preference is given to students with exceptional need. A student MUST be eligible for the PELL Grant to receive SEOG.

Roberta B. Willis Scholarship Program

The Office of Higher Education established this scholarship program to annually make need-based financial aid and need-based merit aid available to eligible Connecticut residents. They must be enrolled as undergraduates at

Connecticut's public and nonprofit independent institutions of higher education, and they must be registered for at least six (6) credits.

Community College Grant Program

This State program allows for the remission of tax supported tuition, fees, and cost of books for resident students who demonstrate substantial financial need.

Federal Direct Loan Program (Formerly Stafford Loan)

The interest rate is determined each academic year by the government. Payments are deferred until the student is enrolled less than half-time, or no longer enrolled.

College Work-Study Program

This program provides college jobs for students who need money. Students work up to a maximum of twenty hours per week during academic periods and up to thirty-five hours per week during vacation periods depending on their financial need and the availability of funds. Hours can be arranged to suit a student's academic schedule. Any student seeking work-study campus employment should contact the Financial Aid Office.

Scholarships - Three Rivers College Foundation and Departmental

The Three Rivers College Foundation Scholarship program awards both merit and need-based scholarships as well as department scholarships. Students may earn a scholarship based on financial status, academic excellence, service to the College and community, or a combination of these factors. To apply for any of these scholarships, the TRC Foundation Scholarship application and/or the Department Scholarship application must be completed and include all required attachments (essay, transcript, letter of recommendation and other requested materials). The Scholarship applications deadline is March 30, 2018 for the 2018-2019 academic year and March 29, 2019 for the 2019-2020 academic year. Learn more here.

Tuition, Fees, Refund Information and Policies

All Tuition & Fee Information

Tuition and Fees Payment Date

The payment date is 21 days prior to the first day of the term, or at the time of registration, whichever is later.

A student shall be considered to have satisfied payment requirements when paid in full; authorized financial aid/loan award; a formal payment agreement or an approved third party arrangement exceeding the account balance is on file in the Cashier's Office.

Students who are not in compliance with the payment requirement will be dropped for non-payment prior to the start of the term.

Payment plans can be established with manual or automatic payments. **CAUTION**: Payment plans that are set up with automatic payments will be deducted from your bank account on the date you've scheduled regardless of whether there is money in the account.

Non-Refundable Fees

All students at the time of registration for credit courses must make a non-refundable payment of the college services and student activity fees, plus lab fees, applicable to the courses for which a student is registered.

Tuition

Tuition charges are based on the number of credits and the student's residency status at the time of registration. Students who register for more than 17 credits in any semester will be charged an additional flat amount of $100 tuition. The total tuition owed is payable by the payment date deadline specified by the College each semester. All registrations between the announced deadline and the first day of classes shall be accompanied by full payment of all applicable tuition and fees unless an installment payment plan option, financial aid or other deferred payment arrangement option has been approved by the College.

Student accounts that have not been paid by the tuition due date are subject to a $15 late payment fee.

On-line Course Tuition And College Service Fees

Students registering for On-Line (distance learning) courses will be charged tuition and fees based on their residency status.

Special Fees (Non-Refundable)

Student Activity Fees:	
FT Student/Semester	$20.00
PT Student/Semester	$10.00
Educational Extension Fees:	
Academic Evaluation Fee	$15.00
Portfolio Assessment Fee	$100.00
Proctoring Fee/Test**	$15.00/$35.00

Auxillary Activity Fees:

Application Fee*	$20.00
Program Enrollment Fee (2)	$20.00
Transportation Fee	$20.00
Installment Plan Late Fee	$15.00
One Time Replacement of Diploma	$10.00
Credit by Examination Fee	$15.00
Returned Check Fee	$25.00
Replacement of Lost ID Card	$10.00
Late Payment Fee	$15.00
Installment Plan Fee	$25.00
CLEP Service Fee (3)	$15.00

**The application fee will be waived for those students who previously applied to any Connecticut Community College.*

***Proctoring fee of $15.00 for CCC students and $35.00 for non CCC students.*

Tuition and fees for Connecticut Community Colleges are established by the Connecticut State Colleges & Universities Board of Regents for Higher Education. These charges are subject to change by the Board of Regents without prior notice. Students are urged to consult the College's Website for complete and current tuition and fee information.

New England Regional Student Program (RSP/NEBHE)

Each New England state admits out-of-state New England residents for study at its public, degree-granting colleges, universities and institutions. At Three Rivers Community College, these students pay the same tuition and fees as a Connecticut student, plus a 50% surcharge. See the "Admissions" section for program eligibility requirements.

Tuition and Fee Waivers

Senior Citizens

Tuition, general fees, and the application fee are completely waived for people 62 years of age and over who wish to register for state-supported (General Fund) courses on a space available basis. Special fees must still be paid. Those requesting the waiver must present verification of date of birth. Senior citizens register at the conclusion of each registration period on a space available basis.

Connecticut Tuition Waiver

This waiver is available for eligible Connecticut veterans. Public Act 03-85 amended the definition of "service in a time of war." For purposes of identifying eligible veterans, Connecticut has adopted the Federal definition (U.S. Code 38 USC 101, as amended).

War periods include:

- Spanish-American War
- Mexican border period
- World Wars I and II
- Korean conflict
- Vietnam era
- Persian Gulf War (August 2, 1990 until a date prescribed by the President or law)

Periods beginning on the date of any future congressional declaration of war and ending on the date prescribed by the presidential proclamation or concurrent resolution of Congress.

Note: Because the Persian Gulf War is still in progress, veterans currently serving or who have served at least 90 days any time between August 2, 1990 and the date the Persian Gulf War ends are eligible for war service benefits. Connecticut continues to recognize certain smaller conflicts that are not included in the Federal definition:

- Lebanon conflict (7/1/58 to 11/1/58 Combat or combat support role only)
- Peacekeeping mission in Lebanon (9/29/82 to 3/30/84)
- Invasion of Grenada (10/25/83 to 12/15/83)
- Operation Earnest Will (escort of Kuwaiti oil tankers 2/1/87 to 7/23/87)
- Invasion of Panama (12/20/89 to 1/31/90)

To use the Waiver, students must present proof of service plus proof of residency. The latter may include rent receipts, tax bills, voter registration cards, or other documentation showing residence in Connecticut.

The 100% tuition waiver is applicable only to General Fund courses and is available for veterans if they are residents of Connecticut. In addition, any child of a Vietnam-era veteran who has been declared a MIA/POW is eligible, provided that the parent entered the service after January 1, 1960 and was a Connecticut resident upon entry or while serving in the Armed Forces. Veterans from other states who established residency through marriage to a Connecticut resident during the above times may also be eligible

Connecticut National Guard

The tuition of any eligible member of the Connecticut Army or Air National Guard shall be waived if they wish to register for state-supported (General Fund) courses. To be eligible for such a waiver, a member of the Connecticut Army or Air National Guard must: (1) be a resident of Connecticut; (2) present certification by the Adjutant General or his designee as a member in good standing of the Guard; and (3) be enrolled or accepted for admission to a community college on a full-time or part-time basis in a degree granting program. The tuition waiver shall be reduced by the amount of any educational reimbursement received from an employer.

Veteran's Access, Choice and Accountability Act of 2014

The Veteran's Access, Choice and Accountability Act of 2014 provides the following students eligibility for in-state tuition.

- A Veteran who lives in the state in which the institution of higher learning is located (regardless of his/her formal state of residence) and enrolls in the school within three years of discharge from a period of active duty service of 90 days or more.

- A spouse or child using transferred benefits who lives in the state in which the institution of higher learning is located (regardless of his/her formal state of residence) and enrolls in the school within 3 years of the transferor's discharge from a period of active duty service of 90 days or more.

- A spouse or child using benefits under the Marine Gunnery Sergeant John David Fry Scholarship who lives in the state in which the institution of higher learning is located (regardless of his/her formal state of residence) and enrolls in the school within three years of the Service member's death in the line of duty following a period of active duty service of 90 days or more.

- For more information please visit www.benefits.va.gov.

Installment Payment Plan Policy

An installment plan option is available to students in good standing enrolled in General Fund courses for six or more credits during the fall or spring semesters. The first payment includes all general fees, the $25 installment plan fee and the first third of the tuition.

A student wishing to utilize the installment payment plan can enroll online via my.commnet.edu or in person at the Cashiers Office.

Payments must be made by the due dates indicated on the agreement to avoid the late payment fee ($15).

Tuition & Fee Schedule

Tuition and fees for Connecticut Community Colleges are established by the Connecticut State Colleges & Universities Board of Regents for Higher Education. These charges are subject to change by the Board of Regents without prior notice. Students are urged to consult the College's website for complete and current tuition and fee information.

Click here to view the current breakdown of tuition & fee expenses.

Refund of Tuition and Fees

Student will receive a full refund of tuition and fees if the College cancels a course.

Refund of Tuition Only

Please refer to the Academic Calendar or the website for refund deadlines. Requests for refunds of tuition must be directed to the Registrar's Office by mail, e-mail (registrar@trcc.commnet.edu) or fax (860-215-9919). Students should retain a confirmation receipt for their records.

Withdrawal and reduced course load requests may also be made in person at the Registrar's office during normal business hours.

Note: College Service and Student Activity fees are not refundable unless the college cancels the course.

Fall and Spring Full Semester Courses

Students who wish to drop all registered courses and receive a refund shall direct their request to the Registrar's Office. If the written notice is received prior to the first day of classes for the semester, 100% of the tuition for all dropped

courses will be refunded. If written notice is received on or after the first day of classes for the semester through the first 14-calendar days of the semester, a 50% refund of tuition will be made.

Fall and Spring Module Courses

Students wishing to drop from modular courses with beginning and ending dates which do not correspond to the full semester schedule are required to direct their request to the Registrar's Office. This must be done prior to the first scheduled class meeting in order to receive a 100% refund of tuition. A 50% refund of tuition will be granted if written notice is received according to the following schedule:

1 week module - within the first day of the module

5 week module - within the first 5 calendar days of the module

6 week module - within the first 6 calendar days of the module

7 week module - within the first 7 calendar days of the module

8 week module - within the first 8 calendar days of the module

Reduction in Course Load

For a reduction in course load which occurs on the first day of classes and through the fourteenth calendar day of that semester, 50% of the difference of the tuition applicable to the original and revised schedule will be refunded.

Reduction in Course Load for Financial Aid Students

Financial Aid students who reduce their course load will incur the same costs as non-financial aid students, but these costs and credits are not included in determining their financial aid amount. Awards are based on the number of credits the student is registered for at the conclusion of the add/drop period. Please contact the Financial Aid office if you have any questions.

Summer and Winter Session Courses Supported by the Educational Extension Fund

Students who wish to drop all registered summer or winter session courses shall direct their written requests for course drops and refunds to the Registrar's Office. One hundred percent of tuition will be refunded if notice is received prior to 4:00 p.m. on the day preceding the first scheduled class meeting (requests must be received by 4:00 p.m. Friday for courses that meet first on Monday). No refund of tuition will be granted if the notice is received on or after the first day of class.

Refund Exceptions

A 100% refund of tuition and fees is granted to students who enter the armed services before earning degree credit for that semester. In this case, notice and a certified copy of enlistment papers must be submitted to the Registrar's Office. No other refund of tuition will be granted for either full-time or part-time students beyond the 14th calendar day after the first day of classes. Exceptions to the tuition refund policy due to extenuating or extraordinary circumstances will

be considered upon written request submitted to the Dean of Administration via mail or email (waiverrequest@threerivers.edu). Please provide your full name and student I.D. number in the subject line along with a detailed request, contact information and backup documentation which can be attached to the email or faxed (860-215-9901).

Repayment Policy for all Federal Aid Recipients

Effective October 2000, regulations governing the administration of Federal Title IV Financial Aid Funds (i.e. Perkins Loan, Pell Grant, Supplemental Educational Opportunity Grant and Family Educational Loan Program) have changed. All students receiving this federal student aid who withdraw or stop attending all classes prior to the 60% point of the semester will be required to return and repay a portion of this funding.

In case of early withdrawal, the college is required to recalculate that student's financial aid eligibility and determine what percentage of federal aid has been earned based on the date of the student's withdrawal. (This percentage is directly proportional to the number of calendar days attended by the student divided by the number of calendar days in the semester.) Any "unearned" federal aid must be returned as follows:

- Any "unearned" federal aid collected by the college for student tuition and fees: These funds must be returned in total to the Federal Government. The student will then become liable to the college for this amount and will be billed accordingly.
- Any "unearned" federal aid paid directly to the student or on the student's behalf (bookstore charges, daycare, transportation, etc.): 50% of this debt will be forgiven, but the remaining 50% must be repaid to the Federal Government by the student within 45 days.

Since these Federal Title IV Regulations must be strictly enforced, all participating students are urged to take the following action to prevent potential problems in this area:

- Work closely with the Financial Aid Office to understand their rights and responsibilities under the regulations.
- Work closely with their academic advisor in selecting courses and determining reasonable academic loads for each semester.
- Consider the demands of work and family when deciding how many courses to take.
- Attend classes and maintain satisfactory academic progress as required. Failure to attend classes and to comply with these financial aid regulations will permanently jeopardize future eligibility for federal assistance.

Residency Requirement

To be entitled to the in-state tuition rates, established for Connecticut residents, a student must have resided in Connecticut for the past 12 months.

A student may also be eligible for in-state or New England Board of Higher Education (NEBHE) tuition rates if they meet one or more of the guidelines described on the Declaration of Eligibility for In-State or NEBHE Tuition Rate form. Contact the Admissions Office for a copy of the form and determination of eligibility.

Detailed information about qualifying as an in-state or out-of-state student for tuition purposes, can also be found at http://www.ct.edu/admission/tuition.

Student Services Information Including the Advising and Counseling Center

The mission of the Student Services Division is to provide a welcoming and supportive environment, which will enhance students' ability to achieve their highest potential through education programs, and services. Our activities and services strive to:

- Build community awareness of college programs and services
- Recruit and enroll a diverse student population
- Provide an environment that encourages learning beyond the classroom
- Develop student skills in decision-making, problem solving and leadership
- Encourage students to participate in community service, athletics, and cultural enrichment programs in the arts
- Recognize and encourage individual achievement
- Recognize alumni and include them in enriching programs and services
- Create opportunities for students to explore personal and career choices

The Advising and Counseling Center

Attending college is an exciting and challenging experience for students. So much is new: courses, people, learning and future opportunities. Along with the exciting, new experiences often come a variety of unexpected experiences. Whether a first-time, returning, or transfer student, there are often challenges to be managed: personal and family life, academics, time, and financial constraints. The Advising and Counseling Center supports students during these times and throughout their college journey. Staffed with dedicated professionals, the Advising and Counseling Center offers a full range of academic, career and personal support services. Counselors and staff work in conjunction with faculty to foster student growth and success. Services in the Center help students clarify and establish meaningful academic, career or personal goals, and help them build and implement action plans to fulfill their goals. One-on-one, workshops, assessments and special groups support students as they sort through competing interests and needs to achieve their goals.

Services of the Center focus on:

- Academic advising and counseling
- Career counseling and information
- Transfer opportunities
- Physical, psychological and special learning needs
- Employment counseling and resources for full and part-time jobs and internships
- Personal counseling and development
- Referral to community agencies and resources

Academic Advising

The Advising and Counseling Center is a major resource for students adjusting to and navigating through college. The Center focuses on academic success, developing the necessary skills and understanding for students to select courses, and successfully complete their degrees. Through group and individual advising, students are introduced to the wide array of services provided by the college. Students are prepared for their initial semester at the college and equipped with the knowledge of important tools and tips to be successful. Further into their tenure, students are supported with

ongoing advising regarding the choice of courses or the selection and change of major. Student learning styles are also assessed to understand strengths and needs, and help students improve needed skills. For more info click General Academic Information and Policies .

Career Counseling

The Advising and Counseling Center provides career counseling to support students' academic and career success. Focused on student empowerment, career counseling is an information-based service striving to expand student awareness of self, career options and effective pathways to achieve selected careers. A four-step model is used and includes: 1. Exploring personal values, skills, interests, and personal preferences. 2. Exploring the variety and reality of careers. 3. Relating academic majors to career outcomes. 4. Building academic and career plans to enhance success. Services include career assessment utilizing Focus 2 Career, interview preparation tools, individual and group counseling, and career events throughout the academic year. The new Virtual Career Services Office expands upon on-campus programming and support services with 24/7 access to career development information. Links to numerous resources provide career readiness and academic planning tools, self-assessment, interview practice, online job postings, employer on-campus recruitments, and career documents for students, faculty, and staff.

Employment Counseling

Most TRCC students work full- or part-time while enrolled at the college. Many look to enhance the significance of that work in relation to long-term career goals. Employment counseling is focused on helping students increase their understanding of and effectiveness in searching for and obtaining employment. An online student employment service lists full- and part-time jobs, and internships at www.collegecentral.com/threerivers. It is free and open to all students and alumni, providing employment opportunities locally and across the state. Students have unlimited free access to this service which also provides tutorials on writing resumes, interviewing, and job search. Each student can house their resume on the site and allow open access to employers working with the college. The site also hosts an online career portfolio where students can provide employers with examples of projects, art work, awards, etc. Individual appointments and group workshops for students help students to write effective resumes, enhance and practice interviewing skills, and implement job search strategies. Employers are welcomed on campus throughout the semester to recruit students. Ongoing collaboration with faculty across disciplines also support students' development of career awareness and job-search skills. Alumni are engaged to build networks for students seeking career information or employment in a variety of fields.

Personal Counseling

The Advising and Counseling Center provides confidential counseling and support to all students. Counselors are available to respond to the wide variety of questions and concerns students experience as part of college or their personal life. Individual and group counseling focuses on building life and academic skills as well as support for overcoming learning challenges such as anxiety, motivation, focus, study skills, test-taking strategies, and time management. A variety of programs target at-risk students and assess their strengths and needs. Counselors then work with these students to develop learning plans to build effective strategies and outcomes. Counselors are also available for faculty and students when personal or emotional needs arise in class or on campus. Referrals are made to community agencies and services as appropriate.

Disabilities

In compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1992, the college offers support services and reasonable accommodations on an individual basis to qualified students with documented disabilities.

Students new to college will find these services different from those of high school, and will be responsible for self-identifying the need for academic and classroom adjustments, and providing necessary support documentation to obtain it. All students receive information on this process in the admissions acceptance packet and it can be obtained in the Advising and Counseling Center. Students with disabilities are encouraged to meet with a disabilities service provider several weeks before registering for classes in order to allow adequate time for processing their needs and communicating those needs to faculty. All information is confidential between the student and the Counseling and Advising Center staff. Referrals to community resources for assessment are also available.

DEFINING REASONABLE ACCOMMODATIONS

A reasonable accommodation is a modification or adjustment to a course, program, service, job activity, or facility that ensures an equal opportunity for qualified students with disabilities to participate in, and enjoy the benefits of, a service, program, or activity. Aids, benefits, or services need not produce equal results, but must afford an equal opportunity to achieve equal results. When necessary, a disabilities service provider will consult with faculty regarding whether an accommodation would fundamentally alter the nature of the service, program or activity or whether an academic requirement is essential to the instruction being pursued or to any directly related licensing requirement. In doing so, a disability service provider will examine the following:

• Barriers between individuals with disabilities and the campus environment in accessing courses, programs, services, jobs, activities or facilities without accommodations;

• Requested modifications, accommodations, and auxiliary aids;

• Whether the proposed accommodations would fundamentally alter the nature of the course, program, service, job, activity, or facility;

• Whether an academic requirement is essential to the instruction or to any directly related licensing requirement;

• Whether effective alternatives exist that would allow the individual with a disability to participate without lowering essential requirements or fundamentally altering the nature of the program.

When the College determines that a modification related to facilities or communication would result in a fundamental alteration or undue burden, a disability service provider shall acquire the written opinion of the proper authority, i.e. department chair of impacted discipline, providing the reasoning supporting the decision.

Click here to download a confidential Disabilities Disclosure form. Submission of this form will start the eligibility process.

Community Resources and Referrals

Three Rivers Community College students can access support services pertaining to personal or family non-academic needs through a network of community based agencies. The Advising and Counseling Center has resource and referral information to help students in a wide variety of areas. These include, but are not limited to, mental health, basic needs (housing, food, energy), money management, addiction, health care, and family and parenting needs.

College Transfer

The Advising and Counseling Center provides students with information on transfer options to a variety of other educational institutions. This support includes:

- Individual transfer counseling and advising
- Group workshops on the process of transfer

- College Fairs with representatives from prospective transfer institutions
- Guaranteed transfer options to state and private colleges and universities

Transfer compacts with many state and private colleges are open to students who apply prior to the completion of 15-30 college-level credits. For other transfer students, counselors work to insure the completion of the maximum coursework at TRCC that will transfer to another college. Student Services Advisors and Counselors also provide information to incoming transfer students helping them understand the transfer-in process for credits from other educational institutions.

Guaranteed Admission, Dual Admission, and Transfer Agreements

The following programs have been developed to guarantee admission and to help students transfer successfully to four-year universities. Additional information on these programs is available on the web or at our Admissions or Student Development offices.

Guaranteed Admission to the Connecticut State University System: Central, Eastern, Southern, Western, and Charter Oak State College

Graduates of an associate degree program within the Connecticut Community College System with a grade point average of 2.0 or higher are guaranteed admission to the university of their choice within the Connecticut State University System.

In the case of majors for which articulation agreements have been adopted, Community College students preparing for transfer should follow the terms of the articulation agreement regarding course prerequisites, grade point averages, and other requirements stated in the agreement. Graduates of the Community College must complete the application by the date on the forms prescribed by the university, including the submission of all the required transcripts, documents and fees.

Dual Admission Agreement with the Connecticut State University System: Central, Eastern, Southern and Western

Three Rivers and the Connecticut State University System have entered into an agreement for incoming Three Rivers' students to dually enroll with a designated Connecticut State University. Students must apply for this dual admission program before they earn 15 college-level credits and must designate their school of choice at the time of application. Students are required to complete the Associate degree within five years of signing the compact and transfer to their designated college within two years of receiving the degree. Students are advised by staff from both schools throughout their associate degree program to assist in transferring at junior-level status. Students are guaranteed admission to the designated university upon completion of the degree with a 2.0 grade point average.

Transfer Ticket Agreement with the Connecticut State University System: Central, Eastern, Southern, Western, and Charter Oak State College

Transfer Tickets are degree programs that transfer to Connecticut State Universities and Charter Oak to ensure students do not lose any credits or be required to take extra credits in order to complete a bachelor's degree in that same discipline. After graduation from the degree plan at the community college, students are guaranteed full junior status and can complete a bachelor's degree in the specific majors. Select programs may have additional admission requirements. Please visit www.ct.edu/transfer for details of this program.

Articulation Agreement with Eastern CT State University Early Childhood Education:

Three Rivers' graduates with an Early Childhood Education, A.S. will be waived up to 18 credit hours of coursework in Eastern's Early Childhood Education program. Students are encouraged to meet with TRCC's Early Childhood Education Program Coordinator and Eastern's Education Department Chair to receive additional information.

Guaranteed Admission Program to the University of Connecticut

The Guaranteed Admission Program (GA Program) is an agreement between Three Rivers and the University of Connecticut. This program guarantees incoming Three Rivers' students in Liberal Arts and Science programs admission to UCONN's College of Liberal Arts & Sciences or College of Agriculture, Health & Natural Resources upon completion of an associate degree with a 3.0 minimum cumulative average or UCONN's School of Business with a 3.3 minimum cumulative average. The GA Program also includes a specialized major of Environmental Engineering Technology that requires a 3.0 minimum cumulative average. Students must apply for the program prior to attempting 30 college-level credits and must complete the Associate's degree within five years. In addition, an Intent to Enroll form for UCONN would need to be completed the beginning of the semester prior to transfer. Former UCONN students are not eligible.

Agreement Between the Connecticut Community College System and the Bachelor of General Studies (BGS) Program at the University of Connecticut

This program is an agreement between the Connecticut Community College System and the Bachelor of General Studies (BGS) Program at the University of Connecticut guaranteeing admission into the BGS program upon the successful completion of the associate degree with an overall grade point average of 2.7 or better. Students are also guaranteed that they will begin studies at UCONN with junior level status.

Agreement Between the Connecticut Community College Nursing Program and Central CT State

University, Fairfield University, Goodwin College, Quinnipiac University, Sacred Heart University, Southern CT State University, Saint Vincent's College, University of Bridgeport, University of Hartford, University of Saint Joseph, University of Wisconsin-Green Bay, and Western CT State University

The Connecticut Community College Nursing program has entered into agreements to provide seamless transfer for graduates of the Registered Nurse (R.N.) program to enter into a Bachelor's of Science in Nursing (B.S.N.). You may only apply after you are accepted into the Nursing program at TRCC. Please go to the following website for more details: http://www.ct.edu/academics/nursing

Admission Agreement with Albertus Magnus College - Undergraduate Adult Program

Three Rivers Community College graduates with an Associate of Science degree (A.S.) and a 2.0 g.p.a. may transfer to Albertus Magnus College (AMC) with up to 63 credits toward a Bachelor degree in Business Management. Students must articulate intent to enroll and complete the application process by meeting the admission criteria of two years work experience, providing two letters of recommendation, and agreeing to a review of discipline, criminal history, and accommodation needs. Program specific articulations for Accounting Transfer, A.S. and Business Administration Transfer, A.S. are in place. Courses graded below a "C" will transfer only with an earned Associate degree. An additional 9 credit hours of general education or elective courses may be taken at TRCC while attending AMC. Students will have the opportunity to meet with representatives from AMC on a regular basis.

Articulation Agreement with Charter Oak State College

Three Rivers Community College has an articulated agreement that students entering Charter Oak State College for a Bachelor's degree may be awarded up to 90 credits to meet the General Education and other distribution requirements at Charter Oak. Students will be advised by a representative from Charter Oak State College in order to meet their degree requirements.

Transfer Agreement with Fairfield University School of Engineering

The School of Engineering of Fairfield University will accept associate degree graduates from the Electrical, Laser and Robotics Engineering Technology, A.S. and Mechanical Engineering Technology, A.S. programs at Three Rivers into its baccalaureate degree program in Electrical Engineering and Mechanical Engineering provided that these transfer students have earned a grade point average of 3.0 or better (on a 4.0 scale). Students with a GPA between 2.5 and 3.0 will be considered on an individual-basis only. This transfer agreement requires that the student pass Fairfield's specified bridge course (EG 32), which may be offered online, and pass Calculus I at Three Rivers with a grade of B or better before matriculation at Fairfield University. Fairfield agrees to transfer in most of the general education, science and engineering courses taken at Three Rivers, up to 66 credits.

Guaranteed Admission Agreement with Mitchell College Criminal Justice Program

The Guaranteed Admission Agreement with Mitchell College's Criminal Justice Program allows Three Rivers Community College students who graduate with an Criminal Justice-Enforcement Option, A.S. up to 63 credits towards a Bachelor's Degree in Criminal Justice at Mitchell College. Students must earn a minimum GPA of 2.0 upon completion of the associate degree in order to participate in the program. All credits earned in the degree program with a grade of C or higher at Three Rivers will transfer to Mitchell. Students enrolled in this program will be advised by both Three Rivers and Mitchell College throughout their associate degree program.

Guaranteed Admission Agreement with Mitchell College Early Childhood Education

The Guaranteed Admission Agreement with Mitchell College's Early Childhood Education program allows Three Rivers Community College students who graduate with an Early Childhood Education, A.S. to transfer a minimum of 55 credits into the Early Childhood Education at Mitchell College. Students must earn a minimum GPA of 2.67 upon completion of the associate degree in order to participate in the program. Students need to be continuous in courses at Three Rivers and have a "C+" or better in all Early Childhood courses. Students admitted to Mitchell College are not guaranteed admission to the Teacher Certification program. Students enrolled in this program will be advised by both Three Rivers and Mitchell College advisors throughout their associate degree program.

Articulation Agreement with Post University - Sport Management

Three Rivers and Post University have established an agreement for Sports & Leisure Management students to transfer to Post University's baccalaureate degree in Sport Management. Students that earn a Sports and Leisure Management, A.S. and/or earn a "C" level or better in courses in the program of study will have all credits transfer toward the bachelor's degree in Sport Management at Post University.

Articulation Agreement with Quinnipiac University - Department of Health Sciences

Three Rivers and Quinnipiac University's Articulation Agreement promotes the transfer of students in TRCC's Allied Health programs including Exercise Science, Pre-Radiology, and Pre-Allied Health. Students transfer into Quinnipiac University's Health Science Studies Online Baccalaureate Degree Completion program. This program guarantees admission to Three Rivers' students to Quinnipiac University's Health Science Studies Online Baccalaureate Degree upon completion of the associate degree (60-68 credits) in an Allied Health program with a 2.5 minimum cumulative average. Students entering the program within two years of their graduation from TRCC will be eligible for a 10% discount off the published tuition price.

Transfer Agreement with Roger Williams University School of Continuing Studies - Criminal Justice

This articulation agreement allows students graduating from Three Rivers Community College with an A.S. degree in Criminal Justice - Enforcement Option up to 66 credits towards a Bachelor's Degree in Criminal Justice through Roger Williams University School of Continuing Education. Students must earn a minimum GPA of 2.5 upon completion of the associate degree and only credits earned with a grade of C or higher at Three Rivers will transfer.

Guaranteed Admission Agreement with Sacred Heart University

The Guaranteed Admission Agreement with Sacred Heart University serves to assist students in a seamless transition from Three Rivers to the University. This program guarantees incoming Three Rivers students admission to Sacred Heart University upon completion of the associate degree with a 2.5 minimum cumulative average. Students must enroll in this program prior to earning 15 college credits and the Associate degree must be completed within four years with up to a maximum of 66 credits. Certain programs at Sacred Heart may require a higher grade point average, additional prerequisites or a separate admissions application to enter their program. Students enrolled in this program will be advised by both Three Rivers and Sacred Heart throughout their associate degree program.

Comprehensive Articulation and Transfer Agreement with the University of Bridgeport

This Comprehensive Agreement serves to assist Three Rivers' graduates in A.A., A.S., and A.A.S. programs to transfer up to 66 credits into baccalaureate degrees at the University of Bridgeport. Students who graduate with the Associate degree and a GPA of 2.5 are guaranteed admission to the University of Bridgeport. Students completing the Guaranteed Admission will have application fees waived, expedited transfer admission, and seniority consideration for academic grants and on-campus housing. Students will have the opportunity to meet with the University of Bridgeport advisor each semester.

Guaranteed Admission Agreement with the University of Bridgeport

This Guaranteed Admission Agreement serves to assist Three Rivers' graduates in Accounting Transfer, A.S. , Business Administration Transfer, A.S. , or Marketing/Transfer, A.S. programs into baccalaureate degrees in the School of Business at the University of Bridgeport. Students who graduate with the Associate degree and a GPA of 2.5 are guaranteed admission to the University of Bridgeport in the following degree programs: Accounting, Business Administration, Computer Applications & Information Systems, Finance, Marketing, International Business, or Management. All courses with a grade of "C" or better will be accepted for transfer credit. Students who complete the Bachelor of Science degree at the University have the possibility of earning a Master's degree (MBA) with only one additional year of study.

Dual Admissions/Core to Core Transfer Agreement with the University of New Haven

The Dual Admission program allows for Three Rivers' students with Associate degrees in Arts or Sciences to transfer into any of the University of New Haven's Bachelor degree or Accelerated degree programs with junior status. Three Rivers' graduates must have a 2.5 or better grade point average and complete the intent to enroll form prior to applying to University of New Haven. Students with grade point averages under 2.5 will be reviewed on an individual basis.

Credit will be granted for transfer courses with a C grade or better; grades of C- or D may transfer with faculty or Dean permission. Financial grants to be awarded based on academic standing and enrollment status. Specific program to program agreements supersede this agreement. Both colleges will have designated advisors to assist students throughout the program.

Articulation Agreement with the University of New Haven - Criminal Justice Program

This articulation is an agreement between Three Rivers Associate in Science in Criminal Justice and the University of New Haven BS in Criminal Justice (BSCJ) offered by UNH's Henry C. Lee College of Criminal Justice & Forensic Sciences. Corresponding courses in the criminal justice program with a "C" grade or higher will qualify for transfer credit in addition to approved electives. Students may also enter into the Dual Admissions agreement listed.

Transfer Compact Agreement with the University of New Haven - Dental Hygiene Program

The Dental Hygiene Transfer Compact is an agreement between Three Rivers and the University of New Haven. This program provides for a smooth transfer from Three Rivers to the University of New Haven Dental Hygiene Program upon completion of the conditions for final acceptance, which include completion of the dental hygiene transfer compact General Studies Certificate or Associate in Science degree with a 2.7 minimum cumulative average and no less than a grade of C in all courses. All science classes must be taken within five years of transfer. Ten seats are reserved for TRCC transfer applicants. Students enrolled in this program will be advised by both schools throughout their program.

Articulation Agreement with the University of New Haven's Lyme Academy College of Fine Arts

Three Rivers Visual Fine Arts students may transfer from 47.5 to 60 credits of course work with grades of "C" or higher into the Bachelor of Fine Arts program at Lyme Academy/UNH. Three Rivers Visual Fine Arts students will be required to submit a non-refundable tuition deposit and successfully complete the Lyme Summer Transfer Session (no charge) prior to the first semester. Students are encouraged to meet with TRCC's Visual Fine Arts Program Coordinator, Sandra Jeknavorian, to receive additional information and will be advised by the Transfer Specialist from the Lyme Academy of Fine Arts/UNH.

Dual Admission/Guaranteed Admission Agreement with the University of Saint Joseph

This agreement allows for Three Rivers Community College students to dually enroll with the University of Saint Joseph's Weekend Program for Adult Learners during any semester to guarantee their admission into baccalaureate programs in the fields of Accounting, Management, Social Work, or Psychology. Academic advising and support provided by the community college and the University of Saint Joseph staff will help students to make a smooth transition based upon a planned program of study that will maximize transfer credits to their intended bachelor's degree. Students must earn a cumulative grade point average of 2.5 and must enroll in the Weekend Program within two years of completing their associate degree. Once accepted into the program, students will be able to participate in USJ student activities and college events and will have access to USJ library and network center.

Connecticut College of Technology

The Connecticut College of Technology is a concept rather than a physical college. There are two discrete plans: a pre-engineering plan and a pre-technology plan. After successfully completing the specific curriculum requirements, the student will be accepted into an engineering program at the University of Connecticut or a technology program at Central Connecticut State University with advanced placement status. For more information see the College of Technology program of study or contact Michael Gentry at (860) 215-9428 for specific information and course availability.

Student Services Information

Student Handbook

The Student Handbook provides information about the many college services available to students here at Three Rivers and includes a planner for the academic year. The Student Handbook is available online, in the Student Programs Office in room F211, and at the Welcome Center in room A113.

Student ID

All enrolled students can obtain a photo identification card at the Welcome Center in room A113. The IDs will enable the students to use the Library, Fitness Center, and the U-Pass. Though these IDs are not mandatory, they are a helpful means of identification for students both on and off campus. Students may also receive discounts at area retailers when displaying their ID at the time of purchase. The Student Programs Office in room F211 has a list of participating retailers. Lost IDs will be replaced, but a nominal fee may be charged for this service.

Student Insurance

All enrolled students are automatically covered under the free School Time Only Accident Insurance Plan. If you are injured on campus or during a college-sponsored event, contact the Security Office. Students who wish to file a School Time Only Accident claim, must first submit a claim with their primary medical insurance provider (if any). Any costs (including co-pays and deductibles) not covered by the student's primary provider can be submitted to the School Time Accident Insurance Provider. For more information, contact the Dean of Administration in room C241.

Student Programs

Students can enhance their experiences at Three Rivers by participating in student activities and events, helping them develop leadership skills and create friendships. Student Programs coordinates student activities on and off campus, and oversees the Student Lounge, the Veterans OASIS Center, Student Organization Office, and the Game Room. Student Programs advertises upcoming activities on their Facebook page (TRCC Student Programs Office), with flyers around campus, on the monitors throughout the campus, on Surge, the student online activity website, and produces The Campus Link, a weekly publication informing students of upcoming activities. A complete list of student organizations is available in the Student Programs Office in room F211, or on Surge.

Veteran Services and Benefits

Eligibility for benefit use is determined by the Veterans Administration. Eligible students may use VA benefits to pursue a degree or certificate as approved by the Veterans Administration. Only students enrolled in approved degree or certificate programs may apply for educational benefits, with the exception of voc-rehab students and those using only the CT tuition waiver. Once a student has registered, they must contact the College's Certifying Official to certify the enrollment to the Veterans Administration if the courses fulfill program requirements. The VA will then pay the appropriate benefits to the student and to the college if using Chapter 33 (Post 911) or Voc-Rehab. Continued eligibility or benefits is contingent upon the student complying with College regulations and confirming plan of study requirements. Only courses required for degree or certificate completion are covered by VA benefit programs. Additional courses selected by the student become the financial responsibility of the student. Students have the option of also applying for Financial Aid to assist in paying for classes. Advisement sessions and personal counseling are available to veterans. Interested veterans should contact the Veterans Representative, Terri DeBarros, in the Registrar's Office (860) 215-9235 for further information and assistance. Additional information for veterans can be found in the Admissions and Tuition, Fees, Refund Information and Policies sections in this catalog and at https://www.trcc.commnet.edu/student-services/veterans-resources/

Three Rivers Community College is committed to complying with the following Principles of Excellence:

- Provide students with a personalized Financial Aid Shopping Sheet covering the total cost of an education program.
- Inform students who are eligible to receive Veterans education benefits of the availability and potential eligibility of Federal financial aid before packaging or arranging private student loans or alternative financing programs.
- Avoid fraudulent and unduly aggressive recruiting techniques as well as misrepresentations, payment of incentive compensation, and failure to meet State authorization requirements.
- Obtain the approval of the institution's accrediting agency for new courses or program offerings prior to enrolling students.
- Accommodate service members and reservists to be readmitted to a program if they are temporarily unable to attend class or have to suspend their studies due to service requirements.
- Align institutional refund policies with those under Title IV, which governs the administration of Federal student financial aid programs.
- Provide educational plans for all military and Veteran education beneficiaries.
- Contacts who can provide academic and financial advising are Sharon Lincoln at (860) 215-9264 and Terri DeBarros at (860) 215-9235.

Veterans OASIS Center

It is the mission of the Three Rivers Community College Operation for Incoming Service Members (OASIS) Center to provide a place for student veterans to socialize with other veterans, as well as study and receive mentoring. The Center also serves as the College focal point for veteran's activities where student veterans can access services such as academic advising, Veterans Administration Benefits and counseling. The Veterans OASIS Center is located in room F203.

College Cafeteria

The cafeteria is a popular gathering spot for students and staff. Breakfast items, hot meals, hamburgers, sandwiches, salad bar, fried food items, and snacks are available when classes are in session. In addition to providing a comfortable

dining area, the cafeteria serves as a general lounge and study space. Cash, credit and debit cards are accepted. ATM and vending machines are also available.

College Bookstore

The Bookstore is located at the main entrance of the college. Students may purchase required and optional textbooks, both new and used as well as placing special orders. The campus bookstore also stocks school supplies, reference books, imprinted clothing, software, backpacks, and snacks. Bookstore hours of operation are published in the schedule of classes each semester. Students can also visit the bookstore web site at www.efollett.com.

Health and Wellness Center

Our fully equipped Health and Wellness Center is available free of charge to everyone who is actively part of the college community. In addition to the cardiovascular and weight training rooms, the center includes a studio room that is used for a variety of credit and non-credit programs, health screenings, mini workshops and Student Activities sponsored events. Showers and lockers are available within the center. The operating hours are generally Monday - Friday 7:00am-7:00pm. This schedule may vary due to semester break, class schedules, or during the summer. Participants wanting to use the center are required to complete a liability form and wear proper workout attire. If you have any questions regarding the center, please call (860) 215-9047.

Art Gallery

Three Rivers Gallery is a contemporary visual art space with rotating exhibits featuring works of emerging and established artists. Student Art Shows are hosted annually in April through May. Through relevant exhibitions with diverse perspectives, and related educational programming, the gallery is dedicated to providing cultural enrichment to the college and the surrounding community. The gallery has the unique opportunity to explore challenging subjects and provide a venue for artists whose work is best suited to non-commercial spaces.

Parking

Three Rivers clearly designates and differentiates student, handicapped, and staff/faculty parking areas for the convenience and safety of all. Designated student lots are to be used on a first come, first serve basis. Three Rivers has four designated faculty/staff parking lots; one next to the main entrance, the second across the street from the main entrance, a third parking lot adjacent to the Child Care Center between the main building and the Central Utility Plant (CUP) building, and a fourth behind the CUP building. During the day from 7AM - 6PM, these parking lots are to be used only by registered faculty and staff members. After 6PM on weekdays, the faculty/staff parking lots may be used as student overflow lots. Anyone who parks in State mandated handicapped spaces, fire lanes, entrances/exits, or Child Care Center drop off spaces for any other intended purpose will be immediately reported to either the Connecticut State Police or Norwich Police. Faculty, staff, and students who would like an escort to their vehicles can make that request at the main entrance security desk.

Lost and Found

The central location for processing, storing and releasing lost and found items is the Security Desk located in the main lobby. All lost items found on campus will be turned into the Security Officer at the Security Desk by the individual finding the item. Valuable items will be turned over to the Dean of Administration. Every reasonable effort will be

made to identify the owner of the item turned in and notification will be sent to their TRCC email. Flash drives and computers will be turned over to the Information Technology Division in an effort to determine ownership of those items. Inquiries concerning lost items and claiming lost items should be addressed to the Security Officer at the Security Desk.

Institutional Policies and Guidelines

Affirmative Action Policy/Nondiscrimination Statement

The Community College System of the state of Connecticut will not discriminate against any person on the grounds of race, color, religious creed, sex, including pregnancy, workplace hazards to reproductive systems, gender identity or expression, transgender status, age, national origin, ancestry, present or past history of mental disability, genetic information, marital status, sexual orientation or civil union status, learning disability, or physical disability, including, but not limited to, blindness, or prior conviction of a crime, unless the provisions of sections 46a-60(b), 46a-80(b), or 46a-81(b) of the Connecticut General Statutes are controlling or there is a bona fide occupational qualification excluding persons in one of the above protected groups. With respect to the foregoing, discrimination on the basis of sex shall include sexual harassment as defined in section 46a-60(8) of the Connecticut General Statutes. Although it is recognized that there are bona fide occupational qualifications, which provide for exception from employment prohibitions, it is understood these exceptions are to be applied pursuant to section 46a-68-33 of the administrative regulations. Further, the system will not discriminate against any person on the grounds of political beliefs or veteran status.

For more information, contact the Equal Employment Opportunity Officer, 574 New London Turnpike, Norwich, CT 06360.

Click on this link to see the complete Affirmative Action and Equal Employment Opportunity Policy Statement: http://www.ct.edu/files/pdfs/policy-affirmative-action.pdf

Title IX (Discussion, Reporting Process)

"No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance." This applies to recruitment, admissions, counseling, financial aid, academic access, discipline, single-sex education, athletics, and employment.

"Also, a recipient may not retaliate against any person for opposing an unlawful educational practice or policy, or making charges, testifying or participating in any complaint action under Title IX" (US DoEd).

The following person has been designated to handle student inquiries regarding the non-discrimination policies:

Victoria Baker, Interim Title IX Coordinator, Three Rivers Community College, 574 New London Turnpike, Norwich, CT 06360 (860) 215-9208 or vbaker@threerivers.edu.

Sexual Misconduct Reporting, Support Services and Processes Policy

CLICK HERE TO VIEW THIS POLICY:

http://www.ct.edu/files/pdfs/hr-policy-sexual-misconduct.pdf

Consensual Relationships Policy

CLICK HERE TO VIEW THIS POLICY:

http://www.ct.edu/files/policies/4.3%20Consensual%20Relationships%20Policy.pdf

Racism and Acts of Intolerance Policy

The Community Colleges have long been committed to providing educational opportunities to all who seek and can benefit from them, as evidenced in the mission statements and policies concerning student rights, affirmative action, and equal opportunity. The Board and the Colleges recognize that an important part of providing opportunity is creating a welcoming environment in which all people are able to work and study together, regardless of their differentness. At the same time, colleges and universities have traditionally been at the cutting edge of protection of our most cherished freedoms, most notably freedom of speech and non-violent action, which protect even unpopular or divisive ideas and perspectives. Such constitutionally-protected expression can contribute to an unwelcoming and even offensive social and educational environment for some individuals in the college community, particularly when it concerns race, religion, sex, sexual orientation, disability, national origin, or ethnicity, and the first amendment does not preclude colleges from taking affirmative steps to sensitize the college community to the effects of creating such a negative environment. Therefore, the Community Colleges recognize that they have an obligation not only to punish proscribed actions, but also to provide programs which promote pluralism and diversity and encourage the college community to respect and appreciate the value and dignity of every person and his or her right to an atmosphere not only free of harassment, hostility, and violence but supportive of individual academic, personal, social, and professional growth. Acts of racism or harassment directed against individuals or specific groups of individuals will not be tolerated and will be dealt with under the employee affirmative action grievance procedures and the student grievance and disciplinary procedures. Each college will provide a comprehensive educational program designed to foster understanding of differentness and the value of cultural diversity. This will include plans to (1) promote pluralism, (2) educate the college community about appropriate and inappropriate behaviors to increase sensitivity and encourage acceptance, and (3) widely disseminate this policy statement to the entire college community.

People with Disabilities Policy

The Board of Regents of Community-Technical Colleges and all of the colleges under its jurisdiction are committed to the goal of achieving equal educational opportunity and full participation for people with disabilities in the Community Colleges. To that end, this statement of policy is put forth to reaffirm our commitment to ensure that no qualified person be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program or activity on a Community College Campus or in the Central Office of the Board of Regents. The Board recognizes that a physical or functional impairment is a disability only to the extent that it contributes to cutting the person off from some valued experience, activity, or role. Higher education is therefore especially important to people with disabilities, since it aims to increase every student's access to valued experiences, activities, and roles. Improving access for students and employees means removing existing barriers that are physical, programmatic, and attitudinal; it also means taking care not to erect new barriers along the way. The efforts of the Community Colleges to accommodate people with disabilities should be measured against the goals of full participation and integration. Services and programs best promote full participation and integration of people with disabilities when they complement and support, but do not duplicate, the regular services and programs of the college. Achieving the goal of full participation and integration of people with disabilities requires cooperative efforts within and among institutions of higher education.

The Board of Regents will work with the board of governors to achieve a higher level of services and appropriate delivery methods at all Connecticut Community Colleges. This statement is intended to reaffirm the Board's commitment to affirmative action and equal opportunity for all people and in no way to replace the equal opportunity policy statement.

ADA Grievance Procedure for the General Public

A grievance is an allegation that an agent of the college has discriminated against the grievant on the basis of disability in violation of the Americans with Disabilities Act, 42 U.S.C. 12101 et. seq. (ADA). The following procedure shall apply only to members of the public.

How to file a grievance: A grievance must be submitted in writing to the ADA coordinator or such other college official as the president may designate within thirty days of the date the grievant knew or reasonably should have known of the alleged violation. The written grievance shall describe the discriminatory action and state briefly the underlying facts.

Procedure for grievance resolution: The ADA coordinator shall investigate the grievance in consultation with the college's affirmative action person and, within thirty days from the time the grievance was submitted, recommend to the president a disposition of the grievance. The president may accept or reject the recommendation or direct such further investigation as he or she deems appropriate. The president shall notify the grievant of the final disposition of the grievance within fifteen days of receiving the recommendation. (Adopted December 21, 1992)

AIDS and Other Communicable Diseases Policy

The Community College System reaffirms its commitment to provide a safe and healthy educational environment, safeguard the rights of individuals, and comply with state and federal anti-discrimination laws and regulations. Sound and compassionate legal, ethical, moral, and educational principles require that students and employees with AIDS, HIV infection, and other communicable diseases be accorded the same rights and assume the same responsibilities as all other members of the Community College community. It is recognized that the best method of allaying fears and promoting understanding is education: the dissemination of information based on fact and current scientific knowledge. People with AIDS and other communicable diseases shall be accorded the same rights as all other students and employees. State and federal laws and regulations prohibit discrimination against and harassment of individuals solely because of disability. No individual shall be discriminated against in any college programs, services, or employment solely because of his or her status as AIDS or HIV-infected or having any other communicable disease. Each college shall provide information and educational programs and activities concerning AIDS and other communicable diseases for students and employees. Such information and programs shall rely on the most current knowledge about such diseases and shall focus on how such diseases are and are not transmitted, how they can be prevented, and the rights of persons with such diseases. Each college president shall designate an individual responsible for coordination, delivery, and evaluation of the college AIDS education program. A committee representative of the college community should be involved in formulating educational and information activities. Restrictions shall not be placed on admission, programs, services, or employment offered to an individual on the basis of a diagnosis of AIDS, HIV infection, or other communicable disease, except in individual cases when it has been medically determined that there is risk of infection or danger to others or in programs from which individuals with specific communicable diseases are excluded by law or regulation. Colleges shall not require testing of students or employees for AIDS, HIV infection, or other communicable diseases for participation in employment, programs, or services of the college, except as required by law or regulation. Where possible, colleges shall maintain a listing of local referral sources for such testing and shall publish such listing with other educational information. All student or employee information related to inquiries, testing, and disclosure of AIDS, HIV, or other infection status shall be treated confidentially as all other health records. All reasonable steps shall be taken to protect the identity of an individual with AIDS. Students and employees involved in the direct delivery of health care services and those who might otherwise come in contact with blood and other body fluids (such as in science laboratories or allied health practica) shall at all times follow the guidelines regarding precautions to be taken in

the handling of such fluids disseminated by the Department of Health Services (January 1987) or other approved guidelines. Violations of any part of this policy shall be dealt with under the appropriate disciplinary procedures for students or employees. This policy shall be published in all college catalogs and student handbooks and shall be made available to all employees.

Drugs and Alcohol in the Community Colleges Policy

The Board of Regents of Community-Technical Colleges endorses the statement of the network of colleges and universities committed to the elimination of drug and alcohol abuse, which is based on the following premise: American society is harmed in many ways by the abuse of alcohol and other drugs - decreased productivity, serious health problems, breakdown of the family structure, and strained social resources. Problems of illicit use and abuse of substances have a pervasive effect upon many segments of society - all socio-economic groups, all age levels, and even the unborn. Education and learning are especially impaired by alcohol abuse and illicit drug use. The Board recognizes that education regarding alcohol and substance abuse is an appropriate and even necessary part of contemporary college life. Since the unauthorized use of controlled substances, in addition to the potential harmful effect it may have on students and employees, is contrary to state and federal law and regulation, it must be prohibited in any college activity, on or off the college campus. Although the conditions of alcohol and drug dependency may be considered disabilities or handicaps under state and federal law and regulation and Board of Regents policy, and employees and students will not be discriminated against because they have these disabilities, all students and employees are considered to be responsible for their actions and their conduct. These provisions shall apply to all colleges under the jurisdiction of the Board:

1. No student or employee shall knowingly possess, use, distribute, transmit, sell, or be under the influence of any controlled substance on the college campus or off the college campus at a college-sponsored activity, function, or event. Use or possession of a drug authorized by a medical prescription from a registered physician shall not be a violation of this provision.
2. All colleges shall develop and enforce policies regarding the sale, distribution, possession, or consumption of alcoholic beverages on campus, subject to state and federal law. Consistent with board policy, the consumption of alcoholic beverages on campus may only be authorized by written permission of the president for special events as appropriate.
3. All colleges shall provide educational programs on the abuse of alcohol and other drugs and referral for assistance for students and employees who seek it. Colleges are encouraged to establish campus-wide committees to assist in development of these programs in response to particular campus needs and identification of referral resources in their respective service planning regions. Failure to comply with this policy will result in invocation of the appropriate disciplinary procedure and may result in separation from the college and referral to the appropriate authorities for prosecution.`

Students are urged to seek information, advice, or confidential counseling regarding drugs and/or alcohol by contacting the counseling staff. Also, Three Rivers is prepared to refer students to appropriate professionals (medical, legal, psychiatric, etc.) according to the needs of the individual student. Contact will be held in complete confidence. A student who ignores opportunities for help and assistance and who willfully violates College policies and the law faces disciplinary action as outlined in the BOR/CSCU Student Code of Conduct.

The College's full policies and programs on the Drug Free Workplace and Drug Prevention are published separately. Copies of these policies and programs are available to students through the Dean of Student Services.

Student Rights Policy

Section 1: Rights of Students

It is the policy of the Board of Regents of Community- Technical Colleges that the educational offerings of the Community Colleges be available to students without regard to the individual's race, color, religious creed, sex, gender identity or expression, age, national origin, ancestry, present or past history of mental disorder, genetic information, marital status, sexual orientation, learning disability, or physical disability, including, but not limited to, blindness, or prior conviction of a crime (unless the provisions of sections 46a-60(b), 46a-80(b), or 46a- 81(b) of the Connecticut General Statutes are controlling or there is a bona fide educational qualification excluding persons in one of the above protected groups). With respect to the foregoing, discrimination on the basis of sex shall include sexual harassment as defined in Section 46a-60(8) of the Connecticut General Statutes. Further, the system will not discriminate against any person on the grounds of political beliefs or veteran status. Students are entitled to an atmosphere conducive to learning and to impartial treatment in all aspects of the teacher-student relationship. The student should not be forced by the authority inherent in the instructional role to make particular personal choices as to political action or his or her own part in society. Evaluation of students and the award of credit must be based on academic performance professionally judged and not on matters irrelevant to that performance, whether personality, race, religion, degree of political activism, or personal beliefs. Students are free to take reasoned exception to the data or views offered in any course of study, but they are responsible for learning the content of the course of study as defined by official college publications. Community College students are both citizens and members of the academic community. As citizens they enjoy the same freedom of speech, peaceful assembly, and right of petition that other citizens enjoy, and as members of the academic community they are subject to the obligations which accrue to them by virtue of this membership.

Section 2: Student Grievance Procedure

1. Definition: A grievance is an allegation by a student that, as to him or her, an agent of the college has violated board or college policies relating to students other than assignment of grades or other academic evaluation (see Section 3).
2. How to file a grievance: A grievance is to be submitted in writing to the dean of students or such other college official as the president may designate (hereinafter, the dean of students), within thirty days of the date the grievant knew or reasonably should have known of the alleged violation. The written grievance shall specify the right claimed to have been violated and state briefly the underlying facts.
3. Procedure for grievance resolution: The dean of students shall investigate the grievance and, within thirty days from the time the grievance was submitted recommend to the president a disposition of the grievance, except as provided hereinafter:
    a. In the course of each investigation, the dean of students shall consult with the dean responsible for the area of college operations in which the grievance arose
    b. In the case of a grievance alleging discrimination based on race, color, religious creed, sex, gender identity or expression, age, national origin, ancestry, present or past history of mental disorder, marital status, physical disability, prior conviction of a crime, political beliefs, veteran status, or sexual preference, the dean of students shall consult with the college's affirmative action person during the course of the investigation
    c. In the case of a grievance against a dean, the grievance shall be filed with the president. The president may accept or reject the recommendation, or direct such further investigation as he or she deems appropriate. The president shall notify the student of the final disposition of the grievance within fifteen days of receiving the recommendation, except for good cause or as provided in number 4.
4. **Advisory Committee:**
   The president may establish an advisory committee of students and staff which may be charged with the responsibility of making recommendations at either the level of the deans or the president. The president may appoint and remove members of the committee. If an advisory committee is appointed, the president shall establish a reasonable time frame within which the committee must make recommendations.

Section 3: Review of Academic Standing

A student may seek review of the assignment of a grade or other decision affecting academic status in accordance with the following procedure:

1. The grade or academic decision affecting academic status should be discussed informally with the instructor or official responsible for the decision within fifteen calendar days of the student's awareness of the decision.
2. If the matter is not satisfactorily adjusted within ten calendar days of this appeal or the instructor is not available, the student may refer the matter to the academic dean by filing a written appeal. The appeal must be filed with the academic dean within thirty calendar days of the student's awareness of the decision, which is being appealed. Upon receipt of such appeal, the dean shall meet with the instructor, if he or she is available, to determine that step 1 has taken place or is not possible and to receive relevant information from the instructor responsible for the decision. The dean may then refer the matter to the academic supervisor for informal consideration prior to step 3.
3. The academic dean or other designated official(s) shall afford review as provided below. The president may designate an official or an academic appeals committee to provide review at this step in lieu of the academic dean.

   The student shall be afforded the right to present a statement of appeal and relevant information in support of it. It is the student's responsibility to show that the decision in question is arbitrary (i.e., without a reasonable basis) or was made for improper reasons in violation of section 1 of this policy. The student is entitled to a written response within thirty days of the completion of his or her presentation. A decision to change the grade or modify the decision, which has been appealed, is advisory to and subject to the approval of the president.
4. The foregoing decision may be appealed to the president by filing a statement of appeal within ten calendar days of the date of the decision. Review by the president shall be on the basis of the written record unless he or she decides that fairness requires broader review. The decision of the president shall be final.
5. The time frames provided herein may be modified by the president for good cause.

CSCU Student Complaints & Request for Review Process

In compliance with the Higher Education Opportunities Act of 2008, the Connecticut State Colleges and Universities (CSCU) investigates Request for Review of all written and signed student complaints against the colleges and universities in the CSCU system. Additionally, CSCU also provides prospective and enrolled students with contact information for filing complaints with our accrediting agency and other appropriate state agencies.

Initiating a Request for Review

In order for the CSCU system to consider a Request for Review, the following must be true:

- The student has exhausted all available grievance procedures established by the institution.
- The student did not receive a satisfactory resolution and is contacting CSCU as a last resort in the grievance process.
- The student has submitted the claim in writing to CSCU. The student complaint must provide CSCU with a detailed description of the claim(s), including dates, times, and full names of all involved, as well as the actions taken by both the student and the school to resolve the matter.
- The student has signed the Request for Review, electronically, or by signature, attesting to the truth and accuracy of the request.
- By signing the request, the student acknowledges that CSCU may share the information provided with the school or other relevant organizations, in order to help resolve the dispute. CSCU does not guarantee a resolution resulting from the submission or its investigation into the allegation(s).

If you cannot submit your complaint online please mail it to:

CT Board of Regents for Higher Education

Attention: State Complaint Department

61 Woodland Street

Hartford, CT 06105

Or call: 860-723-0000

Upon receiving a Request for Review, CSCU will determine whether the matter being disputed falls within its jurisdiction, based on the elements stated above. If it does, CSCU initiates an investigation into the allegation(s). If preliminary findings indicate an inconsistency with CSCU policy by the institution, CSCU will resolve the request administratively through mediated discussion. All parties are notified in writing of the outcome of the investigation. If the claim(s) in the Request for Review is outside of CSCU jurisdiction, it may be directed to the accrediting body, or to another agency that is authorized to resolve the matter, if appropriate.

CSCU will not investigate anonymous Request for Reviews.

Filing a Request for Review

Request for Reviews can be filed electronically at the online submission form. Click here to go to the Request for Review Form. The online form also permits students to submit supporting evidence and documentation electronically.

The student and/or the institution may be contacted during the investigation to submit documented evidence regarding the complaint, which may include but is not limited to, copies of enrollment documentation, contracts, syllabi, receipts, financial aid notices, promissory notes, or other relevant correspondence.

Students should be aware that they have the right to seek advice from a private attorney.

Questions regarding a Request for Review can sent to CSCU-Legal@ct.edu.

Accrediting Agency

New England Association of Schools and Colleges (NEASC). The link https://cihe.neasc.org/information-public/comments-and-complaints provides information for students to address public comments, complaints against affiliated institutions, and complaints against the Commission.

State of Connecticut

The link to access the complaint form for the State of Connecticut is located at the Connecticut Attorney General's website: http://www.ct.gov/ag/site/default.asp.

Student Code of Conduct Policy

CLICK HERE TO VIEW THIS POLICY:

http://www.ct.edu/files/policies/5.1%20StudentCodeofConduct.pdf

Weapons on College Campuses Policy

The use or possession of weapons (as defined in Section 53-206 of the Connecticut General Statutes) is prohibited on college campuses or at college activities except as authorized by Board or college policies. Colleges are hereby authorized to develop policies, which allow for specific exemptions to the extent permitted by law.

Smoking and Use of Tobacco Products Policy

Use of tobacco products (including e-cigarettes and smokeless tobacco) is only permitted on the Three Rivers campus in two specifically designated locations - at the end of each sidewalk extending from the A to B Wing next to the Clock Tower entrance, and across from the Central Utility Plant. These areas are designated by signs and have containers for extinguishing and disposing of tobacco materials. Do not smoke or use tobacco products or e-cigarettes in front of the Main Campus or within 100 feet of any entrance or window (unless in a specifically-designated smoking area).

Please extinguish smoking materials before leaving your vehicle. Only use tobacco products within the designated areas, not on route to these locations. Dispose of used tobacco products only in the trash receptacles provided, not on the ground.

If violations are noted, please remind students, staff or visitors involved about these rules and about the location of authorized areas for tobacco use. Please report any habitual or flagrant violations to the Security Desk. The success of this program is dependent on the support of the entire College community.

Disturbances on Campuses Policy

In the interest of assisting in the preservation of academic freedom, including the important characteristics of access to sources of knowledge, freedom to reach unpressured conclusions, and respect for freedom of movement, and the performance of responsibilities relating to this, the Board of Regents of Community-Technical Colleges sets forth the following policies to guide faculty, students, and administrators in cases of disruptions on campuses of the public Community Colleges of Connecticut.

1. College staff, faculty, and students shall be free to exercise their rights as professional staff, students, and citizens of the United States or as foreign nationals protected by the laws of the United States respecting those professionals and humane courtesies which contribute to the success of the academic community.
2. The president, staff, faculty, and students should work to maintain study and research of ideas and facts of humanity and the universe, lawful free assembly, access to sources of knowledge, and the freedom of staff to perform teaching and administrative functions.
3. The Board of Regents believes that activities as listed below and those akin to them might result in the need to take disciplinary action to maintain the right and opportunities for all segments of the campus community to learn and to teach and to administer:
    a. occupying and preventing authorized use of facilities
    b. damaging, removing, or destroying college property
    c. preventing instruction, research, or other authorized activity by disorderly conduct and/or interfering with access to facilities
    d. physically detaining or removing any person engaged in lawful and/or normal college functions
    e. failing to comply with directives from college officials or law enforcement personnel issued in the performance of their duties.

Campus Security

In compliance with State of Connecticut Campus Safety Act, P.A. 90-259 and Public Law 101-542, Student Right to Know and Campus Security Act, Three Rivers Community College hereby publishes the following summary of institutional security policies and uniform crime reporting procedures. This information is intended to raise the awareness of all members of the College community to campus safety issues in hopes that this awareness will foster continued attention to and improved security for all college students and staff.

Uniform Campus Crime Report

Annually, each institution of higher education within the State is required to prepare a Uniform Campus Crime Report (UCCR), which is consistent with the FBI's Uniform Crime Reporting System (UCR). The report is to reflect the crime statistics on the property of the institution for the preceding calendar year and covers crimes such as rape, assault, burglary, larceny, and arson.

Distribution of Crime Statistics and Security Reports

These crime statistics and security reports are published in the Student Handbook which is updated annually. Prospective students will be advised of the availability of this information, a description of its contents, and information on how to obtain a copy. Information will be provided as requested. Copies of the crime report will also be on file in the library, in the office of each Dean, and on the College web site. The College is also required to monitor and report on any liquor law violations, drug abuse violations, and weapons violations occurring on each campus. Copies of these crime statistic reports are available upon request in the office of each Dean and in the library.

Campus Guidelines

Bullying

Hazing, bullying, menacing or abuse of students or staff members will not be tolerated. Any staff member, employee or student who engages in an act that injures, degrades, or disgraces another student or staff member is disrupting the educational process and interfering with a student's opportunity to obtain an education. See Code of Conduct.

Cell Phones

Cell phones and beepers are allowed only if they are turned off or turned to silent mode in classrooms, academic support areas and the Library. Under no circumstances are phones to be used in class. If there are extenuating circumstances, the student is to make specific arrangements with their instructor before the class begins.

Children/Adolescents on Campus

Children (defined as ages 11 and under) on campus must be attended to at all times. With the instructor's permission, children may be permitted to be with their responsible adult in a general classroom if space is available. Adolescents (defined as ages 12 to 17) should only be on campus if they are attending a specific program or event, or accompanying a responsible adult who is either a student or attending a College program. Adolescents are permitted to read or work quietly in the College Library or Cafeteria, and the adult responsible for them is to periodically check on them throughout their time at the College. For safety reasons, children and adolescents are not permitted in the College laboratories (except for controlled demonstrations and selected classes), workshops, lockers and storerooms, kitchen and food prep areas, children's center playground and unsupervised offices or classrooms.

Gambling

Gambling and/or "games of chance" for money are strictly prohibited on campus. Violators shall be subject to College disciplinary action.

Hallway Lockers

Lockers with combination locks are available to currently enrolled students for the academic year ending in May. Locker availability is limited, so if you wish to secure a locker for the academic year, please inquire at the Security Desk, located at the main entrance to the college, and complete a locker usage form. Lockers will be swiped of all contents at the end of each spring semester in May.

Service Dogs

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 require public colleges and universities to modify their policies, practices and procedures to permit the use of trained dogs that qualify as service animals by individuals with a disability. The ADA's definition of a service dog is one that is individually trained to do work or perform tasks for the benefit of an individual with a disability including a physical, sensory, psychiatric, intellectual or other mental disability.

A College need not accommodate/make an academic adjustment for a service animal if the owner cannot effectively control it, if the animal is not housebroken, if the animal's behavior or presence poses a direct threat to the health or safety of others, if its presence fundamentally alters the nature of a program or activity, if the animal is disruptive, if its presence would result in substantial physical damage to the property of others, or if it substantially interferes with the reasonable enjoyment by others. In addition, the owner of the animal is required to meet all requirements for the service animal regarding vaccination, licensure, leash control, cleanup rules, animal health, etc.

When responding to a request for an accommodation/academic adjustment regarding a service animal, a College is not permitted to inquire about the nature or extent of a person's disability, but may make two inquiries to determine whether an animal qualifies as a service animal. A College may ask if the animal is required because of a disability and what work or task the animal has been trained to perform. A College shall not require documentation, such as proof that the animal has been certified, trained, or licensed as a service animal. Generally, a College or any public entity may not make these inquiries about a service animal when it is readily apparent that an animal is trained to do work or perform tasks for an individual with a disability (e.g., the dog is observed guiding an individual who is blind or has low vision, pulling a person's wheelchair, or providing assistance with stability or balance to an individual with an observable mobility disability).

Support Dogs

Emotional support, comfort or companionship animals are not considered service animals. There is a clear distinction between service dogs that are trained to respond to an individual's needs and untrained "emotional support" animals whose mere presence may positively affect a person's disability. Service Dogs with their recognition and response training, are covered under the ADA, while Support Dogs - therapeutic as they may be to the disabled individual - are not covered and are not allowed on Campus.

In extenuating circumstances, a student may request approval from the Disabilities Office to have a Support Dog accompany them to class. Such requests will be considered on a case by case basis consistent with applicable laws.

Use of Hoverboards

CSCU System Office offers the following guidance regarding the use of "hoverboards" or other electronically operated skateboard type devices.

Due to safety concerns about both fire and rider safety, hoverboards shall not be allowed to be either charged, operated or stored on CSCU campuses. This prohibition is consistent with the CSCU Student Code of Conduct, Article I, Part D., Section 12 which prohibits "behavior or activity which endangers the health, safety or well-being of others." Further, the practice of prohibiting hoverboards on CSCU campuses is consistent with other colleges and universities across the country.

This guidance is offered due to the concern about fire safety and collisions. Due to the abundance of reported safety issues with the devices, the U.S. Consumer Product Safety Commission is investigating the safety of hoverboards. Moreover, the National Association of Fire Marshals has also issued a warning regarding fire safety due to spontaneous fires potentially linked to the battery which powers the board. Given the warnings and concerns of these organizations, CSCU has issued this prohibition.

General Academic Information and Policies

Table of Contents

Academic policies and standards for Three Rivers Community College included below have been ratified and are subject to change.

Academic Advising

All students admitted are assigned to an academic advisor. Advisors are members of the professional staff, usually full-time faculty members, whose backgrounds make them especially suitable to help students make academic and vocational choices. During the school year, the advisor helps the student select appropriate courses, based on the student's preference, previous records, and standardized test scores. The advisor also discusses with the student the course of action to be taken when the student is ready to leave Three Rivers Community College.

The advising system insures each student receives individual help with educational and vocational problems, provides each student with advice from a professional with expertise in a particular subject and enables the professional staff to interact with individual students in matters not directly related to classroom performance. Advising holds are placed on

all students in their first semester at TRCC. After meeting with assigned advisor the hold will be removed allowing the student to register online or in-person.

Students should consult the following Master Advisor List, published each semester, to determine the name of their academic advisor:

Name	Program	Office	Phone (860)	E-Mail
Amenta, Kevin	Graphic Design	C-136	860-215-9402	KAmenta@threerivers.edu
Arpin, Cynthia	Nursing/Pre-Nursing	D-203B	860-215-9465	CArpin@threerivers.edu
Arrieta, Maria C.	Liberal Arts/General Studies	E-201	860-215-9404	MArrietta@threerivers.edu
Ashton, Teri	Nursing/Pre-Nursing	C-228	860-215-9405	TAshton@threerivers.edu
Barry, Todd	Liberal Arts/General Studies	D-203B	860-215-9406	TBarry@threerivers.edu
Basu, Vandana	Liberal Arts/General Studies	C-170	860-215-9429	VBasu@threerivers.edu
Bennett, Richard	Business Administration	C-260	860-215-9407	RBennett@threerivers.edu
Brammer, Jon	Liberal Arts/General Studies	C-117	860-215-9214	JBrammer@threerivers.edu
Braza, Arthur	Accounting	C-114	860-215-9409	ABraza@threerivers.edu
Burbine, Matthew	Liberal Arts/General Studies	C-117	860-215-9219	MBurbine@threerivers.edu
Burch, Marcie	Liberal Arts/General Studies	C-256	860-215-9410	MBurch@threerivers.edu
Carroll, Pamela	Liberal Arts/General Studies	C-116	860-215-9412	PCarroll@threerivers.edu
Carta, Michael	Liberal Arts/General Studies	C-168	860-215-9413	MCarta@threerivers.edu

Chadic, James	Liberal Arts/General Studies	C-132	860-215-9425	JChadic@threerivers.edu
Comeau, Mark	Construction Tech.	C-218	860-215-9415	MComeau@threerivers.edu
Crouch, Jeffrey	Criminal Justice	C-122	860-215-9418	JCrouch@threerivers.edu
Decker, June	Liberal Arts/General Studies	C-124	860-215-9420	JDecker@threerivers.edu
Delaney, Terry	Liberal Arts/General Studies	C-118	860-215-9422	TDelaney@threerivers.edu
DiFilippo, Victoria	Liberal Arts/General Studies	C-236	860-215-9466	VHoldridge@threerivers.edu
Dopirak, William	Liberal Arts/General Studies	C-130	860-215-9424	WDopirak@threerivers.edu
Emmerthal, Carol	Nursing/Pre-Nursing	C-242	860-215-9510	CEmmerthal@threerivers.edu
Gentry, Michael	Manufacturing Eng. Tech. Mechanical Eng. Tech. Tech. Studies Tech. Studies: Lean Man. and Supply Chain Man. Option	C-154	860-215-9428	MGentry@threerivers.edu
Gilot, Cheryl	Nursing/Pre-Nursing	C-146	860-215-9445	CGilot@threerivers.edu
Gladue, Betti	Liberal Arts/General Studies	C-138	860-215-9430	BGladue@threerivers.edu
Godwin, Elizabeth	Liberal Arts/General Studies	C-206	860-215-9452	EGodwin@threerivers.edu
Graham, Joan	Nursing/Pre-Nursing	C-222	860-215-9431	JGraham@threerivers.edu
Gray, Kathleen	All Curricula	A-119	860-215-9248	KGray@threerivers.edu

Hagen, Janet	Liberal Arts/General Studies	C-216	860-215-9433	JHagen@threerivers.edu
Jeknavorian, Sandra	Visual Fine Arts	C-152	860-215-9439	SJeknavorian@threerivers.edu
Kennedy, Brian	Liberal Arts/General Studies	C-156	860-215-9441	BKennedy@threerivers.edu
Khan-Bureau, Diba	Environmental Engineering Tech.	C-264	860-215-9443	DKhan-Bureau@threerivers.edu
Knowles, Frederick	Liberal Arts/General Studies	C-120	860-215-9444	FKnowles@threerivers.edu
Kugelmass, Dov	Liberal Arts/General Studies	C-164	860-215-9446	DKugelmass@threerivers.edu
Lamondy, Anne	Nursing/Pre-Nursing	C-212	860-215-9447	ALamondy@threerivers.edu
Lincoln, Sharon	All Curricula	A-122	860-215-9264	SLincoln@threerivers.edu
Liscum, Matthew	All Curricula	A-124	860-215-9265	MLiscum@threerivers.edu
Long, Jennifer	Liberal Arts/General Studies	C -252	860-215-9450	JLong@threerivers.edu
Martin, Joyce	Human Services	C-204	860-215-9451	JMartin@threerivers.edu
Marvin, Andrew	Liberal Arts/General Studies	C-160	860-215-9434	AMarvin@threerivers.edu
Mayer, Phillip	Liberal Arts/General Studies	C-208	860-215-9453	PMayer@threerivers.edu
McNamara, Ann	Liberal Arts/General Studies	C-166	860-215-9454	AMcNamara@threerivers.edu
Molkenthin, Kelly	Liberal Arts/General Studies	C-234	860-215-9455	KMolkenthin@threerivers.edu

Muenzner, Edwin	Accounting	E-205	860-215-9456	EMuenzner@threerivers.edu
Nally, Jennifer	Early Childhood Education Pathways to Teaching Careers	C-110	860-215-9421	JDefrance@threerivers.edu
Neill, Melissa	Nursing/Pre-Nursing	C-246	860-215-9477	MNeill@threerivers.edu
Neufeld, Steven	Liberal Arts/General Studies	C-142	860-215-9457	SNeufeld@threerivers.edu
Niedbala, Robert	Liberal Arts/General Studies	C-224	860-215-9458	RNiedbala@threerivers.edu
O'Hare, Will	Liberal Arts/General Studies	C-202	860-215-9436	WHare@threerivers.edu
O'Shea, James	Business Administration	C-144	860-215-9459	JOshea@threerivers.edu
Ouellet, Edith	Nursing/Pre-Nursing	D-111	860-215-9460	EOuellet@threerivers.edu
Pascal, Donald	Liberal Arts/General Studies	C-150	860-215-9461	DPascal@threerivers.edu
Patsouris, Peter	Liberal Arts/General Studies	C-108	860-215-9462	PPatsouris@threerivers.edu
Prendergast, Krista	Nursing/Pre-Nursing	C-266	860-215-9423	KPrendergast@threerivers.edu
Rafeldt, Lillian	Nursing/Pre-Nursing	C-230	860-215-9463	LRafeldt@threerivers.edu
Ricker, Nicola	Liberal Arts/General Studies	C-270	860-215-9474	NRicker@threerivers.edu
Samuelson, Leslie	Tech. Studies: Biomolecular Science Option	C-238	860-215-9467	LSamuelson@threerivers.edu
Sebastian, Deirdre	Non Degree Programs	A-126	860-215-9290	DSebastian@threerivers.edu

Selke, Sarah	Liberal Arts/General Studies	C-214	860-215-9470	SSelke@threerivers.edu
Selvaggio, Joseph	Liberal Arts/General Studies	C- 268	860-215-9471	JSelvaggio@threerivers.edu
Shaw, Marie	Library Technology			MShaw@threerivers.edu
Sherrard, James	Nuclear Engineering Tech.	C-210	860-215-9472	JSherrard@threerivers.edu
Skahan, Sheila	Early Childhood Education	C-250	860-215-9475	SSkahan@threerivers.edu
Sonstroem, Sara	Nursing/Pre-Nursing	C-226	860-215-9438	SSonstroem@threerivers.edu
Smith, Rachel	Nursing/Pre-Nursing	C-102	860-215-9506	RSmith@threerivers.edu
Spaziani, Rhonda	All Curricula	F-211	860-215-9293	RSpaziani@threerivers.edu
Stutz, Michael	Liberal Arts/General Studies	C-258	860-215-9479	MStutz@threerivers.edu
Tisch, Roxanne	Liberal Arts/General Studies	C-248	860-215-9480	RTisch@threerivers.edu
Topping, Susan	Liberal Arts/General Studies	C-254	860-215-9481	STopping@threerivers.edu
Vesligaj, Mark	Engineering Science	C-128	860-215-9442	MVesligaj@threerivers.edu
Warner, Celeste	All Curricula	A-119A	860-215-9302	CWarner@threerivers.edu
Wichser, Meg	All Curricula	A-108	860-215-9304	MWichser@threerivers.edu
Willcox, Elizabeth	All Curricula	A-119D	860-215-9289	EWillcox@threerivers.edu
Zenie, Heidi	Exercise Science Sports and Leisure Management	C-102	860-215-9485	HZenie@threerivers.edu

Zupan, Jillian	Nursing/Pre-Nursing	C-244	860-215-9419	JZupan@threerivers.edu

Plan of Study

A Plan of Study is a worksheet that outlines the course requirements for a specific Three Rivers degree or certificate program. Students enrolled in a degree or certificate program must obtain a Plan of Study during their first semester to use as a planning guide for future course selection and registration.

During the first semester of enrollment, a student meets with his or her academic advisor and reviews the program requirements. The Plan of Study serves as the academic planning guide. Advising appointments are typically scheduled each semester just before early registration for continuing degree or certificate students, but can also be scheduled at other times during each semester.

The original Plan of Study is kept by the student to record course completions and selections for registration each semester. Students who have not completed a Plan of Study and students who wish to amend or change their program should make an appointment with their advisor and complete and submit a Program/Advisor Change form.

Both students and advisors may request reassignment when a favorable relationship is not achieved by submitting a Program/Advisor Change form.

Change of Plan of Study

Students who find they must change their plan of study should see their academic advisor or a counselor before beginning the next semester. In making such a change, credit for already completed courses may not be required in the new curriculum. Students are cautioned to check the requirements for the new curriculum, or graduation may be delayed because of the change. There are some programs that limit enrollments; students should ensure they are not changing into one of these without advising. Students who change their plan of study must complete and submit a Program Change Request form.

Credit Hour Policy

The College utilizes the Carnegie Unit as the basis for the credit hour with 50 minutes of instruction with transitional and break time for a total of one hour with a minimum of two hours of student work or activities outside the classroom each week for a typical 15 week semester. Non-classroom work including lab, clinical, and practica are included in this definition. Module (accelerated) courses meet this requirement in less than 15 weeks. Distance education courses have an equivalent combination of interaction, assignments, and activities within the learning management system and external to it which is verified by the course design in the First-Run and Biennial Review processes.

Attaining Academic Credit

Unit of Credit

The credit hour is the unit of academic credit earned at Three Rivers. A course yielding three hours of credit typically requires 45 hours of classroom time.

Residence Requirement

Twenty-five percent (25%) of the total credits applicable to an associate degree or certificate must be taken at Three Rivers and not have been used in a previous certificate or degree awarded by TRCC. Transfer credit from other colleges and non-traditional credit does not apply to the residency requirement. Non-traditional credit includes CLEP, DSST, Challenge Exams, Military Service Schools and Assessment of Prior Learning. No more than 30 credits in any program can be non-traditional.

Course Load

Students are usually not permitted to register for more than 18 hours of credit per semester in liberal arts and career programs. Students in technical programs may register for up to 21 credits. Some students are advised to limit their course load to 9 credits or less for academic reasons. Students wishing to exceed the credit load limits may take one additional course with the approval of the Academic Dean.

Variable Credit

A student receives, as a total of credits in a variable credit course, no more than the maximum number of credits for which the course is offered. Generally, variable credit is awarded only for independent study, work experience or field work, with the approval of the Academic Dean.

Developmental Studies

The College offers developmental courses in reading, writing, and math. These courses are designed to help students whose academic skills need improvement before they take required courses in their programs of study. All developmental classes provide support and concentrate on the specific skills students need for academic success. Areas of emphasis for each course are covered under course descriptions.

First Year Experience

This three-credit course is designed to help new college students meet the expectations of college life.

For additional information regarding the First Year Experience, refer to the http://www.trcc.commnet.edu/Div_academics/LearningInitiatives/FYE/FYE.shtml.

Independent Study

In specific areas sanctioned by the College, the College offers a program of independent study. Topics vary with the student and the subject. The student works with the approval and under the direct supervision of a faculty member specifically qualified in the area of the student's interest. Independent study courses are by written contract between the student and the instructor. Independent study contract forms are available only from the Office of the Academic Dean. Completed independent study forms must be submitted to the Office of the Academic Dean for approval.

Practicum

In subjects approved by the faculty and relevant to a student's program, academic credit may be granted for practical experience that enhances performance, requires the application of learning, or integrates theory and practice. Work experience in practicum courses is always accompanied by seminar sessions or meetings with the faculty, formal reading and/or writing assignments and evaluation of academic as well as work performance.

Study Abroad

TRCC offers students the opportunity to earn academic credit while studying abroad through CCIS-the College Consortium for International Studies. CCIS offers a broad spectrum of programs in over 30 countries, ranging in length from a summer term to a full year. Studying Abroad can enhance a student's academic experience and improve their career options. Students may even be able to use Financial Aid and should contact the Financial Aid office to determine eligibility. For additional information about studying abroad, contact Professor Maria Celeste Arrieta at: MArrieta@trcc.commnet.edu.

Receiving Credit by Transfer

Students seeking Credit by Transfer are responsible for providing OFFICIAL records from their transferring institution, including college transcripts, military records, and external examination score reports. OFFICIAL records must be sent directly from the transferring institution to the College's Registrar's Office. Hand-carried documents, although useful at an initial admissions conference, are not accepted for official evaluation of transfer credit.

Credit by Transfer is normally evaluated during the semester in which the student is admitted (or readmitted) and registered as a degree-seeking student. Once the transfer credits are evaluated, the student receives a course history report from the Registrar showing the credits as evaluated. Students are advised to consult with their academic advisor for the application of this transfer credit to the student's particular Plan of Study.

Students planning to graduate, who are not currently registered, are advised to request transfer evaluation of credits needed to complete graduation requirements (which are not reflected on the student's transcript).

For most programs of study there is no time limit on previously earned credits in transfer. However some courses in the Technical and Nursing degrees must be within five years to apply to the degree. Students are reminded that acceptance of all transfer credit is at the discretion of the College.

Acceptance of Transfer Credit at Community Colleges:

Connecticut State Colleges and Universities (CSCU) - Board of Regents for Higher Education Policy:

1. **Credit from Other Collegiate Institutions**
   At all the community colleges, degree and certificate credit shall be granted only for credit courses completed at all institutions within the Connecticut state system of higher education and at all other collegiate institutions accredited by an agency recognized by the Council for Higher Education Accreditation as either a Regional Accrediting Organization or a Specialized and Professional Accrediting Organization in accordance with the following:
   a. Degree and certificate credit shall be granted for all credit courses that are applicable to the objectives of, or equivalent to the course requirements of the curriculum in which the transferring student enrolls. Credit work that is not applicable or equivalent to curriculum requirements shall be accepted for credit at the discretion of the College. Degree and certificate credit shall also be granted on the basis of performance on examinations in accordance with standards and limits approved by the Connecticut State Colleges and Universities (CSCU) - Board of Regents for Higher Education.

   b. Degree and certificate credits shall be granted for credit courses completed with a letter grade of "C-minus" or better, or with a grade of "P" (Pass) with the following exceptions: all technology programs and the Nursing Program where a "C" grade or better is required. Such credit courses shall be accepted only for credit, and letter grades assigned by other institutions shall not be recorded or included in computations of student grade point averages.

   c. Notwithstanding the number of degree credits which shall be granted in accordance with the foregoing, the student must complete at least twenty-five percent (25%) of the minimum credit requirements for the degree or certificate requirements through course work at the college awarding the degree or certificate.

   d. When a student seeks transfer credit for technical or specialty courses into a program that is also accredited by a national or regional specialized accrediting agency such credits must be from a

comparably accredited program. In the case of a request for transfer credit for technical or specialty courses from a non-specialty accredited program, the college shall provide appropriate means for the validation of the student's competency in the technical specialty course areas.

2. **Credit for Recognized Courses from Non-Collegiate Organizations**
   Students who have completed courses sponsored by employers, government agencies, labor unions, and professional associations may be eligible for transfer credit. The award of credit is based on the recommendations in the American Council on Education's (ACE) National Guide to Credit Recommendations for Noncollegiate Courses, the National College Credit Recommendation Service (NCCRS) and Charter Oak State College's Connecticut Credit Assessment Program Course Reviews.
   a. Credit may be awarded for military training, ratings and occupational specialties as recommended in the ACE Guide to the Evaluation of Educational Experiences in the Armed Services.

   b. Credit may also be awarded for work completed in specific areas at non-collegiate institutions if formal approval has been sought and granted by the Connecticut Community Technical Colleges Chancellor's Office and the Connecticut Department of Higher Education. Only an institution may apply for recognition of non-collegiate work, not an individual student.
3. **Completing Degree Requirements at Other Colleges**
   Students enrolled in a degree program who wish to complete Three Rivers' degree requirements at other colleges or universities should request approval, when possible, from their advisor before undertaking such work. This procedure is referred to as "reverse transfer."

4. **Credit by Examination**
   Credit by examination may be recognized if applicable to the degree or certificate program in which a student is enrolled. Any credit earned by examination is recorded on the student's transcript as semester hours but without grades and grade points.
   a. External Examinations
      Three Rivers awards credit for College Level Examination Program (CLEP) and DSST Standardized Tests according to the applicable college policy, which is based on the American Council on Education's credit recommendations.

      The college policy for awarding credit in the foreign languages follows: Students can receive academic credit for proficiency in the languages offered at Three Rivers (French and Spanish). They can receive up to six academic credits for proficiency in Elementary French I ° and Elementary French II ° and Elementary Spanish I ° and Elementary Spanish II ° by taking the CLEP standardized test. If the student's CLEP score entitles him or her to twelve credits, the additional six credits will be awarded as Language Electives. Or, if they wish, they may receive academic credit for Intermediate Spanish I ° and Intermediate Spanish II ° and Intermediate French I and II (third and fourth semester Spanish and French) by taking an institutional exam.

      CLEP and DSST tests are administered at Three Rivers. Contact the Student Services Office for information about this program.

   b. Internal (Challenge) Examinations
      In specific areas sanctioned by the College, a student may, on the basis of previous study and experience and at the discretion of the department chairperson involved, take a special examination for credit for a course without having enrolled in that course. The student is not permitted to earn credit by examination in a course in which he or she has already received a grade or if there is a standardized exam in that course (CLEP or DSST).
5. **Advanced Placement Examinations**
   Three Rivers also grants credit for Advanced Placement Examinations of the College Examination Entrance Board with scores of 3 or above according to current college policy.

6. **Credit for Prior Learning Through Portfolio Development**
   (The Assessment of Prior Learning Program)

Students who plan to apply for such credit must enroll in a four-credit course entitled COU K122 - Portfolio Development °. The student develops a portfolio in which he or she describes the learning acquired through prior experiences, specifies learning outcomes, provides appropriate documentation, and requests college credit for that learning. An Assessment Committee made up of faculty and professional staff reviews and evaluates the portfolio and then determines how many credits the student should receive. Up to 30 credits gained through this evaluation process are applicable towards an associate degree at Three Rivers. Twenty-five percent (25%) of the total credits applicable to an associate degree or certificate must be taken at Three Rivers and not have been used in a previous certificate or degree awarded by TRCC.

No credit shall be awarded via portfolio review outside of the subject areas encompassed by the approved curricula of the institution. No more than 50 percent of the credits required for a degree can be satisfied through non-traditional learning. Non-traditional learning includes credit for prior learning, CLEP, DSST or challenge exams and military credit.

Transfer to Bachelor's Degree Programs

With advance planning, a student who earns an associate degree in one of Three Rivers' transfer programs can transfer to a bachelor's degree program and begin upper division work immediately.

Students who plan to transfer should confer with their academic advisor or a counselor early in their college enrollment to ensure that their course selections parallel as closely as possible the first and second year requirements of the transfer college or university. It is especially important to consult with an advisor/counselor when choosing electives.

Three Rivers Community College has a number of specific transfer articulation agreements with public and private colleges and universities. These articulation agreements are typically written on a program/curriculum basis, providing the potential transfer student with specific course equivalencies.

Up-to-date information about course selection and program planning for transfer to Connecticut State Universities, the University of Connecticut, and many private colleges and universities is available in the Student Development Center or from a counselor.

Connecticut College of Technology

The Connecticut College of Technology is a concept rather than a physical college. There are two discrete plans: a pre-engineering plan and a pre-technology plan. After successfully completing the specific curriculum requirements, the student will be accepted into an engineering program at the University of Connecticut or a technology program at Central Connecticut State University with advanced placement status. For more information about these programs please contact the Admissions Office or refer to the Technologies web page http://www.trcc.commnet.edu/Div_academics/Technologies/technologies.shtml for specific information and course availability.

Connecticut State Universities

Graduates of the Connecticut Community Colleges with a grade point average of 2.0 or higher are guaranteed admission to the university of their choice within the Connecticut State University System. Community College graduates admitted to the Connecticut State University of their choice shall be given the same consideration for admission to specific majors and admitted on the same terms as students who began their studies at the university.

In the case of majors for which articulation agreements have been adopted, Community College students preparing for transfer should follow the terms of the articulation agreement regarding course prerequisites, grade point averages, and other requirements stated in the agreement.

Students enrolled in CSCU's Transfer Ticket Programs will, upon graduation, be admitted as juniors and will be expected to complete two years of full-time (or equivalent part-time) study at the university to be eligible for the bachelor's degree.

Graduates of the Community College must make application by the date and on the forms prescribed by the university, including the submission of all the required transcripts, documents, and fees.

Honors Program

The Three Rivers Community College Honors Program is designed to provide academically talented and motivated students an opportunity to develop their intellectual skills through challenging work that emphasizes critical and analytical thinking. In addition to developing advanced academic skills,
students enrolled in the Honors program will benefit from the following:

- Honors designation on transcripts
- Invitation to special events and programs
- Personal letters of recommendation

Students who graduate from the program may also be eligible for:

- Honors recognition at Commencement
- Honors Diploma
- Honors Alumni activities

In addition, it is the intent of the program to develop articulation agreements with private and state colleges / universities.

Admission Requirements:

A student wishing to participate in the Honors program must have a 3.5 high school cumulative GPA or a 3.5 college GPA based on a minimum of 12 credit hours. Two letters of recommendation must accompany the application, followed by a personal interview with the program coordinator and/or the program advisory panel. In addition, students must score at the MAT* K137/ENG* K101 level of the placement exams or have successfully completed those courses. Students may enter the program at the start of any semester and must maintain a minimum 3.5 GPA in order to remain in good standing.

Program Requirements:

Any student who meets the acceptance criteria may participate in the program. However, those who intend to graduate from the program must fulfill the following:

- Complete the requirements for an Associate Degree with a minimum 3.5 GPA
- Complete 4 Honors Contracts (minimum of 12 credits) with grade of B+ or higher

Class Attendance Policy

Instructional staff assigned to all sections of credit bearing courses at Three Rivers take attendance at each class meeting and retain accurate records of attendance for at least three calendar years. The manner in which attendance is taken is determined at the professional discretion of the instructor. In certain instances, these records are furnished to the Financial Aid Office, Veterans Affairs office, Employer sponsors and the International Student advisor.

Early Alert Notifications

Through the Early Alert program, Student Services staff contact students throughout the semester as they exhibit signs of academic difficulty. Faculty members are encouraged to refer these students to Student Services on a continuing basis so they can be contacted in a timely basis to maximize student success. Notification can be made electronically by using the Progress Alerts in blackboard or by submitting the early alert form to Counseling and Advising Center. Required information to include is the specific course and section as well as the student's name and what the difficulty is.

The objective is to have the student pay attention to early warning signs and to introduce them to strategies they can use to help themselves succeed. These strategies include talking to the instructor, reducing their credit load, learning time management skills, getting tutoring, using the math and writing labs, and contacting their advisor. Students who have stopped attending will be advised to formally withdraw. This effort does not take the place of the instructor's intervention but is in addition to it.

The student's assigned advisor is also notified for additional follow up. Counselors follow up on an individual basis if there is any indication of a more serious problem. Early Alert contributes to fostering student connectedness with the college as well as promoting student success.

Administrative Notations and Grade Points for Courses

At the end of each semester, students receive grades in every course in which they are enrolled. Grades represent various levels of accomplishment. Except for developmental courses, grades carry certain "grade points", which are numerical expressions used to determine each student's academic standing. The following table lists the grades used and their corresponding grade points.

Grade	Grade Points	Definition
A	4.0	Excellent
A-	3.7	
B+	3.3	
B	3.0	Good
B-	2.7	
C+	2.3	
C	2.0	Satisfactory
C-	1.7	
D+	1.3	
D	1.0	Poor
D-	0.7	
F	0.0	Unsatisfactory

Posting of "F" Grades

The online grading process requires additional information whenever a grade of F is assigned. To record a failing grade, the instructor is asked to select one of the following codes:

F: This grade is reserved for students who have, in the judgment of the instructor, completed assignments and/or course activities throughout the term sufficient to make a normal evaluation of academic performance possible, but who have failed to meet course objectives.

UF (unearned F): This notation is awarded to students who were enrolled in a course, did not officially withdraw, but who failed to participate in course activities through the end of the term. It is used when, in the judgment of the instructor, completed assignments and/or course activities were insufficient to make normal evaluation of academic performance possible. Students who receive this notation will have reported on their behalf a "last date of participation" by the assigning faculty member. **When saved on the grade roster, this notation will immediately convert to a regular grade of F on the student's transcript. It will be punitive and count in the GPA.** The UF notation is used for internal reporting and will not appear on the student's transcript.

Non-Academic Grades (No Grade Points)

AU Audit

An administrative transcript notation for students auditing a course. Students not wishing credit may audit a course. This status will allow them to participate in class activities without being required to meet the examination requirements of the course. Students may ask to have papers critiqued, but faculty members are not required to grade an auditor's course work. Full tuition and fees are charged for courses audited. A student who wishes to audit a course must request this within the first four weeks of the course. Students auditing a course may not change to credit status.

I Incomplete

A temporary grade assigned by the faculty member when course work is missing and the student agrees to complete the requirements. The student and instructor both must sign a contract to permit an "incomplete" grade. The contract will denote what must be completed to resolve the "I" grade. The "I" must be resolved by the end of the tenth week of the next full academic semester (except summer) or it automatically converts to an "F" or "F#" for remedial courses.

P Pass

An administrative transcript notation for successful completion of courses taken on a pass/fail basis. Pass ("P") is a final grade awarded to a student who elects the P/F Option prior to the end of the tenth week of the fall or spring semester or prior to the completion of two-thirds of a summer session or module course. The "P" is not figured in the Grade Point Average, but it does count as a course attempted. The "F" is figured in the Grade Point Average. The Pass/Fail Option is not available for use on courses to be applied toward a technology degree or for courses in the Nursing Program. The P/F option is irrevocable.

TR Transfer

An administrative transcript notation in lieu of grade for courses accepted for credit completed at all institutions within the Connecticut state system of higher education and at all other regionally accredited collegiate institutions in accordance with policy adopted by the Connecticut State College and Universities (CSCU) Board of Regents for Higher Education. This notation is also used to record credit granted through the Assessment of Prior Learning program.

W Withdrawal

An administrative transcript notation used to indicate that a student is withdrawn from a course in accordance with the procedures prescribed by the college. Students may withdraw, in writing or by phoning the Registrar's Office directly,

for any reason until the end of the 13th week of classes. Financial aid students withdrawing from any courses are advised to notify the Financial Aid office to understand the consequences of withdrawing.

For additional information pertaining to withdrawals please see the section on Academic Misconduct.

Grades for Developmental Courses

Developmental courses do not carry grade points, and the credits assigned to these courses do not count towards the required credits necessary for graduation.

Developmental courses are graded A#, A-#, B+#, B#, B-#, C+#, C#, C-#, D+#, D#, D-#, P# and F# are not calculated in the Grade Point Average.

Grades received and credits earned or not earned in developmental courses do not affect graduation honors in any way, positively or negatively. Credits received in developmental courses do not count towards graduation and consequently cannot be applied towards the 25% minimum residency requirement.

Grades for Credit-Free Courses

CS Completed satisfactorily, eligible for CEU as assigned.
CU Completed unsatisfactorily, not eligible for CEU award.
CX Course not completed by student.
CN Indicates no grade assigned by instructor.

Repeated Courses

Effective Fall 2002, the repeat policy is: No course may be repeated more than twice. The highest grade received will be used in calculating the student's academic average. This does not apply to those courses that are designed to be repeated for additional credit.

From Fall 1995 through Summer 2001, the repeat policy was: a student may repeat any course, regardless of the grade received. In every instance, the last grade received will become the valid grade for computation of the Grade Point Average (GPA). All grades still appear on the transcript, with the annotation "E" for excluded after the first attempted course grade. The meaning of "E" is that the grade points associated with the grade have been excluded from the GPA calculation. Credit for any given course is awarded only once.

For the benefit of all students who repeated courses during the period of Fall 1993 through Summer 1995, the earlier restriction on repeating courses graded "C" or better has been removed. The revised policy of unrestricted repeats introduced with the Fall 1995 semester has been applied retroactively to those students who received an unauthorized repeat symbol instead of an earned grade for the repeated course. Affected students will now receive the highest grade earned for the course and the associated grade points will be used in the calculation of the cumulative GPA. Any students negatively impacted by the retroactive change in policy may petition the Academic Dean for individual review of their academic record.

The Grade Point Average (GPA)

The GPA is used to determine a student's standing in his or her class and in the College generally. Total grade points for a semester are calculated by multiplying the grade points allocated to each letter grade times the number of credits (in semester hours) assigned to each course attempted. The GPA is calculated by dividing the total number of grade points by the total number of credits earned, either in one semester or over the student's entire college career.

For example:

Course	Grade	Credits		Points Per Credit	
MAT* K137	B	3	x	3.0 =	9.0
ENG* K101	A-	3	x	3.7 =	11.1
PSY* K111	C	3	x	2.0 =	6.0
BIO* K121	A	4	x	4.0 =	16.0
		13		42.1	

This student's GPA would be 3.24 (42.1 divided by 13).

Standards of Progress

Academic Progress Standard #1 - Academic Standing (ASTD)
Beginning with Fall 2004, academic standing is calculated based on cumulative GPA hours (rather than attempted hours) and the student's overall GPA. Courses with the # and ^ sign and N, W, I, AU (Audit), and P (Pass) are excluded from the calculation.

Cumulative GPA Hours	Overall GPA	Academic Standing
0.5 - 11.99	1.5 - 4.0	Good Standing
0.5 - 11.99	0.0 - 1.49	Written Warning
12 - 30.99	1.7 - 4.0	Good Standing
12 - 30.99	0.0 - 1.69	Academic Probation
31 - 999.99	2.0 - 4.0	Good Standing
31 - 999.99	0.0 - 1.99	Academic Probation

Students who have been placed on academic probation for one semester and who have not attained the overall GPA to move back into good standing will be placed on suspension.

Academic Progress Standard #2 - Progress Evaluation (PREV)
Progress evaluation is based on the satisfactory completion of a minimum of 50% of all credits (not courses) taken at the college. Courses that have been graded or that carry the following annotations will be counted as non-completions: F, F#, W, N and N#.

The progress evaluation percentage is calculated as follows:

Total cumulative credits minus credits that have been graded as non-completions divided by total cumulative credits

For example, if a NEW student takes four three-credit courses this fall and receives grades of C, B, F and W, then the

calculation will be: (12-6) divided by 12 = ½ or 50%. The student will be in good standing because they have successfully completed a minimum of 50% of total credits.

Combined Academic Standing

Effective with Fall 2004 grading, the combined academic standing will determine whether a student can continue taking courses for the next term with no restrictions (Good Standing), with a limited credit load (Probation) or if the student is suspended from taking any classes for the minimum of one term. The possible permutations of Academic Standing and Progress Evaluation descriptions and the resultant combined academic standing are shown below.

Academic Standing + Progress Evaluation = Combined Academic Standing

Academic Standing	Progress Evaluation	Combined Academic Standing	TRCC Restrictions
Good Standing	Good Standing	Good Standing	No Restrictions
Good Standing	Probation	Progress Probation	Warning Letter
Written Warning	Good Standing	GPA Written Warning	Warning Letter
Written Warning	Probation	Warning and Progress Probation	Warning Letter
Academic Probation	Good Standing	GPA Probation	9 Credit Limit
Academic Probation	Probation	GPA and Progress Probation	9 Credit Limit
Academic Suspension	Good Standing	GPA Suspension	Cannot Register
Academic Suspension	Probation	Progress Probation and GPA Suspension	Cannot Register

Students who fail to regain satisfactory academic progress at the conclusion of the GPA Probation semester will be subject to GPA Suspension. Suspension can result in ineligibility to return to the college for a minimum of one semester.

Students placed on academic probation or suspension who believe extenuating circumstances affected their performance, including financial aid recipients who have their funding suspended due to unsatisfactory academic progress, may submit a written letter of appeal to the Academic Dean.

Academic Warning, Probation and Suspension Policy

- Satisfactory academic progress will be evaluated by the College when a student is registered at Three Rivers (including all registered courses at former Mohegan Community College and Thames Valley State Technical College).
- Students who have completed 11 or fewer credits whose Cumulative Grade Point Average (CGPA) falls below 1.5 will be given a Written Warning.
- Students who have completed between 12 and 30.99 credits inclusive whose CGPA falls below 1.7 and those who have completed 31 or more credits whose CGPA falls below 2.0, will be given a written notice that they are placed on Academic Probation. Students will receive written notification of the academic probation status

and will be required to reduce their registered course load for the next enrollment period. Financial Aid recipients placed on academic probation will also have their funding suspended until they regain satisfactory academic progress.

- Students who fail to regain satisfactory academic progress at the conclusion of the Academic Probation Semester will be subject to Academic Suspension from the College for a minimum of one semester.
- Students placed on Academic Probation or Suspension who believe extenuating circumstances affected their performance, including financial aid recipients who have their funding suspended due to unsatisfactory academic progress, may submit a written letter of appeal to the Academic Dean.

Reinstatement of Suspended Students

Suspended students who are reinstated to the College must satisfactorily complete all course work and achieve a minimum semester grade point average of 1.7 or higher each semester following their reinstatement until they regain satisfactory academic standing. Students who do not meet these criteria shall again be subject to suspension from the College. Subsequent reinstatement requests must be submitted to the Academic Dean.

Academic Honors

Semester Honors

1. Full-time students who are matriculated in a certificate or degree program and who successfully complete 12 or more credits of work in a semester with a grade point average of 3.4 or higher shall be recognized by having their names placed on a Dean's List.
2. Part-time students who are matriculated in a certificate or degree program are also eligible for such recognition when they have completed 12 or more credits of work with a cumulative grade point average of 3.4 or higher. They may be subsequently recognized at the completion of an additional 12 or more credits of work with a cumulative grade point average of 3.4 or higher, and at successive intervals of 12 credits.
3. A course Withdrawal or Incomplete shall make the student ineligible for Dean's List recognition that semester. Upon completion of the Incomplete, the student may be recognized retroactively.
4. Students who are in a probationary status are not eligible for Dean's List recognition, even if their cumulative grade point average might otherwise make them eligible.

Graduation Honors *

Students with an exemplary academic performance shall be recognized at graduation with the following designations:

- Summa Cum Laude/Highest Honors for students with a 3.9 - 4.0 grade point average
- Magna Cum Laude/High Honors for students with a 3.7 - 3.89 grade point average
- Cum Laude/Honors for students with a 3.4 - 3.69 grade point average

Students with an Incomplete may become eligible retroactively for graduation honors upon completion of the course requirements, and recognition shall appear on the transcript, provided the student has the required grade point average.

Grades received for developmental courses may be used to determine eligibility for semester honors. However, they cannot be used to determine eligibility for graduation honors.

* Please note: the preliminary honors announcement at the June graduation ceremony is based on the student's academic record effective at the end of the prior fall semester. Official honors determination is made based on the students complete record, which includes the Spring semester prior to graduation. For this reason, the official honors recognition may differ from that announced at graduation.

Fresh Start

The Fresh Start Option permits a fresh start for students who have been away from the College for two (2) or more years, who would return on probation or have been suspended. Students will be reviewed by the Academic Dean if they attended under a different Academic Standing policy.

If approved, the student will receive credit for the courses with a grade of "C-" or above (62 = 1.7), including "P" (Pass). Courses with a grade less than a "C-" will not retain credit. All courses and grades remain on the student's academic record with an additional notation of when the Fresh Start Option is in effect but grades are not incorporated in the GPA.

- Fresh Start Option may be used only once.
- Fresh Start Option does not apply to any completed degree or certificates.
- Fresh Start must be applied to ALL courses taken during the time span under consideration, even if completed satisfactorily.
- A student must complete a minimum of 15 credits after returning to college under the Fresh Start Option to be eligible for a degree or certificate, and for graduation honors.

Academic Integrity

The effective operation of any organization is dependent on the honesty and goodwill of its members. In an organization devoted to the pursuit of knowledge, acting with integrity is essential to effective teaching and learning. Furthermore, academic dishonesty erodes the legitimacy of every degree awarded by the College. To emphasize the importance of academic integrity, Three Rivers Community College adheres to the Student Code of Conduct and Discipline Policy, as provided by the Connecticut State Colleges and Universities (CSCU) - Board of Regents for Higher Education. Since collaboration is central to the learning community, Three Rivers wishes to emphasize that this policy is not intended to discourage collaboration when appropriate, approved, and disclosed.

Academic Misconduct

Academic misconduct, which includes, but is not limited to, plagiarism and all forms of cheating.

Plagiarism is defined as the submission of work by a student for academic credit as one's own work of authorship which contains work of another author without appropriate attribution.

Cheating includes, but is not limited to: (i) use of any unauthorized assistance in taking quizzes, tests or examinations; (ii) use of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems or carrying out other assignments; (iii) the acquisition, without permission, of tests or other academic material belonging to a member of the University faculty or staff; and (iv) engaging in any other behavior specifically prohibited by a faculty member in the course syllabus.

Academic Dishonesty in a Service Learning, Practicum, Internship, Co-operative, or Fieldwork Environment

Conduct in community settings entered by a student as part of coursework must be equally characterized by integrity and honesty. Dishonest conduct proscribed under this policy includes but is not limited to (a) making false statements to community partners about the student's skills, credentials and accomplishments, (b) making false statements to community partners or the instructor about progress in the work the student has agreed to do in the community, including supplying false documentation of work, (c) failing to abide by the rules and policies of the community partners that the student agreed to accept as a condition of entrance into the community setting, (d) failing to return materials belonging to the community partner or instructor (e) violating the ethical principles common to professional researchers, including violation of confidentiality or anonymity agreements with research subjects, deceiving or harming research subjects, or coercing participation in research.

When Academic Misconduct is Suspected*:

1. The faculty member will meet with the student and discuss the incident in question. If the faculty member is not comfortable with meeting the student privately, the Academic Dean or designee may be invited to attend the meeting. A faculty member may instead refer a suspected incident of academic dishonesty to the Dean's office.
2. During the course of the meeting, the faculty member should explain why he or she suspects academic dishonesty.
3. The student should be given a full opportunity to respond to the faculty member's concerns.
4.
    a. If, at the end of the meeting, the faculty member is convinced that no academic dishonesty has in fact occurred, the incident is considered resolved.
    b. If, at the end of the meeting, the faculty member is not certain that an incident of academic dishonesty has occurred, the faculty member may warn the student that the assignment is questionable and that future assignments will be scrutinized carefully. The incident is then considered resolved.
    c. If, at the end of the meeting, the faculty member feels strongly that an incidence of academic dishonesty has occurred, he or she may assign a grade of F or of 0 for the assignment in question, or the faculty member may require that the student complete a make-up assignment or a corrected revision in lieu of the questionable assignment. In a situation where the incident of academic dishonesty does not involve a gradable assignment, the faculty member may require the student to complete some other form of correction. (e.g. returning materials taken from a community partner).
5.
    a. If the student accepts the penalty assigned in Step 4, the faculty member is encouraged to report the student's name, date, assignment type, type of academic dishonesty and any disciplinary measures taken to the Academic Dean's office for confidential tracking of repeat offenders, and the incident is considered resolved.
    b. If the student refuses to accept the penalty assigned in Step 4, the faculty member will report the student's name, date, assignment type, type of academic dishonesty and any recommended disciplinary measures to the Academic Dean's office for confidential tracking of repeat offenders. Furthermore, the faculty member will initiate the Discipline Procedures as defined by the Connecticut State Colleges and Universities (CSCU) - Board of Regents for Higher Education, in the Student Discipline Policy, section 3:1-10 by submitting a statement of possible violation with the Academic Dean.

* Please note: Withdrawal ("W") will not be permitted if the student seeking to withdraw is suspected of having committed academic misconduct in the course from which withdrawal is sought. A withdrawal will be permitted when such suspicion is resolved by the faculty member without a conclusion the student engaged in academic misconduct in the course. The College reserves the right to substitute a final course grade for a previously recorded "W" when the final course grade reflects the judgment of a faculty member that the student committed academic misconduct in the course for which a "W" had been previously recorded.

Promoting Academic Integrity at Three Rivers

Faculty are encouraged to distribute and discuss this document in their classes.

Faculty are encouraged to include the following statement in their syllabi:

Academic integrity is essential to a useful education. Failure to act with academic integrity severely limits a person's ability to succeed in the classroom and beyond. Furthermore, academic dishonesty erodes the legitimacy of every degree awarded by the College. In this class and in the course of your academic career, present only your own best work; clearly document the sources of the material you use from others; and act at all times with honor.

Faculty are encouraged to have students write and sign Honor Statements for assignments where they would be appropriate.

For Example:

"I have not given nor received any unauthorized assistance in completing this assignment."

Or:

"I assert that the work presented in this assignment is my own original effort."

These assertions are intended to confirm the understanding between faculty and students that academic integrity is essential and not to imply a lack of integrity on the part of any student. Faculty should specify the consequences of failure or refusal to sign and may consider alternative means of affirming academic integrity.

Appeal of Grades

A student who wishes to appeal an awarded grade should first confer with the faculty member concerned within 15 days of becoming aware of the grade. If the student is not satisfied with the outcome of that conference, the student should see the program coordinator and/or department chair and then, if not satisfied, may submit a written appeal to the Academic Dean, who will consult with the faculty member and the appropriate department chair. The appeals process is described in detail in the Review of Academic Standing section (sec. 3), found in the **Student Rights Policy section of the Institutional Policies page.**

Course Substitutions for Students with Disabilities

The Americans with Disabilities Act (1992) addresses the substitution of courses required for a degree. In certain situations, provided the college has adequate documentation of the student's disability, a substitution of a course requirement for another appropriate course is possible. Students are encouraged to contact a disabilities advisor for the specific policy and procedures to follow.

Graduation

Three Rivers awards the Associate in Applied Science (AAS), Associate in Arts (AA) and the Associate in Science (AS) degrees and certificates to qualified candidates as authorized by the General Assembly of the State of Connecticut.

Graduation is not Automatic, you must apply.

Three Rivers accepts applications and certifies student eligibility for graduation three times each year following the fall and spring semesters and at the end of the summer session. Application for graduation must be made according to the following schedule:

Graduation Application Deadlines and Procedure

Spring (May) Graduation	Apply by November 15
Summer (August) Graduation	Apply by March 15
(Summer completers are invited to join in the May Ceremony)	
Fall (December) Graduation	Apply by June 15

Students are encouraged to apply early.

Students who do not qualify for graduation in the semester for which they apply will be automatically moved forward to the next academic semester. If the application is for the Spring semester, the Registrar's Office needs to be notified if completing the degree requirements during the summer session, otherwise, the application will be moved forward to the following fall semester.

Procedure:

1. Meet with your academic advisor for your preliminary graduation audit. The audit is the final update of your Plan of Study. Your advisor will be checking that every course and requirement has been completed and that you are registering for the outstanding requirements in your last semester.
2. Fill out the graduation application. *Attach the preliminary graduation audit. Submit the completed application to the Registrar's Office. Applications are available at the Registrar's Office or online (http://www.trcc.commnet.edu/Div_StudentServices/Registrar/PDF/Graduation_Application.pdf).*
3. The registrar's office will conduct the final graduation audit and notify you of any missing courses.

All graduates are invited to attend the annual commencement ceremony held in the spring.

Program Requirements for Graduation

The Plan of Study used to determine graduation eligibility will be that under which the candidate first enrolled, except as noted in the following:

1. If the candidate was readmitted to the College, after an absence of two years or more, the Plan of Study at the time of being readmitted will be the plan of study the candidate will follow.
2. If the candidate changed his/her program one or more times during attendance, the Plan of Study used shall be that which was in effect at the time of the last change of program.
3. If the courses required within a program have been significantly changed since the time of enrolled readmission or change of program, or if other unusual circumstances exist as determined by the Registrar, the catalog in effect at the time of graduation may be used. If the candidate disagrees with the selection of catalog, he/she may seek written permission from the program coordinator and/or department chair to be evaluated under another catalog.
4. In no case will a student be permitted to use requirements from more than one catalog, or from a combination of catalogs, to meet graduation requirements.

Graduation Requirements:

1. Official enrollment in a Three Rivers Community College certificate or degree program.
2. Satisfactory completion of all courses required in the certificate or degree program with a cumulative grade point average of at least 2.0 and no more than 12 credits carrying a grade of P.
3. A minimum of 25% of the graduation credit requirements must be earned at Three Rivers and must not have been used in a previously awarded TRCC degree or certificate.
4. Completion of a basic computer literacy requirement, if required in the specific degree program.
5. Successful completion of at least 50% of all courses attempted at Three Rivers.
6. Prompt and timely completion of the Application and an approved Plan of Study.
7. Fulfillment of all financial obligations to the College. As a courtesy, students planning to graduate in August are permitted to participate in the June commencement held before the date of their August graduation provided they apply by the appropriate deadline.

Please note that the preliminary honors announcement at the June graduation ceremony is based on the student's academic record effective at the end of the prior Fall semester. Official honors determination is made based on the student's complete record, which includes the Spring semester prior to graduation. For this reason, the official honors recognition may differ from that announced at graduation.

Connecticut State Colleges and Universities (CSCU) - Board of Regents for Higher Education Medallion for Academic Excellence
The Connecticut State Colleges and Universities (CSCU) - Board of Regents for Higher Education Medallion for Academic Excellence is awarded in recognition of outstanding academic accomplishments of associate degree graduates of the community colleges and is presented at commencement. Annually, each community college shall determine the students eligible to receive the medallion in accordance with the following criteria:

- Recipients must be graduating students who have earned a cumulative quality point ratio of 4.00;
- Recipients must have completed the degree requirements of an approved associate degree program and must have completed at least 50% of the degree requirements in residence at the community college awarding the degree;
- Graduates shall not be disqualified from receiving the award on the basis of having a "W" or other similar transcript notation of official course withdrawal(s).

This policy shall be implemented in recognition of the existence and intent of "fresh start" policies of community colleges.

Earning Multiple Degrees

A student may earn two degrees in different curriculums at Three Rivers. Such a student is treated similarly to a transfer student with respect to the minimum number of credits he/she must take for the second degree. This will require that a student complete all program requirements and in no case less than 25% of the total credits required in the new curriculum as additional hours of credit at the college through which the second degree is to be conferred.

Requests for additional degrees beyond the second require prior approval from the Academic Dean. Completion of requirements of an *additional program option* does not constitute a different degree. A student wishing to earn a certificate and degree in the same program must complete the requirements of the certificate prior to earning the degree.

General Education Competencies

The faculty of Three Rivers recognize the importance of a general education curriculum that provides sufficient breadth and depth of coursework for students. Because of this, and in accordance with NEASC standards and BOR policies, students in all degree programs take courses that fulfill the college's General Education requirements. This includes a selection of coursework for each major that covers the following competency areas: Written Communication, Oral Communication, Scientific Reasoning, Scientific Knowledge & Understanding, Quantitative Reasoning, Historical Knowledge & Understanding, Social Phenomena Knowledge & Understanding, Aesthetic Dimensions of Humankind, Ethical Dimensions of Humankind, Continuing Learning/Information Literacy, and Critical Analysis/Logical Thinking.

Computer Resources Policy

The Community College System offers computing service to faculty, staff, and students for instructional and administrative use through the system data center and local campus computer centers. The availability and use of these resources carry with it a set of responsibilities for all the users of these resources. All accounts for the usage of these resources are allocated on the condition that their use is governed by the following policy. Colleges shall post the policy in all student computer laboratories and other areas that contain computer resources, (e.g., libraries) and shall include the policy in either their catalogs or student handbooks. Further, this policy statement shall be distributed to all faculty and staff involved with college computing resources and be reviewed in all pertinent classes at the first meeting of each semester.

Conduct and Ethics for Use of Computer Resources

Every individual with access to computer resources and facilities at Three Rivers is bound by these policies. Any individual who breaks, or is suspected of breaking these rules, may have their authorization to use or access the computer resources immediately withdrawn. In this regard, the College reserves the right to access all accounts and/or media being used on Three Rivers' computer resources for management and security purposes.

All computer related resources and facilities at Three Rivers are under the jurisdiction of the Information Technology Division. They will be used solely for legitimate and authorized academic and/or administrative purposes required in the performance of assigned duties/academic endeavors at Three Rivers. They shall not be used for personal (private or non-profit) work not specifically authorized by the College, without the written approval of the Dean of Information Technology. Any unauthorized or illegitimate use of the computer system resources and/or facilities may necessitate disciplinary and/or legal action against the violators. Legal action or violation of 53a-250 et seq. of the State General Statutes may lead to a felony conviction. Items covered include, but are not limited to:

- Unauthorized access to Computer Systems/Information.
- Theft of Computer Services.
- Unauthorized disruption of Computer Services.
- Unauthorized disclosure, use, alteration, or destruction of information.
- Damage to, destruction of, or tampering with computer equipment or software.
- Unauthorized installation and/or use of non-college software on Three Rivers equipment.

Any allocation by the Information Technology Division is made with the understanding that the allocation and/or account(s) are (1) to be used solely for the purpose indicated and required by Three Rivers, (2) to be used only by the person to whom they have been allocated, and (3) to be used only while they are active members of the staff or currently registered student body.

Any individual who has been authorized to use computing resources at Three Rivers shall be expected to regard all copyrighted account(s) or proprietary information, which may become available as confidential. It may not be copied, modified, or otherwise used for other than the intended use unless prior written permission from the owner/licensee has been obtained and a copy of this authorization provided to the Division of Information Technology. Unless otherwise legitimately noted as "Public Domain", all software used by Three Rivers shall be considered copyrighted unless cleared by the Three Rivers Information Technology Division.

Any non-State employee who uses State Computer Resources while engaged in a software development project intended for State use shall, prior to starting the project, make written arrangements with Three Rivers for payment, or sign an agreement to ensure that the product belongs to the State. All software developed by State employees using State resources is the property of the State.

No one shall attempt to disassemble, modify, repair, change configuration or relocate any computer-related equipment unless expressly authorized to do so by the Information Technology Division.

Internet access is provided at various levels. Transmission or receipt of data from the network is permitted as long as it falls within the law; complies with the restrictions imposed by our access vendor; supports College activities to enhance educational and research activities; does not contain threatening, obscene, or harassing materials; and does not contaminate or overload site resources. Applicable laws include laws of the country, states, counties and cities, etc. through which the traffic flows. Legal non-executable file formats are permitted and may be used on the system. Compressed files (.zip, .tar, .z, etc.) can be downloaded, but NOT used (not even an executed one) on College equipment and must be removed from all College systems immediately. Executable and self-extracting files can only be downloaded to College equipment if they are converted to a compressed format prior to receipt and the procedures for compressed files are followed.

Academic Services

The Donald R. Welter Library (Donald R. Welter Library)

The Donald R. Welter Library supports the research needs of students, faculty, staff and the community through the collection and maintenance of print and electronic resources and audiovisual materials. The library provides access to print and electronic books, compact discs, audio books, DVDs, periodicals and online research databases. Materials not available at the Donald R. Welter Library may be requested through interlibrary loan. Individual and group instruction on the use of library resources is available.

Other resources in the library include computers, self-service photocopiers, a scanner, wireless internet access and group study rooms. Laptop computers are also available for loan. Books may be borrowed for 30 days and renewed in person or over the phone. CDs and DVDs may be borrowed for one week. Instructor reserve materials may be borrowed for 2 hours for use within the library only. Students are responsible for returning the materials in good condition. If library materials are lost or damaged, students will be charged for the replacement of the item plus a $10 replacement fee. If overdue items are not returned after 2 notices, a block will be placed on the student's account.

Tutoring and Academic Success Centers (TASC)

The Tutoring and Academic Success Centers (TASC) are located in Rm. C-117, next to the Donald R. Welter Library. TASC peer tutors, professional tutors, staff members, and faculty volunteers provide free individual and group academic assistance to students. In addition, TASC has many useful handouts and numerous books, CDs, and DVDs available for loan. On the TASC website, students can obtain information about hours of operation, online workshops, and many useful links. TASC consists of the Tutoring Center, the Writing Center, and the Mathematics Computer Lab.

TUTORING CENTER

The Tutoring Center provides free one-to-one and group tutoring for most courses taught at TRCC and can also help students organize study groups. Tutoring is available on a walk-in basis or by appointment. Appointments are suggested and can be made in person or by telephone at 860-215-9082. The complete tutor schedule for both the Tutoring Center and the Writing Center is posted on the TASC website.

Questions can be forwarded to: TASC@trcc.commnet.edu

WRITING CENTER

https://trccwritingcenter.wordpress.com/

The Writing Center provides writing assistance for all students in all subjects. Appointments to review writing are available on a walk-in basis or by appointment. Appointments are suggested and can be made in person or by phone at 860-215-9082. Additionally, papers can be submitted via e-mail to the address below. The Writing Center web site also hosts a collection of academic writing resources, links to admission essay samples, and guides for writing resumes and cover letters. Services of the center are intended to help students learn how to improve their writing, revising, and editing skills for all collegiate courses.

Questions or paper submissions can be forwarded to: TRWritingCenter@trcc.commnet.edu

MATHEMATICS COMPUTER TUTORING LAB

Students can improve their math skills at the Mathematics Computer Tutoring Lab working alone or with the aid of a TASC tutor. A variety of text-specific and generalized mathematics software is available in the sixteen-station mathematics lab. Additionally, CAD and computer programming software packages are installed on several computers for tutoring purposes.

ONLINE TUTORING

Online tutoring is available to TRCC students in different forms. Ask TASC consists of three components: the Ask TASC discussion board, where students can post a question online, the Ask TASC chat room, where students can make an appointment to meet with a tutor online, and a link to the Writing Center, where students can submit drafts for review via e-mail. All currently enrolled students can access Ask TASC by logging onto myCommNet, clicking on the link to Blackboard Learn, and selecting Ask TASC from their course list.

Distance Learning (eLearning or Online Learning)

Distance Learning offers students a convenient way, without leaving the comforts of their home or office, to earn college credit part-time while continuing to work full-time. Distance Learning courses allow students to customize their higher education goals and to gain the collaborative and technical skills needed in today's workplace.

Learners should have some general knowledge of the Internet, e-mail and file attachment, upload, and download. In addition, students should be self-starters with strong organizational and time management skills.

At present, Three Rivers offers individual courses in a variety of academic areas. It is also possible for students to take a sufficient number of distance learning courses offered by the twelve public community colleges in Connecticut to earn an A.S. degrees in General Studies, in Computer Information Systems, and in Criminal Justice. A Certificate in Health Information Management Technician may also be available. Students pursuing some degrees or certificates may be required fulfill the college's residency requirement and take a minimum of fifteen credits at the granting college.

Students are strongly encouraged to have virus protection software installed on the computer. Any infected files that are uploaded to the Blackboard servers will be blocked on upload or deleted to prevent the spread of infection.

Technical Support:

Technical Requirements

Some of the courses require a DVD drive, as well as browser plug-ins to assist with displaying video streaming; interactive quizzes, activities and animation; and to navigate, view and print PDF files. To view these portions of the sites, browser plug-ins may be needed: RealPlayer, QuickTime, Shockwave, Adobe Flash Player and Adobe Reader. Generally, browsers will automatically download any plug-ins required by a particular page. To learn more about computer requirements visit the Browser Tune-up link at https://en-us.help.blackboard.com/Learn/9.1_2014_04/Instructor/015_Browser_Support/Browser_Checker.

Because Mozilla, Google, Apple, and Microsoft are private they can change their browsers without warning, Three Rivers recommends that students have two different installed browsers, e.g. Internet Explorer and Chrome on a Windows computer OR Safari and Chrome on a Mac.

To learn more about computer requirements visit the CSCU Support page or the Three Rivers Educational Technology and Distance Learning page: https://websupport.ct.edu/ OR http://www.trcc/commnet.edu/blackboard.

Technical Requirement/Support for myCommNet/Blackboard Browsers

Microsoft Internet Explorer	All versions
Mozilla Firefox	All versions
Safari	All versions
Chrome	All versions

A browser check is available at https://websupport.ct.edu/browser-check

Browser Settings

Student should ensure browsers allow the following or that the following is allowed or enabled for both Blackboard and myCommNet: third-party cookies, Javascript, Java, and pop-ups.

Operating Systems

Microsoft Windows	XP, Vista, 7, 8, 10
MacOS*	Tiger, Leopard, Snow Leopard, Mavericks, Sierra
Linux O/S	Supported

Operating Systems

Some courses will require the use of publisher platforms, which contain their own technical requirements. Student should check the materials for each course when signing up to determine if the course uses a publisher platform, and should review the publisher's requirements prior to classes starting.

Chromebooks have a specialized Chrome operating system. You may be unable to install software required by your course(s). While Chromebook operating systems may work for many uses on campus, Chromebooks are not recommended for distance learning courses or courses that are web-enhanced to a high degree such as nursing and computer science courses.

Service Learning

Service learning is a course-specific educational experience in which students participate in a collaborative and organized service activity in order to meet community needs. Students gain knowledge, skills, and a new perspective related to course objectives and civic responsibilities.

A number of fields of study offer service learning in their courses, including Sociology, Women's Studies, First Year Experience, Early Childhood Education, and Psychology. Additionally, there is a dedicated Service Learning course, SOC 278, Community Research. If you have any questions, please contact the Chair of the Service Learning Committee, Janet Hagen 860-215-9433 or jhagen@trcc.commnet.edu.

Developmental Courses

The College offers developmental courses in reading, writing, and math. These courses are designed to help students whose academic skills need improvement before they take required courses in their plan of study. Developmental classes provide individual support and concentrate on the specific skills students need for academic success. Areas of emphasis are covered under each course description.

Specialized Learning Space

LANGUAGE LAB

The Language Lab, located in D117, is designed for language teaching and learning. It serves as a quiet and useful space for students in all language courses (Chinese, French, Spanish, ASL, ESL) for working on assignments, practicing language, and using the additional materials and resources to enhance the language learning experience. Students may use the Language Lab during open lab hours and for scheduled tutoring/ support appointments. Students are able to record videos and work on speaking activities in the lab or can use the Language Lab computers that are equipped with different language software.

Accreditation and Memberships

Institutional Accreditation

New England Association of Schools and Colleges

Three Rivers Community College is accredited by the New England Association of Schools and Colleges, Inc. through its Commission on Institutions of Higher Education.

Accreditation of an institution of higher education by the New England Association indicates that it meets or exceeds criteria for the assessment of institutional quality periodically applied though a peer review process. An accredited college or university is one which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Accreditation by the New England Association is not partial but applies to the institution as a whole. As such, it is not a guarantee of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution.

Inquiries regarding the accreditation status by the New England Association should be directed to the administrative staff of the institution. Individuals may also contact:

Commission on Institutions of Higher Education, New England Association of Schools and Colleges
3 Burlington Woods Drive, Suite 100,
Burlington, MA 01803-4514
(781) 425 7785
cihe@neasc.org

Commission Letter

2012 Letter
2007 Letter

Self-Study Reports

2012 Self-Study Report
1992 Self-Study Report / Part 1 Page 1-88
1992 Self-Study Report / Part 2 Page 89-177
1992 Self-Study Report / Part 3 Page 178-266

Evaluation Team Reports

2012 Visiting Team Report
2002 Visiting Team Report

Interim Reports to the Commission

2015 Progress Report
2007 Fifth Year Interim Report
2007 Fifth Year Interim Report Appendix
2007 Report on Existing Academic Programming Offered Through Distance Education

Professional Accreditations

Accreditation Commission for Education in Nursing, Inc. (ACEN)

The Nursing Program is accredited by the Accreditation Commission for Education in Nursing, Inc., formerly the National League for Nursing Accrediting Commission Inc. (NLNAC). ACEN recognizes educational institutions or programs that have been found to meet or exceed standards of criteria for educational quality and assists in the further improvement of the institutions or programs as related to the resources invested, processes followed, and results achieved.

Accreditation Commission for Education in Nursing (ACEN)
3343 Peachtree Road NE, Suite 850
Atlanta, Georgia 30326
Phone: (404) 975-5000
Fax: (404) 975-5020
Email: info@acenursing.org
Web: www.acenursing.org

National Association for the Education of Young Children (NAEYC)

The Early Childhood Education Program is accredited by the National Association for the Education of Young Children (NAEYC). The NAEYC Commission on Early Childhood Associate Degree Accreditation awards accreditation to associate degree programs that demonstrate evidence of meeting the Professional Preparation Standards. Accreditation provides a framework for self-study, external evaluation and improvement in the quality of teacher preparation programs and promotes excellent in early childhood education.

NAEYC, 1313 L St. N.W. Suite 500, Washington DC 20005. Telephone: 202-232-8777 | 800-424-2460
www.NAEYC.org

Memberships

The College is a member of the following national organizations:

- Association of American Colleges and Universities (AAC&U)
- American Library Association, Inc. (ALA)
- Campus Compact
- Connecticut Association of Professional Financial Aid Administrators (CAPFAA)
- Council of Connecticut Academic Library Directors (CCALD)
- Commission on Institutions of Higher Education (CIHE) of the New England Association of Schools and Colleges (NEASC)
- College Consortium of International Studies (CCIS)
- Connecticut Library Consortium (CLC
- Connecticut League for Nursing, Inc.(CLN)
- Council for Support and Advancement of Education (CASE)
- NAFSA: Association of International Educators
- National Association for the Education of Young Children (NAEYC)
- National League for Nursing
- National Council for State Authorization Reciprocity (NC-SARA)
- New England Association for College Admission Counseling (NEACAC)
- New England Association of Collegiate Registrars and Admissions Officers (NEACRAO)
- New England Transfer Association (NETA)
- Norwich Rotary Club
- Organization for Associate Degree Nursing (OADN)

Workforce and Community Education

Three Rivers offers a wide variety of noncredit courses and programs to accommodate the academic, business, and cultural needs of the community. Courses may be offered on campus, at off-site locations within the local community and online.

Customized Business Training

Three Rivers can help you define and assess your needs as well as design and deliver complete training programs. The College's success with business and industry training programs can help you reach your business goals. No other single source can provide you with so many different resources, conveniently, reliably and affordably.

Your business is unique; no prepackaged solution can effectively meet its needs. TRCC has the flexibility to customize our services to your specific requirements. Workshops and seminars, even courses for college credit, are planned to fit your schedule at your facility or ours. Program content is tailored to answer your specific questions and solve your problems whatever the size of your workforce.

- Meet with us free of charge to discuss and analyze your organization's training ideas and needs
- Invite us to design a training solution specifically for your organization
- Let us work with you to develop an innovative, result orientated training approach
- Learn about the Colleges' subject matter experts - all of whom have industry experience
- Schedule training at your convenience.

Topics include manufacturing, healthcare, team building and communication skills.

Enrollment

TheWorkforce & Community Education Department has an open enrollment policy for noncredit programs. Noncredit registrations are accepted on a first-come, first-served basis. Due to limited seating, we encourage early registration.

Registration

Noncredit registrations will only be accepted and processed if all information is complete. You must provide the completed noncredit registration form, any prerequisite requirements (see course description), and payment in full. You will be contacted by mail or phone if the class is full.

Payments

All noncredit registrations received must be accompanied by the full amount due. Acceptable forms of payment are cash, money order, check or credit card payments (Visa, Discover, Amex, or MasterCard only). Credit card payments sent by fax or mail will be processed for the full amount of tuition and fees unless otherwise directed. A $25 returned check fee will be charged for any check not honored by a banking institution. Books and supplies are additional costs that must be paid for at the time of purchase.

Third Party Payments

If you receive tuition assistance from employers, agencies, or companies, you must submit a payment authorization on official letterhead signed by a recognized official of the organization to the Workforce Education Division. Attach that letter to your noncredit registration, mail it to our office, or fax it to (860) 215-9902.

WIOA - Workforce Investment Opportunity Act Funding

Are you unemployed, recently downsized, or under-employed? Three Rivers Community College offers a number of approved training programs that are funded through the Connecticut Department of Labor. Please contact your local American Job Center to see if you qualify or visit their website at http://www1.ctdol.state.ct.us/etc/index.asp to review the listing of qualifying programs.

Veterans' Tuition Reimbursement

Please contact the Three Rivers' Veterans Representative at 860-215-9235 for qualification requirements.

SNAP (supplemental Nutrition Assistance Program)

Students receiving SNAP assistance may be eligible to take some of our Workforce training programs for free.

Refund Policies for Noncredit Courses

A full refund for noncredit programs will only be considered when a student drops a class up to **one business day** prior to the first scheduled meeting. You may submit your request to the Workforce & Community Education Department by mail, e-mail (WCEinfo@threerivers.edu), fax 860-215-9902 or phone 860-215-9028. Refunds are mailed directly to you approximately two to four weeks from the processing date. No refunds OR credit towards another program will be considered after the first class has begun.

Noncredit Course Cancellation and Changes

The College reserves the right to limit the number of students registered in any course, to cancel any courses for which there is insufficient enrollment, and to make changes in the schedule as circumstances require. Cancellations will be announced before the first day of class. A full refund of tuition will be granted if the College cancels a course and the student chooses not to substitute another course.

Continuing Education Units

The Continuing Education Unit, or CEU, is a nationally recognized standard of measurement for continuing education activities. The concept provides individuals with recognition for their efforts to update or broaden their knowledge or skills. A CEU is generally defined as being equal to 10 class hours (50-minute hours).

Transcripts

Official transcripts for noncredit courses are available upon written request and there is no fee charge. Please send your request to the Workforce & Community Education Department and include: the student's full name, former names if applicable, address, date of birth, signature and social security number or student ID number, date of graduation or last term of attendance and the complete name and address of the recipient of the transcript if other than "self". Please allow 5-7 working days for processing. Telephone requests will not be processed.

Workforce Development

Allied Health

We currently offer on-site and on-line programs in allied health. On-site allied health programs are taught on campus within a classroom setting and clinical hours are spent at local medical facilities such as rehabilitation centers and community hospitals. Our current offerings include Certified Nurse Aide, Medical Billing and Coding, Medical Administrative Assistant, Patient Care Technician, Pharmacy Technician, Phlebotomy, EKG Technician, Dental Assisting and Veterinary Assistant.

Manufacturing

Connecticut is one of the top three states in the country when it comes to worker productivity, manufacturing worker productivity and manufacturing worker salaries. The Eastern Advanced Manufacturing Alliance (EAMA) is comprised of over 60 manufacturing companies from eastern and southeastern Connecticut whose mission is to educate and develop manufacturing workforce. Three Rivers is proud to have EAMA as a partner in promoting and implementing educational training programs.

Professional Development

Three Rivers offers a variety of professional development in the areas of leadership skills, supervisory skills, software training, real estate, small business, health and wellness, security officer training and more.

Special Interest/Personal Enrichment

We offer a variety of personal enrichment and special interest courses throughout the year. Interest programs have included programs such as boating safety, NOFA Organic Lawn Care, and other specialty classes.

Instructor-Facilitated Online Learning ED2GO®

Ed2go®, in conjunction with TRCC, offers wide variety of online courses ranging from preparatory certifications programs to personal enrichment. Every course includes an expert instructor and all can be taken from the convenience of your home or office. Our instructor-facilitated online courses are informative, fun, convenient, and highly interactive. Our instructors are famous for their ability to create warm and supportive communities of learners. It's no wonder that many long-lasting friendships have formed in our lively and intelligent discussion areas. Courses run for six weeks (with a two-week grace period at the end). Courses are project-oriented and include lessons, quizzes, hands-on assignments, discussion areas, supplementary links, and more. You can complete any of these courses entirely from your home or office and at any time of the day or night. All courses run for six to eight weeks and are composed of 12 lessons, representing 24 or more hours of instruction. You can ask questions and give or receive advice at any time during the course.

All courses require Internet access, e-mail, and an internet browser (ex: Microsoft Internet Explorer). Some courses may have additional requirements. Visit the Online Instruction Center for more information and a complete listing of courses at www.ed2go.com/trccce.

Contact Workforce Education

For information about the noncredit programs and services of the Workforce and Community Education Department please visit us on campus Monday - Friday from 8:00 AM - 5:00 PM in room A-113, call our main office at 860-215-9028 or visit our website at

http://www.threerivers.edu/academics/workforce-community-education/workforce-education/

Seniors' Programs

Adventures in Lifelong Learning

Adventures in Lifelong Learning (ALL) is under the auspices of Three Rivers Community College, Workforce & Community Education Department. The program offers an extensive selection of learning enrichment courses. The noncredit programs encompass such topics as art, history, religion, politics and a myriad of other subjects. The curriculum also provides courses for entertainment, such as the classic movie series. Field trips to art galleries, studios, museums and historic edifices are also an integral part of each semester's lifelong learning agenda.

The noncredit programs, starting in October and April of each year, are open to those who are 50 years of age and older. Registration takes place in the Fall and Spring and the cost is $15 per semester. The registration fee allows members to participate in all classes. Classes are held at the college campus. For more infomation please contact the ALL Office at 860-215-9316.

Definitions of Academic Terms

Throughout this catalog you will hear a number of terms that are unique to higher education. This glossary lists many of those terms in alphabetical order. If you need more help, please don't hesitate to ask your advisor.

AA - ASSOCIATE IN ARTS
An undergraduate degree awarded upon successful completion of a specified program of study in Liberal Arts and Sciences including the completion of a least 60 credits.

AAS - ASSOCIATE IN APPLIED SCIENCE
An undergraduate degree awarded upon successful completion of a program of study in an applied technology.

AS - ASSOCIATE IN SCIENCE
An undergraduate degree awarded upon successful completion of a specified program of study either in a subject area or in General Studies including the completion of at least 60 credits.

ACADEMIC ADVISING
An opportunity for students to meet with their advisors to obtain and review their plan of study and to select courses.

ACADEMIC ADVISOR
College staff member responsible for providing guidance in course or program related issues.

ACADEMIC TERM (SEMESTER)
Fall and spring periods consisting of 15 weeks.

ADD A COURSE
To enroll for additional courses after registration is complete, accomplished through the Registrar's Office.

ADD/DROP PERIOD
A period of approximately two weeks (Fall and Spring semester) after the first day of classes when students can add or drop a class through the Registrar's Office.

ADMINISTRATIVE NOTATIONS
Grades assigned to a student's transcript.

ADVANCED ELECTIVE
Course requirement(s) in a program of study which generally may be fulfilled by a course numbered 200/2000 or above. These correspond to sophomore level courses in traditional bachelor's degree programs. The courses that satisfy this requirement may vary from program to program; please consult with advisor.

ADVANCED LIBERAL ARTS AND SCIENCES ELECTIVE
The courses that satisfy this elective may vary; students should consult with their advisors. Advanced Liberal arts courses, numbered 200/2000 or above, generally include courses in the humanities, social sciences, natural sciences and math.

ALUMNI
Graduates, in the plural.

ARTICULATION AGREEMENT
A formal agreement between Three Rivers Community College and a four-year college or university which outlines specific course, grade point, and credit requirements necessary to transfer from Three Rivers to that four-year institution. Some articulation agreements are also established with high schools to provide advanced placement opportunities, advanced college credit and College Career Pathways or 2 +2 articulated college credit.

APL/ASSESSMENT OF PRIOR LEARNING
A process through which students may earn credit for college level learning acquired through non-collegiate experiences such as employment, military training, community service, and volunteer activities.

ARTS ELECTIVE
The courses that satisfy this elective may vary; students should consult with their advisors. Courses in the arts generally include courses in art, creative writing, graphics arts, music, world music cultures and Architecture of the World.

AUDIT
To take a course under a written arrangement with the faculty member and student in which the final grade is AU. Generally involves regular attendance and participation, but limits graded activities, such as exams; requires full payment of tuition and fees; paperwork must be returned to the Registrar's office no later than the fourth week of the first day of classes.

CAREER PROGRAM
A specialized degree designed to equip a student with the skills and general educational background needed for employment in a specific field, (i.e., Accounting, Business Administration, and Nursing)

CERTIFICATE PROGRAM
An academic program of study in a specific field intended for occupational training, upgrading or retraining, generally requiring 30 credits or less. A certificate is awarded upon successful completion of the program.

COMMENCEMENT
The formal ceremony conferring degrees and certificates upon qualified graduating students.

COMMON COURSE NUMBERING
Courses that are numbered the same at all Connecticut Community Colleges. Courses which have been converted to a common number are notated with an * after the descriptor, (i.e., NUC*).

CO-REQUISITE
A course which must be taken at the same time as another course. For example, Construction Graphics Lab is a co-requisite for Construction Graphics.

COURSE REFERENCE NUMBER (CRN)
A number assigned to a specific course section in the schedule of classes.

CREDIT COURSE
An academic course, numbered above 100/1000 in the college catalog, which may be applied toward completion of a degree or certificate. (See Developmental Course)

CREDIT HOUR
A standard measure of the amount of instructional time required to successfully complete a course. (For example, ENG* K101 - Composition °, is a 3 Credit Hour course, which usually means it will meet for 3 hours each week.) For the length of each class session and lab hours, if any, be sure to check with your advisor or a faculty member regarding specific courses.

CURRICULUM
Set of courses focused in a particular field (i.e., Accounting, Criminal Justice, Liberal Arts and Sciences, Nuclear Engineering Technology, Nursing).

DEGREE PROGRAM
An Associate in Arts (AA) or Associate in Science (AS) or Associate in Applied Science (AAS) plan of study requiring a minimum of 60 credits for completion.

DEVELOPMENTAL COURSE
A basic skill development course numbered below 100/1000 in the College catalog which is credited in meeting financial aid eligibility and veterans benefits but does not count toward the minimum requirements for graduation. (See Credit Course)

DISTANCE LEARNING
Courses offered via the Internet.

DROP FROM A COURSE
To cease to participate in a course after registration is complete, accomplished through the Registrar's Office.

ELECTIVE
Course requirement(s) in a program of study which may be fulfilled by choosing from a variety of specified courses.

ELECTIVE, ADVANCED
Course requirement(s) in a program of study which generally may be fulfilled by a course numbered 200/2000 or above. The courses that satisfy this requirement may vary from program to program; please consult with advisor.

ELECTIVE, LIBERAL ARTS & SCIENCES
Course in a plan of study which a student may choose from the humanities, social sciences, math or natural sciences fields. The courses that satisfy this requirement may vary from program to program; please consult with advisor.

ELECTIVE, OPEN (OR UNRESTRICTED)
Course requirement(s) in a program of study that may be fulfilled with any course (numbered above 100/1000) of the student's choosing.

ELECTIVE, TECHNICAL
A college credit course chosen by the student to fulfill the academic credit requirements for a degree from the student's major technology or any technology with the approval of the academic advisor.

ENGINEERING TECHNOLOGY
Lies closest to the engineer in the occupational spectrum between the crafts person and the engineer. Requires the application of scientific and engineering knowledge and methods combined with technical skills in support of engineering activities. "Engineering technician" refers to a graduate of an associate degree program. Graduates of baccalaureate programs are called "engineering technologists."

FIELD WORK EXPERIENCE
Work experience given for credit, under supervision of an agency or employer and College staff or faculty member.

FINANCIAL AID
Funding provided to students from various sources to assist in defraying expenses of college (See Financial Aid Information and Policies Section of this catalog).

FINANCIAL AID FORM (FAFSA)
A standardized application including detailed financial data, which is required to determine eligibility for all financial aid programs.

FOREIGN LANGUAGE ELECTIVES
Two semesters of the same foreign language are required. (Liberal Arts and Sciences electives may be substituted if two years of the same foreign language with a grade of "C" or higher were completed at the high school level. High school transcript and college verification are required for substitution.)

FULL-TIME (STUDENT)
Student registered for 12 or more credits in a semester at Three Rivers.

GPA (CUMULATIVE GPA)
Grade Point Average. Used to compute academic standing (see General Academic Information and Policies Section of this catalog).

GRADUATION
Certification of the completion of all degree/certificate requirements by the posting of the appropriate degree to the student's academic record.

HYBRID
Courses offered via the Internet and on-ground.

HUMANITIES
Humanities courses which satisfy elective requirements may vary from program to program; please consult with advisor.

LAB HOURS
Lab hours are learning activities, which are "hands- on" rather than the traditional lecture/discussion. Lab hours provide experiments/exercises that focus on the lecture applications. Since lab hours are the co-requisite to the lecture/discussion portion of a class, students need to register for both (lecture and lab) course reference numbers (CRN's) in the same semester.

LIBERAL ARTS AND SCIENCES ELECTIVES
The courses that satisfy this elective may vary; students should consult with their advisors. Liberal arts courses generally include courses in the humanities, social sciences, natural sciences and math.

MATRICULATION
Enrollment in credit courses applicable to the requirements of a degree or certificate program.

NATURAL SCIENCE ELECTIVES
The courses that satisfy this elective may vary; students should consult with their advisors. Courses in the natural sciences generally include laboratory and non-laboratory courses in biology, chemistry, earth science, environmental, physics, nutrition and oceanography.

NON-CREDIT
Non-academic course oriented to personal interest or continuing education needs of persons seeking non-credit bearing instruction.

PART-TIME (STUDENT)
Student enrolled for 11 or fewer credits in a semester.

PHI THETA KAPPA
A national honorary organization recognizing academic scholarship by community/technical college students.

PLAN OF STUDY
A worksheet of courses required to earn a degree in a chosen area of study. Used as a roadmap for course selection. Used to conduct a final audit for graduation. Must be signed by the assigned academic advisor in order to register for the student's second semester.

PRACTICUM
See Field Work Experience.

PREREQUISITE
Skill or course required for entry into a course or program of study.

PROGRAM OF STUDY
(See Degree Program and Certificate Program)

RESIDENCE (CREDITS EARNED IN)
A minimum of 15 credit hours applicable to an associate degree (25% of a program) must be granted by Three Rivers as opposed to credits transferred in from another institution of higher education or earned through proficiency examination.

SEMESTER (TERM)
See Academic Term.

SOCIAL SCIENCES ELECTIVES
The courses that satisfy this elective may vary; students should consult with their advisors. Courses in the social sciences generally include courses in anthropolgy, economics, history, geography, psychology, political science, sociology, international studies and selected courses from other disciplines.

TRANSCRIPT
Permanent record of student academic grades.

TRANSFER GUIDELINES
Informal documents which suggest courses to be taken at Three Rivers that transfer into a four-year college.

TRANSFER PROGRAM
A degree program designed for students who plan to continue their academic careers beyond the associate degree level through transfer to a four-year college or university.

TUITION
Charges to student by the college for registration in credit courses of instruction.

WITHDRAW FROM A COURSE
To cease to participate in a course after the add/drop period, accomplished through the Registrar's Office.

WITHDRAW FROM THE COLLEGE
To cease to participate in all courses for one semester or more, accomplished through the Registrar's Office.

Catalog Home

Welcome to the Three Rivers Community College Catalog 2018-2019

About the Catalog

The Three Rivers Community College Catalog provides an overview of the College's curriculum, academic programs, facilities, and educational resources. It also includes College policies on academic rules, regulations, and procedures; degree and certificate requirements; and a detailed listing and description of courses. Links to other information such as admissions, financial aid and student services are also included.

The College Catalog is updated each spring for the upcoming academic year. The previous year's edition is archived at that time with other past catalogs. Information in this catalog applies to students attending the Fall 2018, Spring 2019, and Summer 2019 semesters.

Disclaimer

Please note that the information concerning academic requirements, courses, and programs of study in the Catalog does not establish an irrevocable contract between the student and the College. Every effort is made to present accurate current information at the time of publication. However, due to unforeseen circumstances, the College reserves the right to make changes as needed at any time, without notice.

How to Use the Catalog

Navigating the Catalog

To navigate through the Catalog, please use the links in the left-hand navigation menu, or use the Catalog Search box at the top of the left-hand navigation menu.

Advanced Search

An advanced search function is located under the Catalog Search box at the top of the left-hand navigation menu. It allows for searches of specific words or phrases.

Plan of Study Document (Degree Planner)

You will see the Plan of Study (Degree Planner) icon at the upper right corner of each program page. Select this icon for that program's Plan of Study Form which can be printed.

My Favorites

My Favorites is your personal catalog. It allows you to save and track your favorite degree programs, courses and other areas of the catalog that interest you. Click the My Favorite link, located at the bottom of the left-hand navigation menu, to create your personal catalog.

1. To save a section of the catalog, click on the Star icon in the upper right-hand corner of the page.
2. To access your saved sections, click on the My Favorites link at the bottom of the left-hand navigation menu.

Share

Share a page from the catalog on Facebook or Twitter by clicking the Share icon in the upper right-hand corner of the page.

Print-Friendly Page

If you want to print a section of the catalog, click the Print icon in the upper right-hand corner of the page. It will open a print-friendly version of the page.

Help

Having difficulty using the catalog? Click the Help icon, located in the upper right-hand corner of the page, to access Acalog ACMS Online Help.

Archived Catalogs

For prior year catalogs, please see the drop-down menu in the upper right for a list of archived catalogs.

General Contact Info

Three Rivers Community College Campus

574 New London Turnpike
Norwich, CT 06360-6598

(860) 215-9016

welcomecenter@threerivers.edu

Off-Campus Instructional Location

Naval Submarine Base
Building 83
Groton, CT 06349
860-445-5575

Three Rivers Websites

Main site: www.threerivers.edu

Extrranet (for students, faculty and staff): www.trcc.commnet.edu

Online Access to Banner, Blackboard and email: http://my.commnet.edu

Social Media

Facebook - www.facebook.com/ThreeRiversCC

Twitter - twitter.com/3RiversCC

Instagram - www.instagram.com/threeriverscommunitycollege/

Linked In - www.linkedin.com/school/three-rivers-community-college-cp/

YouTube - www.youtube.com/channel/UCmL0Jx78Jp7QUshO8vJuA9A

Directory

Faculty and Staff Directory - http://www.threerivers.edu/directory/

Office Directory (includes Fax numbers) - http://www.threerivers.edu/office-directory/

Academic Departments - http://www.threerivers.edu/academics/degrees-certificates/academic-department/

Academic Calendar Fall 2015 - Summer 2016

- Fall 2015
- Winter 2015
- Spring 2016
- Summer 2016

Aug 27	New Student Orientation
Aug 30	Registration Deadline and Last Day for Full Tuition Refund
Aug 31	**Classes Begin**
	Add and Drop Periods Begin
Sep 7	**Labor Day - College Closed**
	Last Day for Registered Students to Add a Class

Sep 14	Last Day to Drop a class and Partial Tuition Refund for 15 Week Session
Sep 17	Constitution Day - Classes In Session
Sep 28	Last Day to Select Audit Option for 15 Week Session
Sep 30	Professional Day
Oct 12	**Columbus Day Observed - No classes in session**
Nov 2	Continuing Degree-Seeking Student Registration for Winter '15 Intersession and Spring '16 Semester
Nov 9	Last Day to Select Pass/Fail Option for 15 Week Session
	Last Day to Submit Incomplete Work from Spring '15 Semester and Summer '15 Sessions
Nov 11	Veteran's Day Observed - **College Open Classes In Session**
Nov 16	New Student and Non Degree-Seeking Student Registration for Winter '15 Intersession and Spring '16 Semester
	Last Day to apply for Spring Graduation (May '16)
Nov 25	Make-up/Supplemental day - Instructor Discretion
Nov 26-29	**Thanksgiving Recess - No Classes in Session**
Dec 8	Make-up/Supplemental day - Instructor Discretion/ Reading Day
Dec 14	Last Day to Withdraw from classes
Dec 21	Last Day of 15 Week Session
Dec 22-23	Make-up/Supplemental days - Instructor Discretion
Dec 25	**Holiday - College Closed**
Dec 28	Final Grades Due Registrar's Office
Dec 30	Grades available on web

Fall 2015 Modular 5 Week Sessions

Five Week - Mod 1

Aug 27	New Student Orientation
Aug 30	Last Day to drop classes for a full tuition refund
Aug 31	First Day of Class for Monday & Wednesday Classes
Sept 1	First Day of Class for Tuesday & Thursday Classes
Sept 2	Instructor Signature Required to Add Classes
Sept 3	Last Day for a Partial Refund
Sept 7	**Labor Day - College Closed**
Sept 8	Last Day to Select Audit Option
Sept 18	Last Day to Select Pass/Fail Option
Sept 30	Last Day to Withdraw From Classes
Oct 1	Last Day of Class for Tuesday & Thursday Classes
Oct 5	Last Day of Class for Monday & Wednesday Classes

Five Week - Mod 2

Oct 5	Last Day to Drop Classes for a Full Tuition Refund
Oct 6	First Day of Class for Tuesday & Thursday Classes
Oct 7	First Day of Class for Monday & Wednesday Classes
Oct 8	Instructor Signature Required to Add Classes
Oct 9	Last Day for a Partial Refund
Oct 14	Last Day to Select Audit Option
Oct 26	Last Day to Select Pass/Fail Option
Nov 4	Last Day for Withdraw from Classes
Nov 5	Last Day of Class for Tuesday & Thursday Classes

Nov 11	Last Day of Class for Monday & Wednesday Classes

Five Week - Mod 3

Nov 9	Last Day to Drop Classes for a Full Tuition Refund
Nov 10	First Day of Class for Tuesday & Thursday Classes
Nov 16	First Day of Class for Monday & Wednesday Classes
Nov 17	Last Day for a Partial Refund
	Last Day to Select Audit Option
Nov 30	Last Day to Select Pass/Fail Option
Dec 8	Make-up/Supplemental Day - Instructor Discretion
Dec 16	Last Day for Withdraw from Classes
Dec 17	Last Day of Class for Tuesday & Thursday Classes
Dec 21	Last Day of Class for Monday & Wednesday Classes

Fall 2015 Late Start 12 Week Session

Sep 18	Last Day to Drop Classes for a Full Tuition Refund - in person
Sep 20	Last Day to Drop Classes for a Full Tuition Refund - online
Sep 21	12 week late start modular session begins
Oct 11	Last Day to Select Audit Option
Nov 16	Last Day to Select Pass/Fail Option
Dec 11	Last Day for Withdraw from Classes
Dec 18	12 week late start modular session ends

Winter 2015 3 Week Session

Dec 27	Last Day for Full Tuition Refund
Dec 28	**Classes Begin**
Dec 29	Instructor Signature Required to Add Classes
Jan 1	**New Year's Day Observed - Classes Not in Session, College Closed**
Jan 13	Last Day to Withdraw from classes
Jan 15	Last Day of Classes
Jan 19-20	Class/lab, makeup/supplemental session
Jan 21	Final Grades Due

Spring 2016 Standard 15 Week Session

Jan 18	**Martin Luther King Day - College Closed**
Jan 19	New Student Orientation
Jan 20	Registration deadline and Last Day for Full Tuition Refund
Jan 21	**Classes Begin**
	Add and Drop Periods Begin
Jan 27	Last Day for Registered Students to Add a Class
Jan 29	Professional Day
Feb 3	Last Day to Drop a class and Partial Tuition Refund
Feb 12-15	**Lincoln and Washington's Birthday Observed - College CLOSED, Classes NOT in Session**
Feb 17	Last Day to Select Audit Option
Mar 15	Last Day to Apply for Summer (August '16) Graduation
Mar 19-27	**Spring Break - Classes Not in Session**
Mar 25-26	**College Closed**

Mar 31	Last Day to Select Pass/Fail Option - 15 Week Session
	Last Day to Submit Incomplete Work from Fall '15 semester and Intersession '15 Sessions
Apr 1	Continuing Degree-Seeking Student Registration for Summer '16 Session and Fall '16 Semester
Apr 18	New Student and Non-Degree Seeking Student Registration for Summer '16 Session and Fall '16 Semester
May 5	Make-up/Supplemental Day - Instructor Discretion/ Reading Day
May 9	Last Day to Withdraw from Classes
May 16	Last Day of 15 Week Session
May 17-18	Make-up/Supplemental Day - Instructor Discretion
May 19	**Commencement**
May 20	Final Grades Due
May 25	Student Grades Available on Web
May 30	**Memorial Day - College Closed**
June 15	Last Day to Apply for Fall (December '16) Graduation

Spring 2016 Modular 5 Week Sessions

Five Week - Mod 1

Jan 20	Last Day to Drop Classes for a Full Tuition Refund
Jan 21	First Day of Class for Tuesday & Thursday Classes
Jan 25	First Day of Class for Monday & Wednesday Classes
Jan 26	Last Day for Partial Refund
Jan 28	Last Day to Select Audit Option
Feb 10	Last Day to Select Pass/Fail Option
Feb 22	Last Day to Withdraw from Classes

Feb 23	Last Day of Class for Tuesday & Thursday Classes
Feb 29	Last Day of Class for Monday & Wednesday Classes

Five Week - Mod 2

Feb 24	Last Day to Drop Classes for a Full Tuition Refund
Feb 25	First Day of Class for Tuesday & Thursday Classes
Mar 2	First Day of Class for Monday & Wednesday Classes
Mar 3	Last Day for Partial Refund
	Last Day to Select Audit Option
Mar 16	Last Day to Select Pass/Fail Option
Apr 4	Last Day to Withdraw from Classes
Apr 5	Last Day of Class for Tuesday & Thursday Classes
Apr 11	Last Day of Class for Monday & Wednesday Classes

Five Week - Mod 3

Apr 11	Last Day to Drop Classes for a Full Tuition Refund
Apr 12	First Day of Class for Tuesday & Thursday Classes
Apr 13	First Day of Class for Monday & Wednesday Classes
Apr 15	Last Day for Partial Refund
Apr 18	Last Day to Select Audit Option
May 2	Last Day to Select Pass/Fail Option
May 5	Make-up/Supplemental day - Instructor Discretion
May 13	Last Day to Withdraw from Classes
May 16	Last Day of Class for Monday & Wednesday Classes
May 17	Last Day of Class for Tuesday & Thursday Classes

Spring 2016 Late Start 12 Week Session

Feb 10	Last Day to Drop Classes for a Full Tuition Refund
Feb 11	12 wk late start modular session begins
Feb 22	Last Day for partial tuition refund
Mar 3	Last day to select audit option
Apr 7	Last day to select pass/fail option
May 9	Last day to withdraw from classes
May 16	12 Wk late start modular session ends

Summer 2016

First - 7 Week Mod

May 22	Last Day to Drop Classes for a Full Tuition Refund
May 23	First Day of Class for Monday & Wednesday Classes
May 24	First Day of Class for Tuesday & Thursday Classes
May 30	**Memorial Day Observed - College Closed**
May 31	Last Day to Select Audit Option
Jun 10	Last Day to Select Pass/Fail Option
Jun 15	Last Day to Apply for Fall (December '16) Graduation
Jul 4	**Independence Day Observed - College Closed**
Jul 5	Last Day to Withdraw from Classes
Jul 7	Last Day of Class for Tuesday & Thursday Classes
Jul 13	Last Day of Class for Monday & Wednesday Classes
Jul 15	Final Grades Due

Late Start - 6 Week Mod

Jul 4	**Independence Day Observed - College Closed**
Jul 13	Last Day to Drop Classes for a Full Tuition Refund
Jul 14	First Day of Class for Tuesday & Thursday Classes
Jul 18	First Day of Class for Monday & Wednesday Classes
Jul 19	Last Day to Select Audit Option
Jul 29	Last Day to Select Pass/Fail Option
Aug 10	Last Day to Withdraw from Classes with Instructor's Signature
Aug 23	Last Day of Class for Tuesday and Thursday Classes
Aug 24	Last Day of Class for Monday and Wednesday Classes
Aug 26	Final Grades Due

8 Week Mod

May 31	Last Day to Drop Classes for a Full Tuition Refund
Jun 1	First Day of Class for Monday & Wednesday Classes
Jun 2	First Day of Class for Tuesday & Thursday Classes
Jun 10	Last Day to Select Audit Option
Jun 15	Last Day to Apply for Fall (December '16) Graduation
Jul 4	**Independence Day Observed - College Closed**
Jul 13	Last Day to Select Pass/Fail Option
Jul 22	Last Day to Withdraw from Classes
Jul 26	Last Day of Class for Tuesday & Thursday Classes
Jul 27	Last Day of Class for Monday & Wednesday Classes
Jul 28	Final Grades Due

Academic Calendar Fall 2016 - Summer 2017

(dates subject to change) revised 12/13/2016

- Fall 2016
- Winter 2016
- Spring 2017
- Summer 2017

FALL 2016 Standard 15 Week Session

Aug 25	New Student Orientation
Aug 28	Registration deadline and last day to drop classes for full tuition refund - online (Aug 26 - in person)
Aug 29	Classes begin, Add and Drop Periods Begin
Sep 5	**Labor Day - college closed**
Sep 6	Last day for registered students to add a class
Sep 7	Convocation
Sep 11	Last day to drop classes and partial tuition refund
Sep 16	Constitution Day observed (classes in session)
Sep 26	Last day to select audit option
Oct 14	Professional Day (classes in session)
Oct 31	Advising day (classes in session)
Nov 1	Continuing Degree-Seeking Student Registration for Winter '16 Intersession and Spring '17 Semester
	Advising day (classes in session)
Nov 7	Last day to select pass/fail option, last day to submit incomplete work from Spring '16 and Summer '16
Nov 15	New Student and Non Degree-Seeking Student Registration for Winter '16 Intersession and Spring '17 Semester, and last day to apply for spring graduation (May '17)
Nov 23	College Open - No classes in session
Nov 24-27	**Thanksgiving Recess**
Dec 6 & 9	Reading/make-up days

Dec 9	Last Day to withdraw from classes
Dec 16	Last Day of 15 Week Session
Dec 21-22	Make-up/supplemental days - instructor discretion
Dec 23	Final grades due to Registrar's Office
Dec 26	**Christmas Day Observed - college closed**
Dec 28	Grades available on web

FALL 2016 Modular 5 Week Sessions

FIVE WEEK - MOD 1

Aug 28	Last day to drop classes for a full tuition refund - online (Aug 26 - in person)
Aug 29	First day of class for Mon/Wed classes
Aug 30	First day of class for Tues/Thurs classes
Sep 1	Last day to drop classes and partial tuition refund
Sep 5	**Labor Day - college closed**
Sep 6	Last day to select audit option
Sep 18	Last day to select pass/fail option
Sep 28	Last day to withdraw from classes
Sep 29	Last day of class for Tues/Thurs classes
Oct 3	Last day of class for Mon/Wed classes

FIVE WEEK - MOD 2

Oct 3	Last day to drop classes for a full tuition refund
Oct 4	First day of class for Tues/Thurs classes
Oct 5	First day of class for Mon/Wed classes
Oct 7	Last day to drop classes and partial tuition refund
Oct 12	Last day to select audit option
Oct 24	Last day to select pass/fail option

Nov 2	Last day to withdraw from classes
Nov 3	Last day of class for Tues/Thurs classes
Nov 9	Last day of class for Mon/Wed classes

FIVE WEEK - MOD 3

Nov 9	Last day to drop classes for a full tuition refund
Nov 10	First day of class for Tues/Thurs classes
Nov 14	First day of class for Mon/Wed classes
Nov 15	Last day to drop classes and partial tuition refund
Nov 18	Last day to select audit option
Nov 23	College Open - no classes in session
Nov 24-27	**Thanksgiving Recess**
Dec 1	Last day to select pass/fail option
Dec 6 & 9	Reading/make-up days
Dec 16	Last day to withdraw from classes
Dec 19	Last day of class for Mon/Wed classes
Dec 20	Last day of class for Tues/Thurs classes

FALL 2016 Modular 12 Week Session

Sep 18	Last day to drop classes for a full tuition refund - online (Sep 16 in-person)
Sep 19	12 Wk Late Start Modular Session begins
Sep 29	Last day to drop classes and partial tuition refund
Oct 10	Last day to select audit option
Nov 14	Last day to select pass/fail option
Dec 6 & 9	Reading/make-up days
Dec 12	Last day to withdraw from classes
Dec 15	12 Wk Late Start Modular session ends

WINTER 2016 3 Week Session

Dec 26	Last day to drop classes for a full tuition refund - online (Dec 23 in-person)
Dec 27	**Classes begin**
Jan 2	**New Year's Day observed - college closed - classes not in session**
Jan 13	Last day to withdraw from classes
Jan 18	Last day of classes
Jan 19	Final grades due

SPRING 2017 Standard 15 Week Session

Jan 16	**Martin Luther King Day - college closed**
Jan 17	New student orientation
Jan 18	Professional Day, Registration deadline and last day to drop classes for full tuition refund
Jan 19	Classes begin, Add and drop periods begin
Jan 25	Last day for registered students to add a class
Feb 1	Last day to drop classes and partial tuition refund
Feb 16	Last day to select audit option
Feb 17-20	**Lincoln's and Washington's Birthday observed - classes not in session**
Feb 17	Classes NOT in session - College OPEN
Feb 20	Classes NOT in session - College CLOSED
Mar 15	Last day to apply for summer (August '17) graduation
Mar 13-19	**Spring Break - classes not in session**
Mar 30	Last day to select pass/fail option, last day to submit incomplete work from Fall '16 and Intersession '16
Apr 10	Continuing Degree-Seeking Student Registration for Summer '17 Session and Fall '17 Semester
Apr 10	Advising day (classes in session)
Apr 11	Advising day (classes in session)
Apr 14	**Good Friday - college closed**

Apr 17	New Student and Non-Degree Seeking Student Registration for Summer '17 Session and Fall '17 Semester
May 4	Reading/make-up day
May 8	Last day to withdraw from classes
May 15	Last day of 15 week session
May 22	Final grades due
May 24	Student grades available on web
	Commencement
May 29	**Memorial Day - college closed**
June 15	Last day to apply for fall (December '17) graduation

SPRING 2017 Modular 5 Week Sessions

FIVE WEEK - MOD 1

Jan 18	Last day to drop classes for a full tuition refund
Jan 19	First day of class for Tues/Thurs classes
Jan 23	First day of class for Mon/Wed classes
Jan 24	Last day to drop classes and partial tuition refund
Jan 27	Last day to select audit option
Feb 8	Last day to select pass/fail option
Feb 17-20	**Lincoln's and Washington's birthdays observed - classes not in session**
Feb 20	Last day to withdraw from classes - online
Feb 21	Last day of class for Tues/Thurs classes
Feb 27	Last day of class for Mon/Wed classes

FIVE WEEK - MOD 2

Feb 27	Last day to drop classes for a full tuition refund
Feb 28	First day of class for Tues/Thurs classes

Mar 1	First day of class for Mon/Wed classes
Mar 3	Last day to drop classes and partial tuition refund
Mar 8	Last day to select audit option
Mar 13-19	**Spring Break - classes not in session**
Mar 21	Last day to select pass/fail option
Apr 5	Last day to withdraw from classes
Apr 6	Last day of class for Tues/Thurs classes
Apr 10	Last day of class for Mon/Wed classes

FIVE WEEK - MOD 3

Apr 10	Last day to drop classes for a full tuition refund
Apr 11	First day of class for Tues/Thurs classes
Apr 12	First day of class for Mon/Wed classes
Apr 13	Last day to drop classes and partial tuition refund
Apr 14	Last day to select audit option
May 1	Last day to select pass/fail option
May 4	Reading/make-up day
May 12	Last day to withdraw from classes
May 15	Last day of class for Mon/Wed classes
May 16	Last day of class for Tues/Thurs classes

SPRING 2017 12 Week Session

Feb 12	Last day to drop classes for a full tuition refund - online (Feb 10 in-person)
Feb 13	12 Week Late Start Modular Session begins
Feb 17-20	**Lincoln's and Washington's birthdays observed - classes not in session**
Feb 23	Last day to drop classes and partial tuition refund
Mar 6	Last day to select audit option

Mar 13-19	**Spring Break - classes not in session**
Apr 17	Last day to select pass/fail option
May 4	Reading day
May 12	Last day to withdraw from classes
May 16	12 week late start modular session ends

SUMMER 2017

FIRST - 7 WEEK Module

May 21	Last day to drop classes for full tuition refund - online (May 19 in-person)
May 22	First day of class for Mon/Wed classes
May 23	First day of class for Tues/Thurs classes
May 29	**Memorial Day observed - college closed**
Jun 2	Last day to select audit option
Jun 12	Last day to select pass/fail option
Jun 15	Last day to apply for fall (December '17) graduation
Jul 4	**Independence Day Observed - college closed**
Jul 9	Last day to withdraw from classes - online (Jul 7 in-person)
Jul 10	Last Day for Mon/Wed classes
Jul 11	Last day for Tues/Thurs classes
Jul 12	Final Grades Due

8 WEEK Module

Jun 4	Last day to drop classes for full tuition refund - online (Jun 2 in-person)
Jun 5	First day of class for Mon/Wed classes
Jun 6	First day of class for Tues/Thurs classes
Jun 15	Last day to apply for fall (December '17) graduation
Jun 16	Last day to select audit option

Jul 4	**Independence Day observed - college closed**
Jul 10	Last day to select pass/fail option
Jul 25	Last day to withdraw from classes
Jul 26	Last day of class for Mon/Wed classes
Aug 1	Last day of class for Tues/Thurs classes
Aug 3	Final grades due

LATE START - 6 WEEK Module

Jul 11	Last day to drop classes for full tuition refund
Jul 12	First day of class for Mon/Wed classes
Jul 13	First day of class for Tues/Thurs classes
Jul 21	Last day to select audit option
Aug 1	Last day to select pass/fail option
Aug 18	Last day to withdraw from classes
Aug 21	Last day of class for Mon/Wed classes
Aug 22	Last day of class for Tues/Thurs classes
Aug 24	Final grades due

Academic Calendar Fall 2017 - Summer 2018

(dates subject to change) revised 05/30/2017

- Fall 2017
- Winter 2017
- Spring 2018
- Summer 2018

PlEASE NOTE THAT FOR ANY STATE HOLIDAY NOT LISTED IN THE BELOW SESSION INFORMATION, CLASSES ARE HELD

FALL 2017 Standard 15 Week Session

Aug 28	Registration deadline and last day to drop classes for full tuition refund
Aug 29	Classes begin, add and drop periods begin
Sep 4	**Labor Day - college closed**
Sep 4	Last day for registered students to add a class - online **(Sep 1 in person)**
Sep 5-8	Welcome Week
Sep 11	Last day to drop classes and partial tuition refund
Sep 18	Constitution Day observed (classes in session)
Sep 22	Professional Day (classes in session)
Sep 26	Last day to select audit option
Oct 17	Reading Day ***See** Additional Notes
Oct 31	Advising Day (classes in session)
Nov 1	Continuing Degree-Seeking Student Registration for Winter '17 Intersession and Spring '18 Semester
	Advising day (classes in session)
Nov 7	Last day to select pass/fail option, last day to submit incomplete work from Spring '17 and Summer '17
Nov 15	New Student and Non Degree-Seeking Student Registration for Winter '17 Intersession and Spring '18 Semester, and last day to apply for spring graduation (May '18)
Nov 22	College open - no classes in session
Nov 23-26	**Thanksgiving recess**
Dec 11	Last day to withdraw from classes
Dec 18	Last day of 15 Week Session
Dec 22	Final grades due to Registrar's office
Dec 25	**Christmas Day - college closed**
Dec 27	Grades available on web

FALL 2017 Modular 7 Week Modules

Seven Week - Mod 1

Sep 4	**Labor Day - college closed** and

	Registration deadline and last day to drop classes for a full tuition refund - online **(Sep 1 in person)**
Sep 5	First day of class for Tues/Thurs classes
Sep 6	First day of class for Mon/Wed classes
Sep 11	Last day to drop classes and partial tuition refund
Sep 15	Last day to select audit option
Oct 6	Last day to select pass/fail option
Oct 17	Reading Day *See Additional Notes
Oct 19	Last day to withdraw from classes
Oct 23	Last day of class for Mon/Wed classes
Oct 24	Last day of class for Tues/Thur classes

Seven Week - Mod 2

Oct 24	Registration deadline and last day to drop classes online for a full tuition refund
Oct 25	First day of class for Mon/Wed classes
Oct 26	First day of class for Tues/Thurs classes
Oct 31	Last day to drop classes and partial tuition refund
Nov 6	Last day to select audit option
Nov 22	College open - no classes in session
Nov 23-26	**Thanksgiving recess**
Nov 24	Last day to select pass/fail option
Dec 11	Last day to withdraw from classes
Dec 13	Last day of class for Mon/Wed classes
Dec 14	Last day of class for Tues/Thurs classes

FALL 2017 Modular 12 Week/Flex Start Module

Sep 18	Registration deadline and last day to drop classes for a full tuition refund
Sep 19	12 week session begins
Sep 30	Last day to drop classes and partial tuition refund

Oct 10	Last day to select audit option
Oct 17	Reading Day* *See Additional Notes
Nov 13	Last day to select pass/fail option
Dec 11	Last day to withdraw from classes
Dec 15	12 week session ends

WINTER 2017 3 Week Session

Dec 26	Registration deadline and last day to drop classes for a full tuition refund
Dec 27	**Classes begin**
Jan 1	**New Year's Day observed - college closed - classes not in session**
Jan 11	Last day to withdraw from classes
Jan 16	Last day of classes
Jan 17	Final grades due

SPRING 2018 Standard 15 Week Session

Jan 11	New student orientation
Jan 15	**Martin Luther King Day - college closed**
Jan 16	Professional Day, Registration deadline and last day to drop classes for full tuition refund
Jan 17	Classes begin, Add and drop periods begin
Jan 23	Last day for registered students to add a class
Jan 30	Last day to drop classes and partial tuition refund
Feb 14	Last day to select audit option
Feb 16-19	**Presidents' Recess - classes not in session**
Feb 16	Classes NOT in session - college open
Feb 19	Classes NOT in session - college closed
Mar 12-18	**Spring Break - classes not in session**
Mar 15	Last day to apply for summer (August '18) graduation
Mar 28	Last day to select pass/fail option, last day to submit incomplete work from Fall '17 and Intersession '17

Mar 29	Advising day (classes in session)
Mar 30	**Day of Reflection - college closed**
Apr 2	Continuing Degree-Seeking Student Registration for Summer '18 Session and Fall '18 Semester
	Advising Day (classes in session)
Apr 16	New Student and Non-Degree Seeking Student Registration for Summer '18 Session and Fall '18 Semester
May 4	Last day to withdraw from classes
May 11	Last day of 15 week session
May 18	Final grades due
May 21	Student grades available on web
May 23	**Commencement**
May 28	**Memorial Day - college closed**
June 15	Last day to apply for fall (December '18) graduation

SPRING 2018 Modular 7 Week Modules

Seven Week - MOD 1

Jan 21	Registration deadline and last day to drop classes for a full tuition refund online (**Jan 19 -** in person)
Jan 22	First day of class for Mon/Wed classes
Jan 23	First day of class for Tues/Thur classes
Jan 28	Last day to drop classes and partial tuition refund
Feb 2	Last day to select audit option
Feb 16-19	**Presidents' Recess - classes not in session**
Feb 23	Last day to select pass/fail option
Mar 7	Last day to withdraw from classes
Mar 8	Last day of class for Tues/Thurs classes
Mar 12-18	**Spring Break - classes not in session**
Mar 19	Last day of class for Mon/Wed classes

Seven Week - MOD 2

Mar 19	Registration deadline and last day to drop classes for a full tuition refund
Mar 20	First day of class for Tues/Thurs classes
Mar 21	First day of class for Mon/Wed classes
Mar 26	Last day to drop classes online and partial tuition refund (**Mar 23** in person)
Mar 30	**Day of Reflection - college closed**
Apr 2	Last day to select audit option
Apr 20	Last day to select pass/fail option
May 2	Last day to withdraw from classes
May 3	Last day of class for Tues/Thurs classes
May 7	Last day of class for Mon/Wed classes

SPRING 2018 Modular 12 Week/Flex Start Module

Feb 11	Registration deadline and last day to drop classes for a full tuition refund - online (**Feb 9** in person)
Feb 12	12 Week session begins
Feb 16-19	**Lincoln's and Washington's birthdays observed - classes not in session**
Feb 23	Last day to drop classes and partial tuition refund
Mar 5	Last day to select audit option
Mar 12-18	**Spring Break - classes not in session**
Mar 30	**Day of Reflection - college closed**
Apr 9	Last day to select pass/fail option
May 9	Last day to withdraw from classes
May 14	12 week session ends

SUMMER 2018 Session

7 Week Module

May 20	Registration deadline and last day to drop classes for full tuition refund - online **(May 18 in person)**
May 21	First day of class for Mon/Wed classes

May 22	First day of class for Tues/Thurs classes
May 28	**Memorial Day observed - college closed**
Jun 1	Last day to select audit option
Jun 15	Last day to apply for fall (December '18) graduation
Jun 22	Last day to select pass/fail option
Jul 3	Last day to withdraw from classes
Jul 4	**Independence Day observed - college closed**
Jul 5	Last Day for Tues/Thurs classes
Jul 11	Last day for Mon/Wed classes
Jul 12	Final Grades Due

8 Week Module

Jun 5	Registration deadline and last day to drop classes for full tuition refund
Jun 6	First day of class for Mon/Wed classes
Jun 7	First day of class for Tues/Thurs classes
Jun 15	Last day to apply for fall (December '18) graduation
Jun 20	Last day to select audit option
Jul 4	**Independence Day observed - college closed**
Jul 12	Last day to select pass/fail option
Jul 27	Last day to withdraw from classes
Jul 31	Last day of class for Tues/Thurs classes
Aug 1	Last day of class for Mon/Wed classes
Aug 3	Final grades due

6 WEEK Module

Jul 11	Registration deadline and last day to drop classes for full tuition refund
Jul 12	First day of class for Tues/Thurs classes
Jul 16	First day of class for Mon/Wed classes

Jul 20	Last day to select audit option
Aug 2	Last day to select pass/fail option
Aug 19	Last day to withdraw from classes
Aug 21	Last day of class for Tues/Thurs classes
Aug 22	Last day of class for Mon/Wed classes
Aug 24	Final grades due

*Please Note - Reading Days are to be used as study days, and/or optional make-up class time at the discretion of faculty members. No faculty member will be assigned additional duty during the scheduled reading days and no student shall be penalized for not attending any activities/classes on a reading day

Academic Calendar Fall 2014- Summer 2015

Fall 2014

Aug 21	New Student Orientation
Aug 25	Last Day for Full Tuition Refund
	Professional Day
Aug 26	**Classes Begin/Late Registration Begins**
	Add/Drop Period Begins
	First Day of First 7 - Week Mod Session
	First Day of First 5 - Week Mod Session
Sep 1	**Labor Day - College Closed**
Sep 2	Instructor Signature Required to Add Classes
Sep 3	Convocation
Sep 8	Last Day of Add/Drop and Partial Tuition Refund for 15 Week Session
Sep 17	Constitution Day - Classes In Session
Sep 23	Last Day to Select Audit Option for 15 Week Session

Sep 25	Last Day of First 5 Week (Tuesday & Thursday) Mod Session
Sep 30	First Day of Second 5 Week (Monday & Wednesday) Mod Sessions
Oct 1	Last Day of First 5 Week (Monday & Wednesday) Mod Sessions
Oct 2	First Day of Second 5 Week (Tueday & Thursday) Mod Session
Oct 6	First Day of Second 5 Week (Monday & Wednesday) Mod Session
Oct 9	Last Day of First 7 Week (Monday & Wednesday) Mod Session
Oct 13	Columbus Day Observed - Classes In Session
Oct 14	Last Day of First 7 Week (Tuesday & Thursday) Mod Session
Oct 15	Last Day of First 7 Week (Monday & Wednesday) Mod Session
Oct 16	First Day of Second 7 Week (Tuesday & Thursday) Mod Session
Oct 20	First Day of Second 7 Week (Monday & Wednesday) Mod Session
Oct 22	First Day of Second 7 Week (Monday & Wednesday) Mod Session
Oct 30	Last Day of Second 5 Week (Tuesday & Thursday) Mod Session
Nov 3	Continuing Degree-Seeking Student Registration for Winter Intersession and Spring Semester
	Student Online Course Evaluations Open for completion
Nov 4	Last Day of Second 5 Week (Tuesday & Thursday) Mod Session.
Nov 5	Last Day of Second 5 Week (Monday & Wednesday) Mod Session
	Last Day to Select Pass/Fail Option for 15 Week Session
	Last Day to Submit Incomplete Work from Spring '14 and Summer '14 Semesters
Nov 6	First Day of Third 5 Week (Tuesday & Thursday) Mod Session
Nov 10	First Day of Third 5 Week (Monday & Wednesday) Mod Session
Nov 11	**Veteran's Day Observed - College Open Classes Not In Session**
Nov 15	Last day to apply for Spring Graduation (May '15 and for Summer (August '15)
Nov 17	Non Degree-Seeking and New Student Registration for Winter Intersession and Spring Semester
Nov 26	Make-up/Supplemental sessions - **Instructor Discretion**
Nov 27-30	**Thanksgiving Recess - No Classes in Session**

Nov 28	Student Online Course Evaluations Closed for Student Input
Dec 8	Last Day to Withdraw from classes
	Last Day of Second 7 Week (Monday & Wednesday) Mod Session
Dec 9	Last Day of Second 7 Week (Tuesday & Thursday) Mod Session
Dec 15	Last Day of 15 Week Session
	Last Day of Third 5 Week (Monday & Wednesday) Mod Session
Dec 16	Last Day of Third 5 Week (Tuesday & Thursday) Mod Session
Dec 16-17	Makeup/Supplemental sessions - **Instructor Discretion**
Dec 19	Final Grades Due Registrar's Office
Dec 25	**Holiday - College Closed**
Dec 29	Grades available on web

Fall 2014 Modular Courses

Seven Week - Mod 1

Aug 21	New Student Orientation
Aug 25	Last Day to drop classes for a full tuition refund
Aug 26	First Day of Class for Tuesday & Thursday Classes
Aug 27	First day of Class for Monday & Wednesday Classes
Aug 28	Instructor Signature Required to Add Classes (TR)
Sep 1	Last Day for a Partial Tuition Refund
	Instructor Signature Required to Add Classes (MW)
Sep 3	Last Day to Select Audit Option
Sep 22	Student Online Course Evaluations Opened for completion
	Last Day to Select Pass/Fail Option
Oct 3	Student Online Course Evaluations Closed
Oct 7	Last Day to Withdraw from classes

Oct 9	Last Day of Class for Tuesday & Thursday Classes
Oct 15	Last Day of Class for Monday & Wednesday Classes

Seven Week - Mod 2

Oct 15	Last Day to drop classes for a full tuition refund
Oct 16	First day of Class for Tuesday & Thursday Classes
Oct 20	First Day of Class for Monday & Wednesday Classes
Oct 17	Instructor Signature Required to Add Tuesday & Thursday Classes
Oct 21	Instructor Signature Required to Add Monday & Wednesday Classes
Oct 22	Last Day for a Partial Tuition Refund
Oct 24	Last Day to Select Audit Option
Nov 12	Last Day to Select Pass/Fail Option
Nov 17	Student Online Course Evaluations Opened for completion
Dec 5	Student Online Course Evaluations Closed
Dec 3	Last Day to Withdraw from classes
Dec 8	Last Day of Class for Monday & Wednesday Classes
Dec 9	Last day of Class for Tuesday & Thursday Classes

Five Week - Mod 1

Aug 21	New Student Orientation
Aug 25	Last Day to drop classes for a full tuition refund
Aug 26	First day of Class for Tuesday & Thursday Classes
Aug 27	First Day of Class for Monday & Wednesday Classes
Aug 28	Instructor Signature Required to Add Classes
Sep 1	**Labor Day- College Closed**
	Last Day for a Partial Refund

Sep 2	Last Day to Select Audit Option
Sep 15	Last Day to Select Pass/Fail Option
	Student Online Course Evaluations Opened for completion
Sep 24	Last Day to Withdraw from classes
	Student Online Course Evaluations Closed for Student Input
Sep 25	Last Day of Class for Tuesday & Thursday Classes
Oct 1	Last day of Class for Monday & Wednesday Classes

Five Week - Mod 2

Oct 1	Last Day to drop classes for a full tuition refund
Oct 2	First day of Class for Tuesday & Thursday Classes
Oct 6	First Day of Class for Monday & Wednesday Classes
Oct 7	Instructor Signature Required to Add Classes
Oct 8	Last Day for a Partial Refund
	Last Day to Select Audit Option
Oct 21	Last Day to Select Pass/Fail Option
Oct 22	Student Online Course Evaluations Opened for completion
Oct 30	Last Day to Withdraw from classes
	Student Online Course Evaluations Closed for Student Input
Nov 4	Last day of Class for Tuesday & Thursday Classes
Nov 5	Last Day of Class for Monday & Wednesday Classes

Five Week - Mod 3

Nov 5	Last Day to drop classes for a full tuition refund
Nov 6	First day of Class for Tuesday & Thursday Classes
Nov 10	First Day of Class for Monday & Wednesday Classes

Nov 11	**Veterans Day - College Open Classes Not In Session**
Nov 12	Instructor Signature Required to Add Classes
	Last Day for a Partial Tuition Refund
Nov 12	Last Day to Select Audit Option
Nov 25	Last Day to Select Pass/Fail Option
Dec 3	Student Online Course Evaluations Opened for completion
Dec 11	Last Day to Withdraw from classes
	Student Online Course Evaluations Closed for Student Input
Dec 15	Last Day of Class for Monday & Wednesday Classes
Dec 16	Last day of Class for Tuesday & Thursday Classes

Winter 2015 (3 Week Session)

Dec 24	Last Day for Full Tuition Refund
Dec 26	**Classes Begin**
Dec 30	Instructor Signature Required to Add Classes
Jan 1	**New Year's Day Observed - Classes Not In Session**
Jan 13	Last Day to Withdraw from classes
Jan 15	Last Day of Classes
Jan 16	Class/lab, makeup/supplemental session
Jan 20	Class/lab, makeup/supplemental session
Jan 21	Final Grades Due

Spring 2015

Jan 19	**Martin Luther King Day - College Closed**
Jan 20	New Student Orientation
Jan 21	Professional Day

	Last Day for Full Tuition Refund
Jan 22	**Classes Begin/Late Registration Begins**
	Add/Drop Period Begins
	First Day of First 5 Week (Tuesday & Thursday) Mod Session
	First Day of First 7 Week (Tuesday & Thursday) Mod Session
Jan 26	First Day of First 7 Week (Monday & Wednesday) Mod Session
Feb 11	Instructor Signature Required to Add Classes
Feb 11	Last Day of Add/Drop and Partial Tuition Refund
Feb 5	**All College Professional Day - Classes Not In Session**
Feb 12	Lincoln's Birthday - Classes In Session
Feb 16	**President's Day Observed - College Open Classes Not in Session**
Feb 18	Last Day to Select Audit Option
Feb 26	Last Day First 5 Week (Tuesday & Thursday) Mod Session
Mar 2	Last Day of First 5 Week (Monday & Wednesday) Mod Session
Mar 3	First Day of Second 5 Week (Tuesday & Thursday) Mod Session
Mar 4	First Day of Second 5 Week (Monday & Wednesday) Mod Session
Mar 10	Last Day of First 7 Week (Tuesday & Thursday) Mod Session
Mar 13	Last Day to apply for Summer 2015 graduation
Mar 15-22	**Spring Break - Classes Not in Session**
Mar 23	Last Day of First 7 Week (Monday & Wednesday) Mod Session
Mar 30	First Day of Second 7 Week (Monday & Wednesday) Mod Session
Mar 31	First Day of Second 7 Week (Tuesday & Thursday) Mod Session
Apr 1	Continuing Degree-Seeking Student Registration for Summer Session and Fall Semester
Apr 3 - 5	**Spring Recess - College Closed**
Apr 6	Student Online Course Evaluations Open for completion 15 week Session
Apr 8	Last Day to Select Pass/Fail Option - 15 Week Session

	Last Day to Submit Incomplete Work from Fall '14 semester and Intersession '14.
Apr 9	Last Day of Second 5 Week (Tuesday & Thursday) Mod Session
Apr 13	Last Day of Second 5 Week (Monday & Wednesday) Mod Session
Apr 14	First Day of Third 5 Week (Tuesday & Thursday) Mod Session
	Non-Degree Seeking and New Student Registration for Summer Session and Fall Semester
Apr 15	First Day Third 5 Week (Tuesday & Thursday) Mod Session
Apr 24	Student Online Course Evaluations Closed for Student Input 15 Week Session
May 11	Last Day to Withdraw from Classes
May 13	Last Day Second 7 Week (Monday & Wednesday) Mod Session
May 14	Last Day Second 7 Week (Tuesday & Thursday) Mod Session
May 18	Last Day of 15 Week Session
	Last Day of Third 5 Week (Monday & Wednesday) Mod Session
May 19-20	Make-up/Supplemental session - **Instructor Discretion**
May 22	Final Grades Due
May 25	**Memorial Day - College Closed**
May 29	**Commencement**
	Student grades available on Web
June 16	Last Day to apply for Fall 2015 Graduation

Spring 2015 Modular Courses

Seven Week - Mod 1

Jan 21	Last Day to drop classes for a full tuition refund
Jan 22	First day of Class for Tuesday & Thursday Classes
Jan 26	First Day of Class for Monday & Wednesday Classes
Jan 27	Instructor Signature Required to Add Classes
Jan 28	Last Day for a Partial Tuition Refund

Jan 30	Last Day to Select Audit Option
Feb 18	Last Day to Select Pass/Fail Option
Feb 27	Student Online Course Evaluations Opened for completion
Mar 10	Student Online Course Evaluations Closed for Student Input
Mar 9	Last Day to Withdraw from classes
Mar 10	Student Online Course Evaluations Closed for Student Input
Mar 12	Last day of Class for Tuesday & Thursday Classes
Mar 23	Last Day of Class for Monday & Wednesday Classes

Seven Week - Mod 2

Mar 29	Last Day to drop classes for a full tuition refund
Mar 30	First Day of Class for Monday & Wednesday Classes
Mar 31	First day of Class for Tuesday & Thursday Classes
Apr 1	Instructor Signature Required to Add Classes
Apr 3	Last Day for a Partial Refund
Apr 7	Last Day to Select Audit Option
Apr 27	Last Day to Select Pass/Fail Option
	Student Online Course Evaluations Opened for completion
May 7	Student Online Course Evaluations Closed for Student Input
May 12	Last Day to Withdraw from classes
May 13	Last Day of Class for Monday & Wednesday Classes
May 14	Last day of Class for Tuesday & Thursday Classes

Five Week - Mod 1

Jan 21	Last Day to drop classes for a full tuition refund
Jan 22	First day of Class for Tuesday & Thursday Classes

Jan 26	First Day of Class for Monday & Wednesday Classes
Jan 28	Last Day for a Partial Refund
	Last Day to Select Audit Option
Feb 18	Student Online Course Evaluations Opened for completion
Feb 11	Last Day to Select Pass/Fail Option
Feb 24	Last Day to Withdraw from classes
	Student Online Course Evaluations Closed for Student Input
Feb 26	Last day of Class for Tuesday & Thursday Classes
Mar 2	Last Day of Class for Monday & Wednesday Classes

Five Week - Mod 2

Mar 2	Last Day to drop classes for a full tuition refund
Mar 3	First day of Class for Tuesday & Thursday Classes
Mar 4	First Day of Class for Monday & Wednesday Classes
Mar 9	Last Day for a Partial Refund
	Last Day to Select Audit Option
Mar 30	Last Day to Select Pass/Fail Option
Apr 1	Student Online Course Evaluations Opened for completion
Apr 8	Last Day to Withdraw from classes
	Student Online Course Evaluations Closed for Student Input
Apr 9	Last day of Class for Tuesday & Thursday Classes
Apr 13	Last Day of Class for Monday & Wednesday Classes

Five Week - Mod 3

Apr 13	Last Day to drop classes for a full tuition refund
Apr 14	First day of Class for Tuesday & Thursday Classes

Apr 15	First Day of Class for Monday & Wednesday Classes
Apr 20	Last Day for a Partial Tuition Refund
	Last Day to Select Audit Option
May 4	Last Day to Select Pass/Fail Option
May 6	Student Online Course Evaluations Opened for completion
May 13	Last Day to Withdraw from classes
	Student Online Course Evaluations Closed for Student Input
May 14	Last day of Class for Tuesday & Thursday Classes
May 18	Last Day of Class for Monday & Wednesday Classes

Summer 2015

First - 7 Week Module

May 25	Last Day to Drop Classes for Full Tuition Refund
	Memorial Day Observed- **College Closed**
May 27	First Day of Class for Monday & Wednesday Classes
May 26	First day of Class for Tuesday & Thursday Classes
Jun 8	Last Day to Select Audit Option
Jun 15	Last day to apply for fall (December '15) Graduation
Jun 22	Last Day to Select Pass/Fail Option
Jul 3	Independence Day Observed - **College Closed**
Jul 8	Last Day to Withdraw from Classes
Jul 9	Last Day for Tuesday/Thursday Classes
Jul 13	Last Day for Monday/Wednesday Classes
Jul 15	Final Grades Due

Late Start - 6 Week Module

Jul 13	Last Day to Drop Classes for Full Tuition Refund
Jul 14	First day of Class for Tuesday & Thursday Classes
Jul 15	First Day of Class for Monday & Wednesday Classes
Jul 24	Last Day to Select Audit Option
Aug 7	Last Day to Select Pass/Fail Option
Aug 19	Last Day to Withdraw from Classes with instructor's signature
Aug 20	Last day of Class for Tuesday & Thursday Classes
Aug 24	Last Day of Class for Monday & Wednesday Classes
Aug 26	Final Grades Due

8 Week Module

May 31	Last Day to Drop Classes for Full Tuition Refund
Jun 1	First Day of Class for Monday & Wednesday Classes
Jun 2	First day of Class for Tuesday & Thursday Classes
Jun 10	Last Day to Select Audit Option
Jun 15	Last day to apply for fall (December '15) Graduation
Jul 3	Independence Day Observed - **College Closed**
Jul 6	Last Day to Select Pass/Fail Option
Jul 20	Last Day to Withdraw from Classes
Jul 22	Last Day of Class for Monday & Wednesday Classes
Jul 23	Last day of Class for Tuesday & Thursday Classes
Jul 25	Final Grades Due

Associate Degree and Certificate Programs

Three Rivers Community College offers a comprehensive array of programs of study as described in the following pages. The specific curricular patterns in the associate degree programs lead either to the degree of associate in arts (AA), the degree of Associate in Science (AS), or the degree of Associate in Applied Science (AAS). Career and transfer programs are available for many associate degree programs. TRCC also offers many certificate programs. Certificates are credentials that are recognized by employers and prepare students for entry level positions and/or career

advancement. In many cases, the coursework within a certificate program is applicable to an associate program for a particular field of study, and serves as a stepping stone to subsequent completion of an associate degree.

Three Rivers Community College

Certified Clinical Medical Assistant

Degree Code: A11

Associate in Science

Contact: Edie Oullett - 860-215-9460

This program is designed to fill a need in the region for health care workers, one of the five fastest-growing job sectors in Connecticut. Students who graduate from this program will be ready to sit for the Certified Clinical Medical Assistant exam and be prepared as successful candidates for multiple employment possibilities. Students will become knowledgeable in both the business and clinical skills necessary in a healthcare provider office, and may also choose to continue their studies toward a bachelor's degree in health information technology. Those who complete this program will know how to provide patient care safely and in accordance with medical assistant regulations, laws, and patient rights; how to perform administrative functions in an medical office; and how to clearly and effectively communicate with patients, their families, and health care team members. Students will be able to demonstrate problem-solving abilities, professionalism, and ethical, legal, and caring behaviors in the health care environment.

Semester I

BIO* K115 - Human Biology

4 CREDIT HOURS
Corequisite: ENG K096 or higher. Please note: if completing ENG* K096 prior to enrolling in BIO* K115, a grade of "C#" or better is required for registration into this course.*
This introductory course focuses on a presentation of human structure and function, including a survey of the body's system for students who want to be more knowledgeable about the life processes of their own bodies. Lab procedures do not involve animal dissections. This course does not meet the pre-admission requirement for the Nursing Program. Three-hour lecture; one three- hour laboratory period.

CSA* K105 - Introduction to Software Applications °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces some popular software packages currently being used in industry, business, and government such as Microsoft Word, Excel, Access, and PowerPoint. A small amount of time will be devoted to the Windows operating system environment. Recent versions of the software packages will be used. Strong reading, good writing, and basic math skills are required. Prior computer usage experience (e.g. keyboard and mouse actions, file and folder management, Internet browsing) is assumed. Digital learning technologies will be used throughout the course.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

MAT* K137 - Intermediate Algebra °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "B-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course cultivates understanding and different representations of functions. Topics covered include linear, quadratic, exponential, rational, radical functions, equations, and expressions with emphasis on modeling and solving real world problems. A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). Please refer to online schedule and click on the CRN hyperlink and/or review the printed schedule to determine which faculty require math software in their section.

or

MAT* K137S - Intermediate Algebra Embedded °

4 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "C-#" or higher, or appropriate placement∞ through multiple measures assessment process.*
This course represents the Intermediate Algebra instruction with embedded support. The course cultivates understanding and different representations of functions. Topics covered include linear, quadratic, exponential, rational, radical functions, equations, and expressions and operations on them with emphasis on modeling and solving real world problems. A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). All sections of MAT* K137S require the use of software.

MED* K111 - Administrative Medical Assisting

3 CREDIT HOURS
This course is designed to cover the theory, practice, and techniques of fundamental office management, and to provide an overview of the profession of medical assisting and its role in providing quality health care. Healthcare administrative functions, including office responsibilities, safety in the office environment, commuication techniques, medical records management, schedule management, professionalism, and legal and ethical issues will be emphasized.

Total: 16-17

Semester II

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of

textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

MED* K125 - Medical Terminology °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is intended for students interested in obtaining a knowledge and understanding of basic medical terminology as the language of the health care professional. The student learns basic medical word roots and combining forms, suffices, prefixes, and abbreviations. Correct spelling, forming singulars and plurals, understanding definitions, and using terms correctly are important components of the course. This course is especially useful for individuals working in the healthcare or pursuing a degree in an allied health area.

PSY* K111 - General Psychology I

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course provides an overview of the theories and research findings pertaining to scientific psychology with an emphasis on: the origins of psychology, nature and nurture, human diversity, theoretical models, research methodology, biological bases of thought and behavior, learning theory, sensation and perception, memory, stress and health as well as emotion and motivation.

- MED* K112 - Medical Insurance and Billing **3 CREDIT HOURS**
- MED* K170 - Law & Ethics for Health Professionals **3 CREDIT HOURS**

Total: 15

Semester III

PSY* K201 - Life Span Development °

3 CREDIT HOURS
Prerequisite: PSY K111.*
This course will study the physical, psychosocial and cognitive development of humans from birth to death. There will be an emphasis on distinct time periods such as conception and development of the fetus, infancy, childhood, puberty and adolescence, young, middle, and late adulthood, and gerontology.

- HIM* K155 - Fundamental of Clinical Informatics & Electronic Medical Records **3 CREDIT HOURS**
- MED* K133 - Clinical Medical Assisting Lab **4 CREDIT HOURS**
- MED* K141 - Laboratory Principles for Medical Assisting I **3 CREDIT HOURS**
- MED* K250 - Principles of Pharmacology **3 CREDIT HOURS**

Total: 16

Semester IV

-

MED* K216 - Electronic Medical Record Management 3 CREDIT HOURS

MED* K241 - Laboratory Principles for Medical Assisting II 3 CREDIT HOURS

MED* K280 - Medical Assisting Externship 4 CREDIT HOURS

and

1 historical or aesthetic dimension elective 3 CREDIT HOURS

Total: 13

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering. within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60 - 61

Certified Clinical Medical Assistant, Associate in Science Degree Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. Provide patient care safety and in accordance with medical assistant regulations, policies, laws, and patient rights.
2. Perform medical office administrative functions at entry-level proficiency.
3. Use clear and effective communication with patients, families, and the health-care team.
4. Demonstrate knowledge and skills in the collection and documentation of health data.
5. Demonstrate ethical, legal, and caring behaviors in the health care environment.
6. Demonstrate accurate problem-solving abilities when working as a medical assistant.
7. Demonstrate professionalism in health-care settings.

CSCU Transfer Ticket Degree Programs, AA

Connecticut State Colleges and Universities (CSCU) Transfer Ticket Degrees

CSCU's Transfer Ticket degree programs provide pathways for community college students to complete degree programs that transfer to Connecticut State Universities (Central, Eastern, Southern, and Western) and Charter Oak State College without losing any credits or being required to take extra credits in order to complete a bachelor's degree in that same discipline. You will be able to transfer, apply to competitive admissions majors, and complete your BA/BS degree in the same time and with the same course requirements as students who start at a CSU or COSC.

Transfer Ticket degree programs available at Three Rivers Community College are:

- Art Studies
- Biology Studies
- Business Studies
- Chemistry Studies
- Communication Studies
- Computer Science Studies
- Criminology Studies
- Early Childhood Teaching Credential Studies
- English Studies
- Exercise Science Studies
- History Studies
- Mathematics Studies
- Physics Studies
- Political Science Studies
- Psychology Studies
- Social Work Studies
- Sociology Studies
- Spanish Studies

Please visit www.ct.edu/transfer for more details.

Business

Accounting

Accounting Career, A.S.

Degree Code: A07

Associate In Science

Program Coordinator: Edwin Muenzner - 860-215-9456

This program is designed for people who intend to seek employment following graduation as junior accountants or accounting clerks. The accounting field is among the fastest growing occupations in Southeastern Connecticut. This career program prepares students for accounting positions in business and industry, government, and public accounting firms upon completion.

Accounting Career Curriculum Requirements

Semester I

ACC* K115 - Financial Accounting °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement ∞ or completion of ENG* K096 with a "C#" grade or better. ∞; MAT* K095 or MAT* K095I with a "C#" grade or better.*

This course is designed to cover basic accounting theory and practice as applied to the complete accounting cycle, including the use of current accounting systems and procedures and the preparation of financial statements. The course also covers Long-term Assets, Current & Long-Term Liabilities, and Corporate Reporting and Analysis.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

IDS K105 - The First Year Experience °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# or higher.*
This course is designed to engage students as active participants within the college environment. Students will have the opportunity to acquire academic skills, attributes, awareness of self as learner, and to engage with the resources and activities within the Three Rivers Community College community. You can expect regular reading, writing and research assignments along with classroom discussion as you investigate how to be successful in this environment.

BMG* K202 - Principles of Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Fundamental principles of management and business operations are discussed with emphasis placed on management orientation, policy making, practical problem analysis, and philosophy. Attention also centers on the following: planning, organizing, directing, controlling, budgeting functions, qualitative and quantitative decision-making and financial analyses.

BMK* K201 - Principles of Marketing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces the four elements of the marketing mix: product decisions, pricing decisions, promotional decisions and distribution decisions. Emphasis is on the importance of marketing research and consumer behavior in the formulation of marketing strategies. Students study marketing principles and practices as they are applied to consumer and industrial products and services as well as in not-for-profit organizations. Additional topics include marketing in a global economy, ethics, and marketing information systems. The marketing campaigns of small and large companies are discussed as practical examples. Students develop their own marketing plans using strategy and principles learned in the course.

Total: 16

Semester II

BBG* K115 - Business Software Applications °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K123 or higher with a "C" grade or better.*
Using Microsoft Suite application software, students in this hands-on course will learn to use each of the software packages as they relate to the business environment. These software packages include an emphasis on Excel to build flexible spreadsheets used in business decision making, supplemented with Word to produce professional-looking documents, Access to select and analyze data to produce valid results, and Powerpoint to effectively present and communicate.

ACC* K118 - Managerial Accounting °

4 CREDIT HOURS
Prerequisite: ACC K111 or ACC* K115 with a "C" grade or better.*
This course is designed to cover the application of accounting principles and procedures to the cost control function of manufacturing business management. Emphasis is placed on managerial analysis and control, job order costing, process cost, standard cost, and variance analysis.

MAT* K123 - Elementary Statistics °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "C-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course considers fundamental concepts of probability and statistics. The topics include exploratory data analysis (tables, graphs, measures of central tendency and dispersion), basic probability, applications of binomial and normal distributions, confidence intervals, hypothesis testing and Chi-Square Goodness-of-Fit Test.

BBG* K231 - Business Law I °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course provides the student with an understanding of fundamental legal principles and their applications to business transactions and to individual rights and obligations. Crimes and torts are examined, and special emphasis is placed on the study of the law of contracts.

ACC* K125 - Accounting Computer Applications I °

3 CREDIT HOURS
Prerequisite: ACC K111 or ACC* K115.*
This course is designed to teach accounting students about computerized integrated accounting and accounting spreadsheet applications using a standard Windows interface. Students will learn to operate the software by entering realistic accounting transactions for a variety of business applications and by generating financial statements, spreadsheets, and other management information reports. The techniques and terminology learned can be applied to other Window-based software packages.

Total: 16

Semester III

ECN* K101 - Principles of Macroeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces students to the basic concepts of the economic system. The first semester is primarily macroeconomics, with the emphasis on the economic thought process. Discussion of money and banking, national income, fiscal measures, and stabilizing the economy are all included.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

- _____- Fine Arts Elective **3 CREDIT HOURS**

ACC* K241 - Federal Taxes I °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K123 or MAT* K146 or MAT* K167 or MAT* K172 or MAT* K186.*
This course examines federal income taxation as it relates to individuals. Emphasis is on tax law, researching tax questions, the determination of taxable income, deductions, and the preparation of tax returns.

ACC* K271 - Intermediate Accounting I °

3 CREDIT HOURS
Prerequisite: ACC K112 or ACC* K118.*
In this course, students will engage in an intensive study of financial accounting theory, focusing on revenue and expense recognition and the valuation and disclosure of financial statement elements.

Total: 15

Semester IV

ACC* K292 - Practicum in Accounting °

3 CREDIT HOURS
Prerequisite: Permission of the program coordinator.
This course is based on on-the-job placement∞ in a business setting. This is a college-supervised experience based on a learning contract with evaluations by both the college faculty and the staff of the cooperating business.

or

- _____- Elective from one of the following prefixes: ACC*, BBG*, BES*, BFN*, BMG*, BMK*, HSP*. **3 CREDIT HOURS**

ACC* K233 - Principles of Cost Accounting °

4 CREDIT HOURS
Prerequisite: ACC K111 or ACC* K115.*
This course encompasses fundamental principles and procedures needed for planning, evaluating, and controlling the organization's internal activities. Students will be exposed to accounting systems that are designed to provide information for managers as they relate to decision making. Topics include: budgeting, relevant costing, absorption and direct costing models, production levels, and inventory evaluations. Students work with accounting information that includes job-order costing, process costing, and standard costs.

ACC* K272 - Intermediate Accounting II °

3 CREDIT HOURS
Prerequisite: ACC K271.*
In this course, students will engage in an intensive study of financial accounting theory focusing on inventory, fixed and intangible assets, as well as liabilities and the impact on Equity.

- _____- Natural Sciences Elective **3 CREDIT HOURS**

Total: 13

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering. within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

Accounting Career, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. Demonstrate knowledge of general business vocabulary specific to the field of Accounting.
2. Demonstrate knowledge of those principles and skills applicable to general business and those specific to the field of Accounting.
3. Demonstrate the ability to apply learned principles and skills to unique factual settings using correct vocabulary.
4. Have obtained a well-rounded general education.
5. Successfully find a job in the Accounting field.

Accounting Certificate

Degree Code: J05

Certificate Program

Contact: Edwin Muenzner- 860-215-9456

This certificate program is designed for students who wish for specific training in accounting and other business subjects, to upgrade their present positions or to enter into business or industry.
Students may complete this certificate by completing the courses that are listed below.

English Competency Requirement met by: _____

Accounting Certificate Curriculum Requirements

ACC* K115 - Financial Accounting °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement ∞ or completion of ENG* K096 with a "C#" grade or better. ∞; MAT* K095 or MAT* K095I with a "C#" grade or better.*

This course is designed to cover basic accounting theory and practice as applied to the complete accounting cycle, including the use of current accounting systems and procedures and the preparation of financial statements. The course also covers Long-term Assets, Current & Long-Term Liabilities, and Corporate Reporting and Analysis.

ACC* K118 - Managerial Accounting °

4 CREDIT HOURS
Prerequisite: ACC K111 or ACC* K115 with a "C" grade or better.*
This course is designed to cover the application of accounting principles and procedures to the cost control function of manufacturing business management. Emphasis is placed on managerial analysis and control, job order costing, process cost, standard cost, and variance analysis.

ACC* K125 - Accounting Computer Applications I °

3 CREDIT HOURS
Prerequisite: ACC K111 or ACC* K115.*
This course is designed to teach accounting students about computerized integrated accounting and accounting spreadsheet applications using a standard Windows interface. Students will learn to operate the software by entering realistic accounting transactions for a variety of business applications and by generating financial statements, spreadsheets, and other management information reports. The techniques and terminology learned can be applied to other Window-based software packages.

ACC* K233 - Principles of Cost Accounting °

4 CREDIT HOURS
Prerequisite: ACC K111 or ACC* K115.*
This course encompasses fundamental principles and procedures needed for planning, evaluating, and controlling the organization's internal activities. Students will be exposed to accounting systems that are designed to provide information for managers as they relate to decision making. Topics include: budgeting, relevant costing, absorption and direct costing models, production levels, and inventory evaluations. Students work with accounting information that includes job-order costing, process costing, and standard costs.

ACC* K241 - Federal Taxes I °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K123 or MAT* K146 or MAT* K167 or MAT* K172 or MAT* K186.*
This course examines federal income taxation as it relates to individuals. Emphasis is on tax law, researching tax questions, the determination of taxable income, deductions, and the preparation of tax returns.

or

BFN* K201 - Principles of Finance °

3 CREDIT HOURS
Prerequisites: ACC K118; MAT* K123 or MAT* K167; ECN* K101;ECN* K102 (CCSU Transfer only).*
This course offers an introduction to the basic principles of finance with an emphasis on the role a finance manager plays in the corporate world. Areas covered are financial analysis and forecasting, operating and financial leverage, short and long term financing alternatives, capital budgeting, time value of money, mergers and acquisitions, and international financial management.

ACC* K271 - Intermediate Accounting I °

3 CREDIT HOURS
Prerequisite: ACC K112 or ACC* K118.*
In this course, students will engage in an intensive study of financial accounting theory, focusing on revenue and expense recognition and the valuation and disclosure of financial statement elements.

BBG* K115 - Business Software Applications °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K123 or higher with a "C" grade or better.*
Using Microsoft Suite application software, students in this hands-on course will learn to use each of the software packages as they relate to the business environment. These software packages include an emphasis on Excel to build flexible spreadsheets used in business decision making, supplemented with Word to produce professional-looking documents, Access to select and analyze data to produce valid results, and Powerpoint to effectively present and communicate.

BBG* K231 - Business Law I °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course provides the student with an understanding of fundamental legal principles and their applications to business transactions and to individual rights and obligations. Crimes and torts are examined, and special emphasis is placed on the study of the law of contracts.

BFN* K110 - Personal Finance °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; ∞ MAT* K095 or MAT* K095I placement∞.*
This course provides, in a non-technical presentation, a basic understanding of personal finance. The choices that consumers face in managing their finances are examined. The topics include personal income and budgeting, consumer credit, investing, taxes, housing, insurance, retirement, and estate planning.

or

ECN* K101 - Principles of Macroeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces students to the basic concepts of the economic system. The first semester is primarily macroeconomics, with the emphasis on the economic thought process. Discussion of money and banking, national income, fiscal measures, and stabilizing the economy are all included.

Note:

° Course has a prerequisite. Students should check course description.

The English Competency Requirement is met by placement score in ENG* K101, or transfer credit or completion of ENG* K096.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 30

Accounting, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. demonstrate the use of generally accepted accounting principles, concepts and techniques in the recording and reporting of financial statements.
2. analyze accounting information for decision making, including the areas of job cost, process cost, absorption and variable costing approaches, and relevant costs.
3. use accounting software and spreadsheets.
4. obtain successful employment in the Accounting field or upgrade skills for current employment.

Business Administration

Basic Business Skills Certificate

Degree Code: K25

Certificate Program

Contact: James O'Shea - 860-215-9459

This certificate program is designed to give students not majoring in business sufficient basic business skills to be able to function adequately at a rudimentary level in a workplace environment immediately upon completion. This certificate is comprised of courses designed to provide students with a basic understanding of commerce in society, basic business structures and functions, communication skills (both oral and written), math and computer skills. This certificate is tailored to meet individual student needs and interests by incorporating a business elective course. Students are encouraged to develop their individual areas of interest or maximize employment opportunities by choosing a specific elective option.

Students may complete this certificate by completing the courses that are listed below.

Basic Business Skills Certificate Curriculum Requirements

BBG* K101 - Intro to Business

3 CREDIT HOURS
In this course, the focus for students will be on a practical understanding and application of how business works, how it contributes to quality of life, the rewards of entrepreneurship, its legal framework, trade terminology, and business operations including marketing, finance, accounting, and management. This course gives an orientation to business curriculum. This course will emphasize the relationship of business to an individual's everyday life in American society. Students required to take BBG* K101 should enroll in it prior to or in the first semester that they take a BBG*, BMG* or BMK* course. This course is open to all General Studies students as an elective. Certain restrictions apply to this course for business majors. Please refer to your program of study prior to registration.

BBG* K115 - Business Software Applications °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K123 or higher with a "C" grade or better.*
Using Microsoft Suite application software, students in this hands-on course will learn to use each of the software packages as they relate to the business environment. These software packages include an emphasis on Excel to build flexible spreadsheets used in business decision making, supplemented with Word to produce professional-looking documents, Access to select and analyze data to produce valid results, and Powerpoint to effectively present and communicate.

or

CSA* K105 - Introduction to Software Applications °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces some popular software packages currently being used in industry, business, and government such as Microsoft Word, Excel, Access, and PowerPoint. A small amount of time will be devoted to the Windows

operating system environment. Recent versions of the software packages will be used. Strong reading, good writing, and basic math skills are required. Prior computer usage experience (e.g. keyboard and mouse actions, file and folder management, Internet browsing) is assumed. Digital learning technologies will be used throughout the course.

BFN* K110 - Personal Finance °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; ∞ MAT* K095 or MAT* K095I placement∞.*
This course provides, in a non-technical presentation, a basic understanding of personal finance. The choices that consumers face in managing their finances are examined. The topics include personal income and budgeting, consumer credit, investing, taxes, housing, insurance, retirement, and estate planning.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

or

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

ECN* K101 - Principles of Macroeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces students to the basic concepts of the economic system. The first semester is primarily macroeconomics, with the emphasis on the economic thought process. Discussion of money and banking, national income, fiscal measures, and stabilizing the economy are all included.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex

ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

MAT* K135 - Topics in Contemporary Math °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "C#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). This course will expose students to topics in mathematics that are useable and relevant in today's world. Students will apply mathematical ideas while working within a social context. Examples of topics will include: concerns about the growth of the national debt, environmental issues, probability, statistical implications in our lives, and current events issues.

- _____- Business Elective **3-4 CREDIT HOURS**

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 24-25

Basic Business Skills, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. demonstrate knowledge of the role of commerce in U.S. society and the world community.
2. demonstrate knowledge of how businesses are structured and function.
3. exhibit fluency in oral and written communication skills.
4. exhibit competency in basic math skills.
5. exhibit competency in computer skills specific to a business environment.

Business Administration Certificate

Degree Code: J42

Certificate Program

Contact: James O'Shea - 860-215-9459

This certificate program is designed for students who seek concentrated study in the field of management. Practical application to job situations will be stressed.

Students may complete this certificate by completing the courses that are listed below.

Business Administration Certificate Curriculum Requirements

ACC* K115 - Financial Accounting °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement ∞ or completion of ENG* K096 with a "C#" grade or better. ∞; MAT* K095 or MAT* K095I with a "C#" grade or better.*

This course is designed to cover basic accounting theory and practice as applied to the complete accounting cycle, including the use of current accounting systems and procedures and the preparation of financial statements. The course also covers Long-term Assets, Current & Long-Term Liabilities, and Corporate Reporting and Analysis.

ACC* K118 - Managerial Accounting °

4 CREDIT HOURS
Prerequisite: ACC K111 or ACC* K115 with a "C" grade or better.*
This course is designed to cover the application of accounting principles and procedures to the cost control function of manufacturing business management. Emphasis is placed on managerial analysis and control, job order costing, process cost, standard cost, and variance analysis.

BBG* K115 - Business Software Applications °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K123 or higher with a "C" grade or better.*
Using Microsoft Suite application software, students in this hands-on course will learn to use each of the software packages as they relate to the business environment. These software packages include an emphasis on Excel to build flexible spreadsheets used in business decision making, supplemented with Word to produce professional-looking documents, Access to select and analyze data to produce valid results, and Powerpoint to effectively present and communicate.

BMG* K202 - Principles of Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Fundamental principles of management and business operations are discussed with emphasis placed on management orientation, policy making, practical problem analysis, and philosophy. Attention also centers on the following: planning, organizing, directing, controlling, budgeting functions, qualitative and quantitative decision-making and financial analyses.

BMK* K201 - Principles of Marketing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces the four elements of the marketing mix: product decisions, pricing decisions, promotional decisions and distribution decisions. Emphasis is on the importance of marketing research and consumer behavior in the formulation of marketing strategies. Students study marketing principles and practices as they are applied to

consumer and industrial products and services as well as in not-for-profit organizations. Additional topics include marketing in a global economy, ethics, and marketing information systems. The marketing campaigns of small and large companies are discussed as practical examples. Students develop their own marketing plans using strategy and principles learned in the course.

ECN* K101 - Principles of Macroeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces students to the basic concepts of the economic system. The first semester is primarily macroeconomics, with the emphasis on the economic thought process. Discussion of money and banking, national income, fiscal measures, and stabilizing the economy are all included.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

Select Two (2) Courses from the Following Five Courses: 6 CREDIT HOURS

BBG* K101 - Intro to Business

3 CREDIT HOURS
In this course, the focus for students will be on a practical understanding and application of how business works, how it contributes to quality of life, the rewards of entrepreneurship, its legal framework, trade terminology, and business operations including marketing, finance, accounting, and management. This course gives an orientation to business curriculum. This course will emphasize the relationship of business to an individual's everyday life in American society. Students required to take BBG* K101 should enroll in it prior to or in the first semester that they take a BBG*, BMG* or BMK* course. This course is open to all General Studies students as an elective. Certain restrictions apply to this course for business majors. Please refer to your program of study prior to registration.

BES* K218 - Entrepreneurship °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better. ∞.*
The course is designed especially for those students who wish to start a business. A strong emphasis is placed on the practical applications of financing a new business, marketing goods and services, dealing with competitors, and handling leases and landlords. Understanding legal elements for the new business person and other topics make up the bulk of this course. Reality-based projects and instruction enable students to practice immediate application of content.

BMG* K218 - Operations Management °

3 CREDIT HOURS
Prerequisites: ACC K118 or ACC* K233 with a "C" grade or better.*

Fundamental principles and concepts of operations management and business operations are discussed as they relate to the planning and controlling of the operating processes and work flow activities in private and public organizations. Key Topics include production and work planning, capacity planning, inventory control, quality control, scheduling, distribution, plant location, maintenance management, the roles of efficiency and effectiveness and decision making. This course is equivalent to MFG* K230.

BMG* K220 - Human Resources Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course deals with the development and direction of human resources. Areas of discussion include affirmative action, recruitment, selection, placement∞, grievances, wages, discipline, instruction of employees and their evaluations, OSHA, ERISA, and time management and other topics (Previously called Personnel Management).

ECN* K102 - Principles of Microeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces students to microeconomics theory, with a focus on understanding how business, social, and policy decisions are made. The basic theories of distribution of income, international economics, labor, and comparative economic systems are studied.

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 29

Business Administration, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. explain the role of management and its interrelationship with other functional areas in order to achieve organizational goals.
2. identify the elements of management and their application to organizational activities and goals.
3. discuss the role of ethical issues and the importance of the global perspective, and their impact on the success of a business.
4. explain the importance of information technology in business.
5. demonstrate skills in problem solving, in decision-making, and in teamwork, including the ability to work with diverse groups.
6. obtain successful employment in the business field or upgrade current job skills.

Business Administration, A.S.

Degree Code: KA30

Associate in Science

Program Coordinator: James O'Shea - 860-215-9459

This program is designed with options in Management, Finance & Banking, Marketing, Small Business and Entrepreneurship, Hotel Management, and Restaurant Management. Each degree is designed to prepare individuals for positions of responsibility in small businesses, corporations, government, and public and private agencies upon completion. Recent surveys show that there are increasing opportunities for managerial employment in areas such as finance, marketing, hospitality, retailing and many other business services. Individuals already employed in business or industry seeking career advancement would also benefit from this program as a source of professional development.

For a semester sequence visual illustration please visit: http://www.trcc.commnet.edu/Div_academics/Business/index.shtml

Business Administration Curriculum Requirements

Credit hours listed within each semester sequence include all concentrations, please note to select only courses within your option.

Options *Key: M-Management, F-Finance & Banking, K-Marketing, S-Small Business & Entrepreneurial Studies, H-Hotel Management, R-Restaurant Management*

Semester I

ACC* K115 - Financial Accounting °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement ∞ or completion of ENG* K096 with a "C#" grade or better. ∞; MAT* K095 or MAT* K095I with a "C#" grade or better.*

This course is designed to cover basic accounting theory and practice as applied to the complete accounting cycle, including the use of current accounting systems and procedures and the preparation of financial statements. The course also covers Long-term Assets, Current & Long-Term Liabilities, and Corporate Reporting and Analysis.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

IDS K105 - The First Year Experience °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# or higher.*
This course is designed to engage students as active participants within the college environment. Students will have the opportunity to acquire academic skills, attributes, awareness of self as learner, and to engage with the resources and activities within the Three Rivers Community College community. You can expect regular reading, writing and research assignments along with classroom discussion as you investigate how to be successful in this environment.

BMK* K201 - Principles of Marketing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces the four elements of the marketing mix: product decisions, pricing decisions, promotional decisions and distribution decisions. Emphasis is on the importance of marketing research and consumer behavior in the formulation of marketing strategies. Students study marketing principles and practices as they are applied to consumer and industrial products and services as well as in not-for-profit organizations. Additional topics include marketing in a global economy, ethics, and marketing information systems. The marketing campaigns of small and large companies are discussed as practical examples. Students develop their own marketing plans using strategy and principles learned in the course.

BMG* K202 - Principles of Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Fundamental principles of management and business operations are discussed with emphasis placed on management orientation, policy making, practical problem analysis, and philosophy. Attention also centers on the following: planning, organizing, directing, controlling, budgeting functions, qualitative and quantitative decision-making and financial analyses.

HSP* K100 - Introduction to the Hospitality Industry

3 CREDIT HOURS
This course provides an overview of the structure and functions of the hospitality industry, including hotels, motels, inns, restaurants, resorts, casinos, and other tourist related concerns. Students will survey career options and the essential abilities needed to pursue these options. The course also introduces students to the many tourist attractions in southeastern Connecticut.

Total: 16

Semester II

BBG* K115 - Business Software Applications °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K123 or higher with a "C" grade or better.*
Using Microsoft Suite application software, students in this hands-on course will learn to use each of the software packages as they relate to the business environment. These software packages include an emphasis on Excel to build flexible spreadsheets used in business decision making, supplemented with Word to produce professional-looking

documents, Access to select and analyze data to produce valid results, and Powerpoint to effectively present and communicate.

MAT* K123 - Elementary Statistics °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "C-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course considers fundamental concepts of probability and statistics. The topics include exploratory data analysis (tables, graphs, measures of central tendency and dispersion), basic probability, applications of binomial and normal distributions, confidence intervals, hypothesis testing and Chi-Square Goodness-of-Fit Test.

BBG* K231 - Business Law I °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course provides the student with an understanding of fundamental legal principles and their applications to business transactions and to individual rights and obligations. Crimes and torts are examined, and special emphasis is placed on the study of the law of contracts.

ACC* K118 - Managerial Accounting °

4 CREDIT HOURS
Prerequisite: ACC K111 or ACC* K115 with a "C" grade or better.*
This course is designed to cover the application of accounting principles and procedures to the cost control function of manufacturing business management. Emphasis is placed on managerial analysis and control, job order costing, process cost, standard cost, and variance analysis.

- _____- One elective from the following: BMK* K106 - Principles of Selling °, BMK* K123 - Principles of Customer Service °, BMK* K235 - Public Relations ° or BMK* K241 - Principles of Advertising ° **3 CREDIT HOURS** *(K)*
- _____- One elective from the following: BBG* K210 - Business Communication °, BBG* K232 - Business Law II ° or BFN* K201 - Principles of Finance ° **3 CREDIT HOURS** *(M)*
- _____- One elective from the following: BBG* K210 - Business Communication ° or BMG* K210 - Organizational Behavior ° **3 CREDIT HOURS** *(F)*

BES* K118 - Small Business Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to assist students with the knowledge and skills needed to operate and/or develop a small business. Emphasis will be placed on the entrepreneurial aspects of creating, managing, and gaining profit from a small business.

BMG* K202 - Principles of Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Fundamental principles of management and business operations are discussed with emphasis placed on management orientation, policy making, practical problem analysis, and philosophy. Attention also centers on the following: planning, organizing, directing, controlling, budgeting functions, qualitative and quantitative decision-making and financial analyses.

HSP* K108 - Sanitation & Safety

3 CREDIT HOURS
This course teaches students about the potential emergency situations in the hospitality industry and the appropriate and correct actions to take. Students will receive the National Restaurant Association's Certification in Food Sanitation and Safety required by law in the food service industry. Students will learn all aspects of sanitation including the ordering, receiving, storing, preparing, and serving of food.

Total: 15 or 16

Semester III

ECN* K101 - Principles of Macroeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces students to the basic concepts of the economic system. The first semester is primarily macroeconomics, with the emphasis on the economic thought process. Discussion of money and banking, national income, fiscal measures, and stabilizing the economy are all included.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

- _____- One elective from the following: BMG* K210 - Organizational Behavior ° or BMG* K220 - Human Resources Management ° **3 CREDIT HOURS** *(M)*
  and
- _____- One elective from the following: BBG* K210 - Business Communication °, BBG* K232 - Business Law II ° or BFN* K201 - Principles of Finance ° **3 CREDIT HOURS** *(M)*

BFN* K201 - Principles of Finance °

3 CREDIT HOURS
Prerequisites: ACC K118; MAT* K123 or MAT* K167; ECN* K101;ECN* K102 (CCSU Transfer only).*
This course offers an introduction to the basic principles of finance with an emphasis on the role a finance manager plays in the corporate world. Areas covered are financial analysis and forecasting, operating and financial leverage, short and long term financing alternatives, capital budgeting, time value of money, mergers and acquisitions, and international financial management.

BFN* K110 - Personal Finance °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; ∞ MAT* K095 or MAT* K095I placement∞.*

This course provides, in a non-technical presentation, a basic understanding of personal finance. The choices that consumers face in managing their finances are examined. The topics include personal income and budgeting, consumer credit, investing, taxes, housing, insurance, retirement, and estate planning.

- _____- One elective from the following: BBG* K210 - Business Communication °, BMG* K210 - Organizational Behavior ° or BBG* K232 - Business Law II ° **3 CREDIT HOURS** *(K)*
  and
- _____- One elective from the following: BMK* K106 - Principles of Selling °, BMK* K123 - Principles of Customer Service °, BMK* K235 - Public Relations ° or BMK* K241 - Principles of Advertising ° **3 CREDIT HOURS** *(K)*

- _____- Fine Arts Elective **3 CREDIT HOURS** *(M, F, S, H, R)*

GRA* K140 - Publication Design °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; or permission of the instructor and knowledge of a word processing program.*

This course provides an introduction to graphic design. Proper file management, Macintosh computer navigation basics and fundamental techniques of the design process will be covered. Students will learn to create a graphic identity through proper typography, image editing and page layout. Graphic Design industry standard software will be used including Adobe Photoshop, Illustrator and InDesign. Classes consist of lectures, demonstrations, applied practice and critiques.

- _____- One elective from the following: BBG* K210 - Business Communication °, BBG* K232 - Business Law II ° or BFN* K110 - Personal Finance ° **3 CREDIT HOURS** *(S)*
  and
- _____- One elective from the following: BMG* K210 - Organizational Behavior ° or BMG* K220 - Human Resources Management ° **3 CREDIT HOURS** *(S)*

HSP* K243 - Hotel Operations °

4 CREDIT HOURS
Prerequisite: HSP K100.*
This course focuses on the management of the various lodging options available to commercial and leisure travelers. The course will also focus on hotel/motel front office supervision and other management considerations in arranging the lodging.

HSP* K111 - Basic Food Preparation

4 CREDIT HOURS
Corequisite: HSP K108.*
This course introduces the fundamental theories and skills in basic food preparation and baking. Emphasis is on the identification of a standard quality product, cooking theories, equipment, recipe conversion, weights and measures, and safe and sanitary working habits.

- _____- One elective from the following: BBG* K210 - Business Communication °, BMG* K210 - Organizational Behavior ° or BBG* K232 - Business Law II ° **3 CREDIT HOURS** *(H, R)*

Total: 15 or 16

Semester IV

Management Concentration

- BBG* K294- Business Internship° **3 CREDIT HOURS**
  or
- _____- One elective from the following prefixes: ACC*, BBG*, BES*, BFN*, BMG*, BMK*, HSP* **3 CREDIT HOURS**
- _____- Natural Science Elective **4 CREDIT HOURS**

BMG* K228 - Labor and Employment Law °

3 CREDIT HOURS
Prerequisites: BBG K231 and BMG* K202.*
This course provides the student with an understanding of the legal principles and their applications to the employer-employee relationship including such topics as unionism and collective bargaining (including union organizing, contract negotiations, strikes and boycotts); wages, hours and benefits; dispute resolution (grievance and arbitration procedures); employment discrimination; and emloyee privacy.

BMG* K218 - Operations Management °

3 CREDIT HOURS
Prerequisites: ACC K118 or ACC* K233 with a "C" grade or better.*
Fundamental principles and concepts of operations management and business operations are discussed as they relate to the planning and controlling of the operating processes and work flow activities in private and public organizations. Key Topics include production and work planning, capacity planning, inventory control, quality control, scheduling, distribution, plant location, maintenance management, the roles of efficiency and effectiveness and decision making. This course is equivalent to MFG* K230.

Finance and Banking Concentration

ACC* K292 - Practicum in Accounting °

3 CREDIT HOURS
Prerequisite: Permission of the program coordinator.
This course is based on on-the-job placement∞ in a business setting. This is a college-supervised experience based on a learning contract with evaluations by both the college faculty and the staff of the cooperating business.

or

- _____- One elective from the following prefixes: ACC*, BBG*, BES*, BFN*, BMG*, BMK*, HSP* **3 CREDIT HOURS**
- _____- Natural Science Elective **4 CREDIT HOURS**

BBG* K232 - Business Law II °

3 CREDIT HOURS
Prerequisite: BBG K231.*
This course covers the basic principles of the substantive law governing real and personal property, sales transactions, and commercial paper.

ECN* K102 - Principles of Microeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces students to microeconomics theory, with a focus on understanding how business, social, and policy decisions are made. The basic theories of distribution of income, international economics, labor, and comparative economic systems are studied.

Marketing Concentration

BMK* K292 - Practicum in Marketing °

3 CREDIT HOURS
Prerequisite: Permission of the program coordinator.
This course is based on on-the-job placement∞ in a business setting. This is a college-supervised experience based on a learning contract with evaluations by both the college faculty and the staff of the cooperating business.

or

- _____- One elective from the following prefixes: ACC*, BBG*, BES*, BFN*, BMG*, BMK*, HSP* **3 CREDIT HOURS**
- _____- Natural Science Elective **4 CREDIT HOURS**
- _____- One elective from the following: BBG* K210 - Business Communication °, BMG* K210 - Organizational Behavior ° or BBG* K232 - Business Law II ° **3 CREDIT HOURS**
- _____- One elective from the following: BMK* K106 - Principles of Selling °, BMK* K123 - Principles of Customer Service °, BMK* K235 - Public Relations ° or BMK* K241 - Principles of Advertising ° **3 CREDIT HOURS**

Small Business and Entrepreneurial Studies Concentration

BES* K218 - Entrepreneurship °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better. ∞.*
The course is designed especially for those students who wish to start a business. A strong emphasis is placed on the practical applications of financing a new business, marketing goods and services, dealing with competitors, and handling leases and landlords. Understanding legal elements for the new business person and other topics make up the bulk of this course. Reality-based projects and instruction enable students to practice immediate application of content.

- _____- Natural Science Elective **4 CREDIT HOURS**

BES* K239 - Business Plan Development °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course will teach the student the process of developing a business plan. This course will draw on knowledge obtained from previous business courses. The course will utilize business plan development software. Students will individually, and on a team basis, develop a complete business plan.

- _____- One elective from the following: BBG* K210 - Business Communication °, BBG* K232 - Business Law II ° or BFN* K110 - Personal Finance ° **3 CREDIT HOURS**

Hospitality Management: Hotel Option Concentration

HSP* K296 - Cooperative Education °

3 CREDIT HOUR
Prerequisites: Permission of Program Coordinator.
This course is an on-the-job practical experience to reinforce the principal techniques and procedures presented in the classroom and lab. Students seek their own employment in an approved hospitality position and are evaluated by their employers, the program coordinator, and by the quality of their written assignments. Students meet for a cooperative, professional seminar and individually with the program coordinator several times throughout the semester.

or

- _____- One elective from the following prefixes: ACC*, BBG*, BES*, BFN*, BMG*, BMK*, HSP* **3 CREDIT HOURS**
- _____- Natural Science Elective **4 CREDIT HOURS**

HSP* K117 - Beverage Management

3 CREDIT HOURS
This course introduces students to wines, beers, spirits, and the technical aspects of the products. Viticulture, wine making, the distillation process, and the methods of making malt beverages are investigated. Students will explore the business aspects of buying, selling, and serving these products and the implications of liability and health in a contemporary society.

BMK* K106 - Principles of Selling °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to prepare students for professional selling of products, services, and ideas. It concentrates on the mutual satisfaction of both buyers and sellers and the role of the salesperson. Topics studied include the communication process, sales territory management, and the seven steps in the selling process: prospecting, approach, presentation, demonstration, handling of objections, closing and follow-up. Practical application of these concepts in industrial sales, consumer sales, public service selling, and political campaigns is also examined through case studies, role-playing, and student participation exercises.

Hospitality Management: Restaurant Option Concentration

HSP* K296 - Cooperative Education °

3 CREDIT HOUR
Prerequisites: Permission of Program Coordinator.
This course is an on-the-job practical experience to reinforce the principal techniques and procedures presented in the classroom and lab. Students seek their own employment in an approved hospitality position and are evaluated by their employers, the program coordinator, and by the quality of their written assignments. Students meet for a cooperative, professional seminar and individually with the program coordinator several times throughout the semester.

or

- _____- Elective from the following prefixes: ACC*, BBG*, BES*, BFN*, BMG*, BMK*, HSP* **3 CREDIT HOURS**
- _____- Natural Science Elective **3 CREDIT HOURS**

HSP* K117 - Beverage Management

3 CREDIT HOURS
This course introduces students to wines, beers, spirits, and the technical aspects of the products. Viticulture, wine making, the distillation process, and the methods of making malt beverages are investigated. Students will explore the business aspects of buying, selling, and serving these products and the implications of liability and health in a contemporary society.

HSP* K112 - Advanced Food Preparation °

4 CREDIT HOURS
Prerequisites: HSP K111 and HSP* K108.*
This course is a continuation and application of the culinary techniques and knowledge acquired in HSP* K111 - Basic Food Preparation. Full course menus will be prepared and served to guests. Students will experience various positions in the dining room and kitchen. Emphasis is placed on menu planning and recipes, purchasing, food costing, and service while working as part of a team.

Total: 13

Note:

°Course has a prerequsite. Students should check course description

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

Business Administration, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. Demonstrate knowledge of general business vocabulary and vocabulary specific to the business field.
2. Demonstrate knowledge of principles and skills applicable to general business and those specific to the field.
3. Demonstrate the ability to apply learned principles and skills to unique factual settings using correct vocabulary.
4. Have obtained a well-rounded general education.
5. Be prepared for employment in the business field.

Hospitality Management

Hotel Management Certificate

Degree Code: K03

Certificate Program

Contact: James O'Shea - 860-215-99459

Students may complete this certificate by completing the courses that are listed below.

Hotel Management Certificate Curriculum Requirements

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

HSP* K100 - Introduction to the Hospitality Industry

3 CREDIT HOURS
This course provides an overview of the structure and functions of the hospitality industry, including hotels, motels, inns, restaurants, resorts, casinos, and other tourist related concerns. Students will survey career options and the essential abilities needed to pursue these options. The course also introduces students to the many tourist attractions in southeastern Connecticut.

HSP* K108 - Sanitation & Safety

3 CREDIT HOURS
This course teaches students about the potential emergency situations in the hospitality industry and the appropriate and correct actions to take. Students will receive the National Restaurant Association's Certification in Food Sanitation and Safety required by law in the food service industry. Students will learn all aspects of sanitation including the ordering, receiving, storing, preparing, and serving of food.

HSP* K111 - Basic Food Preparation

4 CREDIT HOURS
Corequisite: HSP K108.*
This course introduces the fundamental theories and skills in basic food preparation and baking. Emphasis is on the identification of a standard quality product, cooking theories, equipment, recipe conversion, weights and measures, and safe and sanitary working habits.

HSP* K134 - Hospitality Customer Relations

3 CREDIT HOURS
This course will focus on the relationship and interaction between the customer and the hospitality employee. A thorough investigation of the various aspects of communications between people will be studied. Students will learn effective communication skills in customer service and will implement these skills through role-playing and hands-on training.

HSP* K245 - Hospitality Sales & Marketing °

4 CREDIT HOURS
Prerequisites: ACC K111 or ACC* K115.*
This course is designed to familiarize the students with the sales and marketing practices used in the tourism field. Market analysis, methods of advertising, promotion, pricing, and sales techniques will be addressed.

HSP* K296 - Cooperative Education °

3 CREDIT HOUR
Prerequisites: Permission of Program Coordinator.
This course is an on-the-job practical experience to reinforce the principal techniques and procedures presented in the classroom and lab. Students seek their own employment in an approved hospitality position and are evaluated by their employers, the program coordinator, and by the quality of their written assignments. Students meet for a cooperative, professional seminar and individually with the program coordinator several times throughout the semester.

MAT* K123 - Elementary Statistics °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "C-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course considers fundamental concepts of probability and statistics. The topics include exploratory data analysis (tables, graphs, measures of central tendency and dispersion), basic probability, applications of binomial and normal distributions, confidence intervals, hypothesis testing and Chi-Square Goodness-of-Fit Test.

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 26

Restaurant Management Certificate

Degree Code: K04

Certificate Program

Contact: James O'Shea - 860-215-9459

Students may complete this certificate by completing the courses that are listed below.

Restaurant Management Certificate Curriculum Requirements

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

HSP* K100 - Introduction to the Hospitality Industry

3 CREDIT HOURS
This course provides an overview of the structure and functions of the hospitality industry, including hotels, motels, inns, restaurants, resorts, casinos, and other tourist related concerns. Students will survey career options and the essential abilities needed to pursue these options. The course also introduces students to the many tourist attractions in southeastern Connecticut.

HSP* K108 - Sanitation & Safety

3 CREDIT HOURS
This course teaches students about the potential emergency situations in the hospitality industry and the appropriate and correct actions to take. Students will receive the National Restaurant Association's Certification in Food Sanitation and Safety required by law in the food service industry. Students will learn all aspects of sanitation including the ordering, receiving, storing, preparing, and serving of food.

HSP* K111 - Basic Food Preparation

4 CREDIT HOURS
Corequisite: HSP K108.*
This course introduces the fundamental theories and skills in basic food preparation and baking. Emphasis is on the identification of a standard quality product, cooking theories, equipment, recipe conversion, weights and measures, and safe and sanitary working habits.

HSP* K112 - Advanced Food Preparation °

4 CREDIT HOURS
Prerequisites: HSP K111 and HSP* K108.*
This course is a continuation and application of the culinary techniques and knowledge acquired in HSP* K111 - Basic Food Preparation. Full course menus will be prepared and served to guests. Students will experience various positions in the dining room and kitchen. Emphasis is placed on menu planning and recipes, purchasing, food costing, and service while working as part of a team.

HSP* K117 - Beverage Management

3 CREDIT HOURS
This course introduces students to wines, beers, spirits, and the technical aspects of the products. Viticulture, wine making, the distillation process, and the methods of making malt beverages are investigated. Students will explore the

business aspects of buying, selling, and serving these products and the implications of liability and health in a contemporary society.

HSP* K134 - Hospitality Customer Relations

3 CREDIT HOURS
This course will focus on the relationship and interaction between the customer and the hospitality employee. A thorough investigation of the various aspects of communications between people will be studied. Students will learn effective communication skills in customer service and will implement these skills through role-playing and hands-on training.

HSP* K296 - Cooperative Education °

3 CREDIT HOUR
Prerequisites: Permission of Program Coordinator.
This course is an on-the-job practical experience to reinforce the principal techniques and procedures presented in the classroom and lab. Students seek their own employment in an approved hospitality position and are evaluated by their employers, the program coordinator, and by the quality of their written assignments. Students meet for a cooperative, professional seminar and individually with the program coordinator several times throughout the semester.

MAT* K123 - Elementary Statistics °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "C-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course considers fundamental concepts of probability and statistics. The topics include exploratory data analysis (tables, graphs, measures of central tendency and dispersion), basic probability, applications of binomial and normal distributions, confidence intervals, hypothesis testing and Chi-Square Goodness-of-Fit Test.

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 29

Marketing

Marketing Certificate

Degree Code: J68

Certificate Program

Contact: James O'Shea - 860-215-9459

This certificate program is designed to prepare students for entry-level positions in marketing through a practical, skill-based, concentrated course of study. The program also offers employed students the opportunity to improve their background and skills. Students may complete this certificate program by completing the courses that are listed below. Students may complete this certificate by completing the courses that are listed below.

Marketing Certificate Curriculum Requirements

ACC* K115 - Financial Accounting °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement ∞ or completion of ENG* K096 with a "C#" grade or better. ∞; MAT* K095 or MAT* K095I with a "C#" grade or better.*

This course is designed to cover basic accounting theory and practice as applied to the complete accounting cycle, including the use of current accounting systems and procedures and the preparation of financial statements. The course also covers Long-term Assets, Current & Long-Term Liabilities, and Corporate Reporting and Analysis.

BMG* K202 - Principles of Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Fundamental principles of management and business operations are discussed with emphasis placed on management orientation, policy making, practical problem analysis, and philosophy. Attention also centers on the following: planning, organizing, directing, controlling, budgeting functions, qualitative and quantitative decision-making and financial analyses.

BMK* K201 - Principles of Marketing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces the four elements of the marketing mix: product decisions, pricing decisions, promotional decisions and distribution decisions. Emphasis is on the importance of marketing research and consumer behavior in the formulation of marketing strategies. Students study marketing principles and practices as they are applied to consumer and industrial products and services as well as in not-for-profit organizations. Additional topics include marketing in a global economy, ethics, and marketing information systems. The marketing campaigns of small and large companies are discussed as practical examples. Students develop their own marketing plans using strategy and principles learned in the course.

ECN* K101 - Principles of Macroeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*

This course introduces students to the basic concepts of the economic system. The first semester is primarily macroeconomics, with the emphasis on the economic thought process. Discussion of money and banking, national income, fiscal measures, and stabilizing the economy are all included.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

- _____- Business Elective (accounting, business, CSC, management, marketing, practicum) **3 CREDIT HOURS**

Select 3 Courses From the Following 5 Courses: 9 CREDIT HOURS

BMK* K103 - Principles of Retailing

3 CREDIT HOURS
This course covers a practical introduction to the principles and practices of retailing in today's competitive environment. Elements of retail marketing and management are studied including merchandising, store organization and policies, buying, promotion, image creation, pricing, and customer service. Additional concepts such as trends in retailing, site selection, and personnel policies are also discussed. Students utilize case studies and examples drawn from actual, current retailing activities. They also create their own retail store business plan.

BMK* K106 - Principles of Selling °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to prepare students for professional selling of products, services, and ideas. It concentrates on the mutual satisfaction of both buyers and sellers and the role of the salesperson. Topics studied include the communication process, sales territory management, and the seven steps in the selling process: prospecting, approach, presentation, demonstration, handling of objections, closing and follow-up. Practical application of these concepts in industrial sales, consumer sales, public service selling, and political campaigns is also examined through case studies, role-playing, and student participation exercises.

BMK* K123 - Principles of Customer Service °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is the study of the principles and practices involved in providing excellent customer service. Students learn effective verbal and nonverbal communication techniques, professional customer service behaviors, problem solving and the monitoring and measuring of customer service. Delivery of customer service by telephone, in person, by mail and via the Internet is studied.

BMK* K235 - Public Relations °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a study of the principles and practices of modern public relations as they apply to profit making and not for profit organizations. Students study a practical approach to the methods of establishing and maintaining a positive relationship between an organization and its stakeholders. These stakeholders or "publics" include customers, employees, competitors, stockholders, government, vendors, and society in general. Topics include special events planning, media relations planning, and corporate communications. Ethical and social responsibility and negative publicity are also discussed. Students apply their learning by providing public relations skills in a service learning community placement∞ or by developing a public relations campaign as a capstone project.

BMK* K241 - Principles of Advertising °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course surveys the basic elements, functions, and principles of advertising. Emphasis is on advertising's role as a marketing tool. Students study current advertising campaigns and marketing communication methods. Target marketing, image creation, and ethical aspects of advertising are discussed. Selection of print media, electronic media, and supportive promotional techniques are included. Students create their own comprehensive advertising campaigns using strategies learned in the course.

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 28

Marketing, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. identify the elements of marketing and their creative application in profit-making as well as in not-for-profit organizations in order to satisfy the needs and wants of society.
2. apply the practical use of marketing theories, tools, and strategies in order to pursue a professional career in marketing.
3. demonstrate skills in leadership, in decision-making and in teamwork, including the ability to work with diverse groups.
4. apply knowledge from other business disciplines to solve marketing problems.
5. demonstrate competency in all areas of business communication: oral, written, and technological.
6. explain the role of marketing and its interrelationship with other functional areas in order to achieve organizational goals.

Small Business and Entrepreneurial Studies

Small Business and Entrepreneurial Studies Certificate

Degree Code: J07

Certificate Program

Contact: James O'Shea - 860-215-9459

This certificate program is designed for students who want to start and/or run their own business. Practical application to job situations will be stressed. Students may complete this certificate by completing the courses listed below.

Students may complete this certificate by completing the courses that are listed below.

Small Business and Entrepreneurial Studies Certificate Curriculum Requirements

ACC* K115 - Financial Accounting °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement ∞ or completion of ENG* K096 with a "C#" grade or better. ∞; MAT* K095 or MAT* K095I with a "C#" grade or better.*

This course is designed to cover basic accounting theory and practice as applied to the complete accounting cycle, including the use of current accounting systems and procedures and the preparation of financial statements. The course also covers Long-term Assets, Current & Long-Term Liabilities, and Corporate Reporting and Analysis.

BES* K118 - Small Business Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to assist students with the knowledge and skills needed to operate and/or develop a small business. Emphasis will be placed on the entrepreneurial aspects of creating, managing, and gaining profit from a small business.

BES* K218 - Entrepreneurship °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better. ∞.*
The course is designed especially for those students who wish to start a business. A strong emphasis is placed on the practical applications of financing a new business, marketing goods and services, dealing with competitors, and handling leases and landlords. Understanding legal elements for the new business person and other topics make up the bulk of this course. Reality-based projects and instruction enable students to practice immediate application of content.

BES* K239 - Business Plan Development °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course will teach the student the process of developing a business plan. This course will draw on knowledge obtained from previous business courses. The course will utilize business plan development software. Students will individually, and on a team basis, develop a complete business plan.

BMK* K201 - Principles of Marketing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces the four elements of the marketing mix: product decisions, pricing decisions, promotional decisions and distribution decisions. Emphasis is on the importance of marketing research and consumer behavior in the formulation of marketing strategies. Students study marketing principles and practices as they are applied to consumer and industrial products and services as well as in not-for-profit organizations. Additional topics include marketing in a global economy, ethics, and marketing information systems. The marketing campaigns of small and large companies are discussed as practical examples. Students develop their own marketing plans using strategy and principles learned in the course.

ECN* K101 - Principles of Macroeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces students to the basic concepts of the economic system. The first semester is primarily macroeconomics, with the emphasis on the economic thought process. Discussion of money and banking, national income, fiscal measures, and stabilizing the economy are all included.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

Please select two courses from the following list: 6-7 CREDIT HOURS

ACC* K118 - Managerial Accounting °

4 CREDIT HOURS
Prerequisite: ACC K111 or ACC* K115 with a "C" grade or better.*
This course is designed to cover the application of accounting principles and procedures to the cost control function of manufacturing business management. Emphasis is placed on managerial analysis and control, job order costing, process cost, standard cost, and variance analysis.

ACC* K125 - Accounting Computer Applications I °

3 CREDIT HOURS
Prerequisite: ACC K111 or ACC* K115.*
This course is designed to teach accounting students about computerized integrated accounting and accounting

spreadsheet applications using a standard Windows interface. Students will learn to operate the software by entering realistic accounting transactions for a variety of business applications and by generating financial statements, spreadsheets, and other management information reports. The techniques and terminology learned can be applied to other Window-based software packages.

BMG* K218 - Operations Management °

3 CREDIT HOURS
Prerequisites: ACC K118 or ACC* K233 with a "C" grade or better.*
Fundamental principles and concepts of operations management and business operations are discussed as they relate to the planning and controlling of the operating processes and work flow activities in private and public organizations. Key Topics include production and work planning, capacity planning, inventory control, quality control, scheduling, distribution, plant location, maintenance management, the roles of efficiency and effectiveness and decision making. This course is equivalent to MFG* K230.

BMG* K220 - Human Resources Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course deals with the development and direction of human resources. Areas of discussion include affirmative action, recruitment, selection, placement∞, grievances, wages, discipline, instruction of employees and their evaluations, OSHA, ERISA, and time management and other topics (Previously called Personnel Management).

BMK* K103 - Principles of Retailing

3 CREDIT HOURS
This course covers a practical introduction to the principles and practices of retailing in today's competitive environment. Elements of retail marketing and management are studied including merchandising, store organization and policies, buying, promotion, image creation, pricing, and customer service. Additional concepts such as trends in retailing, site selection, and personnel policies are also discussed. Students utilize case studies and examples drawn from actual, current retailing activities. They also create their own retail store business plan.

BMK* K106 - Principles of Selling °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to prepare students for professional selling of products, services, and ideas. It concentrates on the mutual satisfaction of both buyers and sellers and the role of the salesperson. Topics studied include the communication process, sales territory management, and the seven steps in the selling process: prospecting, approach, presentation, demonstration, handling of objections, closing and follow-up. Practical application of these concepts in industrial sales, consumer sales, public service selling, and political campaigns is also examined through case studies, role-playing, and student participation exercises.

BMK* K123 - Principles of Customer Service °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is the study of the principles and practices involved in providing excellent customer service. Students learn effective verbal and nonverbal communication techniques, professional customer service behaviors, problem solving and the monitoring and measuring of customer service. Delivery of customer service by telephone, in person, by mail and via the Internet is studied.

BMK* K241 - Principles of Advertising °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course surveys the basic elements, functions, and principles of advertising. Emphasis is on advertising's role as a marketing tool. Students study current advertising campaigns and marketing communication methods. Target marketing, image creation, and ethical aspects of advertising are discussed. Selection of print media, electronic media, and supportive promotional techniques are included. Students create their own comprehensive advertising campaigns using strategies learned in the course.

ECN* K102 - Principles of Microeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces students to microeconomics theory, with a focus on understanding how business, social, and policy decisions are made. The basic theories of distribution of income, international economics, labor, and comparative economic systems are studied.

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 28-29

Entrepreneurial Studies, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. understand the role of the entrepreneur in developing a business.
2. understand the basics of managing a small business. develop a small business plan.
3. understand basic accounting principles in order to do required bookkeeping.

Engineering Technologies

Architectural Design Technology

Civil Engineering Technology

Computer Science Technology

Computer Science Technology, A.S.

Degree Code: B65

Associate in Science

Contact: Mark Comeau - 860-215-9415

This program is designed to provide students with skills consistent with entry-level computer programming and related jobs. The core curriculum, including mathematics requirements combined with general education electives, provides the first step in a student's pursuit of a higher degree at other institutions. Included in the program is a sequence of programming courses that provides the foundational knowledge required for a career in software engineering. Also included are courses in database development, web development, and a foundational course in digital circuits and their design. The student will learn programming fundamentals and the basics of computer architecture, information processing, and algorithmic problem solving. Building on these basics, a student will receive an extensive exposure to and practice in the fundamentals of structured programming as well as objectoriented analysis and design. The program concludes with a course providing the student with a comprehensive understanding of the analysis and design of data structures.

Computer Science Technology Curriculum Requirements

Prerequisites to the Program

MAT* K172 - College Algebra °

3 CREDIT HOURS
Prerequisites: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course is a thorough and rigorous algebra course that strengthens the understanding of functions, their properties, multiple representations, and operations with functions. The function families studied include: polynomial, exponential, logarithmic, rational, and radical functions. Students will also learn linear and quadratic inequalities, absolute value equations and inequalities, linear and noninear systems.

Semester I

CSC* K108 - Introduction to Programming °

4 CREDIT HOURS
Prerequisites: Familiarity with Microsoft Windows operating system and basic word processing; MAT K095 or MAT* K095I with a "C#" grade or better.*
This course presents a broad introduction to computer science including computer design, programming, information processing and algorithmic problem solving. It is intended as a foundation for beginning computer science students and others seeking to use computers as a tool in business, engineering, science and other disciplines. In addition, this course provides an introduction to high level computer programming language. The student will learn to design, develop and implement programs to solve various data processing problems. Topics covered include control structures, functions and parameter passing, file I/O, and an introduction to arrays and structures. In the lab, the student will use the computer to create and run programs to solveproblems discussed in the lecture portion. Three lecture hours, one two-hour lab.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

CST* K153 - Web Development And Design I °

4 CREDIT HOURS
Prerequisite: None required. Recommended BBG K115 or CSA* K105 or equivalent.*
This course offers a preliminary treatment of Web Design and Development concepts, with programs that yield visible and audible results in Web pages and Web-based applications. The course includes an introduction to Microsoft Internet Explorer and the World Wide Web, effective Web page design practices, XML, HTML, XHTML, web graphics, authoring software, and client- and server-side scripting. The course includes detailed discussion of graphics formats, the appropriate use of graphics and text, font selection, use of meta-tags, navigation techniques, and methods of optimizing websites.

Total: 14

Semester II

CST* K145 - Digital Circuits and Logic °

4 CREDIT HOURS
*Pre*requisite: *CSC* K108*
A study of the elements of digital logic design, digital circuits, and the fundamentals of a modern digital system. The course begins with a history of computing, an explanation of binary number systems, and data representation, progresses through logical design and into PC systems. Logic design exercises and simulations are used to provide practical experience.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate

visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

- _____- Fine Arts or Humanities Elective **3 CREDIT HOURS**

Total: 14

Semester III

CSC* K215 - Object-oriented Programming with C++ °

4 CREDIT HOURS
Prerequisite: CSC K108.*
This course completes the introduction to programming in the C++ language. Object Oriented Programming concepts include objects and classes, instantiation, encapsulation, inheritance, polymorphism, overloading, pointers and class libraries. Additional topics include structures, recursion, namespaces, multi-file programming, and random access files. proficiency in structured programming at the level of CSC* K108.

or

CSC* K223 - Java Programming I °

4 CREDIT HOURS
Prerequisite: CSC K108.*
This course is designed to provide the student with the fundamentals of object oriented programming using the language of JAVA. Topics include applets, applications, inheritance, polymorphism, GUI components, event handling, graphics, multi-threading, exception handling, multi-media, file I/O, and networking. Three lecture hours, one two-hour lab.

CSC* K233 - Database Development I °

4 CREDIT HOURS
Prerequisite: CSC K108.*
The main objective of this course is to teach students the fundamental concepts underlying the current database technology. The course will cover the concepts behind the latest database technology - the relational database model. The course will attempt to solidify the concepts by exposing the student to a specific DATABASE Management System (DBMS) that employs the relational model, and by introducing the student to one or more query database languages. Three lecture hours, one two-hour lab.

MAT* K254 - Calculus I °

4 CREDIT HOURS
Prerequisite: MAT K186 with a 'C" grade or better.*
This is a first course in the calculus sequence intended for students who plan on majoring in mathematics, physical sciences, or engineering technology. Topics include: rate of change, limits, continuity, differentiation of algebraic, trigonometric, exponential, and logarithmic functions, differentials, applications of differentiation, definite and indefinite integrals, and applications of integration.

MAT* K210 - Discrete Math °

3 CREDIT HOURS
Prerequisite: MAT K186 or permission of the instructor.*
This course provides an introduction to set theory, logic and number theory. The ideas of algorithms and proof will be developed through the content.

Total: 15

Semester IV

CSC* K216 - Intermediate C++ Programming °

4 CREDIT HOURS
Prerequisite: CSC K108.*
This course is designed to provide the student with the fundamentals of object oriented programming using the language of C∞∞. Topics include inheritance, polymorphism, operator overloading, pointers, class templates, function templates, and exception handling. Some of these topics will be applied to Windows GUI programming with the NET library. Three lecture hours, one two-hour lab

or

CSC* K224 - Java Programming II °

4 CREDIT HOURS
Prerequisite: CSC K223.*
This course covers more advanced Java programming concepts, focusing on data structures and algorithms, with specific topics including lists, stacks, queues, priority queues, sets, maps (hash tables), and binary search trees, time complexity, space complexity, and recursion. The course also discusses building these data structures from scratch as well as leveraging the Java API.

- _____- Social Science Elective **3 CREDIT HOURS**

MAT* K256 - Calculus II °

4 CREDIT HOURS
Prerequisite: MAT K254 with a "C" grade or better.*
This course is the second semester of calculus intended for students who plan on majoring in mathematics, physical science, or engineering technologies. The topics include the definite integral, applications of integration, methods of integration, sequences, series and vectors.

- _____- Technical Elective **3 CREDIT HOURS**
- _____- Natural Science Elective **3 CREDIT HOURS**

Total: 17

Note:

° Course has a prerequisite. Students should check course description.

( ) MAT* K172 is considered a prerequisite for this technology program.

† Students not seeking to transfer to a four-year institution may substitute Technical Elective(s) for one or both calculus courses.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Technical Electives:

Note: a second natural science elective may be used as a technical elective.

CSC* K234 - Database Development II °

4 CREDIT HOURS
Prerequisite: CSC K233.*
In this course students will extend their knowledge of relational database programming by developing programming objects directly in the database (stored procedures, functions, data types and triggers) using the traditional SQL language as well as .NET languages. Students will also explore the use of the XML data type for the storage of XML documents and validation of these documents using XML schemas. OLAP (On-Line Analytical Processing) and Data Mining will also be explored. Three lecture hours, one two-hour lab. The lab is the hands-on component to Database II and will feature database programming object development using the SQL Server database management system.

CSC* K295 - CO-OP Ed/Work Experience °

3 CREDIT HOURS
Prerequisite: Permission of the program coordinator.
Corequisites: Student must have completed all freshman level technology courses and have a GPA of 2.50 or better.
Students will work in industry gaining hands-on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by the co-op student during the semester internship.

CST* K275 - Information Security °

4 CREDIT HOURS
Prerequisite: None required. Recommended BBG K115 or CSA* K105 or equivalent.*
Students will become knowledgeable of basic network security. Topics include general security concepts, including authentication methods along with common network attacks and how to safeguard against them; communication security, including remote access, e-mail, the Web, directory and file transfer, and wireless data; infrastructure security, including various network devices and media, and the proper use of perimeter topologies such as DMZs, extranets, and intranets to establish network security; cryptography basics, including the differences between asymmetric and

symmetric algorithms, and the different types of PKI certificates and their usage; operational/organizational security, including its relationship to physical security, disaster recovery, and business continuity; and computer forensics.

EET* K134 - Electronics I °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
This course is an introduction to the internal physical behavior of semiconductor electronic devices. Topics include semiconductor physics, P-N junction operation, transistors and applications, amplifiers, op amps timers and specialty devices. Models, equivalent circuits, and applications are emphasized. Two hours lecture and three hours laboratory, course meets five hours per week. The lab portion of this course supports Electronics I by providing the student with practical experience in the handling and measurement of semi-conductor devices. Computer simulation and bench measurement experiments will be performed in studying the operational characteristics of basic semiconductor devices.

and

EET* K254 - Digital Electronics I °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
Students will engage in a comprehensive study of binary logic gates. The circuits for certain various gates are analyzed. The course also includes the study of codes, encoding, decoding, number systems, and various sequential logic circuits such as flip-flops, counters, and shift registers. Two hours lecture and three hours laboratory, course meets five hours per week. In the laboratory portion of the course, students will engage in a comprehensive study of logic circuitry. Circuits containing various logic gates are built and tested. Applications of logic circuitry in practical applications are also build and evaluated.

and

EET* K258 - Microprocessors & Controls °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
Students will be introduced to the concepts involved in single board microcomputers. Emphasis is placed upon using a microprocessor as a control device, and also in a microcomputer system. Various microcomputer and related integrated circuits are studied. Two hours lecture and three hours laboratory, course meets five hours per week. In the laboratory portion of this course, students will build and evaluate microcomputer based systems. Students will also develop assembly and high level code, program the systems, carry out performance tests and develop laboratory reports.

and

GRA* K260 - Web Design °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; GRA* K140 and GRA* K230; or permission of the instructor.*
This computers graphics course is an introduction to the concepts of professional web site design using the Industry-standards-based website development tools Dreamweaver and Adobe Photoshop. Students will be able to create, prepare, and manipulate documents, illustrations, and images for the web. The four design principles of contrast, repetition, alignment, and proximity will be discussed and utilized to create a web site using the authoring tools described above as well as the skills acquired in the prerequisite courses.

MAT* K167 - Principles of Statistics °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. Please refer to online schedule and click on the CRN hyperlink and/or review printed schedule in determining which faculty require math software in their course(s).*
This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations and confidence intervals.

MAT* K268 - Calculus III: Multivariable °

4 CREDIT HOURS
Prerequisite: MAT K256 with a "C" grade or better.*
This third semester of calculus is intended for students who plan on majoring in mathematics, science or engineering technologies. It exposes students to the calculus of several variables. Topics include vectors, dot and cross product, equations of lines and planes, functions of several variables, limits and continuity, partial derivatives, chain rule, gradient, maximizing and minimizing functions of several variables, Lagrange multipliers, multiple integrals, polar, cylindrical, spherical coordinate systems, vector fields, line integrals, Green's and Stokes' and the Divergence Theorems.

MAT* K272 - Linear Algebra °

3 CREDIT HOURS
Prerequisite: MAT K256 with a "C" grade or better.*
A first course in linear algebra for students in mathematics, science and engineering. Topics include: systems of linear equations, matrices, determinants, vectors and vector spaces, linear transformations, eigenvalues and eigenvectors. The course is an introduction to the techniques of linear algebra with elementary applications.

MAT* K285 - Differential Equations °

3 CREDIT HOURS
Prerequisite: MAT K256 with a "C" grade or better.*
A continuation of calculus with an introduction to standard techniques of solving differential equations. The following topics will be introduced: first-order differential equations, linear equations of higher order, power series methods, Laplace transform methods, linear systems of differential equations, numerical methods, and modeling by differential equations in a variety of applications in physics, chemistry, engineering, biology, social sciences and finances.

Grand Total: 60

Computer Science Technology, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. analyze and solve problems in computing
2. demonstrate entry level programming ability in structured and object-oriented programming languages.
3. model, design, implement and program a database.
4. explain network technology protocols, including structure, communication, architecture and standards.
5. explain the role of the Internet, Intranet and Internet tools in business and how these technologies are applied to improve efficiency and maximize profits.

6. apply critical thinking skills acquired across the curriculum.
7. exhibit both oral and written technical communication skills.
8. transfer successfully to a 4 year college or university or obtain employment in an information technology field.

Construction Management Technology

Construction Management Certificate

Degree Code: J02

Certificate Program

Contact: Mark Comeau - 860-215-9415

The certificate program is designed to provide students desiring a career in the construction industry with entry-level skills. This two-semester certificate program introduces students to a broad range of courses required for basic performance in offices which support the construction industry, including construction companies and architectural and engineering firms. Course subjects include drafting, computer-aided design, building codes, etc. In addition, students will gain exposure to the principal concepts of accounting and management.

Additionally, students will attain entry level knowledge in drafting, AutoCad™, construction materials and documents, codes, computer applications, and principles of accounting and management. Students completing this certificate will be qualified for employment with construction and development firms, architects, engineers and product suppliers, along with being prepared to transfer into universities offering bachelor degrees in construction management. Students must have ENG* K101 competency equivalent to complete certificate.

Students may complete this certificate by completing the courses that are listed below.

Construction Management Certificate Curriculum Requirements

Semester I

ARC* K108 - Construction Materials and Methods

3 CREDIT HOURS
This course introduces students to the sources, uses, physical properties and limitations of materials used in construction while exploring methods of assembly and systems from both a historical and contemporary persepctive. Emphasis is placed on concrete, masonry, steel, wood and material components and respective testing, use, and practical applications.

ARC* K135 - Construction Graphics

1 CREDIT HOUR
Corequisite: ARC K135L.*
This course introduces the fundamental concepts of drafting and working drawings for the construction industry, emphasizing set layout and sequencing, sheet image composition, drawing construction, line weights, conventions, symbols and projection. "Drafting" as a means to convey "design intent" and "constructability" to the construction

industry is accomplished through the lab portion of this course by the execution of actual drawing types, including architectural, civil, structural, detail, and other drawings.

ARC* K135L - Construction Graphics Lab

2 CREDIT HOURS
Corequisite: ARC K135.*
This course implements the principles of construction graphics covered in the lecture portion of this course and the execution of actual drawing types, including architectural, civil, structural, detail, and other drawings.

CAD* K106 - Basic CAD - AutoCad

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S or higher*
This course, with the included lab, exposes the student to the current means of generating graphic images with computers. Topics covered include CAD* overview, computer terminology, hardware descriptions and requirements, file manipulation and management, 2D and 3D geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail, and assembly drawings.

CAD* K107 - Computer-Aided Drafting Lab

2 CREDIT HOURS
Corequisite: CAD K106.*
This laboratory utilizes software in an IBM-PC environment. Topics given in the lecture will be learned through solving application problems on the computer.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

- _____- Directed Elective (see program coordinator) **3 CREDIT HOURS**

Total: 15

Semester II

ARC* K227 - Codes & Ordinances

3 CREDIT HOURS
This course introduces students to the origins, scope, and administration of local, state, and federal codes and ordinances. Students will be exposed to the elements of these codes and ordinances and to the impacts they have on the design, construction and occupancy of a project. Students will develop a working knowledge of the subject material as they track a hypothetical project from preliminary zoning research, through design and construction and ultimately the issuance of a "certificate of occupancy."

CTC* K120 - Fundamentals of Construction Management

3 CREDIT HOURS
Introduces the fundamental aspects of construction management to students in a broad format, covering topics that include understanding the design vision, establishing team expectation, project planning, scheduling, estimating, organizational forms, contracts and risk management.

CTC* K229 - Construction Estimating °

3 CREDIT HOURS
Prerequisite: Recommended some knowledge of the construction industry.
The course examines the roles and responsibilities of a construction estimator. Using both traditional and industry standard digital methods, the course will cover the cost of labor, material, and equipment by unit and by square foot; the fundamentals and effects of scheduling, including critical path, bar and gant charts; and the effect of the global economy on overall construction costs.

MAT* K137 - Intermediate Algebra °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "B-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course cultivates understanding and different representations of functions. Topics covered include linear, quadratic, exponential, rational, radical functions, equations, and expressions with emphasis on modeling and solving real world problems. A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). Please refer to online schedule and click on the CRN hyperlink and/or review the printed schedule to determine which faculty require math software in their section.

Total: 15

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 30

Construction Management, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. attain mastery of the basic skill sets required for entry level in construction management.
2. provide an education that integrates a core curriculum with construction industry theory, technical background and application elements (for students who will seek advanced and professional training).
3. expand opportunities in the drafting and graphics fields (for those with previous experience in allied areas).

4. become competent in the specific traditional and computer drafting skills required in today's construction industry.
5. demonstrate and apply skills necessary for task management and scheduling.
6. become familiar and productive with industry standard software applications.
7. provide sufficient depth of understanding of construction means, method and assemblies.
8. adopt and understanding that life-long learning and intellectual growth is an integral part of a career in construction technology due to ever-evolving components and systems.
9. demonstrate workplace skills related to the occupation, including but not limited to maintaining a safe and healthy workplace environment and demonstrating workplace ethics and teamwork.
10. apply knowledge of theory and safety to accomplish tasks related to the occupation.
11. identify and use appropriate tools, such as testing and measurement equipment to accomplish tasks related to the occupation.
12. use current reference and training materials from accepted industry publications and standards to accomplish tasks related to the occupation.

Construction Technology, A.A.S.

Degree Code: KB79

Associate In Applied Science

Program Coordinator: Mark Comeau - 860-215-9415

This program is designed as an umbrella degree that groups the disciplines of architecture, civil and construction management technologies, (commonly referred to as "AEC" - architecture, engineering and construction).

The degree tracks students studying in all three disciplines through a common first year of courses. Starting in the third semester, students will begin to track into one of the three specific concentrations they choose to major in. Courses common within the core, prepare and lead students into the courses that form the concentration and provide students with the knowledge, practice, and skills required to enter employment in their discipline upon graduation at the technician level. Students will be qualified as technical designers, engineering technicians, and construction management technicians in inspection, testing, scheduling, and estimating.

Composed of a technical core with specific expanded topics, students establish a foundation essential in the AEC industries that includes construction materials, blueprint reading, codes and regulations, contracts and specifications, surveying, and CAD (computer aided design) with a BIM (building information modeling) focus. The architecture track expands on the design process and sustainable site development, while the civil track expands upon structures, hydrology and drainage, and soils. The construction management track rounds out the third concentration with a focus on construction estimating, logistics, critical-path, and scheduling.

Upon completion, students will be qualified at the technician level in architecture, engineering or construction firms, municipal building and planning offices, transportation, utility, and construction departments, or may transfer into a baccalaureate program.

For a color-coded, semester sequence visual illustration please visit:
http://www.professorcomeau.com/index_files/Page758.htm

Construction Technology Curriculum Requirements

Semester I

ARC* K102 - Architecture of the World

3 CREDIT HOURS
The course offers a global perspective of buildings, their settings, and the dissemination of ideas about architecture from the late Neolithic period to the present. Particular attention is given to the relationships of architectural expression, meaning and building technology and to issues arising when architectural traditions of one culture are imposed upon or otherwise adapted by another. Students will explore the impact of climate, economy, philosophy, social structure and technology on architecture by becoming familiar with some of the world's major monuments in architectural history. The course also integrates the visual arts that paralleled each era, exploring the fundamental elements of each movement as illustrated through aesthetic expression.

ARC* K135 - Construction Graphics

1 CREDIT HOUR
Corequisite: ARC K135L.*
This course introduces the fundamental concepts of drafting and working drawings for the construction industry, emphasizing set layout and sequencing, sheet image composition, drawing construction, line weights, conventions, symbols and projection. "Drafting" as a means to convey "design intent" and "constructability" to the construction industry is accomplished through the lab portion of this course by the execution of actual drawing types, including architectural, civil, structural, detail, and other drawings.

ARC* K135L - Construction Graphics Lab

2 CREDIT HOURS
Corequisite: ARC K135.*
This course implements the principles of construction graphics covered in the lecture portion of this course and the execution of actual drawing types, including architectural, civil, structural, detail, and other drawings.

CAD* K106 - Basic CAD - AutoCad

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S or higher*
This course, with the included lab, exposes the student to the current means of generating graphic images with computers. Topics covered include CAD* overview, computer terminology, hardware descriptions and requirements, file manipulation and management, 2D and 3D geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail, and assembly drawings.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

PHY* K114 - Mechanics °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172.*
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry.

Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion. Three-hour lecture; one two-hour laboratory.

Total: 16

Semester II

ARC* K108 - Construction Materials and Methods

3 CREDIT HOURS
This course introduces students to the sources, uses, physical properties and limitations of materials used in construction while exploring methods of assembly and systems from both a historical and contemporary persepctive. Emphasis is placed on concrete, masonry, steel, wood and material components and respective testing, use, and practical applications.

ARC* K227 - Codes & Ordinances

3 CREDIT HOURS
This course introduces students to the origins, scope, and administration of local, state, and federal codes and ordinances. Students will be exposed to the elements of these codes and ordinances and to the impacts they have on the design, construction and occupancy of a project. Students will develop a working knowledge of the subject material as they track a hypothetical project from preliminary zoning research, through design and construction and ultimately the issuance of a "certificate of occupancy."

CAD* K214 - Cad - Construction °

1 CREDIT HOUR
Prerequisites: CAD K106/CAD* K107 and latest CAD release working knowledge.*
Corequisite: CAD K215.*
Students continue to learn and practice construction drafting concepts using a CAD system. Students will solve graphic problems typical to construction topics such as plan and elevation views, structuraland concrete detailing, construction section-details, topography and site planning, and schedules including structural members, finish, doors and windows. Creating and using symbol libraries will be introduced.

CAD* K215 - Cad - Construction Lab °

2 CREDIT HOUR
Prerequisites: CAD K106/CAD* K107 and latest CAD release working knowledge.*
Corequisite: CAD K214.*
Students will be assigned graphic problems typical to construction topics based on the lecture.

MAT* K172 - College Algebra °

3 CREDIT HOURS
Prerequisites: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course is a thorough and rigorous algebra course that strengthens the understanding of functions, their properties, multiple representations, and operations with functions. The function families studied include: polynomial, exponential, logarithmic, rational, and radical functions. Students will also learn linear and quadratic inequalities, absolute value equations and inequalities, linear and noninear systems.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

Total:15

Semester III

ARC* K214 - Sustainable Construction °

3 CREDIT HOURS
Prerequisite: ARC K108*
Students will engage in the analysis of sustainable planning, design, and construction methods. Emphasis will be placed on both site and building aspects including walkability, heat-island effect, water management, material durability and performance, healthy buildings, renewables, and methods of performance validation. Credential rators (e.g. LEED, Energy Star, etc.), and other industry metrics will be studied and evaluated along with up and down-stream and life-cycle analyses.

or

CIV* K222 - Structural Design °

3 CREDIT HOURS
Prerequisites: ARC K108*
Corequisite: PHY K114*
The names and functions of various statically-determined structural steel and concrete members and systems are discussed and analyzed including footings, columns, beams, slabs, trusses, and connections. Students will practice solving designs for shear, bending moment and deflection through analytic methods according to current specifications using appropriate design techniques, manuals, and theory, and practice graphical detailing of designs according to current practice.

ARC* K221 - Contracts & Specifications

3 CREDIT HOURS
This course introduces students to construction industry documents, including working drawings and the project manual which contains bidding documents, contract documents, contract conditions, and the specifications. Additional documents include cut sheets, shop drawings, and various AIA (American Institute of Architects) documents used in contract administration. Working knowledge is attained through actual execution of the documents.

ARC* K211 - Architecture Design I °

1 CREDIT HOUR
This course introduces the student to the fundamental methodologies of a designer's decision making process. Students will work individually and in groups as they apply their studies to the solutions of small "vignette" architectural projects that explore the principles of form, space, and order in design.

ARC* K211L - Architecture Design I Lab °

2 CREDIT HOURS
This course implements the principles of architectural design covered in the lecture portion of this course. Emphasis in the Design I Lab is placed more upon the path of design and the decision making process than a "polished" design solution, through sketches, diagrams, and models.

CIV* K150 - Surveying I

1 CREDIT HOUR
Corequisites: CIV K151 and MAT* K172.*
This course introduces the student to the proper use and care of surveying equipment used in making linear and angular measurements, including tapes, transits, theodolites, levels and total stations. This leads to the development of the basic principles of traversing as it relates to boundary surveying.

CIV* K151 - Surveying I Lab

2 CREDIT HOURS
Corequisites: CIV K150 and MAT* K172.*
This laboratory will familiarize the student with the proper use and care of the common instruments used by the surveying profession. The use of the equipment is then applied to a boundary traverse.

MEC* K114 - Statics °

3 CREDIT HOURS
Prerequisites: MAT K172 and PHY* K114.*
Corequisite: MAT K186.*
This course helps students develop the ability to analyze problems using the basic principles of static systems in order to provide a foundation for stress analysis. The forces on structures in equilibrium and concepts of centroids, center of gravity, and moment of inertia are studied. The concept of stress and strain in axial torsional and bending loading is also introduced.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*

The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

Total: 16

Semester IV

Architecture Concentration

ARC* K213 - Architecture Design II °

1 CREDIT HOUR
Prerequisites: ARC K211/ARC* K211L.*
Corequisite: ARC K213L.*
This course, along with Architectural Design I, forms the capstone of the Architectural program, as students continue implementing the principles of Design I. Students expand their design experience as they implement form, space, and order concepts in the design of building layouts, planning schemes, façade designs, and construction techniques

ARC* K213L - Architecture Design II Lab °

2 CREDIT HOURS
Prerequisites: ARC K211/ARC* K211L.*
Corequisite: ARC K213.*
This course implements the principles of architectural design covered in the lecture portion of this course. Students transition from designing small "vignette" projects in Design I to larger holistic design problems, including urban infill, single buildings, and planning projects.

ARC* K241 - Site Analysis °

1 CREDIT HOUR
Prerequisites: ARC K135/ARC* K135L.*
Corequisite: ARC K241L.*
This course introduces students to an overview inventory of the systems and elements that are encountered in the analysis of site conditions. Students will explore how each element operates and what procedures are required to maintain or improve the quality of the site environment. Students will develop a value system, which fosters the concept of fitness to human purpose and specific site context through an ecological approach to design.

ARC* K241L - Site Analysis Lab °

2 CREDIT HOURS
Prerequisites: ARC K135/ARC* K135L.*
Corequisite: ARC K241.*
This course implements the principles of site analysis covered in the lecture portion of this course, as students explore the relationship between land use and architectural design. Hands on experience is gained through a final project that explores site selection, orientation, climatology, natural and cultural features, topography, and regulatory issues.

CAD* K116 - Revit 3D Software

3 CREDIT HOURS
This course is Revit 3D software, an Autodesk platform course where students gain operational and productivity knowledge in this industry-leading parametric software application. Structured demonstrations will lead students through command of the software dashboard, execution of operations, and sheet setup and product output, while gaining working knowledge of BIM (building information modeling) and its capabilities.

CTC* K296 - CO-OP Education Work Experience

1 CREDIT HOUR
Prerequisite: Permission of the program coordinator.
Co-requisite: Student must have completed all freshman level technology courses and have a GPA of 2.50 or better.
Students will work in industry gaining hands on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 75 documented industry hours must be completed by the co-op student during the semester internship.

_____ Directed Elective* 3 CREDIT HOURS/Units: 3

Civil Technology Concentration

CIV* K200 - Soils °

1 CREDIT HOUR
Prerequisite: MAT K186.*
Corequisite: CIV K201.*
The principles of soil mechanics are identified as a basis for discussing and implementing the fundamentals and applications of geotechnical sub-surface exploration, analysis, and design. These include recognizing soil composition, texture, and classification; understanding permeability and seepage, consolidation, settlement, and shear strength; and applying concepts in lateral earth pressures, fundamentals of retaining structures, shallow and deep foundations, and slope stability.

CIV* K201 - Soils Lab °

2 CREDIT HOURS
Prerequisite: MAT K186.*
Corequisite: CIV K200.*
Lab projects are conducted in order to study the physical, mechanical, and hydraulic properties of soils as a means to predict soil behavior and to apply practical solutions in the design of geotechnical structures. Students will perform tests and operations similar to industry testing techniques to determine grain size distribution, specific gravity, Atterberg limits, permeability, compaction, consolidation, direct shear and triaxial tests.

CIV* K236 - Hydrology and Stormwater Drainage

1 CREDIT HOUR
Corequisite: CIV K237.*
Students will understand and analysis the hydrologic cycle as it pertains to civil engineering and site design and planning while engaging in the design of stormwater mitigation and management systems that implement computational methods and the use of best-practices and application software for rainfall and runoff. Course outcomes are demonstrated through the design of a simulation project.

CIV* K237 - Hydrology and Stormwater Drainage Lab

2 CREDIT HOURS
Corequisite: CIV K236.*
Pending course description update.

MEC* K250 - Strength of Materials °

3 CREDIT HOURS
Prerequisites: MEC K114.*
This course instills knowledge of moments of inertia, torsion, bending, and columns, and how it applies to stress and the structural properties of materials. The relationship of these properties to common engineering problems is reviewed.

CTC* K296 - CO-OP Education Work Experience

1 CREDIT HOUR
Prerequisite: Permission of the program coordinator.
Co-requisite: Student must have completed all freshman level technology courses and have a GPA of 2.50 or better.
Students will work in industry gaining hands on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 75 documented industry hours must be completed by the co-op student during the semester internship.

KXXX Directed Elective* 3 CREDIT HOURS

Construction Management Concentration

CTC* K120 - Fundamentals of Construction Management

3 CREDIT HOURS
Introduces the fundamental aspects of construction management to students in a broad format, covering topics that include understanding the design vision, establishing team expectation, project planning, scheduling, estimating, organizational forms, contracts and risk management.

CTC* K229 - Construction Estimating °

3 CREDIT HOURS
Prerequisite: Recommended some knowledge of the construction industry.
The course examines the roles and responsibilities of a construction estimator. Using both traditional and industry standard digital methods, the course will cover the cost of labor, material, and equipment by unit and by square foot; the fundamentals and effects of scheduling, including critical path, bar and gant charts; and the effect of the global economy on overall construction costs.

ARC* K241 - Site Analysis °

1 CREDIT HOUR
Prerequisites: ARC K135/ARC* K135L.*
Corequisite: ARC K241L.*
This course introduces students to an overview inventory of the systems and elements that are encountered in the analysis of site conditions. Students will explore how each element operates and what procedures are required to maintain or improve the quality of the site environment. Students will develop a value system, which fosters the concept of fitness to human purpose and specific site context through an ecological approach to design.

ARC* K241L - Site Analysis Lab °

2 CREDIT HOURS
Prerequisites: ARC K135/ARC* K135L.*
Corequisite: ARC K241.*
This course implements the principles of site analysis covered in the lecture portion of this course, as students explore the relationship between land use and architectural design. Hands on experience is gained through a final project that explores site selection, orientation, climatology, natural and cultural features, topography, and regulatory issues.

CTC* K296 - CO-OP Education Work Experience

1 CREDIT HOUR
Prerequisite: Permission of the program coordinator.
Co-requisite: Student must have completed all freshman level technology courses and have a GPA of 2.50 or better.
Students will work in industry gaining hands on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 75 documented industry hours must be completed by the co-op student during the semester internship.

KXXX Directed Elective* 3 CREDIT HOURS

Total: 13

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

Construction Technology, Associate in Applied Sciences Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. Analyze the history of the built environment and appraise geographic adaptation when considering modern solutions to: natural resource utilization; sustainable harvest, refinement and transport of construction materials; and performance of designs and systems, accounting for climate change.
2. Translate, synthesize, and prepare graphical and written project documentation used to illustrate or describe essential industry information including construction drawings, specifications, contractual and municipal forms, field data, and technical inspection and testing reports.
3. Utilize emerging theories, equipment and technologies (i.e. sustainability, a total-station, AutoCAD), in the design and evaluation of discipline-specific components, processes, and systems (e.g. materials and form, structures, surveying and layout, and scales ranging from site-specific to urban).

4. Through simulations, evaluate potential project variables (arterial access, soils, hydrologic management, logistics), appraise their role in design development, and select strategies for project execution.
5. Perform and communicate effectively as a contributing individual or team member.
6. Demonstrate lifelong learning and continuous improvement of professional, ethical, and social responsibility.

Electrical Engineering Technology

Electrical, Laser and Robotics Engineering Technology, A.S.

Degree Code: KB13

Associate in Science

Program Coordinator: Michael Gentry - 860-215-9428

This program is designed to provide the skills required by the Connecticut industry and throughout the Northeast Region through a unique set of courses. Originally named Electrical Engineering Technology, the Program curriculum has been focused on automated controls for over thirty-five years. The Laser/Fiber Optics core has been incorporated into the program and the automated controls courses have been expanded to include additional focus on Robotics.

The Program offers core courses in Electrical, Electronics, Lasers, Optics and Automated Controls. Students can also design their own concentration through project opportunities offered in several courses. Some related areas include Electrical Power/Alternate Energy, Machine Vision, Wireless/Fiber Optic Communications, Internet of Things (IoT) and others. Classes are limited in number to allow Faculty time for one on one instruction. All courses are taught in the laboratory with an emphasis on hands on experience through lab exercises, demonstrations and projects.

Students find job opportunities in industrial automation, manufacturing/test engineering, product development and other roles in a variety of industries.

Many of our students are already working in industry and pursue the Associate Degree to further their career opportunities.

Electrical, Laser and Robotics Engineering Technology Curriculum Requirements

Semester I

PHO* K101 - Intro to Light and Lasers

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S.*
This course is a comprehensive study of photonics designed as a one-semester course. It provides the foundation required to prepare technicians in the areas of optics, electro-optics, lasers, and photonics. Topics include: Nature and Properties of Light, Optical Handling and Positioning, Light Sources and Laser Safet, Basic Geometrical Optics, and Basic Physical Optics. The course covers the wave and particle properties of light, light interactions, fundamentals of laboratory safety, bulk optical materials and their properties, optical coatings and methods of coating deposition, laboratory mountings, positioning equipment, surface quality of optical components, inspection methods and procedures, the care and cleaning of optics, concepts of laser safety, laser safety standards, safety classifications, laws of reflection and refraction, image formation with lenses and mirrors, interference, diffraction, and polarization

processes. The lab portion of the course provides students with hands on activities to demonstrate the various optical concepts. This course is equivalent to PHY* K103. One 2 hour lecture; one 3 hour lab.

EET* K105 - Electric Circuits & Systems °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I.*
Corequisites: MAT K137 or MAT* K137S.*
This course provides an introduction to the basic concepts of DC and AC electric circuits. Voltage, current, resistance, energy, and power relationships are introduced. Circuit analysis of basic series and parallel circuits is covered. Instruments and techniques of electrical measurement for both DC and AC circuits are also discussed. Other topics include semiconductor devices, transformers and power supplies, microcontrollers, motors and drive circuits, and electrical power generation/distribution. The lab portion of this course will supplement the course Electric Circuits & Systems. Students will apply the concepts learned in the classroom and gain practical hands-on experience making electrical measurements using a variety of test instruments.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

- _____ - Physics Elective PHY* K114º or PHY* K115º **4 CREDIT HOURS**

Total: 13

Semester II

EET* K119 - Advanced Circuits and Systems °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
This course develops the concepts of DC and AC electric circuits introduced in Electric Circuits and Systems. More advanced configurations and applications of DC and AC principles are covered, including: transient behavior of capacitive and inductive circuits; power considerations in industrial AC system; network theorems, such as superposition and Thevenin's theorem applied to DC, AC, and mixed circuits; transformers, three phases circuits, and filters. Two hours lecture and three hours laboratory, course meets five hours per week. The lab portion of this course will supplement the course Electric Circuits and Systems. Students will apply the concepts learned in the classroom and develop their skills in making electrical measurements using a variety of test instruments.

EET* K134 - Electronics I °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
This course is an introduction to the internal physical behavior of semiconductor electronic devices. Topics include semiconductor physics, P-N junction operation, transistors and applications, amplifiers, op amps timers and specialty devices. Models, equivalent circuits, and applications are emphasized. Two hours lecture and three hours laboratory, course meets five hours per week. The lab portion of this course supports Electronics I by providing the student with

practical experience in the handling and measurement of semi-conductor devices. Computer simulation and bench measurement experiments will be performed in studying the operational characteristics of basic semiconductor devices.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

PHO* K241 - Introduction to Laser Technology

3 CREDIT HOURS
Corequisite: MAT K137.*
This course provides an introduction to the physics of lasers, laser output characteristics, and types of lasers. Application of lasers will be also be explored. Topics include solid state, gas, and semiconductor lasers. Laser pumps, resonators, mode structures and power supplies are covered. Use of lasers in materials processing, communication systems, sensors and scientific analysis will be included.
The lab portion of this course will reinforce classroom physics and technology concepts and give students the opportunity to become familiar with common laser instrumentation. Lab projects will allow students to more deeply explore topics of interest. Lab exercises will include practice with Diode, HeNe, Argon, Fiber and CO2 lasers.

Total: 16

Semester III

EET* K254 - Digital Electronics I °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
Students will engage in a comprehensive study of binary logic gates. The circuits for certain various gates are analyzed. The course also includes the study of codes, encoding, decoding, number systems, and various sequential logic circuits such as flip-flops, counters, and shift registers. Two hours lecture and three hours laboratory, course meets five hours per week. In the laboratory portion of the course, students will engage in a comprehensive study of logic circuitry. Circuits containing various logic gates are built and tested. Applications of logic circuitry in practical applications are also build and evaluated.

EET* K264 - Data Acquisition and Controls °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
This course provides an introduction to data acquisition circuits and systems as well as basic feedback control systems. Topics include measurements techniques, computerized data acquisitions, introduction to LabVIEW, Interfacing to microcontrollers and instrumentation, signal processing and communications, and feedback control techniques, mechanical systems and mechanical power transmission. Students will learn the basics of measurements and data acquisition using LabVIEW based exercises. This lab portion of this course provides students with hands-on experience with analog and digital closed loop automatic control components, circuits, and systems. It familiarizes students with analog and digital simulation techniques. LabVIEW and microcontrollers are used extensively with various sensors and actuators.

EET* K274 - Electronic Communication Systems °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
Students will study communications from an informational and circuit/systems point of view. Modulation theory and techniques will be covered. Noise considerations, bandwidth requirements, and the transmission, propagation, reception and detection of RF signals will be considered. Analog and digital considerations will be addressed. Modern digital communication systems including WiFi, Bluetooth and ZigBee will be evaluated. Two hours lecture and three hours laboratory, course meets five hours per week. The Laboratory portion of this course supports provides students with hands-on experience in the design, check-out, and evaluation of the various circuits and subsystems that comprise a communications system. Students will use single board microcomputers and microcontrollers with Wifi, Bluetooth and other wireless formats to implement data acquisition, data logging and controls.

MAT* K167 - Principles of Statistics °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. Please refer to online schedule and click on the CRN hyperlink and/or review printed schedule in determining which faculty require math software in their course(s).*
This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations and confidence intervals.

- _____- Fine Arts Elective **3 CREDIT HOURS**

Total: 15

Semester IV

EET* K258 - Microprocessors & Controls °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
Students will be introduced to the concepts involved in single board microcomputers. Emphasis is placed upon using a microprocessor as a control device, and also in a microcomputer system. Various microcomputer and related integrated circuits are studied. Two hours lecture and three hours laboratory, course meets five hours per week. In the laboratory portion of this course, students will build and evaluate microcomputer based systems. Students will also develop assembly and high level code, program the systems, carry out performance tests and develop laboratory reports.

EET* K266 - Advanced Controls and Robotics °

3 CREDIT HOURS
Prerequisites: EET K264*
This course builds on topics from EET* K264 with the sensors, microcontrollers, actuators and programmable logic controllers, that make up modern day robots. Automatic control system techniques are used to implement robot analysis and design. Two hours lecture and three hours laboratory, course meets five hours per week. This lab provides students with hands-on experience with the components and systems used in robotics. Students build or refurbish robot arms, rovers, quadrotor or other robotic systems. A microcomputer controlled system design project is included. This course is equivalent to MFG* K221.

PHO* K102 - Applied Optics °

4 CREDIT HOURS
Prerequisites: PHO K101.*
Building on the foundation of PHO* K101, this course will introduce more sophisticated optical systems and mathematical analysis. Topics will include thick lenses, matrix methods of optics, aberrations, stops and pupils, interferometry, Fresnel and Fraunhofer diffraction and polarization. Emphasis will be on applications of optics in modern technology. All laboratory section will reinforce concepts through hands-on experiments and team projects.

- _____- Humanities/Social Science Elective **3 CREDIT HOURS**
- _____- Humanities/Social Science Elective **3 CREDIT HOURS**

Total: 16

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

Electrical, Laser and Robotics Engineering Technology, Associate in Science Degree Program Objectives

Graduates of the program in Electrical Engineering will:

1. make technical and creative contributions and find employment in electrical engineering technology.
2. appreciate the need to be life long learners.
3. demonstrate professionalism and a sense of social and ethical responsibility in their work.
4. engage in professional development or study in a four-year program to pursue flexible career paths amid future technological changes.

Electrical, Laser and Robotics Engineering Technology, Associate in Science Degree Program Outcomes

By the time of graduation, students in the Electrical Engineering Technology program will:

1. understand and apply technical concepts relating to electrical, optical and robotic systems including fabrication, measurement, analysis and maintenance of systems and subsystems.
2. combine oral, technical and written communication skills to present and exchange information effectively and to direct activities involving electrical, laser and robotics technology.
3. demonstrate the ability to use appropriate mathematical, computational and technical-thinking skills needed for engineering technology applications.
4. illustrate an ability to think critically and identify, evaluate and solve complex technical and non-technical problems; demonstrate creativity in designing problem solutions; and conduct and interpret experimental data and outcomes.
5. practice the skills needed to work effectively in teams and as an individual.
6. describe concepts relating to quality, timeliness and continuous improvement.
7. recognize actions and acts of professionalism that allow them to become informed and participating citizens cognizant of ethics, civic duty and social responsibility.

Engineering Science

Engineering Science, A.S.

Degree Code: B18

A College of Technology Pathway

Program Coordinator: Mark Vesligaj- 860-215-9442

The Connecticut College of Technology is an innovative program leading to a Bachelor of Science Degree in engineering or technology. The program consists of two distinct pathways, one in Engineering Science and one in Technology Studies. After completing the Technology Studies Pathway Program at Three Rivers, students may enter directly into technical fields at Central Connecticut State University or Charter Oak State College (Connecticut's External Degree Program). The Engineering Science Pathway leads directly into the School of Engineering at the University of Connecticut or the University of New Haven.
The pathway courses will transfer to engineering and technology programs at many other public and private universities as well.

Associate in Science

Program Coordinator: Mark Vesligaj - 860-215-9442

The "Engineering Science Pathway" consists primarily of coursework in engineering, mathematics, and the sciences. In addition to the credit core of courses shown below, a grade average of "B" with no grade less than a "C" is required for continuation at UConn's School of Engineering, or University of New Haven.

The "Engineering Science Pathway" focuses upon building a foundation in the fields of mechanical, industrial, or civil engineering. Graduates will receive a background in mathematics, science and general education courses for transfer into a four-year program. Engineering Science also offers students currently employed in technical positions an opportunity to retrain and upgrade their technical skills. Differences in various areas of specialization in engineering allow students to choose electives with reference to their programs of study. Core courses in Engineering Science may be offered at other Connecticut Community Colleges in cooperation with Three Rivers.

Engineering Science Curriculum Requirements

Semester I

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

CHE* K121 - General Chemistry I °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K172 and high school chemistry or CHE* K111 all passed with a "C" grade or better; or permission of the instructor or department chairperson.*
Corequisite: MAT K186.*
In this course, students will study the fundamental principles, theories, and laws of chemistry. Topics include atomictheory and the structure of the atom, the aggregated states of matter, kinetic molecular theory, chemical bonding, stoichiometry and periodicity, solutions, and colloids. Three- hour lecture; one three-hour laboratory period.

PHY* K221 - Calculus-Based Physics I °

4 CREDIT HOURS
Prerequisite: MAT K254 highly recommended.*
Corequisite: MAT K254.*
This is a calculus-based introduction to the basic concepts of classical mechanics. Major topics will include Newton's laws, motion in n-dimensions, periodic motion, thermodynamics, energy, hydrodynamics, and an introduction to material science. The course will emphasize the theoretical aspects of physics and will help the student develop effective problem solving strategies. Laboratories will be designed to allow the student to visualize the important concepts introduced in lecture and to increase student understanding of the scientific process. There will be two hours of lecture, one hour of problem solving, and three hours of lab each week.

MAT* K254 - Calculus I °

4 CREDIT HOURS
Prerequisite: MAT K186 with a 'C" grade or better.*
This is a first course in the calculus sequence intended for students who plan on majoring in mathematics, physical sciences, or engineering technology. Topics include: rate of change, limits, continuity, differentiation of algebraic, trigonometric, exponential, and logarithmic functions, differentials, applications of differentiation, definite and indefinite integrals, and applications of integration.

EGR* K111 - Introduction to Engineering °

3 CREDIT HOURS
Prerequisite: MAT K137*

This course is designed to introduce students to the fields of engineering through design and graphics and comprehensive engineering projects. Topics include: sketching, charts, graphs, forces, energy, electrical circuits, mechanisms, robotics, manufacturing technologies, and fundamentals of engineering economics.

Total: 18

Semester II

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

PHY* K222 - Calculus-Based Physics II °

4 CREDIT HOURS
Prerequisite: PHY K221.*
This is a continuation of PHY* K221. Major topics will include continuation of the study of solids, electromagnetic phenomena, Maxwell's equations, and atomic and sub-atomic phenomena. Laboratories will center around studying electromagnetic phenomena and enhancing student knowledge of the relationship between electricity, magnetism and light. There will be two hours of lecture, one hour of problem solving, and three hours of lab each week.

MAT* K256 - Calculus II °

4 CREDIT HOURS
Prerequisite: MAT K254 with a "C" grade or better.*
This course is the second semester of calculus intended for students who plan on majoring in mathematics, physical science, or engineering technologies. The topics include the definite integral, applications of integration, methods of integration, sequences, series and vectors.

- _____- Fine Arts Elective **3 CREDIT HOURS +**

CHE* K122 - General Chemistry II °

4 CREDIT HOURS
Prerequisites: CHE K121 with a "C" or better; MAT* K186 with "C" grade or better.*
This course includes further study of the principles, theories, and laws of chemistry. Topics include thermo-chemistry, kinetics, chemical equilibrium, oxidation reduction and electro-chemistry, introduction to organic and nuclear chemistry, and the chemistry of the elements and their compounds. Three-hour lecture; one three-hour laboratory period. CHE* K121 - General Chemistry I ° and II are ordinarily both taken for transfer credit.

or

EGR* K215 - Engineering Thermodynamics I

4 CREDIT HOURS
Prerequisites: CHE K121, MAT* K254, and PHY* K221.*
Corequisite: Please note that MAT K254 may be taken concurrently.*

This course is designed to introduce students to the First and Second Laws of Thermodynamics. Topics include: energy concepts and balances, thermodynamic properties of pure substances and ideal gases, and analysis of ideal and real processes including turbines, pumps, heat exchangers, and compressors.

Total: 18

Semester III

MAT* K285 - Differential Equations °

3 CREDIT HOURS
Prerequisite: MAT K256 with a "C" grade or better.*
A continuation of calculus with an introduction to standard techniques of solving differential equations. The following topics will be introduced: first-order differential equations, linear equations of higher order, power series methods, Laplace transform methods, linear systems of differential equations, numerical methods, and modeling by differential equations in a variety of applications in physics, chemistry, engineering, biology, social sciences and finances.

EGR* K211 - Engineering Statics °

3 CREDIT HOURS
Prerequisite: MAT K254.*
Corequisite: MAT K254.*
Students will be introduced to engineering mechanics via vector approach to static forces and their resolution. Topics include: properties of force systems, free-body analysis, first and second moments of areas and mass and static friction. Applications to trusses, frames, beams and cables are included.

PHL* K111 - Ethics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course will cover the fundamentals of ethics, including an introduction to the origins and nature of moral right and responsibility. Students will analyze and formulate positions on contemporary ethical issues.

Technical Elective

Total: 12-13

Semester IV

MAT* K268 - Calculus III: Multivariable °

4 CREDIT HOURS
Prerequisite: MAT K256 with a "C" grade or better.*
This third semester of calculus is intended for students who plan on majoring in mathematics, science or engineering technologies. It exposes students to the calculus of several variables. Topics include vectors, dot and cross product, equations of lines and planes, functions of several variables, limits and continuity, partial derivatives, chain rule, gradient, maximizing and minimizing functions of several variables, Lagrange multipliers, multiple integrals, polar, cylindrical, spherical coordinate systems, vector fields, line integrals, Green's and Stokes' and the Divergence Theorems.

CSC* K108 - Introduction to Programming °

4 CREDIT HOURS
Prerequisites: Familiarity with Microsoft Windows operating system and basic word processing; MAT K095 or MAT* K095I with a "C#" grade or better.*
This course presents a broad introduction to computer science including computer design, programming, information processing and algorithmic problem solving. It is intended as a foundation for beginning computer science students and others seeking to use computers as a tool in business, engineering, science and other disciplines. In addition, this course provides an introduction to high level computer programming language. The student will learn to design, develop and implement programs to solve various data processing problems. Topics covered include control structures, functions and parameter passing, file I/O, and an introduction to arrays and structures. In the lab, the student will use the computer to create and run programs to solveproblems discussed in the lecture portion. Three lecture hours, one two-hour lab.

- _____- Social Sciences Elective **3 CREDIT HOURS +++**

EGR* K212 - Engineering Dynamics °

3 CREDIT HOURS
Prerequisites: EGR K211 and MAT* K256.*
Engineering applications of Newtonian mechanics to dynamic forces, translational motion, work, impulse and momentum will be taught. Topics include: kinematics, kinetics of particles and rigid bodies, vibrations, energy and momentum conservation.

- _____- History Elective **3 CREDIT HOURS ++**

Total: 17

Note:

° Course has a prerequisite. Students should check course description.

+ ARC* K102, ART* K101, ART* K102, ART* K260 or MUS* K101 recommended for transfer to UCONN.

++ HIS* K201 or HIS* K202 recommended for transfer to UCONN

+++ ANT* K101, ECN* K101, ECN* K102 or PSY* K112 recommended for transfer to UCONN

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 65-66

Engineering Science, Associate in Science Degree Program Objectives

Program Objectives:

1. Complete an Associate of Science degreein Engineering Science.
2. Transition seamlessly into a Bachelor of Science Degree Program in Engineering with junior level status in the receiving institution as part of the College of Technology Engineering Pathway Program.

Engineering Science, Associate in Science Degree Program Outcomes

Student Learning Outcomes:

By the time of graduation, students in the Engineering Science program will:

1. Apply engineering, mathematical, scientific, and technological principles and concepts to identify and formulate solutions to engineering problems.
2. Apply critical thinking and problem-solving skills to solve engineering problems.
3. Demonstrate the ability to function on teams.
4. Recognize the need to engage in life-long learning.

General Engineering Technology

General Engineering Technology, A.A.S

Degree Code: B25

Associate in Applied Science

Program Contact: Michael Gentry- 860-215-9428

This program is designed to meet the industry's need for generalists, as opposed to technicians educated in a specific discipline. It also provides a program for students who wish to design an engineering technology curriculum to meet their own individual needs, and for students who are unsure of the specific technology discipline they want as a major.

Each student takes a core of courses in mathematics, science, technology, humanities and social sciences. The remainder of the program consists of courses chosen by the student to best meet personal goals. For example, an elective concentration in optics can provide the background for an entry-level position in Connecticut's photonics industry. Approved military coursework may also be used to fulfill the elective requirements.

GET students are currently employed by Electric Boat, Pratt and Whitney, Connecticut Municipal Electrical Energy Co-op, the US Navy, and other southeastern Connecticut industries. Students have also successfully transferred to four-year institutions in Engineering Technology, such as Central Connecticut State University School of Technology. Students considering transfer are advised to see their advisor early in their studies to maximize transfer credit.

General Engineering Technology Curriculum Requirements

(suggested 2 year sequence)

Prerequisites to the Program

CSA* K105 - Introduction to Software Applications °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces some popular software packages currently being used in industry, business, and government such as Microsoft Word, Excel, Access, and PowerPoint. A small amount of time will be devoted to the Windows operating system environment. Recent versions of the software packages will be used. Strong reading, good writing, and basic math skills are required. Prior computer usage experience (e.g. keyboard and mouse actions, file and folder management, Internet browsing) is assumed. Digital learning technologies will be used throughout the course.

Semester I

CHE* K111 - Concepts of Chemistry °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K137 or MAT* K137S with a "C" grade or better (or permission of the instructor on math requirement).*
This course offers a brief and comprehensive survey of important chemical theories and some of the applications of chemistry. Topics covered will include measurements in chemistry, atomic structures and chemical bonding, chemical reactions, states of matter, stoichiometry, theories of solution, and basic organic and biochemical concepts. Course Design: CHE* K111 is meant for students with little or no background in chemistry who need the course in preparation for General Chemistry, or for students who need to meet a pre-admission requirement for nursing or other allied health programs, or those who need a lab science course.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

MAT* K172 - College Algebra °

3 CREDIT HOURS
Prerequisites: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course is a thorough and rigorous algebra course that strengthens the understanding of functions, their properties, multiple representations, and operations with functions. The function families studied include: polynomial, exponential, logarithmic, rational, and radical functions. Students will also learn linear and quadratic inequalities, absolute value equations and inequalities, linear and noninear systems.

MFG* K102 - Manufacturing Processes and Lab

3 CREDIT HOURS
Corequisite: TCN K105*
This course studies manufacturing: making goods and wares by industrial processes. The course will provide theoretical experience in the scientific, engineering, and economic principles on which the various manufacturing processes are based.This laboratory portion provides emphasis on common metal cutting tools and lathe operations, as well as on associated precision measuring tools and instruments. The labs will also involve set-ups and procedures for various manufacturing processes including plasma cutting, sheet metal, molding and additive manufacturing.

TCN* K105 - Laser and Lab Safety

1 CREDIT HOUR
This course introduces important concepts and regulations for safety in laser and manufacturing labs and other work settings. Topics include safe handling of lasers, safe use of hand and power tools, hazard awareness and accident prevention, exposure limits, administrative and engineering controls, chemical hygiene and safety planning. The course is a requirement for all students beginning the Manufacturing Engineering Technology or Laser & Fiber Optic Technology associate degree programs.

Total: 14

Semester II

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

PHY* K114 - Mechanics °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172.*
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry.

Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion. Three-hour lecture; one two-hour laboratory.

CAD* K141 - Basic 3D Parametric Modeling and Lab Solidworks

3 CREDIT HOURS
Prerequisite: MAT K137 or higher*
This course, and accompanying lab, is designed to expand and enhance the student's ability to combine and apply mechanical design principles with computer design techniques and capabilities. This course teaches the basic concepts of orthographic projection, isometrics, oblique drawings, and basic drafting technology. A component of this course will focus on descriptive geometry, which will nurture the visualization skills of students by identifiying points, planes, and perpendiculars in various perspectives. Introducing the mechanical design software SolidWorks, this course begins to examine the basic functionality of drawing automation.

Total: 17

Semester III

CAD* K2XX Advanced 3D Parametric Modeling Solidworks

PHY* K115 - Heat Sound Light °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172. Please note if MAT* K172 is completed prior to registration into PHY* K115, students must complete MAT* K172 with a "C" grade or better.*
This course covers three broad areas of physics including thermal equilibrium, heat transfer, harmonic motion and wave properties of sound and light. Three-hour lecture; one two-hour laboratory.

- _____- Directed Elective **3 CREDIT HOURS @**
- _____- Directed Elective **4 CREDIT HOUR @**

Total: 14

Semester IV

EET* K105 - Electric Circuits & Systems °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I.*
Corequisites: MAT K137 or MAT* K137S.*
This course provides an introduction to the basic concepts of DC and AC electric circuits. Voltage, current, resistance, energy, and power relationships are introduced. Circuit analysis of basic series and parallel circuits is covered. Instruments and techniques of electrical measurement for both DC and AC circuits are also discussed. Other topics include semiconductor devices, transformers and power supplies, microcontrollers, motors and drive circuits, and electrical power generation/distribution. The lab portion of this course will supplement the course Electric Circuits & Systems. Students will apply the concepts learned in the classroom and gain practical hands-on experience making electrical measurements using a variety of test instruments.

- _____- Humanities/Social Science Elective **3 CREDIT HOURS**
- _____- Open Elective **3 CREDIT HOURS**

- _____- Directed Elective **3 CREDIT HOURS @**
- _____- Directed Elective **3 CREDIT HOURS @**

Total: 15

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

@ Please see program coordinator.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

General Engineering Technology, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. prepare technical and laboratory reports and present them using the latest computer software and oral presentation skills.
2. prepare drawings of machine components both manually and using Autocad software.
3. explain orthographic projection as it relates to standard board drafting and CAD.
4. explain various parts of a drill press, milling machine, and lathe and accomplish the calculations necessary to determine the correct rotational speed for the engine lathe, drill press and milling machine.
5. explain basic Chemistry concepts such as measurements in chemistry, atomic structures and chemical bonding, chemical reactions, states of matter and stoichiometry.
6. demonstrate skills in a discipline of choice including but not limited to, Optics, Mechanical, Manufacturing, Electrical, Civil, CAD or Environmental Engineering Technology options.
7. explain an option in general engineering technology that they have chosen to emphasize in their studies.

Laser and Fiber Optic Technology

Laser and Fiber Optic Technology Certificate

Degree Code: K20

Certificate Program

Contact: Michael Gentry - 860-215-9428

This certificate program is designed for mechanical, manufacturing, and electronic technicians and engineers who require knowledge of optics/photonics principles for current or future employment. Some of the courses may be delivered by distance learning over the Internet. The courses in the certificate and may be used to fulfill electives in the General Engineering Technology, A.A.S. The prerequisite for this certificate is a placement score into ENG* K101, completion of ENG* K096 with "C#" or better, or an earned associate degree or higher.
Students may complete this certificate by completing the courses that are listed below.
English Competency Requirement met by _____

Laser and Fiber Optic Technology Certificate Curriculum Requirements

EET* K105 - Electric Circuits & Systems °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I.*
Corequisites: MAT K137 or MAT* K137S.*
This course provides an introduction to the basic concepts of DC and AC electric circuits. Voltage, current, resistance, energy, and power relationships are introduced. Circuit analysis of basic series and parallel circuits is covered. Instruments and techniques of electrical measurement for both DC and AC circuits are also discussed. Other topics include semiconductor devices, transformers and power supplies, microcontrollers, motors and drive circuits, and electrical power generation/distribution. The lab portion of this course will supplement the course Electric Circuits & Systems. Students will apply the concepts learned in the classroom and gain practical hands-on experience making electrical measurements using a variety of test instruments.

PHO* K102 - Applied Optics °

4 CREDIT HOURS
Prerequisites: PHO K101.*
Building on the foundation of PHO* K101, this course will introduce more sophisticated optical systems and mathematical analysis. Topics will include thick lenses, matrix methods of optics, aberrations, stops and pupils, interferometry, Fresnel and Fraunhofer diffraction and polarization. Emphasis will be on applications of optics in modern technology. All laboratory section will reinforce concepts through hands-on experiments and team projects.

PHO* K101 - Intro to Light and Lasers

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S.*
This course is a comprehensive study of photonics designed as a one-semester course. It provides the foundation required to prepare technicians in the areas of optics, electro-optics, lasers, and photonics. Topics include: Nature and Properties of Light, Optical Handling and Positioning, Light Sources and Laser Safet, Basic Geometrical Optics, and Basic Physical Optics. The course covers the wave and particle properties of light, light interactions, fundamentals of laboratory safety, bulk optical materials and their properties, optical coatings and methods of coating deposition, laboratory mountings, positioning equipment, surface quality of optical components, inspection methods and procedures, the care and cleaning of optics, concepts of laser safety, laser safety standards, safety classifications, laws of reflection and refraction, image formation with lenses and mirrors, interference, diffraction, and polarization processes. The lab portion of the course provides students with hands on activities to demonstrate the various optical concepts. This course is equivalent to PHY* K103. One 2 hour lecture; one 3 hour lab.

PHO* K241 - Introduction to Laser Technology

3 CREDIT HOURS
Corequisite: MAT K137.*
This course provides an introduction to the physics of lasers, laser output characteristics, and types of lasers. Application of lasers will be also be explored. Topics include solid state, gas, and semiconductor lasers. Laser pumps, resonators, mode structures and power supplies are covered. Use of lasers in materials processing, communication systems, sensors and scientific analysis will be included.
The lab portion of this course will reinforce classroom physics and technology concepts and give students the opportunity to become familiar with common laser instrumentation. Lab projects will allow students to more deeply explore topics of interest. Lab exercises will include practice with Diode, HeNe, Argon, Fiber and CO2 lasers.

- EET/PHO Directed Elective- EET* K264 or EET* K274 or PHO* K251 **3 CREDIT HOURS**

Note:

° Course has a prerequisite. Students should check course description.

The English Competency Requirement is met by placement into ENG* K101, or transfer credit, or completion of ENG* K096 with a "C#" grade or better.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 16

Laser and Fiber Optic Technology, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. specify and operate optical test instrumentation, for example, optical spectrum analyzers and laser beam profilers.
2. align, maintain and operate optical components and support and positioning equipment.
3. survey a laser work area, citing unsafe conditions present.
4. read and interpret vendor catalogs and instruction manuals.

Manufacturing Engineering Technology

Introduction to Manufacturing (Level 1)

Degree Code: K56

Certificate Program

Contact: Michael Gentry - 860-215-9428

This certificate program is designed to provide students with the opportunity to acquire the knowledge and skill in preparation for entry level work in manufacturing.

Students may complete this certificate by completing the courses that are listed below.

Introduction to Manufacturing (Level 1) Certificate Curriculum Requirements

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

CAD* K106 - Basic CAD - AutoCad

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S or higher*
This course, with the included lab, exposes the student to the current means of generating graphic images with computers. Topics covered include CAD* overview, computer terminology, hardware descriptions and requirements, file manipulation and management, 2D and 3D geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail, and assembly drawings.

CAD* K107 - Computer-Aided Drafting Lab

2 CREDIT HOURS
Corequisite: CAD K106.*
This laboratory utilizes software in an IBM-PC environment. Topics given in the lecture will be learned through solving application problems on the computer.

EET* K105 - Electric Circuits & Systems °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I.*
Corequisites: MAT K137 or MAT* K137S.*
This course provides an introduction to the basic concepts of DC and AC electric circuits. Voltage, current, resistance,

energy, and power relationships are introduced. Circuit analysis of basic series and parallel circuits is covered. Instruments and techniques of electrical measurement for both DC and AC circuits are also discussed. Other topics include semiconductor devices, transformers and power supplies, microcontrollers, motors and drive circuits, and electrical power generation/distribution. The lab portion of this course will supplement the course Electric Circuits & Systems. Students will apply the concepts learned in the classroom and gain practical hands-on experience making electrical measurements using a variety of test instruments.

ENV* K130 - Occupational Safety & Health

3 CREDIT HOURS
This course is an introduction to Occupational Safety & Health in the workplace. It will introduce students to the safety and health field and address the application of engineering, management principles, and techniques to safety, health, and loss control. The topics include general safety, health, and risk assessment concepts and terms. Discussions will include historical developments, program management, problem identification, engineering assessment, hazard recognition, evaluation, and control. The course work will also introduce the student to measurement and evaluation systems, legal and regulatory requirements, environmental health and safety, industrial hygiene, safety engineering, product safety and public health, risk assessment analysis and management, accident investigation, ergonomics, and ethics and professionalism. A visit to an industrial site will be included.

- MAT* K095 - Elementary Algebra Foundations or higher **0-4 CREDIT HOURS**

MEC* K152 - Fundamentals of Engineering Graphics °

1 CREDIT HOUR
Prerequisite: MAT K095 OR MAT* K095I or higher.*
Corequisite: MEC K153.*
This course teaches the basic concepts of orthographic projection, isometric, and oblique drawings and basic drafting terminology. Emphasis will also be placed on free hand sketching using the above concepts and terminology. Basic principles of simplified board drafting practices will be covered. A major component of this course will focus on descriptive geometry which will nurture the visualization skills of students by identifying points, planes, and perpendiculars in various perspectives. Some of the techniques will be accompanied with CAD as a comparison.

MEC* K153 - Fundamentals of Engineering Graphics Lab °

2 CREDIT HOURS
Prerequisite: MAT K095 OR MAT* K095I or higher.*
Corequisite: MEC K152.*
This lab and accompanying lecture is designed to introduce students to the concept of applying mechanical design principles with computer designed techniques and capabilities. This course teaches the basic concepts of orthographic projection, isometric, and oblique drawings and basic drafting terminology. A component of this course will focus on descriptive geometry which will nurture the visualization skills of students by identifying points, planes and perpendiculars in various perspectives. Introducing the mechanical design software SolidWorks, this course begins to examine the basic functionally of drawing automation. One hour lecture/discussion and four hours of lab per week.

MEC* K262 - Materials Science °

3 CREDIT HOURS
Prerequisites: MFG K102*
Corequisite: MEC K263.*
This course studies the structure and properties of engineering materials, and incorporates the presentation of materials selection, processing, and heat treatment. The changes in structure and properties during forming, machining, and heat treating operations are discussed.

MEC* K263 - Materials Science Lab °

1 CREDIT HOUR
Prerequisites: MFG K102; TCN* K105.*
Corequisite: MEC K262.*
In this lab, students will be exposed to selected experiments demonstrating the effects of processing, including heat treatment, on the properties of engineering materials. Standard materials tests are also performed.

or

PHO* K101 - Intro to Light and Lasers

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S.*
This course is a comprehensive study of photonics designed as a one-semester course. It provides the foundation required to prepare technicians in the areas of optics, electro-optics, lasers, and photonics. Topics include: Nature and Properties of Light, Optical Handling and Positioning, Light Sources and Laser Safet, Basic Geometrical Optics, and Basic Physical Optics. The course covers the wave and particle properties of light, light interactions, fundamentals of laboratory safety, bulk optical materials and their properties, optical coatings and methods of coating deposition, laboratory mountings, positioning equipment, surface quality of optical components, inspection methods and procedures, the care and cleaning of optics, concepts of laser safety, laser safety standards, safety classifications, laws of reflection and refraction, image formation with lenses and mirrors, interference, diffraction, and polarization processes. The lab portion of the course provides students with hands on activities to demonstrate the various optical concepts. This course is equivalent to PHY* K103. One 2 hour lecture; one 3 hour lab.

MFG* K102 - Manufacturing Processes and Lab

3 CREDIT HOURS
Corequisite: TCN K105*
This course studies manufacturing: making goods and wares by industrial processes. The course will provide theoretical experience in the scientific, engineering, and economic principles on which the various manufacturing processes are based.This laboratory portion provides emphasis on common metal cutting tools and lathe operations, as well as on associated precision measuring tools and instruments. The labs will also involve set-ups and procedures for various manufacturing processes including plasma cutting, sheet metal, molding and additive manufacturing.

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 26-31

Introduction to Manufacturing (Level 1), Certificate Program Outcomes

Upon successful completion of the program requirements graduates will be able to:

1. practice the skills needed to work effectively in teams and as an individual.
2. demonstrate the ability to use appropriate mathematical and computational skills needed for entry-level work in manufacturing.
3. combine oral, graphical, and written communication skills to present and exchange information effectively and to direct manufacturing activities.
4. know the professional code of ethics.
5. describe concepts relating to manufacturing quality, timeliness and continuous improvement.
6. describe how the concepts of metal manufacturing and other basic manufacturing processes affect manufacturing operations.
7. illustrate an ability to think critically and identify, evaluate and solve technical and non-technical problems.
8. recognize actions and acts of professionalism that allow them to become informed and participating citizens cognizant of ethics, civic duty and social responsibility.
9. recognize the need to be lifelong learners.

Manufacturing Engineering Technology, A.S.

Degree Code: B64

Associate in Science

Program Coordinator: Michael Gentry - 860-215-9428

This program is designed to merge the traditional "hands-on" learning concepts and the newer computer application techniques in today's engineering technology education.
The student learns the basics such as the standard methods and practices of Tool Design and Production Planning and Statistical Process Control. The student's knowledge is expanded by exploring the more revolutionary techniques of CAD/CAM, Computer-Aided Manufacturing and Robotics in an automated system through concept and practical applications.
This new emphasis on the computer includes CAD (Computer-Aided Drafting), CAM (Computer-Aided Manufacturing), and FMS (Flexible Manufacturing Systems). FMS includes the applications of robots, automated storage/retrieval, material handling systems, automated process control and inspection systems, and work cells (such as integrated machining, special processing and assembly). Global manufacturing competition is taught through methods of increasing productivity in engineering technology and business functions as well as the production plant.

Local industries advise and work with the department on keeping the curriculum and equipment up to date to maintain a state-of-the-art program.

Manufacturing Engineering Technology Curriculum Requirements

Prerequisites to the Program

PHY* K114 - Mechanics °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172.*
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry. Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion. Three-hour lecture; one two-hour laboratory.

Semester I

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

MFG* K102 - Manufacturing Processes and Lab

3 CREDIT HOURS
Corequisite: TCN K105*
This course studies manufacturing: making goods and wares by industrial processes. The course will provide theoretical experience in the scientific, engineering, and economic principles on which the various manufacturing processes are based.This laboratory portion provides emphasis on common metal cutting tools and lathe operations, as well as on associated precision measuring tools and instruments. The labs will also involve set-ups and procedures for various manufacturing processes including plasma cutting, sheet metal, molding and additive manufacturing.

TCN* K105 - Laser and Lab Safety

1 CREDIT HOUR
This course introduces important concepts and regulations for safety in laser and manufacturing labs and other work settings. Topics include safe handling of lasers, safe use of hand and power tools, hazard awareness and accident prevention, exposure limits, administrative and engineering controls, chemical hygiene and safety planning. The course is a requirement for all students beginning the Manufacturing Engineering Technology or Laser & Fiber Optic Technology associate degree programs.

MEC* K114 - Statics °

3 CREDIT HOURS
Prerequisites: MAT K172 and PHY* K114.*
Corequisite: MAT K186.*
This course helps students develop the ability to analyze problems using the basic principles of static systems in order to provide a foundation for stress analysis. The forces on structures in equilibrium and concepts of centroids, center of gravity, and moment of inertia are studied. The concept of stress and strain in axial torsional and bending loading is also introduced.

MAT* K172 - College Algebra °

3 CREDIT HOURS
Prerequisites: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course is a thorough and rigorous algebra course that strengthens the understanding of functions, their properties, multiple representations, and operations with functions. The function families studied include: polynomial, exponential, logarithmic, rational, and radical functions. Students will also learn linear and quadratic inequalities, absolute value equations and inequalities, linear and noninear systems.

CAD* K106 - Basic CAD - AutoCad

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S or higher*
This course, with the included lab, exposes the student to the current means of generating graphic images with computers. Topics covered include CAD* overview, computer terminology, hardware descriptions and requirements, file manipulation and management, 2D and 3D geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail, and assembly drawings.

Total: 16

Semester II

EET* K105 - Electric Circuits & Systems °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I.*
Corequisites: MAT K137 or MAT* K137S.*
This course provides an introduction to the basic concepts of DC and AC electric circuits. Voltage, current, resistance, energy, and power relationships are introduced. Circuit analysis of basic series and parallel circuits is covered. Instruments and techniques of electrical measurement for both DC and AC circuits are also discussed. Other topics include semiconductor devices, transformers and power supplies, microcontrollers, motors and drive circuits, and electrical power generation/distribution. The lab portion of this course will supplement the course Electric Circuits & Systems. Students will apply the concepts learned in the classroom and gain practical hands-on experience making electrical measurements using a variety of test instruments.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

MEC* K262 - Materials Science °

3 CREDIT HOURS
Prerequisites: MFG K102*
Corequisite: MEC K263.*
This course studies the structure and properties of engineering materials, and incorporates the presentation of materials selection, processing, and heat treatment. The changes in structure and properties during forming, machining, and heat treating operations are discussed.

MEC* K263 - Materials Science Lab °

1 CREDIT HOUR
Prerequisites: MFG K102; TCN* K105.*
Corequisite: MEC K262.*

In this lab, students will be exposed to selected experiments demonstrating the effects of processing, including heat treatment, on the properties of engineering materials. Standard materials tests are also performed.

CAD* K201 - Advanced CAD - AutoCad

3 CREDIT HOURS
Prerequisite: CAD K106.*
Corequisite: MAT K137*
This course, and the included lab, is designed to expose the student to advanced CAD techniques. Typical topics will include three-dimensional drawing, solid modeling, rendering, and customizing AutoCAD.

Total: 14

Semester III

EET* K264 - Data Acquisition and Controls °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
This course provides an introduction to data acquisition circuits and systems as well as basic feedback control systems. Topics include measurements techniques, computerized data acquisitions, introduction to LabVIEW, Interfacing to microcontrollers and instrumentation, signal processing and communications, and feedback control techniques, mechanical systems and mechanical power transmission. Students will learn the basics of measurements and data acquisition using LabVIEW based exercises. This lab portion of this course provides students with hands-on experience with analog and digital closed loop automatic control components, circuits, and systems. It familiarizes students with analog and digital simulation techniques. LabVIEW and microcontrollers are used extensively with various sensors and actuators.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

MAT* K167 - Principles of Statistics °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. Please refer to online schedule and click on the CRN hyperlink and/or review printed schedule in determining which faculty require math software in their course(s).*
This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations and confidence intervals.

MEC* K250 - Strength of Materials °

3 CREDIT HOURS
Prerequisites: MEC K114.*
This course instills knowledge of moments of inertia, torsion, bending, and columns, and how it applies to stress and the structural properties of materials. The relationship of these properties to common engineering problems is reviewed.

- _____- Social Sciences Elective **3 CREDIT HOURS**

Total: 15

Semester IV

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

MFG* K221 - Mechatronics

3 CREDIT HOURS
Prequisites: EET K264*
This interdisciplinary course with lab exposes students to the design, instrumentation, and control of high- precision, computer-controlled automation equipment, using concrete examples drawn from the photonics, biotech, manufacturing and semiconductor industries. Topics covered include design strategy, high-precision mechanical components, sensors and measurement, servo control, design for controllability, control software development, controller hardware, as well as automated error detection and recovery. Students will work individually and in teams on hands-on experiences reinforcing and supplementing the course content. This course is equivalent to EET* K266.

MFG* K230 - Statistical Process Control

3 CREDIT HOURS
Corequisite: MAT K167.*
This course presents the application of fundamental statistical concepts to manufacturing production control, tolerance analysis and acceptance sampling. Emphasis is placed on the application of statistics through control chart development, sampling size determination and frequency evaluation. The course incorporates computer hardware and software, particularly spread sheets and database programs in SPC applications to manual, automated and flexible manufacturing systems in a computer integrated environment. This course is equivalent to BMG* K218.

TCN* K291 - Interdisciplinary Capstone Design Project °

3 CREDIT HOURS
Prerequisites: Permission of the department chair.
This course provides students the opportunity to apply the concepts, theories, and practices developed throughout their Technology course of study in a one-semester capstone interdisciplinary project. Students will work together in teams to solve real world problems related to their interrelated field(s) of study. Students will learn how to develop and present effective written and oral technical communications. A major portion of the course will be dedicated to hands-on lab time during which students will work on their projects. Throughout the course, faculty members will serve as

consultants to guide the students and provide formative feedback. The course will culminate with a final technical presentation to faculty, students and invited industry guests. This course is intended for students in the second year of study.

- _____- Humanities/Social Sciences Elective **3 CREDIT HOURS**

Total: 15

Note:

° Course has a prerequisite. Students should check course description.

+ May substitute EET* K144 - Fundamentals Electrical Circuits and Machines ° and EET* K145 - Fundamentals Electrical Circuits and Machines Lab °

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

Manufacturing Engineering Technology, Associate in Science Degree Program Objectives

Graduates of the program in Manufacturing Engineering will:

1. be qualified to make technical contributions to and find employment in operations, design, development and manufacturing in the practice of manufacturing engineering technology.
2. have an appreciation for the need to be life long learners.
3. demonstrate professionalism and a sense of social and ethical responsibility in their professional endeavors.
4. engage in professional development or study in a four-year program to pursue flexible career paths amid future technological changes.

Manufacturing Engineering Technology, Associate in Science Degree Program Outcomes

By the time of graduation, students in the Manufacturing Engineering Technology program will:

1. practice the skills needed to work effectively in teams and as an individual.
2. demonstrate the ability to use appropriate mathematical and computational skills needed for engineering technology applications.
3. combine oral, graphical and written communication skills to present and exchange information effectively and to direct manufacturing activities.
4. know of a professional code of ethics.
5. describe concepts relating to manufacturing quality, timeliness and continuous improvement.
6. describe how the concepts of metal manufacturing, statistics, process automation, computer-aided design and manufacturing, and organizational management affects manufacturing operations.

7. illustrate an ability to think critically and identify, evaluate and solve complex technical and non-technical problems;
8. demonstrate creativity in designing problem solutions; and conduct and interpret experimental data and outcomes.
9. recognize actions and acts of professionalism that allows them to become informed and participating citizens cognizant of ethics, civic duty and social responsibility.
10. recognize the need to be lifelong learners.

Manufacturing Engineering Technology: Laser Manufacturing Option, A.S.

Degree Code: B72

Associate in Science

Program Coordinator: Michael Gentry - 860-215-9428

This program is designed to merge the traditional "hands-on" learning concepts and the newer computer application techniques in today's engineering technology education.
The student learns the basics such as the standard methods and practices of Tool Design and Production Planning and Statistical Process Control. The student's knowledge is expanded by exploring the more revolutionary techniques of CAD/CAM, Computer-Aided Manufacturing and Robotics in an automated system through concept and practical applications. This new emphasis on the computer includes CAD (Computer-Aided Drafting), CAM (Computer-Aided Manufacturing), and FMS (Flexible Manufacturing System). FMS includes the applications of robots, automated storage/retrieval, material handling systems, automated process control and inspection systems, and work cells (such as integrated machining, special processing and assembly). Global manufacturing competition is taught through methods of increasing productivity in engineering technology and business functions as well as the production plant.
Local industries advise and work with the department on keeping the curriculum and equipment up to date to maintain a "state-of-the-art" program.

Manufacturing Engineering Technology Curriculum Laser Manufacturing Option Requirements

(suggested two-year sequence)

Prerequisites to the Program

MAT* K172 - College Algebra °

3 CREDIT HOURS
Prerequisites: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course is a thorough and rigorous algebra course that strengthens the understanding of functions, their properties, multiple representations, and operations with functions. The function families studied include: polynomial, exponential, logarithmic, rational, and radical functions. Students will also learn linear and quadratic inequalities, absolute value equations and inequalities, linear and noninear systems.

PHY* K114 - Mechanics °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172.*
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry. Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion. Three-hour lecture; one two-hour laboratory.

Semester I

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

MEC* K152 - Fundamentals of Engineering Graphics °

1 CREDIT HOUR
Prerequisite: MAT K095 OR MAT* K095I or higher.*
Corequisite: MEC K153.*
This course teaches the basic concepts of orthographic projection, isometric, and oblique drawings and basic drafting terminology. Emphasis will also be placed on free hand sketching using the above concepts and terminology. Basic principles of simplified board drafting practices will be covered. A major component of this course will focus on descriptive geometry which will nurture the visualization skills of students by identifying points, planes, and perpendiculars in various perspectives. Some of the techniques will be accompanied with CAD as a comparison.

MEC* K153 - Fundamentals of Engineering Graphics Lab °

2 CREDIT HOURS
Prerequisite: MAT K095 OR MAT* K095I or higher.*
Corequisite: MEC K152.*
This lab and accompanying lecture is designed to introduce students to the concept of applying mechanical design principles with computer designed techniques and capabilities. This course teaches the basic concepts of orthographic projection, isometric, and oblique drawings and basic drafting terminology. A component of this course will focus on descriptive geometry which will nurture the visualization skills of students by identifying points, planes and perpendiculars in various perspectives. Introducing the mechanical design software SolidWorks, this course begins to examine the basic functionally of drawing automation. One hour lecture/discussion and four hours of lab per week.

MFG* K102 - Manufacturing Processes and Lab

3 CREDIT HOURS
Corequisite: TCN K105*
This course studies manufacturing: making goods and wares by industrial processes. The course will provide theoretical experience in the scientific, engineering, and economic principles on which the various manufacturing processes are based.This laboratory portion provides emphasis on common metal cutting tools and lathe operations, as well as on associated precision measuring tools and instruments. The labs will also involve set-ups and procedures for various manufacturing processes including plasma cutting, sheet metal, molding and additive manufacturing.

PHO* K101 - Intro to Light and Lasers

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S.*
This course is a comprehensive study of photonics designed as a one-semester course. It provides the foundation required to prepare technicians in the areas of optics, electro-optics, lasers, and photonics. Topics include: Nature and Properties of Light, Optical Handling and Positioning, Light Sources and Laser Safet, Basic Geometrical Optics, and Basic Physical Optics. The course covers the wave and particle properties of light, light interactions, fundamentals of laboratory safety, bulk optical materials and their properties, optical coatings and methods of coating deposition, laboratory mountings, positioning equipment, surface quality of optical components, inspection methods and procedures, the care and cleaning of optics, concepts of laser safety, laser safety standards, safety classifications, laws of reflection and refraction, image formation with lenses and mirrors, interference, diffraction, and polarization processes. The lab portion of the course provides students with hands on activities to demonstrate the various optical concepts. This course is equivalent to PHY* K103. One 2 hour lecture; one 3 hour lab.

TCN* K105 - Laser and Lab Safety

1 CREDIT HOUR
This course introduces important concepts and regulations for safety in laser and manufacturing labs and other work settings. Topics include safe handling of lasers, safe use of hand and power tools, hazard awareness and accident prevention, exposure limits, administrative and engineering controls, chemical hygiene and safety planning. The course is a requirement for all students beginning the Manufacturing Engineering Technology or Laser & Fiber Optic Technology associate degree programs.

Total: 13

Semester II

CAD* K106 - Basic CAD - AutoCad

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S or higher*
This course, with the included lab, exposes the student to the current means of generating graphic images with computers. Topics covered include CAD* overview, computer terminology, hardware descriptions and requirements, file manipulation and management, 2D and 3D geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail, and assembly drawings.

CAD* K107 - Computer-Aided Drafting Lab

2 CREDIT HOURS
Corequisite: CAD K106.*
This laboratory utilizes software in an IBM-PC environment. Topics given in the lecture will be learned through solving application problems on the computer.

EET* K105 - Electric Circuits & Systems °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I.*
Corequisites: MAT K137 or MAT* K137S.*
This course provides an introduction to the basic concepts of DC and AC electric circuits. Voltage, current, resistance,

energy, and power relationships are introduced. Circuit analysis of basic series and parallel circuits is covered. Instruments and techniques of electrical measurement for both DC and AC circuits are also discussed. Other topics include semiconductor devices, transformers and power supplies, microcontrollers, motors and drive circuits, and electrical power generation/distribution. The lab portion of this course will supplement the course Electric Circuits & Systems. Students will apply the concepts learned in the classroom and gain practical hands-on experience making electrical measurements using a variety of test instruments.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

PHO* K241 - Introduction to Laser Technology

3 CREDIT HOURS
Corequisite: MAT K137.*
This course provides an introduction to the physics of lasers, laser output characteristics, and types of lasers. Application of lasers will be also be explored. Topics include solid state, gas, and semiconductor lasers. Laser pumps, resonators, mode structures and power supplies are covered. Use of lasers in materials processing, communication systems, sensors and scientific analysis will be included.
The lab portion of this course will reinforce classroom physics and technology concepts and give students the opportunity to become familiar with common laser instrumentation. Lab projects will allow students to more deeply explore topics of interest. Lab exercises will include practice with Diode, HeNe, Argon, Fiber and CO2 lasers.

Total: 16

Semester III

EET* K264 - Data Acquisition and Controls °

3 CREDIT HOURS
Prerequisites: EET K105; MAT* K137 or MAT* K137S.*
This course provides an introduction to data acquisition circuits and systems as well as basic feedback control systems. Topics include measurements techniques, computerized data acquisitions, introduction to LabVIEW, Interfacing to microcontrollers and instrumentation, signal processing and communications, and feedback control techniques, mechanical systems and mechanical power transmission. Students will learn the basics of measurements and data

acquisition using LabVIEW based exercises. This lab portion of this course provides students with hands-on experience with analog and digital closed loop automatic control components, circuits, and systems. It familiarizes students with analog and digital simulation techniques. LabVIEW and microcontrollers are used extensively with various sensors and actuators.

MAT* K167 - Principles of Statistics °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. Please refer to online schedule and click on the CRN hyperlink and/or review printed schedule in determining which faculty require math software in their course(s).*
This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations and confidence intervals.

- _____- Fine Arts Elective **3 CREDIT HOURS**
- _____- Technical Elective **3 CREDIT HOURS**
- _____- Technical Elective **3 CREDIT HOURS**

Total: 15

Semester IV

MFG* K221 - Mechatronics

3 CREDIT HOURS
Prequisites: EET K264*
This interdisciplinary course with lab exposes students to the design, instrumentation, and control of high- precision, computer-controlled automation equipment, using concrete examples drawn from the photonics, biotech, manufacturing and semiconductor industries. Topics covered include design strategy, high-precision mechanical components, sensors and measurement, servo control, design for controllability, control software development, controller hardware, as well as automated error detection and recovery. Students will work individually and in teams on hands-on experiences reinforcing and supplementing the course content. This course is equivalent to EET* K266.

MFG* K230 - Statistical Process Control

3 CREDIT HOURS
Corequisite: MAT K167.*
This course presents the application of fundamental statistical concepts to manufacturing production control, tolerance analysis and acceptance sampling. Emphasis is placed on the application of statistics through control chart development, sampling size determination and frequency evaluation. The course incorporates computer hardware and software, particularly spread sheets and database programs in SPC applications to manual, automated and flexible manufacturing systems in a computer integrated environment. This course is equivalent to BMG* K218.

PHO* K102 - Applied Optics °

4 CREDIT HOURS
Prerequisites: PHO K101.*
Building on the foundation of PHO* K101, this course will introduce more sophisticated optical systems and mathematical analysis. Topics will include thick lenses, matrix methods of optics, aberrations, stops and pupils,

interferometry, Fresnel and Fraunhofer diffraction and polarization. Emphasis will be on applications of optics in modern technology. All laboratory section will reinforce concepts through hands-on experiments and team projects.

TCN* K291 - Interdisciplinary Capstone Design Project °

3 CREDIT HOURS
Prerequisites: Permission of the department chair.
This course provides students the opportunity to apply the concepts, theories, and practices developed throughout their Technology course of study in a one-semester capstone interdisciplinary project. Students will work together in teams to solve real world problems related to their interrelated field(s) of study. Students will learn how to develop and present effective written and oral technical communications. A major portion of the course will be dedicated to hands-on lab time during which students will work on their projects. Throughout the course, faculty members will serve as consultants to guide the students and provide formative feedback. The course will culminate with a final technical presentation to faculty, students and invited industry guests. This course is intended for students in the second year of study.

- _____- Social Sciences Elective **3 CREDIT HOURS**

Total: 16

Note:

° Course has a prerequisite. Students should check course description.

+ May substitute EET* K144 - Fundamentals Electrical Circuits and Machines °/EET* K145 - Fundamentals Electrical Circuits and Machines Lab °

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

Manufacturing Engineering Technology, Associate in Science Degree Program Objectives

Graduates of the program in Manufacturing Engineering will:

1. be qualified to make technical contributions to and find employment in operations, design, development and manufacturing in the practice of manufacturing engineering technology.
2. have an appreciation for the need to be life long learners.
3. demonstrate professionalism and a sense of social and ethical responsibility in their professional endeavors.
4. engage in professional development or study in a four-year program to pursue flexible career paths amid future technological changes.

Manufacturing Engineering Technology, Associate in Scien Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. practice the skills needed to work effectively in teams and as an individual.
2. demonstrate the ability to use appropriate mathematical and computational skills needed for engineering technology applications.
3. combine oral, graphical, and written communication skills to present and exchange information effectively and to direct manufacturing activities.
4. know of a professional code of ethics.
5. describe concepts relating to manufacturing quality, timeliness and continuous improvement.
6. describe how the concepts of computer-aided design and manufacturing, electronics, lasers, metal manufacturing, optics, organizational management, process automation and statistics affect manufacturing operations.
7. illustrate an ability to think critically and identify, evaluate and solve complex technical and non-technical problems; demonstrate creativity in designing problem solutions; and conduct and interpret experimental data and outcomes.
8. recognize actions and acts of professionalism that allow them to become informed and participating citizens cognizant of ethics, civic duty and social responsibility.
9. recognize the need to be lifelong learners.

Mechanical Engineering Technology

Mechanical Engineering Technology, A.S.

Degree Code: B62

Associate in Science

Program Contact: Michael Gentry - 860-215-9428

This program is designed with a broad range of subjects related to the design, manufacture, testing and development of various products, machines and systems.
The Mechanical program provides a learning experience in state-of-the-art laboratories on the most sophisticated equipment available. It is geared toward a practical hands-on experience that makes the Mechanical graduate a highly respected and marketable individual for many different types of industries.
Graduates of the Mechanical program can start immediately by working alongside of engineers in research, sales, or manufacturing industries. Typical types of starting positions include CAD operators, quality control specialists, robotic technicians, sales representatives, design technicians, testing technicians, etc. Building on a foundation of math, physics, humanities, and social sciences, the program trains and educates the student toward statics, machine design, fluid dynamics, and thermodynamics with emphasis upon the computer as a special tool to perform the task at hand.
The Mechanical Engineering Technology program also has a co-op option that allows the student to work while substituting the work experience for a technical elective. Many local industries are actively seeking and obtaining the Mechanical co-op student.
The job market for Mechanical graduates is very favorable. Currently the number of Mechanical job openings far exceeds the number of graduates on a nationwide trend. This situation means respectable and stable income for many years in the future. An investment of two years can turn into a lifetime of job security for the Mechanical graduate.
The primary goal of the Mechanical Engineering Technology program is to prepare technicians and designers for employment in industry. However, many students transfer to four-year institutions, especially four-year engineering technology programs.

Mechanical Engineering Technology Curriculum Requirements

Prerequisites to the Program

MAT* K172 - College Algebra °

3 CREDIT HOURS
Prerequisites: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course is a thorough and rigorous algebra course that strengthens the understanding of functions, their properties, multiple representations, and operations with functions. The function families studied include: polynomial, exponential, logarithmic, rational, and radical functions. Students will also learn linear and quadratic inequalities, absolute value equations and inequalities, linear and noninear systems.

PHY* K114 - Mechanics °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172.*
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry. Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion. Three-hour lecture; one two-hour laboratory.

CSA* K105 - Introduction to Software Applications °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces some popular software packages currently being used in industry, business, and government such as Microsoft Word, Excel, Access, and PowerPoint. A small amount of time will be devoted to the Windows operating system environment. Recent versions of the software packages will be used. Strong reading, good writing, and basic math skills are required. Prior computer usage experience (e.g. keyboard and mouse actions, file and folder management, Internet browsing) is assumed. Digital learning technologies will be used throughout the course.

Semester I

CAD* K141 - Basic 3D Parametric Modeling and Lab Solidworks

3 CREDIT HOURS
Prerequisite: MAT K137 or higher*
This course, and accompanying lab, is designed to expand and enhance the student's ability to combine and apply mechanical design principles with computer design techniques and capabilities. This course teaches the basic concepts of orthographic projection, isometrics, oblique drawings, and basic drafting technology. A component of this course will focus on descriptive geometry, which will nurture the visualization skills of students by identifiying points, planes, and perpendiculars in various perspectives. Introducing the mechanical design software SolidWorks, this course begins to examine the basic functionality of drawing automation.

CAD* K142 - Basic 3D Parametric Modeling Inventor

3 CREDIT HOURS
Prerequisite: MAT K137 or higher
This course, and accompanying lab, uses Computer Aided Drafting (CAD) software to create technical models and drawings of real-world design problems. These skills will then be fully synthesized into the world of parametric solid

modeling with the use of Autodesk Inventor Professional. This program will allow students to develop various engineering skills as they create the increasingly detailed illustrations used in industry. Drawings of assemblies and exploded views, as well as changing the properties of materials for stress analysis comparisons, will be explored. Through final projects, students can explore the fields of Computer Aided Manufacturing (CAM), Rapid Prototyping, Parametric Modeling, stress analysis, simulation, sheet metal, or Geometric Dimensional and Tolerancing.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

MEC* K114 - Statics °

3 CREDIT HOURS
Prerequisites: MAT K172 and PHY* K114.*
Corequisite: MAT K186.*
This course helps students develop the ability to analyze problems using the basic principles of static systems in order to provide a foundation for stress analysis. The forces on structures in equilibrium and concepts of centroids, center of gravity, and moment of inertia are studied. The concept of stress and strain in axial torsional and bending loading is also introduced.

MFG* K102 - Manufacturing Processes and Lab

3 CREDIT HOURS
Corequisite: TCN K105*
This course studies manufacturing: making goods and wares by industrial processes. The course will provide theoretical experience in the scientific, engineering, and economic principles on which the various manufacturing processes are based.This laboratory portion provides emphasis on common metal cutting tools and lathe operations, as well as on associated precision measuring tools and instruments. The labs will also involve set-ups and procedures for various manufacturing processes including plasma cutting, sheet metal, molding and additive manufacturing.

TCN* K105 - Laser and Lab Safety

1 CREDIT HOUR
This course introduces important concepts and regulations for safety in laser and manufacturing labs and other work settings. Topics include safe handling of lasers, safe use of hand and power tools, hazard awareness and accident prevention, exposure limits, administrative and engineering controls, chemical hygiene and safety planning. The course is a requirement for all students beginning the Manufacturing Engineering Technology or Laser & Fiber Optic Technology associate degree programs.

Total: 13

Semester II

CAD* K222 - Advanced 3D Parametric Modeling and Lab Solidworks

3 CREDIT HOURS
Prerequisite: CAD K141 and CAD* K142*
This course, and accompanying lab, is designed to further enhance the student's ability to combine and apply mechanical design principles with Solidworks. This course continues to examine the basic functionality of drawing automation. In addition, this course will introduce the concepts of geometric dimensioning and tolerancing by presenting an overview of a positional tolerance system, its relationship to coordinate tolerance systems, and other aspects of industry-standard drafting practices.

CAD* K231 - Advanced 3D Parametric Modeling NX

3 CREDIT HOURS
Prerequisite: CAD K141 and CAD* K142*
This course, and accompanying lab, is designed to expand and enhance the student's ability to combine and apply mechanical design principles with computer design techniques and capabilities. This course teaches the basic concepts of orthographic projection, isometrics, oblique drawings, and basic drafting terminology. A component of this course will focus on descriptive geometry, which will nurture the visualization skills of students by identifying points, planes, and perpendiculars in various perspectives. Introducing the mechanical design software SolidWorks, this course begins to examine the basic functionality of drawing automation.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

MEC* K262 - Materials Science °

3 CREDIT HOURS
Prerequisites: MFG K102*
Corequisite: MEC K263.*
This course studies the structure and properties of engineering materials, and incorporates the presentation of materials selection, processing, and heat treatment. The changes in structure and properties during forming, machining, and heat treating operations are discussed.

MEC* K263 - Materials Science Lab °

1 CREDIT HOUR
Prerequisites: MFG K102; TCN* K105.*
Corequisite: MEC K262.*
In this lab, students will be exposed to selected experiments demonstrating the effects of processing, including heat treatment, on the properties of engineering materials. Standard materials tests are also performed.

PHY* K115 - Heat Sound Light °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172. Please note if MAT* K172 is completed prior to registration into PHY* K115, students must*

complete MAT K172 with a "C" grade or better.*
This course covers three broad areas of physics including thermal equilibrium, heat transfer, harmonic motion and wave properties of sound and light. Three-hour lecture; one two-hour laboratory.

Total: 15

Semester III

EET* K105 - Electric Circuits & Systems °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I.*
Corequisites: MAT K137 or MAT* K137S.*
This course provides an introduction to the basic concepts of DC and AC electric circuits. Voltage, current, resistance, energy, and power relationships are introduced. Circuit analysis of basic series and parallel circuits is covered. Instruments and techniques of electrical measurement for both DC and AC circuits are also discussed. Other topics include semiconductor devices, transformers and power supplies, microcontrollers, motors and drive circuits, and electrical power generation/distribution. The lab portion of this course will supplement the course Electric Circuits & Systems. Students will apply the concepts learned in the classroom and gain practical hands-on experience making electrical measurements using a variety of test instruments.

MAT* K254 - Calculus I °

4 CREDIT HOURS
Prerequisite: MAT K186 with a 'C" grade or better.*
This is a first course in the calculus sequence intended for students who plan on majoring in mathematics, physical sciences, or engineering technology. Topics include: rate of change, limits, continuity, differentiation of algebraic, trigonometric, exponential, and logarithmic functions, differentials, applications of differentiation, definite and indefinite integrals, and applications of integration.

MEC* K250 - Strength of Materials °

3 CREDIT HOURS
Prerequisites: MEC K114.*
This course instills knowledge of moments of inertia, torsion, bending, and columns, and how it applies to stress and the structural properties of materials. The relationship of these properties to common engineering problems is reviewed.

- MEC* K231 - Computer-Aided Engineering °/MEC* K232 - Computer-Aided Engineering Lab ° **3 CREDIT HOURS** ¢ *Transfer track only*
  or
- MEC* K272 - Fluid Mechanics/Thermodynamics ° 4 **CREDIT HOURS** ŧ *Career track only*

Total: 13 or 14

Semester IV

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*

This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

- MAT* K256 - Calculus II ° **4 CREDIT HOURS ¢** *Transfer track only*
  or
- MEC* K274 - Heat Transfer °/ MEC* K275 - Thermal Sciences Lab **3 CREDIT HOURS ŧ** *Career track only*

MEC* K281 - Machine Design °

3 CREDIT HOURS
Prerequisite: MEC K250.*
This course utilizes skills from previous courses and gives students the opportunity to investigate the design of machine elements. Actual design conditions are studied along with classical engineering design practice utilizing the concepts of stress, materials, unimatics, economy, safety, strength, and appearance.

TCN* K291 - Interdisciplinary Capstone Design Project °

3 CREDIT HOURS
Prerequisites: Permission of the department chair.
This course provides students the opportunity to apply the concepts, theories, and practices developed throughout their Technology course of study in a one-semester capstone interdisciplinary project. Students will work together in teams to solve real world problems related to their interrelated field(s) of study. Students will learn how to develop and present effective written and oral technical communications. A major portion of the course will be dedicated to hands-on lab time during which students will work on their projects. Throughout the course, faculty members will serve as consultants to guide the students and provide formative feedback. The course will culminate with a final technical presentation to faculty, students and invited industry guests. This course is intended for students in the second year of study.

- _____- Humanities/Social Science Elective **3 CREDIT HOURS**

Total: 18 or 19

Note:

° Course has a prerequisite. Students should check course description.

+ May substitute EET* K144 - Fundamentals Electrical Circuits and Machines ° and EET* K145 - Fundamentals Electrical Circuits and Machines Lab °

¢ Best choice for students intending to transfer to a four year university upon graduation.

ŧ Best choice for students seeking employment upon graduation.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

Mechanical Engineering Technology, Associate in Science Degree Program Objectives

Graduates of the Mechanical Engineering Technology program will:

1. be qualified to make technical contributions to and find employment in operations, design, development and manufacturing in the practice of mechanical engineering technology.
2. have an appreciation for the need to be life long learners.
3. demonstrate professionalism and a sense of social and ethical responsibility in their professional endeavors.
4. engage in professional development or in study in a four-year program to pursue flexible career paths amid future technological changes.

Mechanical Engineering Technology, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. practice the skills needed to work effectively in teams and as an individual.
2. demonstrate the ability to use appropriate mathematical and computational skills needed for engineering technology applications.
3. Combine oral, graphical and written communication skills to present and exchange information effectively and to direct manufacturing activities.
4. know of a professional code of ethics.
5. have the ability to work professionally in both thermal and mechanical systems areas including the design and realization of such systems.
6. be able to function competently in a laboratory setting, making measurements, operating technical equipment, critically examining experimental results, and properly reporting on experimental results, including their potential for process improvement.
7. Illustrate an ability to think critically and identify, evaluate and solve complex technical and non-technical problems; demonstrate creativity in designing problem solutions; and conduct and interpret experimental data and outcomes.
8. recognize the actions and acts of professionalism that allows them to become informed and participating citizens cognizant of ethics, civic duty and social responsibility.
9. recognize the need to be lifelong learners.

Nuclear Engineering Technology

Nuclear Engineering Technology, A.S.

Degree Code: A92

Associate in Science

Program Coordinator: James Sherrard - 860-215-9472

This program is designed through cooperation with Millstone Station to produce entry-level technicians primarily for the commercial nuclear power industry. Millstone Station offers full scholarships through the college for up to 15 full-time freshman enrolling in the Nuclear Engineering Technology program. However, the program is open to all qualified students, with or without scholarship aid.
Using classroom, laboratory, and simulator instruction, students are educated in the theories underlying the actual safe operation of nuclear power generating stations. Additional "hands-on" experience may be gained through 12 weeks of summer co-op employment at Millstone Station's nuclear power plants.
Potential job areas upon graduation include health physics, nuclear chemistry, reactor engineering and power plant operation/maintenance. The program also provides academic preparation for a career as a reactor operator. This career path involves further training by the utility and successful completion of a license examination administered by the Nuclear Regulatory Commission. For many students, graduating with an Associate Degree in Nuclear Engineering Technology is but one step in their academic career as they move on to pursue higher degrees.

Nuclear Engineering Technology Curriculum Requirements

Prerequisites to the Program

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

PHY* K114 - Mechanics °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172.*
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry. Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion. Three-hour lecture; one two-hour laboratory.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students

with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

Semester I

CHE* K121 - General Chemistry I °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K172 and high school chemistry or CHE* K111 all passed with a "C" grade or better; or permission of the instructor or department chairperson.*
Corequisite: MAT K186.*
In this course, students will study the fundamental principles, theories, and laws of chemistry. Topics include atomictheory and the structure of the atom, the aggregated states of matter, kinetic molecular theory, chemical bonding, stoichiometry and periodicity, solutions, and colloids. Three- hour lecture; one three-hour laboratory period.

- _____- Computer Science Elective **3-4 CREDIT HOURS +**

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

NUC* K100 - Introduction to Nuclear Systems

3 CREDIT HOURS
This course is an introduction to the major systems of a commercial nuclear power plant. Designed for the student with no prior knowledge of engineering principles, it adheres to a systematic approach to operations and explains the underlying theoretical principles. The course focuses on Pressurized Water Reactor (PWR) and Boiling Water Reactor (BWR) plant design. The course also presents an overview of the Pressurized Heavy Water Reactor (PHWR), Fast Breeder Reactor (FBR), and High Temperature Gas-cooled Reactor (HTGR).

Total: 13-14

Semester II

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate

visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

MAT* K254 - Calculus I °

4 CREDIT HOURS
Prerequisite: MAT K186 with a 'C" grade or better.*
This is a first course in the calculus sequence intended for students who plan on majoring in mathematics, physical sciences, or engineering technology. Topics include: rate of change, limits, continuity, differentiation of algebraic, trigonometric, exponential, and logarithmic functions, differentials, applications of differentiation, definite and indefinite integrals, and applications of integration.

NUC* K110 - Radiation Health Safety °

2 CREDIT HOURS
Prerequisites: MAT K186 and CHE* K121.*
Corequisites: NUC K111 and NUC* K117.*
This course is an introduction to basic concepts associated with nuclear physics and nuclear radiation, health, and safety. Topics include nuclear structure, radioactivity, and interaction of radiation with matter, shielding, radiation measurement, exposure, and biological effects.

NUC* K111 - Radiation Health Safety Lab °

1 CREDIT HOUR
Prerequisites: MAT K186 and CHE* K121.*
Corequisites: NUC K110 and NUC* K117.*
This course is designed to give the student hands-on experience working with a variety of radiation monitoring devices. The students will also gain experience in the processing and analysis of counting data.

NUC* K117 - Atomic and Reactor Physics °

4 CREDIT HOURS
Prerequisites: MAT K186; NUC* K100; PHY* K114.*
Corequisites: MAT K254; PHY* K115; NUC* K110/NUC* K111.*
This course is an introduction to modern physics concepts of the structure of the atom, the properties of atomic particles, the nature of light, relativity theory and elementary quantum mechanics. An understanding of fission energy concepts and transmutations will be provided.

NUC* K118 - Nuclear Chemistry °

1 CREDIT HOUR
Prerequisites: CHE K121; MAT* K186; NUC* K100.*
Corequisite: NUC K117.*
This course is an introduction to the basic concepts of nuclear reactor chemistry. Topics covered include oxidation-reduction reactions, principles of corrosion, corrosion control practices, and important nuclear chemical reactions.

PHY* K115 - Heat Sound Light °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172. Please note if MAT* K172 is completed prior to registration into PHY* K115, students must*

complete MAT K172 with a "C" grade or better.*
This course covers three broad areas of physics including thermal equilibrium, heat transfer, harmonic motion and wave properties of sound and light. Three-hour lecture; one two-hour laboratory.

Total: 19

Semester III

EET* K144 - Fundamentals Electrical Circuits and Machines °

3 CREDIT HOURS
Prerequisite: MAT K186.*
Corequisite: EET K145.*
This course covers the basics of DC and AC electricity in its first half and provides the foundation for the basics of power generation, distribution and conversion. Replaces Electricity and AC/DC Machinery.

EET* K145 - Fundamentals Electrical Circuits and Machines Lab °

1 CREDIT HOUR
Prerequisite: MAT K186.*
Corequisite: EET K144.*
Students will conduct laboratory experiments in electrical power, from basic principles through operation of AC and DC machinery; it is for students in Nuclear Engineering Technology and other non-electrical programs. Replaces Electricity and AC/DC Machinery Lab.

MAT* K256 - Calculus II °

4 CREDIT HOURS
Prerequisite: MAT K254 with a "C" grade or better.*
This course is the second semester of calculus intended for students who plan on majoring in mathematics, physical science, or engineering technologies. The topics include the definite integral, applications of integration, methods of integration, sequences, series and vectors.

MEC* K272 - Fluid Mechanics/Thermodynamics °

4 CREDIT HOURS
Prerequisite: PHY K115.*
This course investigates the behavior of fluids from a fluid mechanics and thermodynamics point of view, including the concepts of enthalpy, entropy, and energy balances.

NUC* K250 - Reactor Theory °

4 CREDIT HOURS
Prerequisites: MAT K254; NUC* K110/NUC* K111; NUC* K117; NUC* K118; PHY* K114; PHY* K115.*
Corequisites: MAT K256; NUC* K260/NUC* K261.*
This course studies nuclear energy with emphasis on fission, reactor types, moderation of neutrons, activation and decay schemes, transmutations, neutron diffusion theory, and theoretical reactor operation including heat transfer, power transients, instrumentation and resultant radiation.

NUC* K260 - Nuclear Materials Science °

2 CREDIT HOURS
Prerequisites: MAT K254; NUC* K100; NUC* K110/NUC* K111; NUC* K117; NUC* K118.*
Corequisites: MAT K256; NUC* K250; NUC* K261.*
This course will acquaint the student with constitution, properties and characteristics of engineering materials and provide a foundation for stress analysis on structures in equilibrium with emphasis on applications to nuclear power, including effects of material irradiation.

NUC* K261 - Nuclear Materials Science Lab °

1 CREDIT HOUR
Prerequisites: MAT K254; NUC* K100; NUC* K110/NUC* K111; NUC* K117; NUC* K118.*
MAT K256; NUC* K250; NUC* K260.*
This lab will focus on performing experiments in metallographic examination, mechanical testing, and heat treatment of a variety of ferrous and nonferrous metals. Experiments to determine properties of materials such as strain, fatigue, corrosion, compression and tensions will also be conducted. Brittle fracture and thermal stress will be performed as well as effects of irradiating materials.

Total: 19

Semester IV

MEC* K274 - Heat Transfer °

2 CREDIT HOURS
Prerequisites: MAT K254; MEC* K272; PHY* K115.*
Corequisite: MEC K275.*
This course will include one and two dimension flow, and principles of convection, conduction, and radiation. Steady state conditions will be investigated.

MEC* K275 - Thermal Sciences Lab

1 CREDIT HOUR
Corequisites: MAT K254; MEC* K241 or MEC* K270 or MEC* K272.*
This course studies selected labs from the fields of fluid mechanics, thermodynamics, and heat transfer.

NUC* K210 - Nuclear Instruments and Control °

2 CREDIT HOURS
Prerequisites: EET K144/EET* K145; NUC* K100; NUC* K110/NUC* K111; NUC* K117; NUC* K250.*
Corequisites: NUC K211; NUC* K220/NUC* K221.*
The study of the underlying electrical, mechanical, physical, and chemical principles by which the instrumentation and modern PWR (pressurized water reactor) and BWR (boiling water reactor) systems control the safe generation of nuclear-based power. Emphasis is placed on the full understanding of the nuclear fission process and the interactions of the numerous subsystems required monitoring and controlling this important energy technology.

NUC* K211 - Nuclear Instruments and Control Lab °

1 CREDIT HOUR
Prerequisites: EET K144/EET* K145; NUC* K100; NUC* K110/NUC* K111; NUC* K117; NUC* K250.*
Corequisites: NUC K210; NUC* K220/NUC* K221.*

These laboratory exercises transfer acquired electrical, mechanical, physical, and chemical technology gained in earlier courses in hands-on applications to 15 selected nuclear instrument controlled subsystems. Emphasis is placed on the full understanding of the detection capabilities and subsequent safe nuclear system control.

NUC* K220 - Nuclear Simulator °

1 CREDIT HOUR
Prerequisites: NUC K100; NUC* K110/NUC* K111; NUC* K117; NUC* K118; NUC* K250; NUC* K260/NUC* K261.*
Corequisites: NUC K210/NUC* K211; NUC* K221.*
A study of the primary and secondary systems of a Pressurized Water Reactor (PWR), with emphasis on control and protective subsystems, plant start-up, normal plant operation, and critical shut-down procedures. Reactor "accident" analyses are stressed for total reactor system comprehension. This is the capstone event for the nuclear degree program.

NUC* K221 - Nuclear Simulator Lab °

1 CREDIT HOUR
Prerequisites: NUC K100; NUC* K110/NUC* K111; NUC* K117; NUC* K118; NUC* K250; NUC* K260/NUC* K261.*
Corequisites: NUC K210/NUC* K211; NUC* K220.*
A study of reactor plant primary and secondary systems, control and protective systems, plant start- up, normal plan operation, and critical shut-down procedures is covered through the extensive "hands-on" utilization of a modern nuclear reactor simulator. This is the capstone event for the nuclear degree program.

NUC* K230 - Nuclear Topics °

2 CREDIT HOURS
Prerequisites: NUC K100; NUC* K110/NUC* K111; NUC* K117; NUC* K118; NUC* K250; NUC* K260/NUC* K261.*
This course is a state-of-the-art survey course studying factors impacting modern nuclear power generation, including environmental impacts, fuel management, preventive maintenance, equipment operation, failure and analysis, safety engineering, human factors engineering, and emergency planning procedures. Additionally, an overview of other regional nuclear related business activities will be presented.

- _____- Humanities/Social Sciences/Fine Arts Elective **3 CREDIT HOURS**
- _____- Restricted Elective **3 CREDIT HOURS ++**

Total: 16

Note:

° Course has a prerequisite. Students should check course description.

+ Typical selections are CSA* K105 or CSC* K108 to support future employment and education.

Students may select another 3 credit Technology elective to replace NUC* K210/NUC* K211 to better meet their employment/ future education goals with the approval of the Program Coordinator.

++ An additional Humanities/Social Science/ Fine Arts Elective is recommended. Or, another course appropriate for future employment may be selected with approval of the Program Coordinator.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 67-68

Nuclear Engineering Technology, Associate in Science Degree Program Objectives

Graduates of the Nuclear Engineering Technology program will:

1. demonstrate a mastery of knowledge, skills and problem solving abilities required for entry level employment in the commercial nuclear power or health physics fields.
2. demonstrate technical strengths in the areas of nuclear processes and operations, nuclear systems and radiological safety.
3. adopt life long learning and intellectual growth as an integral part of a career in nuclear engineering technology due to continuing engineering and scientific reactor system technology improvements.
4. possess a solid nuclear knowledge base for a program base for a program graduate to transfer as an entering junior into a baccalaureate degree program in nuclear engineering or health physics.

Nuclear Engineering Technology, Associate in Science Degree Program Outcomes

By the time of graduation, students in the Manufacturing Engineering Technology program will:

1. apply an understanding of nuclear systems and operations
2. apply an understanding of radiological safety and radiation protection procedures.
3. know the applicable rules and regulations, and describe the roles of maintenance, control, performance, the human interface in the operations and quality assurance.
4. understand, demonstrate and value the safe operation of nuclear systems.
5. solve problems using foundation mathematics, physical sciences and nuclear technology for nuclear industry constituents served by the degree program.
6. conduct, analyze and interpret laboratory experiments.
7. interpret laboratory analyses that measure nuclear and radiation processes.
8. demonstrate effective oral and written communication skills.
9. demonstrate the use of library and on-line information sources in problem solving.
10. serve as productive team members.
11. recognize the need to be life long learners.

Technology Studies

Computer Aided Drafting Certificate

For more information on the Plan of Study for the Computer Aided Drafting

Certificate, please contact Michael Gentry at mgentry@threerivers.edu.

Degree Code: J46

Certificate Program

Contact: Michael Gentry - 860-215-9428

This certificate program is designed to prepare students with modern skills in drafting. There is a strong emphasis on computer applications in each drafting concentration. A unique feature of this certificate is that it pairs drafting with a technology such as Architectural, Civil, Electrical, Mechanical, or Industrial (Manufacturing, Mechanical). This provides a more meaningful education for the students. Students may complete this certificate and go to work as draftspersons or they may enter into an associate degree program of their choice with no less credit. Students may complete this certificate by completing the course that are listed below.

Computer Aided Drafting Certificate Curriculum Requirements

Semester I

CSA* K105 - Introduction to Software Applications °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces some popular software packages currently being used in industry, business, and government such as Microsoft Word, Excel, Access, and PowerPoint. A small amount of time will be devoted to the Windows operating system environment. Recent versions of the software packages will be used. Strong reading, good writing, and basic math skills are required. Prior computer usage experience (e.g. keyboard and mouse actions, file and folder management, Internet browsing) is assumed. Digital learning technologies will be used throughout the course.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

MAT* K137 - Intermediate Algebra °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "B-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*

This course cultivates understanding and different representations of functions. Topics covered include linear, quadratic, exponential, rational, radical functions, equations, and expressions with emphasis on modeling and solving real world problems. A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). Please refer to online schedule and click on the CRN hyperlink and/or review the printed schedule to determine which faculty require math software in their section.

Please select from the following courses:

CAD* K106 - Basic CAD - AutoCad

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S or higher*
This course, with the included lab, exposes the student to the current means of generating graphic images with computers. Topics covered include CAD* overview, computer terminology, hardware descriptions and requirements, file manipulation and management, 2D and 3D geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail, and assembly drawings.

CAD* K141 - Basic 3D Parametric Modeling and Lab Solidworks

3 CREDIT HOURS
Prerequisite: MAT K137 or higher*
This course, and accompanying lab, is designed to expand and enhance the student's ability to combine and apply mechanical design principles with computer design techniques and capabilities. This course teaches the basic concepts of orthographic projection, isometrics, oblique drawings, and basic drafting technology. A component of this course will focus on descriptive geometry, which will nurture the visualization skills of students by identifiying points, planes, and perpendiculars in various perspectives. Introducing the mechanical design software SolidWorks, this course begins to examine the basic functionality of drawing automation.

CAD* K142 - Basic 3D Parametric Modeling Inventor

3 CREDIT HOURS
Prerequisite: MAT K137 or higher
This course, and accompanying lab, uses Computer Aided Drafting (CAD) software to create technical models and drawings of real-world design problems. These skills will then be fully synthesized into the world of parametric solid modeling with the use of Autodesk Inventor Professional. This program will allow students to develop various engineering skills as they create the increasingly detailed illustrations used in industry. Drawings of assemblies and exploded views, as well as changing the properties of materials for stress analysis comparisons, will be explored. Through final projects, students can explore the fields of Computer Aided Manufacturing (CAM), Rapid Prototyping, Parametric Modeling, stress analysis, simulation, sheet metal, or Geometric Dimensional and Tolerancing.

Total: 12

Semester II

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc.

Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

_____ Technical Elective 3-4 CREDIT HOURS**

Please select from the following options:

Option 1:

CAD* K202 - CAD Advanced Topics

3 CREDIT HOURS
Prerequisites: **CAD* K106**
Corequisite: MAT K137 or MAT* K137S or higher*
This course is designed to expose the student to advanced CAD techniques. Typical topics will include three dimensional drawing, solid modeling, rendering, and customizing AutoCAD.

CAD* K214 - Cad - Construction °

1 CREDIT HOUR
Prerequisites: CAD K106/CAD* K107 and latest CAD release working knowledge.*
Corequisite: CAD K215.*
Students continue to learn and practice construction drafting concepts using a CAD system. Students will solve graphic problems typical to construction topics such as plan and elevation views, structuraland concrete detailing, construction section-details, topography and site planning, and schedules including structural members, finish, doors and windows. Creating and using symbol libraries will be introduced.

CAD* K215 - Cad - Construction Lab °

2 CREDIT HOUR
Prerequisites: CAD K106/CAD* K107 and latest CAD release working knowledge.*
Corequisite: CAD K214.*
Students will be assigned graphic problems typical to construction topics based on the lecture.

Option 2:

CAD* K231 - Advanced 3D Parametric Modeling NX

3 CREDIT HOURS
Prerequisite: CAD K141 and CAD* K142*
This course, and accompanying lab, is designed to expand and enhance the student's ability to combine and apply mechanical design principles with computer design techniques and capabilities. This course teaches the basic concepts of orthographic projection, isometrics, oblique drawings, and basic drafting terminology. A component of this course will focus on descriptive geometry, which will nurture the visualization skills of students by identifying points, planes, and perpendiculars in various perspectives. Introducing the mechanical design software SolidWorks, this course begins to examine the basic functionality of drawing automation.

CAD* K239 - Geometric Dimensioning and Tolerancing °

3 CREDIT HOURS
Prerequisites: CAD K106/CAD* K107 and latest CAD release working knowledge.*

This course will introduce the concepts of Geometric Dimensioning and Tolerance with respect to design and inspection considerations. The entire content will be based upon the ASME Y14.5M- 1994 standards. The concepts of proper dimensioning and tolerance methods with clear distinct outcomes will be defined. The use of computer aided drafting will aid in the delivery of the GDT concepts. This course is equivalent to MFG* K239.

Option 3:

CAD* K222 - Advanced 3D Parametric Modeling and Lab Solidworks

3 CREDIT HOURS
Prerequisite: CAD K141 and CAD* K142*
This course, and accompanying lab, is designed to further enhance the student's ability to combine and apply mechanical design principles with Solidworks. This course continues to examine the basic functionality of drawing automation. In addition, this course will introduce the concepts of geometric dimensioning and tolerancing by presenting an overview of a positional tolerance system, its relationship to coordinate tolerance systems, and other aspects of industry-standard drafting practices.

CAD* K239 - Geometric Dimensioning and Tolerancing 3 CREDIT HOURS +++

Total: 12 - 13

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

+ For students on architectural or construction career path.

++ For solid modeling students on career path to work for a mechanical or manufacturing company that utilizes Siemens NX software.

+++ For solid modeling students on career path to work for a mechanical or manufacturing company that utilizes Solidworks software.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

** Tech elective requires approval of the Program Advisor. Recommended choices include CAD* K130/CAD* K131, CAD* K141/CAD K142, or ARC* K135/ARC* K135L.

Grand Total: 24-25

Computer-Aided Drafting, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. become proficient in the use of Computer-Aided Drafting Software.
2. demonstrate knowledge of drafting standards set forth by the American National Standards Institute (ANSI).
3. demonstrate knowledge of drafting standards set forth by the International Standards Organization (ISO).
4. provide a general understanding of standard drafting principles such as alphabet of lines, precedence of lines, dimensioning standards and projection techniques.
5. readily adapt the necessary skills required for an entry-level position in the discipline of drafting.
6. provide an education that integrates a core curriculum with drafting theory, computer theory, technical background, and practice elements, for students who will seek advanced degrees.
7. expand life long learning opportunities in the drafting area for those with previous experience in other fields.
8. demonstrate and apply skills necessary for visual thinking and graphic problem solving.
9. work cooperatively and productively in groups to solve problems.
10. foster a learning environment that emulates industrial standards.

Lean Manufacturing Certificate

Degree Code: N13

Certificate Program

Contact: Michael Gentry- 860-215-9428

This certificate program is designed as a response to the expressed future and current needs of the manufacturing community. The U.S. Department of Labor along with local industry has demonstrated a demand and need for courses in the areas of lean management. This certificate provides students with the skills that will increase their employability in the manufacturing field as well as set them on a path that will enable them to further their education.

Students may complete this certificate by completing the courses that are listed below.

Lean Manufacturing Certificate Curriculum Requirements

MFG* K171 - Introduction to Lean Manufacturing

3 CREDIT HOURS
The purpose of this course is to provide the student with the fundamental knowledge of current continuous process improvement methodologies in use today within competitive manufacturing environments. This introductory course will expose the student to the basic concepts of Lean Manufacturing theory and the various tools and techniques involved with a lean implementation. This course will be presented following the lean six sigma process methodology of DMAIC (Define, Measure, Analyze, Improve, Control) to ensure that at the completion of the course, the student will be competent to participate effectively as a team member in lean implementation projects.

MFG* K271 - Advanced Lean Manufacturing °

3 CREDIT HOURS
Prerequisite: MFG K171.*
The purpose of this course is to provide the student with the knowledge to implement lean improvements within the

production environment using a systematic approach. This course will follow an improvement project (from the student's current employer or case study) through the five stages of the DMAIC problem solving methodology. At the completion of the course, the student will be competent to effectively lead a lean implementation project within a company.

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 6

Supply Chain Management Certificate

Degree Code: N14

Certificate Program

Contact: Michael Gentry- 860-215-9428

This certificate program is designed as a response to the expressed future and current needs of the manufacturing community. The U.S. Department of Labor along with local industry has demonstrated a demand and need for courses in supply chain management. This certificate provides students with the skills that will increase their employability in the manufacturing field as well as set them on a path that will enable them to further their education.

Students may complete this certificate by completing the courses that are listed below.

Supply Chain Management Certificate Curriculum Requirements

MFG* K172 - Introduction to Lean Supply Chain Management

3 CREDIT HOURS
This course is an introduction to the basic principles and methodologies of Supply Chain Management. The course reviews the lean manufacturing principles needed to understand and maintain the supply chain. Key concepts are covered such as Value Stream Mapping, customer/supplier roles, supplier types, metrics, quality systems, quality audits, communication, and information flow. Class activities, group assignments, and case studies are emphasized for real- world learning experiences.

MFG* K272 - Implementing Lean Supply Chain Management °

3 CREDIT HOURS
Prerequisites: MFG K172.*

This course covers the benefits and elements needed for implementing supply chain management. Team building and communication skills are shown as crucial factors in supply chain management. Topics emphasized in the course are measuring the velocity of the supply chain, developing partnerships, logistics, software tools, hardware, and continuous improvement. Class activities, group assignments and case studies are emphasized for real world learning experiences.

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 6

Technology Studies, A.S.

Degree Code: F11

A College of Technology Pathway

The Connecticut College of Technology is an innovative program leading to a Bachelor of Science Degree in engineering or technology. The program consists of two distinct pathways, one in Engineering Science and one in Technology Studies. After completing the Technology Studies Pathway Program at Three Rivers, students may enter directly into technical fields at Central Connecticut State University or Charter Oak State College (Connecticut's External Degree Program). The Engineering Science Pathway leads directly into the School of Engineering at the University of Connecticut or the University of New Haven.

The pathway courses will transfer to engineering and technology programs at many other public and private universities as well.

Associate Degree

Program Contact: Mark Vesligaj - 860-215-9442

This program is designed for entry into Central Connecticut State University's School of Technology or Charter Oak State College. The "Technology Studies Pathway" consists of courses which provide the foundation for:

- A Bachelor of Science Degree from Central Connecticut State University in engineering technology, industrial technology or technology education.
- A Bachelor of Science Degree from Charter Oak State College. A minimum course grade of "C" and college credit, as described below, are required for continuing at CCSU's School of Technology or at Charter Oak.

Technolgy Studies Curriculum Requirements

General Education:

Arts/Humanities

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

- _____- Fine Arts Elective **(art, music) 3 CREDIT HOURS**
- _____- Philosophy Elective **3 CREDIT HOURS**

Total: 15

Math and Science

CHE* K111 - Concepts of Chemistry °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K137 or MAT* K137S with a "C" grade or better (or permission of the instructor on math requirement).*
This course offers a brief and comprehensive survey of important chemical theories and some of the applications of chemistry. Topics covered will include measurements in chemistry, atomic structures and chemical bonding, chemical reactions, states of matter, stoichiometry, theories of solution, and basic organic and biochemical concepts. Course Design: CHE* K111 is meant for students with little or no background in chemistry who need the course in preparation for General Chemistry, or for students who need to meet a pre-admission requirement for nursing or other allied health programs, or those who need a lab science course.

or

CHE* K121 - General Chemistry I °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K172 and high school chemistry or CHE* K111 all passed with a "C" grade or better; or permission of the instructor or department chairperson.*
Corequisite: MAT K186.*
In this course, students will study the fundamental principles, theories, and laws of chemistry. Topics include atomictheory and the structure of the atom, the aggregated states of matter, kinetic molecular theory, chemical bonding, stoichiometry and periodicity, solutions, and colloids. Three- hour lecture; one three-hour laboratory period.

MAT* K167 - Principles of Statistics °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. Please refer to online schedule and click on the CRN hyperlink and/or review printed schedule in determining which faculty require math software in their course(s).*
This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations and confidence intervals.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

PHY* K114 - Mechanics °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172.*
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry. Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion. Three-hour lecture; one two-hour laboratory.

Total: 15

Social/Behavioral Sciences

- _____- Behavioral Sciences Elective **(psychology or sociology) 3 CREDIT HOURS**
- _____- Social Sciences Elective **(economics or history recommended) 3 CREDIT HOURS**
- _____- Social Sciences Elective **(geography, political science or history recommended) 3 CREDIT HOURS**
- _____- Social Sciences Elective **(economics recommended) 3 CREDIT HOURS**

Total: 12

Specialized Core

Total: 9

Options

- _____- Technical Elective **3 CREDIT HOURS**
- _____- Technical Elective **3 CREDIT HOURS**
- _____- Technical Elective **3 CREDIT HOURS**
- _____- Technical Elective **3 CREDIT HOURS**
- _____- Technical Elective **3 CREDIT HOURS**

Total: 15

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 66

Technology Studies, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. transition seamlessly into a Bachelor of Science Degree Program in Technology with junior level status in the receiving institution as part of the Technology Studies Pathway Program.
2. demonstrate team-oriented skills that permit effective participation in multicultural work and social environments.
3. apply appropriate mathematical and scientific principles to industrial technology applications.
4. perform competently in mathematics.
5. express ideas effectively through written and oral communications.
6. demonstrate proficiency in technical fundamentals to analyze industrial technology problems and make appropriate decisions.
7. maintain a practical knowledge of state-of-the-art hardware and software.
8. apply skills and knowledge to effectively and efficiently plan, organize, implement, measure and manage technology.

9. demonstrate a thorough knowledge and understanding of engineering graphics as well as conventional drafting practices, such as orthographic and isometric projection, section, detail, auxiliary views, descriptive geometry, as well as geometric dimensioning and tolerancing basics.
10. demonstrate a high level of proficiency in the use of stateof- the art computer aided design (CAD) software and be able to respond positively to continuous software revisions and upgrades.

Technology Studies: Biomolecular Science Option, A.S.

Degree Code: F21

A College of Technology Pathway

The Connecticut College of Technology is an innovative program leading to a Bachelor of Science Degree in engineering or technology. The program consists of two distinct pathways, one in Engineering Science and one in Technology Studies. After completing the Technology Studies Pathway Program at Three Rivers, students may enter directly into technical fields at Central Connecticut State University or Charter Oak State College (Connecticut's External Degree Program). The Engineering Science Pathway leads directly into the School of Engineering at the University of Connecticut or the University of New Haven.

The pathway courses will transfer to engineering and technology programs at many other public and private universities as well.

Associate in Science

Program Contact: Mark Vesligaj - 860-215-9442

This option will create a new area of emphasis for the College of Technology, providing an area of specialty for students who wish to go into a biomolecular science career as a laboratory technician and/or pursue a baccalaureate degree through the Pathways program at Central Connecticut State University in Biomolecular Sciences. The associate's degree can also serve as a career-oriented degree for students who choose to enter workforce in various laboratory environments such as an academic research laboratory, environmental laboratory, or medical laboratory.

Biomolecular Science Option Curriculum Requirements

General Education:

Arts/Humanities

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ECN* K102 - Principles of Microeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces students to microeconomics theory, with a focus on understanding how business, social, and policy decisions are made. The basic theories of distribution of income, international economics, labor, and comparative economic systems are studied.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

- HIS* K___- History Elective **3 CREDIT HOURS**

PHL* K111 - Ethics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course will cover the fundamentals of ethics, including an introduction to the origins and nature of moral right and responsibility. Students will analyze and formulate positions on contemporary ethical issues.

- _____- Fine Arts Elective **3 CREDIT HOURS**
- _____- GEO* or POL* Elective **3 CREDIT HOURS**
- _____- PSY* or SOC* Elective **3 CREDIT HOURS**

Total: 27

Math and Science Core

CHE* K121 - General Chemistry I °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K172 and high school chemistry or CHE* K111 all passed with a "C" grade or better; or permission of the instructor or department chairperson.*
Corequisite: MAT K186.*
In this course, students will study the fundamental principles, theories, and laws of chemistry. Topics include

atomictheory and the structure of the atom, the aggregated states of matter, kinetic molecular theory, chemical bonding, stoichiometry and periodicity, solutions, and colloids. Three- hour lecture; one three-hour laboratory period.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

PHY* K121 - General Physics I °

4 CREDIT HOURS
Prerequisite: MAT K186. A prior physics (PHY* K114 or high school physics) strongly recommended.*
This course will cover the fundamental principles of classical mechanics, properties of matter, heat, harmonic motion, waves, and sound.

Total: 12

Specialized Core

BIO* K121 - General Biology I °

4 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Corequisites: CHE K111 or CHE* K121, either course with a "C" grade or better; or permission of the department chair. Please note: If completing CHE* K111 or CHE* K121 prior to enrolling in BIO* K121, a grade of "C" or better is required for registration into this course.*
This course introduces the major principles and concepts of modern biology. Topics to be covered include molecular and cellular biology, cell division, cellular transport systems, cellular metabolism, the specialization and differentiation of both plant and animal cells, and modern genetics. Three-hour lecture; one three-hour laboratory period.

BIO* K122 - General Biology II °

4 CREDIT HOURS
Prerequisite: BIO K121 with a "C" grade or better or permission of the instructor.*
Corequisite: None required; CHE K122 is recommended.*
This course is a continuation of General Biology I. Topics to be covered include taxonomy, the diversity of life forms from the microbes to the animals, the structures and functions of both plant and animal systems, as well as ecology, ecosystems and evolution. (For transfer credit, student should take both BIO* K121 and BIO* K122.) Three-hour lecture; one three-hour laboratory period.

PHY* K122 - General Physics II °

4 CREDIT HOURS
Prerequisites: MAT K186 and PHY* K121.*

This course will cover the fundamental principles of electricity and magnetism, AC & DC circuits, electromagnetic fields and waves, optics, relativity and quantum and atomic physics.

Total: 12

Options:

Please choose four courses from the following specialized electives:

BIO* K235 - Microbiology °

4 CREDIT HOURS
Prerequisites: BIO K121 and CHE* K111 or CHE* K121 or permission of the instructor, all courses passed with a "C" grade or better. BIO* K122 is recommended.*
This course covers a comprehensive study of microorganisms. Topics covered will include the basic characteristics, morphology, physiology, growth, reproduction, and genetics of bacteria, as well as a brief taxonomical survey of the following microbial life forms: Archaea, Eubacteria (Cyanobacteria, Mycoplasms, Rickettsia, Chlamydia), Fungi, Algae, Protozoans, and Viruses. Emphasis will be on species that affect humans. Laboratory activities will include various techniques of staining, culturing, and isolating bacteria. The morphology and metabolic processes of select microbial groups will be studied. Students will learn to apply various modern bio- techniques that are used for controlling the growth of microbes, and to identify unknowns. Three hours of lecture; three hours of lab each week.

BIO* K260 - Principles of Genetics °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; MAT* K137 or MAT* K137S; BIO* K121; CHE* K111 or CHE* K121; all courses passed with a "C" grade or better.*
This course is designed to cover the basic concepts of genetics, including the theory of chromosomes, classical Mendelian inheritance, principles of human genetics, the genetic code, the role of the nucleic acids in gene expression, genetic mutations, and topics in modern genetics in areas such as recombinant DNA, biotechnology, gene mapping and diagnosis of human genetic disease.

or

BIO* K262 - Genetics °

4 CREDIT HOURS
Prerequisites: BIO K121; BIO* K122; MAT* K186 or higher; CHE* K111 or CHE* K121 & CHE* K122; or completion of BIO* K121, MAT* K137 or MAT* K137S, CHE* K111 or CHE* K121 and the written permission of the instructor, ALL courses passed with a "C" grade or better.*
This introductory course covers the basic principles, theories and laws of heredity. Topics to be covered will include mitosis, meiosis, DNA & RNA and their role in protein synthesis, chromosomes, genes, recombinant DNA, and Mendelian and Human Genetics. Laboratory experience will incorporate the use of fruit flies to examine the ways in which traits are inherited, as well as gel electrophoresis and recombinant DNA procedures to explore modern concepts of cytogenetic technology.

- BIO* 264 - Molecular and Cellular Biology

CHE* K122 - General Chemistry II °

4 CREDIT HOURS
Prerequisites: CHE K121 with a "C" or better; MAT* K186 with "C" grade or better.*

This course includes further study of the principles, theories, and laws of chemistry. Topics include thermo-chemistry, kinetics, chemical equilibrium, oxidation reduction and electro-chemistry, introduction to organic and nuclear chemistry, and the chemistry of the elements and their compounds. Three-hour lecture; one three-hour laboratory period. CHE* K121 - General Chemistry I ° and II are ordinarily both taken for transfer credit.

CHE* K211 - Organic Chem I

4 CREDIT HOURS
Prerequisites: CHE K121 and CHE* K122, courses passed with a "C" grade or better.*
This course is a comprehensive study of organic compounds. Topics covered will include bonding, formulation and molecular shapes of organic molecules, reaction mechanisms, and nomenclature. Reactions of alkanes, cyclolkanes, alkenes, alkynes, and aromatic hydrocarbons will be presented. The laboratory exercises will be integrated with the theory through preparations and reactions. Three-hour lecture; one three-hour lab period each week.

CHE* K212 - Organic Chemistry II

4 CREDIT HOURS
Prerequisite: CHE K211 with a "C" grade or better.*
A continuation of CHE* K211 that covers organic compounds having key functional groups such as alcohols, organic halides, ethers, aldehydes, ketones, carboxylic acids, carboxylic acid derivatives, and amines. The classifications of compounds, classic named reactions and stereochemistry will be presented. Laboratory exercises will include preparation and reactions of alcohols, alky halides, ethers, esters, aldehydes, ketones, carboxylic acids, and amines. Three-hour lecture; one three-hour lab each week.

MAT* K254 - Calculus I °

4 CREDIT HOURS
Prerequisite: MAT K186 with a 'C" grade or better.*
This is a first course in the calculus sequence intended for students who plan on majoring in mathematics, physical sciences, or engineering technology. Topics include: rate of change, limits, continuity, differentiation of algebraic, trigonometric, exponential, and logarithmic functions, differentials, applications of differentiation, definite and indefinite integrals, and applications of integration.

Total: 16

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 67

Technology Studies, Biomolecular Science Option, Associate in Science Degree Program Outcomes

In addition to the outcomes listed for the Technology Studies degree, students who complete the Biomolecular Science Option will be able to achieve the following outcomes:

1. understand and apply the scientific method.
2. comprehend and apply basic techniques of scientific investigation.
3. complete laboratory analyses, compile data, and construct technical reports.
4. understand the classifications of organisms in the six kingdoms.
5. complete a systematic study of human anatomy and physiology.
6. understand and apply the principles of microbiology.
7. understand and the principles and implications of genetics and research.

Technology Studies: Computer Aided Design Option, A.S.

Degree Code: F15

A College of Technology Pathway

The Connecticut College of Technology is an innovative program leading to a Bachelor of Science Degree in engineering or technology. The program consists of two distinct pathways, one in Engineering Science and one in Technology Studies. After completing the Technology Studies Pathway Program at Three Rivers, students may enter directly into technical fields at Central Connecticut State University or Charter Oak State College (Connecticut's External Degree Program). The Engineering Science Pathway leads directly into the School of Engineering at the University of Connecticut or the University of New Haven. The pathway courses will transfer to engineering and technology programs at many other public and private universities as well.

Associate Degree

Program Contact: Mark Vesligaj - 860-215-9442

Computer Aided Drafting and Design is a technology that is reliant upon basic drafting technologies that have emerged with technological advances in the computer world. The proposed CADD Engineering Associate Degree supports Three Rivers Community College's purpose and mission.: The mission of Three Rivers Community College is to :"Meet the diverse educational needs of the community by creating an environment that stimulates learning. The college provides educational opportunities that are affordable and accessible. Additionally, Three Rivers develops regional partnerships and initiatives that contribute to the educational, economic, and cultural growth of Southeastern Connecticut." The curriculum for the CADD Engineering Associate Degree is structured to prepare individuals for positions as Drafters and Designers.

Computer Aided Design Option Curriculum Requirements

General Education:

Arts/Humanities

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

- _____- Fine Arts Elective **3 CREDIT HOURS**
- _____- Philosophy Elective **3 CREDIT HOURS**

Total: 15

Math and Science Core

CHE* K111 - Concepts of Chemistry °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K137 or MAT* K137S with a "C" grade or better (or permission of the instructor on math requirement).*
This course offers a brief and comprehensive survey of important chemical theories and some of the applications of chemistry. Topics covered will include measurements in chemistry, atomic structures and chemical bonding, chemical reactions, states of matter, stoichiometry, theories of solution, and basic organic and biochemical concepts. Course Design: CHE* K111 is meant for students with little or no background in chemistry who need the course in preparation for General Chemistry, or for students who need to meet a pre-admission requirement for nursing or other allied health programs, or those who need a lab science course.

or

CHE* K121 - General Chemistry I °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K172 and high school chemistry or CHE* K111 all passed with a "C" grade or better; or permission of the instructor or department chairperson.*
Corequisite: MAT K186.*
In this course, students will study the fundamental principles, theories, and laws of chemistry. Topics include atomictheory and the structure of the atom, the aggregated states of matter, kinetic molecular theory, chemical bonding, stoichiometry and periodicity, solutions, and colloids. Three- hour lecture; one three-hour laboratory period.

MAT* K167 - Principles of Statistics °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. Please refer to online schedule and click on the CRN hyperlink and/or review printed schedule in determining which faculty require math software in their course(s).*
This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations and confidence intervals.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

PHY* K114 - Mechanics °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172.*
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry. Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion. Three-hour lecture; one two-hour laboratory.

Total: 15

Social/Behavioral Sciences

- _____- Behavioral Sciences Elective **(psychology or sociology) 3 CREDIT HOURS**
- _____- Social Science Elective **(economics or history recommended) 3 CREDIT HOURS**
- _____- Social Science Elective **(geography, political science or history recommended) 3 CREDIT HOURS**
- _____- Social Science Elective **(economics recommended) 3 CREDIT HOURS**

Total: 12

Specialized Core

CAD* K106 - Basic CAD - AutoCad

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S or higher*
This course, with the included lab, exposes the student to the current means of generating graphic images with computers. Topics covered include CAD* overview, computer terminology, hardware descriptions and requirements, file manipulation and management, 2D and 3D geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail, and assembly drawings.

CAD* K107 - Computer-Aided Drafting Lab

2 CREDIT HOURS
Corequisite: CAD K106.*
This laboratory utilizes software in an IBM-PC environment. Topics given in the lecture will be learned through solving application problems on the computer.

CSA* K105 - Introduction to Software Applications °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces some popular software packages currently being used in industry, business, and government such as Microsoft Word, Excel, Access, and PowerPoint. A small amount of time will be devoted to the Windows operating system environment. Recent versions of the software packages will be used. Strong reading, good writing, and basic math skills are required. Prior computer usage experience (e.g. keyboard and mouse actions, file and folder management, Internet browsing) is assumed. Digital learning technologies will be used throughout the course.

MEC* K114 - Statics °

3 CREDIT HOURS
Prerequisites: MAT K172 and PHY* K114.*
Corequisite: MAT K186.*
This course helps students develop the ability to analyze problems using the basic principles of static systems in order to provide a foundation for stress analysis. The forces on structures in equilibrium and concepts of centroids, center of gravity, and moment of inertia are studied. The concept of stress and strain in axial torsional and bending loading is also introduced.

Total: 9

Option Courses

Please choose 5 courses from the following course options:

CAD* K130 - Computer-Aided Drafting - Industrial °

1 CREDIT HOUR
Prerequisites: CAD K106/CAD* K107 and the latest CAD release working knowledge.*
Corequisite: CAD K131.*

This course allows students to continue to learn and practice industrial drafting concepts using a CAD system. Typical industrial topics such as threads, gears, cams, piping systems, structural, welding, jigs, fixtures, and assembly are given as problems for the student to solve.

CAD* K131 - Computer-Aided Drafting - Industrial Lab °

2 CREDIT HOURS
Prerequisites: CAD K106/CAD* K107 and the latest CAD release working knowledge.*
Corequisite: CAD* K130.
There is a CAD station for each student to use to solve the application problems given. Typical problems will be preparing drawings utilizing the topics in lecture.

CAD* K202 - CAD Advanced Topics

3 CREDIT HOURS
Prerequisites: **CAD* K106**
Corequisite: MAT K137 or MAT* K137S or higher*
This course is designed to expose the student to advanced CAD techniques. Typical topics will include three dimensional drawing, solid modeling, rendering, and customizing AutoCAD.

MEC* K152 - Fundamentals of Engineering Graphics °

1 CREDIT HOUR
Prerequisite: MAT K095 OR MAT* K095I or higher.*
Corequisite: MEC K153.*
This course teaches the basic concepts of orthographic projection, isometric, and oblique drawings and basic drafting terminology. Emphasis will also be placed on free hand sketching using the above concepts and terminology. Basic principles of simplified board drafting practices will be covered. A major component of this course will focus on descriptive geometry which will nurture the visualization skills of students by identifying points, planes, and perpendiculars in various perspectives. Some of the techniques will be accompanied with CAD as a comparison.

MEC* K153 - Fundamentals of Engineering Graphics Lab °

2 CREDIT HOURS
Prerequisite: MAT K095 OR MAT* K095I or higher.*
Corequisite: MEC K152.*
This lab and accompanying lecture is designed to introduce students to the concept of applying mechanical design principles with computer designed techniques and capabilities. This course teaches the basic concepts of orthographic projection, isometric, and oblique drawings and basic drafting terminology. A component of this course will focus on descriptive geometry which will nurture the visualization skills of students by identifying points, planes and perpendiculars in various perspectives. Introducing the mechanical design software SolidWorks, this course begins to examine the basic functionally of drawing automation. One hour lecture/discussion and four hours of lab per week.

MFG* K239 - Geometric Dimensioning and Tolerancing °

3 CREDIT HOURS
Prerequisites: CAD K106/CAD* K107 and latest CAD release working knowledge.*
This course will introduce the concepts of Geometric Dimensioning and Tolerance with respect to design and inspection considerations. The entire content will be based upon the ASME Y14.5M- 1994 standards. The concepts of proper dimensioning and tolerance methods with clear distinct outcomes will be defined. The use of computer aided drafting will aid in the delivery of the GDT concepts. This course is equivalent to CAD* K239.

Note:

° Course has a prerequisite. Students should check course description.

Note: Students should be familiar with the latest CAD release within two years of graduation.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 66

Technology Studies, CAD Option, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. become proficient in the use of Computer-Aided drafting Software.
2. have a thorough knowledge and expertise in multiple CAD programs, to include but not limited to AutoCAD, Inventor, Revit and Master Cam.
3. demonstrate knowledge of drafting standards set forth by the American National Standards Institute (ANSI).
4. demonstrate knowledge of drafting standards set forth by the International Standards Organization (ISO).
5. provide a general understanding of standard drafting principles such as alphabet of lines, precedence of lines, dimensioning standards and projection techniques.
6. apply appropriate mathematical and scientific principles to solve problems utilizing a CAD program, particularly descriptive geometry.
7. demonstrate the ability to develop an engineering concept. through detail and assembly drafting techniques to produce professionally finished engineering drawings suitable for use in industry.
8. demonstrate a thorough knowledge in the use of 3-D Parametric Modeling packages, such as Inventor and Revit.
9. readily adapt the necessary skills required for an entry-level position in the discipline of drafting.
10. provide an education that integrates a core curriculum with drafting theory, computer theory, technical background, and practice elements, for students who will seek advanced degrees.
11. expand life long learning opportunities in the drafting area for those with previous experience in other fields.
12. demonstrate and apply skills necessary for visual thinking and graphic problem solving.
13. work cooperatively and productively in groups to solve problems.
14. foster a learning environment that emulates industrial standards.
15. demonstrate working knowledge to translate engineering sketches into accurate scaled drawings.
16. be able to implement engineering change orders.
17. be able to plan methods and processes of production.
18. be able to select and demonstrate the appropriate characteristics of a particular material.
19. demonstrate a working knowledge of the use of Geometric Dimensioning and Tolerancing (GDT) techniques used in industry.
20. become efficient with the use of ISO 9000 standards as they relate to the Drafting and Design field.

Technology Studies: Electrical Option, A.S.

Degree Code: F06

A College of Technology Pathway
The Connecticut College of Technology is an innovative program leading to a Bachelor of Science Degree in engineering or technology. The program consists of two disti nct pathways, one in Engineering Science and one in Technology Studies. After completing the Technology Studies Pathway Program at Three Rivers, students may enter directly into technical fields at Central Connecticut State University or Charter Oak State College (Connecticut's External Degree Program). The Engineering Science Pathway leads directly into the School of Engineering at the University of Connecticut or the University of New Haven.

The pathway courses will transfer to engineering and technology programs at many other public and private universities as well.

Associate in Science

Program Contact: Mark Vesligaj - 860-215-9442

The College of Technology - Electrical Option pathway offers a core of courses that will provide the foundation for the Bachelor of Science degree in Electrical Engineering Technology at Central Connecticut State University. Continuation requirements include a minimum grade of "C" and credits as listed below.

Offered in conjunction with other Connecticut Community Colleges, this program provides an opportunity for individuals who have completed the apprenticeship training program available through the Independent Electrical Contractors of Connecticut to receive credit for their Electrical Contractors Certificate. Upon completion of the training program, students will receive credit toward fulfillment of the credits required for a degree in the Technology Studies Pathway Program. Upon graduation, students may choose to transfer to Central Connecticut State University, where their credits will be accepted into the Industrial Technology bachelors degree program.

Electrical Option Curriculum Requirements

General Education:

Arts/Humanities

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

- _____- Fine Arts Elective **3 CREDIT HOURS**
- _____- Humanities Elective **(art history, foreign languages, literature, philosophy) 3 CREDIT HOURS**
- _____- Humanities Elective **(art history, foreign languages, literature, philosophy) 3 CREDIT HOURS**

Total: 15

Science

CHE* K111 - Concepts of Chemistry °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K137 or MAT* K137S with a "C" grade or better (or permission of the instructor on math requirement).*
This course offers a brief and comprehensive survey of important chemical theories and some of the applications of chemistry. Topics covered will include measurements in chemistry, atomic structures and chemical bonding, chemical reactions, states of matter, stoichiometry, theories of solution, and basic organic and biochemical concepts. Course Design: CHE* K111 is meant for students with little or no background in chemistry who need the course in preparation for General Chemistry, or for students who need to meet a pre-admission requirement for nursing or other allied health programs, or those who need a lab science course.

PHY* K114 - Mechanics °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172.*
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry. Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion. Three-hour lecture; one two-hour laboratory.

Total: 8

Mathematics

MAT* K137 - Intermediate Algebra °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "B-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course cultivates understanding and different representations of functions. Topics covered include linear, quadratic, exponential, rational, radical functions, equations, and expressions with emphasis on modeling and solving real world problems. A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). Please refer to online schedule and click on the CRN hyperlink and/or review the printed schedule to determine which faculty require math software in their section.

MAT* K167 - Principles of Statistics °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-*

measures assessment process. Please refer to online schedule and click on the CRN hyperlink and/or review printed schedule in determining which faculty require math software in their course(s).
This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations and confidence intervals.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

Total: 10

Social/Behavioral Sciences

- _____- Behavioral Sciences Elective **(psychology or sociology) 3 CREDIT HOURS**
- _____- Social Science Elective **(anthropology, economics geography, government, history) 3 CREDIT HOURS**
- SOS* K2___- Technology and Society **3 CREDIT HOURS**

Total: 9

Specialized Core

CAD* K106 - Basic CAD - AutoCad

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S or higher*
This course, with the included lab, exposes the student to the current means of generating graphic images with computers. Topics covered include CAD* overview, computer terminology, hardware descriptions and requirements, file manipulation and management, 2D and 3D geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail, and assembly drawings.

CAD* K107 - Computer-Aided Drafting Lab

2 CREDIT HOURS
Corequisite: CAD K106.*
This laboratory utilizes software in an IBM-PC environment. Topics given in the lecture will be learned through solving application problems on the computer.

CSA* K105 - Introduction to Software Applications °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces some popular software packages currently being used in industry, business, and government such as Microsoft Word, Excel, Access, and PowerPoint. A small amount of time will be devoted to the Windows operating system environment. Recent versions of the software packages will be used. Strong reading, good writing, and basic math skills are required. Prior computer usage experience (e.g. keyboard and mouse actions, file and folder management, Internet browsing) is assumed. Digital learning technologies will be used throughout the course.

MEC* K262 - Materials Science °

3 CREDIT HOURS
Prerequisites: MFG K102*
Corequisite: MEC K263.*
This course studies the structure and properties of engineering materials, and incorporates the presentation of materials selection, processing, and heat treatment. The changes in structure and properties during forming, machining, and heat treating operations are discussed.

MEC* K263 - Materials Science Lab °

1 CREDIT HOUR
Prerequisites: MFG K102; TCN* K105.*
Corequisite: MEC K262.*
In this lab, students will be exposed to selected experiments demonstrating the effects of processing, including heat treatment, on the properties of engineering materials. Standard materials tests are also performed.

MEC* K241 - Thermodynamics °

3 CREDIT HOURS
Prerequisites: PHY K115 and MAT* K186.*
This course studies the thermodynamic principles of heat, work, non-flow and steady flow processes, and cycles. The use of thermodynamics data tables and charts will be stressed.

- _____- Certification: Independent Electrical Contractors **12 CREDIT HOURS**

Total: 25

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 67

Technology Studies, Electrical Option, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. transition seamlessly into a Bachelor of Science Degree program in Technology with junior level status in the receiving institution as part of the Technological Studies Pathway Program.
2. demonstrate team-oriented skills that permit effective participation in multicultural work and social environments.
3. apply appropriate mathematical and scientific principles to industrial technology applications.
4. perform competently in mathematics.
5. express ideas effectively through written and oral communications.
6. demonstrate proficiency in technical fundamentals to analyze industrial technology problems and make appropriate decisions.
7. maintain a practical knowledge of state-of-the-art hardware and software.
8. apply skills and knowledge to effectively and efficiently plan, organize, implement, measure and manage technology.
9. demonstrate a thorough knowledge and understanding of engineering graphics as well as conventional drafting practices, such as orthographic and isometric projection, section, detail, auxiliary views, descriptive geometry, as well as geometric dimensioning and tolerancing basics.
10. demonstrate a high level of proficiency in the use of state-of-the-art computer aided design (CAD) software and be able to respond positively to continuous software revisions and upgrades.

Technology Studies: Engineering Technology Option, A.S.

Degree Code: F12

A College of Technology Pathway
The Connecticut College of Technology is an innovative program leading to a Bachelor of Science Degree in engineering or technology. The program consists of two distinct pathways, one in Engineering Science and one in Technology Studies. After completing the Technology Studies Pathway Program at Three Rivers, students may enter directly into technical fields at Central Connecticut State University or Charter Oak State College (Connecticut's External Degree Program). The Engineering Science Pathway leads directly into the School of Engineering at the University of Connecticut or the University of New Haven.

The pathway courses will transfer to engineering and technology programs at many other public and private universities as well.

Associate in Science

Program Contact: Mark Vesligaj - 860-215-9442

The Engineering Technology option to the Technology Studies associate degree program provides rigorous preparation and the specific coursework students need to pursue a B.S. degree in Engineering Technology at Central Connecticut State University. The courses for this option were also approved by the CCSU for articulation into their B.S. in Industrial Technology programs.

A minimum course grade of "C" is required in all courses below for continuing at CCSU's School of Engineering and Technology.

Engineering Technology Option Curriculum Requirements

General Education:

Arts/Humanities

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

- _____- Fine Arts Elective **(art or music) 3 CREDIT HOURS**
- _____- Philosophy Elective **3 CREDIT HOURS**

Total: 15

Math and Science

CHE* K121 - General Chemistry I °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K172 and high school chemistry or CHE* K111 all passed with a "C" grade or better; or permission of the instructor or department chairperson.*
Corequisite: MAT K186.*
In this course, students will study the fundamental principles, theories, and laws of chemistry. Topics include

atomictheory and the structure of the atom, the aggregated states of matter, kinetic molecular theory, chemical bonding, stoichiometry and periodicity, solutions, and colloids. Three- hour lecture; one three-hour laboratory period.

MAT* K167 - Principles of Statistics °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. Please refer to online schedule and click on the CRN hyperlink and/or review printed schedule in determining which faculty require math software in their course(s).*
This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations and confidence intervals.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

PHY* K114 - Mechanics °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172.*
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry. Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion. Three-hour lecture; one two-hour laboratory.

or

PHY* K221 - Calculus-Based Physics I °

4 CREDIT HOURS
Prerequisite: MAT K254 highly recommended.*
Corequisite: MAT K254.*
This is a calculus-based introduction to the basic concepts of classical mechanics. Major topics will include Newton's laws, motion in n-dimensions, periodic motion, thermodynamics, energy, hydrodynamics, and an introduction to material science. The course will emphasize the theoretical aspects of physics and will help the student develop effective problem solving strategies. Laboratories will be designed to allow the student to visualize the important concepts introduced in lecture and to increase student understanding of the scientific process. There will be two hours of lecture, one hour of problem solving, and three hours of lab each week.

Total: 15

Social/Behavioral Sciences

- _____- Behavioral Sciences Elective **(psychology or sociology) 3 CREDIT HOURS**

- _____- Social Science Elective **(economics or history recommended) 3 CREDIT HOURS**
- _____- Social Science Elective **(geography, political science or history recommended) 3 CREDIT HOURS**
- _____- Social Science Elective **(economics recommended) 3 CREDIT HOURS**

Total: 12

Specialized Core

EGR* K211 - Engineering Statics °

3 CREDIT HOURS
Prerequisite: MAT K254.*
Corequisite: MAT K254.*
Students will be introduced to engineering mechanics via vector approach to static forces and their resolution. Topics include: properties of force systems, free-body analysis, first and second moments of areas and mass and static friction. Applications to trusses, frames, beams and cables are included.

- _____- Directed Elective **3 CREDIT HOURS**

Total: 9

Option Courses

PHY* K115 - Heat Sound Light °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172. Please note if MAT* K172 is completed prior to registration into PHY* K115, students must complete MAT* K172 with a "C" grade or better.*
This course covers three broad areas of physics including thermal equilibrium, heat transfer, harmonic motion and wave properties of sound and light. Three-hour lecture; one two-hour laboratory.

or

PHY* K222 - Calculus-Based Physics II °

4 CREDIT HOURS
Prerequisite: PHY K221.*
This is a continuation of PHY* K221. Major topics will include continuation of the study of solids, electromagnetic phenomena, Maxwell's equations, and atomic and sub-atomic phenomena. Laboratories will center around studying electromagnetic phenomena and enhancing student knowledge of the relationship between electricity, magnetism and light. There will be two hours of lecture, one hour of problem solving, and three hours of lab each week.

or

CHE* K122 - General Chemistry II °

4 CREDIT HOURS
Prerequisites: CHE K121 with a "C" or better; MAT* K186 with "C" grade or better.*
This course includes further study of the principles, theories, and laws of chemistry. Topics include thermo-chemistry, kinetics, chemical equilibrium, oxidation reduction and electro-chemistry, introduction to organic and nuclear

chemistry, and the chemistry of the elements and their compounds. Three-hour lecture; one three-hour laboratory period. CHE* K121 - General Chemistry I ° and II are ordinarily both taken for transfer credit.

MAT* K254 - Calculus I °

4 CREDIT HOURS
Prerequisite: MAT K186 with a 'C" grade or better.*
This is a first course in the calculus sequence intended for students who plan on majoring in mathematics, physical sciences, or engineering technology. Topics include: rate of change, limits, continuity, differentiation of algebraic, trigonometric, exponential, and logarithmic functions, differentials, applications of differentiation, definite and indefinite integrals, and applications of integration.

MAT* K256 - Calculus II °

4 CREDIT HOURS
Prerequisite: MAT K254 with a "C" grade or better.*
This course is the second semester of calculus intended for students who plan on majoring in mathematics, physical science, or engineering technologies. The topics include the definite integral, applications of integration, methods of integration, sequences, series and vectors.

- _____- Technical Elective **3 CREDIT HOURS**

Total: 15

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 66

Technology Studies, Engineering Technology Option, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements,
graduates will be able to:

1. enter a Bachelor of Science Program in Engineering Technology with junior level status in the receiving institution as part of the Technology Studies Pathway Program.
2. demonstrate team-oriented skills that permit effective participation in multicultural work and social environments
3. apply appropriate mathematical and scientific principles to engineering technology applications.
4. perform competently in mathematics.
5. express ideas effectively through written and oral communications.

6. demonstrate proficiency in technical fundamentals to analyze engineering technology problems and make appropriate decisions.
7. maintain a practical knowledge of state-of-the-art hardware and software.
8. apply skills and knowledge to effectively and efficiently plan, organize, implement, measure and manage technology.
9. demonstrate a thorough knowledge and understanding of engineering graphics as well as conventional drafting practices, such as orthographic and isometric projection, section, detail, auxiliary views, descriptive geometry, as well as geometric dimensioning and tolerancing basics.
10. demonstrate a high level of proficiency in the use of state-of-the-art computer aided design (CAD) software and be able to respond positively to continuous software revisions and upgrades.

Technology Studies: Lean Manufacturing and Supply Chain Management Option, A.S.

Degree Code: F20

A College of Technology Pathway
The Connecticut College of Technology is an innovative program leading to a Bachelor of Science Degree in engineering or technology. The program consists of two distinct pathways, one in Engineering Science and one in Technology Studies. After completing the Technology Studies Pathway Program at Three Rivers, students may enter directly into technical fields at Central Connecticut State University or Charter Oak State College (Connecticut's External Degree Program). The Engineering Science Pathway leads directly into the School of Engineering at the University of Connecticut or the University of New Haven.

The pathway courses will transfer to engineering and technology programs at many other public and private universities as well.

Associate in Science

Program Contact: Mark Vesligaj - 860-215-9442

The Technology Studies Lean Manufacturing and Supply Chain Management Option was created in response to the expressed future and current needs of the manufacturing community. The U.S. Department of Labor along with local industry has demonstrated a demand and need for courses in the areas of lean and supply chain management.

The courses within this plan of study were developed by members of the College of Technology in conjunction with industry partners. The courses in lean are intended to ensure students have knowledge of current continuous process of improvement methodologies in use today within competitive manufacturing environments. The courses in supply chain management are intended to review the lean manufacturing principles needed to understand and maintain the supply chain and to cover the benefits and elements needed for implementing supply chain management.

This degree program provides students with the skills that will increase their employability in the field as well as set them on a path that will enable them to further their education

Lean Manufacturing and Supply Chain Management Option Curriculum Requirements

General Education Core

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

- ECN* K____- Economics Elective **3 CREDIT HOURS**
- ECN* K____- Economics Elective **3 CREDIT HOURS**
  or
- HIS* K____- History Elective **3 CREDIT HOURS**

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

- HIS* K____ History Elective **3 CREDIT HOURS**
  or
- GEO* K____ Geography Elective **3 CREDIT HOURS**
  or
- POL* K____ Political Science Elective **3 CREDIT HOURS**

PHL* K111 - Ethics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course will cover the fundamentals of ethics, including an introduction to the origins and nature of moral right and responsibility. Students will analyze and formulate positions on contemporary ethical issues.

or

- PHL* K____- Philosophy Elective 3 CREDIT HOURS
- PSY* K____- Psychology Elective **3 CREDIT HOURS**
  or
- SOC* K____- Sociology Elective **3 CREDIT HOURS**
- _____- Fine Arts Elective **3 CREDIT HOURS**

Total: 27

Science and Math Core

CHE* K111 - Concepts of Chemistry °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K137 or MAT* K137S with a "C" grade or better (or permission of the instructor on math requirement).*
This course offers a brief and comprehensive survey of important chemical theories and some of the applications of chemistry. Topics covered will include measurements in chemistry, atomic structures and chemical bonding, chemical reactions, states of matter, stoichiometry, theories of solution, and basic organic and biochemical concepts. Course Design: CHE* K111 is meant for students with little or no background in chemistry who need the course in preparation for General Chemistry, or for students who need to meet a pre-admission requirement for nursing or other allied health programs, or those who need a lab science course.

or

CHE* K121 - General Chemistry I °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K172 and high school chemistry or CHE* K111 all passed with a "C" grade or better; or permission of the instructor or department chairperson.*
Corequisite: MAT K186.*
In this course, students will study the fundamental principles, theories, and laws of chemistry. Topics include atomictheory and the structure of the atom, the aggregated states of matter, kinetic molecular theory, chemical bonding, stoichiometry and periodicity, solutions, and colloids. Three- hour lecture; one three-hour laboratory period.

MAT* K167 - Principles of Statistics °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. Please refer to online schedule and click on the CRN hyperlink and/or review printed schedule in determining which faculty require math software in their course(s).*
This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations and confidence intervals.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

PHY* K110 - Introductory Physics °

4 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I or equivalent.*
This course is a one semester exploration of the basic principles of classical physics. Topics will include classical mechanics, electricity, vibrations and waves. Students will have the opportunity to discover and explore the laws of physics using state-of-the-art instrumentation. Three-hour lecture; one two-hour laboratory.

or

PHY* K221 - Calculus-Based Physics I °

4 CREDIT HOURS
Prerequisite: MAT K254 highly recommended.*
Corequisite: MAT K254.*
This is a calculus-based introduction to the basic concepts of classical mechanics. Major topics will include Newton's laws, motion in n-dimensions, periodic motion, thermodynamics, energy, hydrodynamics, and an introduction to material science. The course will emphasize the theoretical aspects of physics and will help the student develop effective problem solving strategies. Laboratories will be designed to allow the student to visualize the important concepts introduced in lecture and to increase student understanding of the scientific process. There will be two hours of lecture, one hour of problem solving, and three hours of lab each week.

Total: 15

Technology/Management Core

- _____- Technical Drafting or CAD **3 CREDIT HOURS**
- _____- Directed Elective **3 CREDIT HOURS**
- _____- Directed Elective **3 CREDIT HOURS**

Total: 9

Courses in Option

MFG* K171 - Introduction to Lean Manufacturing

3 CREDIT HOURS
The purpose of this course is to provide the student with the fundamental knowledge of current continuous process improvement methodologies in use today within competitive manufacturing environments. This introductory course will expose the student to the basic concepts of Lean Manufacturing theory and the various tools and techniques involved with a lean implementation. This course will be presented following the lean six sigma process methodology of DMAIC (Define, Measure, Analyze, Improve, Control) to ensure that at the completion of the course, the student will be competent to participate effectively as a team member in lean implementation projects.

MFG* K172 - Introduction to Lean Supply Chain Management

3 CREDIT HOURS
This course is an introduction to the basic principles and methodologies of Supply Chain Management. The course reviews the lean manufacturing principles needed to understand and maintain the supply chain. Key concepts are covered such as Value Stream Mapping, customer/supplier roles, supplier types, metrics, quality systems, quality audits, communication, and information flow. Class activities, group assignments, and case studies are emphasized for real- world learning experiences.

MFG* K271 - Advanced Lean Manufacturing °

3 CREDIT HOURS
Prerequisite: MFG K171.*
The purpose of this course is to provide the student with the knowledge to implement lean improvements within the production environment using a systematic approach. This course will follow an improvement project (from the student's current employer or case study) through the five stages of the DMAIC problem solving methodology. At the completion of the course, the student will be competent to effectively lead a lean implementation project within a company.

MFG* K272 - Implementing Lean Supply Chain Management °

3 CREDIT HOURS
Prerequisites: MFG K172.*
This course covers the benefits and elements needed for implementing supply chain management. Team building and communication skills are shown as crucial factors in supply chain management. Topics emphasized in the course are measuring the velocity of the supply chain, developing partnerships, logistics, software tools, hardware, and continuous improvement. Class activities, group assignments and case studies are emphasized for real world learning experiences.

Total: 12

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 63

Technology Studies: Technology and Engineering Education Option, A.S.

Degree Code: F13

A College of Technology Pathway
The Connecticut College of Technology is an innovative program leading to a Bachelor of Science Degree in engineering or technology. The program consists of two distinct pathways, one in Engineering Science and one in Technology Studies.

After completing the Technology Studies Pathway Program at Three Rivers, students may enter directly into technical fields at Central Connecticut State University or Charter Oak State College (Connecticut's External Degree Program). The Engineering Science Pathway leads directly into the School of Engineering at the University of Connecticut or the University of New Haven.

The Associate in Science

Program Contact: Mark Vesligaj - 860-215-9442

The Technology and Engineering Education option to the Technology studies associate degree program provides specific course work students need to pursue a B.S. degree in Technology and Engineering Education at Central Connecticut State University. The courses for this option were also approved by CCSU for articulation into their B.S. in Industrial Technology.

A minimum course grade of "C" is required in all courses below for continuing at CCSU's School of Engineering and Technology.

Technology and Engineering Education Option Curriculum Requirements

General Education:

Arts/Humanities

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

- _____- Fine Arts Elective **3 CREDIT HOURS**
- _____- Philosophy Elective **3 CREDIT HOURS**

Total: 15

Science and Math Core

CHE* K111 - Concepts of Chemistry °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K137 or MAT* K137S with a "C" grade or better (or permission of the instructor on math requirement).*
This course offers a brief and comprehensive survey of important chemical theories and some of the applications of chemistry. Topics covered will include measurements in chemistry, atomic structures and chemical bonding, chemical reactions, states of matter, stoichiometry, theories of solution, and basic organic and biochemical concepts. Course Design: CHE* K111 is meant for students with little or no background in chemistry who need the course in preparation for General Chemistry, or for students who need to meet a pre-admission requirement for nursing or other allied health programs, or those who need a lab science course.

MAT* K167 - Principles of Statistics °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. Please refer to online schedule and click on the CRN hyperlink and/or review printed schedule in determining which faculty require math software in their course(s).*
This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations and confidence intervals.

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

PHY* K114 - Mechanics °

4 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better.*
Corequisite: MAT K172.*
This course deals with the fundamental principles of classical mechanics using techniques of algebra and trigonometry. Topics covered include vectors, kinematics, translational and rotational equilibrium, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, and rotary motion. Three-hour lecture; one two-hour laboratory.

Total: 15

Social/Behavioral Sciences

- _____- Behavioral Sciences Elective **(psychology or sociology) 3 CREDIT HOURS**
- _____- Social Science Elective **(economics or history recommended) 3 CREDIT HOURS**
- _____- Social Science Elective **(geography, political science or history recommended) 3 CREDIT HOURS**
- _____- Social Science Elective **(economics recommended) 3 CREDIT HOURS**

Total: 12

Specialized Core

CAD* K106 - Basic CAD - AutoCad

3 CREDIT HOURS
Corequisite: MAT K137 or MAT* K137S or higher*
This course, with the included lab, exposes the student to the current means of generating graphic images with computers. Topics covered include CAD* overview, computer terminology, hardware descriptions and requirements, file manipulation and management, 2D and 3D geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail, and assembly drawings.

CAD* K107 - Computer-Aided Drafting Lab

2 CREDIT HOURS
Corequisite: CAD K106.*
This laboratory utilizes software in an IBM-PC environment. Topics given in the lecture will be learned through solving application problems on the computer.

MFG* K102 - Manufacturing Processes and Lab

3 CREDIT HOURS
Corequisite: TCN K105*
This course studies manufacturing: making goods and wares by industrial processes. The course will provide theoretical experience in the scientific, engineering, and economic principles on which the various manufacturing processes are based.This laboratory portion provides emphasis on common metal cutting tools and lathe operations, as well as on associated precision measuring tools and instruments. The labs will also involve set-ups and procedures for various manufacturing processes including plasma cutting, sheet metal, molding and additive manufacturing.

TCN* K105 - Laser and Lab Safety

1 CREDIT HOUR
This course introduces important concepts and regulations for safety in laser and manufacturing labs and other work settings. Topics include safe handling of lasers, safe use of hand and power tools, hazard awareness and accident prevention, exposure limits, administrative and engineering controls, chemical hygiene and safety planning. The course is a requirement for all students beginning the Manufacturing Engineering Technology or Laser & Fiber Optic Technology associate degree programs.

- _____- Directed Elective **3 CREDIT HOURS**

Total: 11

Courses in Option

EET* K105 - Electric Circuits & Systems °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I.*
Corequisites: MAT K137 or MAT* K137S.*
This course provides an introduction to the basic concepts of DC and AC electric circuits. Voltage, current, resistance, energy, and power relationships are introduced. Circuit analysis of basic series and parallel circuits is covered. Instruments and techniques of electrical measurement for both DC and AC circuits are also discussed. Other topics include semiconductor devices, transformers and power supplies, microcontrollers, motors and drive circuits, and electrical power generation/distribution. The lab portion of this course will supplement the course Electric Circuits & Systems. Students will apply the concepts learned in the classroom and gain practical hands-on experience making electrical measurements using a variety of test instruments.

MEC* K114 - Statics °

3 CREDIT HOURS
Prerequisites: MAT K172 and PHY* K114.*
Corequisite: MAT K186.*
This course helps students develop the ability to analyze problems using the basic principles of static systems in order to provide a foundation for stress analysis. The forces on structures in equilibrium and concepts of centroids, center of gravity, and moment of inertia are studied. The concept of stress and strain in axial torsional and bending loading is also introduced.

MEC* K250 - Strength of Materials °

3 CREDIT HOURS
Prerequisites: MEC K114.*
This course instills knowledge of moments of inertia, torsion, bending, and columns, and how it applies to stress and the structural properties of materials. The relationship of these properties to common engineering problems is reviewed.

MEC* K262 - Materials Science °

3 CREDIT HOURS
Prerequisites: MFG K102*
Corequisite: MEC K263.*
This course studies the structure and properties of engineering materials, and incorporates the presentation of materials selection, processing, and heat treatment. The changes in structure and properties during forming, machining, and heat treating operations are discussed.

MEC* K263 - Materials Science Lab °

1 CREDIT HOUR
Prerequisites: MFG K102; TCN* K105.*
Corequisite: MEC K262.*
In this lab, students will be exposed to selected experiments demonstrating the effects of processing, including heat treatment, on the properties of engineering materials. Standard materials tests are also performed.

Total: 15

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 68

Technology Studies, Technlogy and Engineering Education Option, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. enter a Bachelor of Science Program in Technology Education with junior level status in the receiving institution as part of the Technology Studies Pathway Program.
2. demonstrate team-oriented skills that permit effective participation in multicultural work and social environments.
3. apply appropriate mathematical and scientific principles to industrial technology applications.
4. perform competently in mathematics.
5. express ideas effectively through written and oral communications.
6. demonstrate proficiency in technical fundamentals to analyze industrial technology problems and make appropriate decisions.
7. maintain a practical knowledge of state-of-the-art hardware and software.
8. apply skills and knowledge to effectively and efficiently plan, organize, implement, measure and manage technology.
9. demonstrate a thorough knowledge and understanding of engineering graphics as well as conventional drafting practices, such as orthographic and isometric projection, section, detail, auxiliary views, descriptive geometry, as well as geometric dimensioning and tolerancing basics.
10. demonstrate a high level of proficiency in the use of state-ofthe-art computer aided design (CAD) software and be able to respond positively to continuous software and revisions and upgrades.

Humanities

Visual Fine Arts

Visual Fine Arts, A.A.

Degree Code: A60

Associate in Arts

Program Coordinator: Sandra Jeknavorian - 860-215-9439

This program is designed to provide both a strong basic foundation in the visual arts and a broad background in general education. For those students seeking a professional career, the Visual Fine Arts Program offers a transfer-oriented course of studies that leads to enrollment in an art school or other baccalaureate institution. Careers in commercial art,

art education and fine arts are open to graduates with bachelors degrees. This program allows students to pursue education and gain personal enjoyment through the creative learning process.

Visual Fine Arts Curriculum Requirements

Semester I

ART* K111 - Drawing I

3 CREDIT HOURS
This course is an introduction to basic drawing skills. The course includes work with still life, landscape, self-portrait, and interior space in black and white media. Emphasis is placed on the importance of drawing through careful observation. A variety of techniques and styles are covered to arrange compositions and create the illusion of volume and perspective. Studio: Meets 6 hours per week.

ART* K121 - Two-Dimensional Design

3 CREDIT HOURS
This course is an introduction to the theory and practice of two-dimensional design. Students will use the principles of design as an expressive tool to communicate visually. A variety of black and white and color mediums will be used including drawing, painting and collage. Studio: Meets 6 hours per week.

ART* K122 - Three Dimensional Design

3 CREDIT HOURS
Students will explore basic three-dimensional art elements: line, plane, mass, volume, space, size, color, light, surface and context. Students will experiment with materials and processes through assignments exploring artistic themes while solving various design problems. Studio: Meets 6 hours per week.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

IDS K105 - The First Year Experience °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# or higher.*
This course is designed to engage students as active participants within the college environment. Students will have the opportunity to acquire academic skills, attributes, awareness of self as learner, and to engage with the resources and activities within the Three Rivers Community College community. You can expect regular reading, writing and research assignments along with classroom discussion as you investigate how to be successful in this environment.

Total: 15

Semester II

ART* K101 - Art History I °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course provides an introduction to the history of art from prehistoric through to the mid-15th century from a global perspective. Major works in many media including painting, sculpture, and architecture will be covered. By the end of this course, students will have a visual vocabulary with which they can intelligently discuss and write about works of art. Regardless of whether the work is accessible and easy to admire or difficult and not readily understood, students will understand how to evaluate works of art not only for their beauty, but for other intrinsic values such as power of expression and boldness of communication. Outside readings and papers required.

ART* K151 - Painting I °

3 CREDIT HOURS
Prerequisite: ART K111 or permission of the instructor.*
This course is an intensive introduction to representational painting with acrylics. Students are given a firm foundation in painting through an introduction to the materials of painting and thorough study of color theory and color mixing. The knowledge of color theory will be put into practice with the painting of the still life. A variety of exercises and techniques will be explored including preparing different surfaces on which to paint as well as aesthetic explorations. It will be emphasized that the skills of drawing are an integral painting tool. Studio: Meets 6 hours per week.

ART* K161 - Ceramics I

3 CREDIT HOURS
This course is an introduction to the methods and nature of working with clay as an artistic medium. Emphasis is placed on the practical use of design principals such as: line, symmetry, balance, visual mass, texture, ground/foreground relationships, and spatial relationships. Various artistic movements such as surrealism, minimalism, and abstraction, will be explored. Assignments allow the exploration of artistic themes while solving various design problems. The class includes discussions and demonstrations on various glazing and finishing techniques. Studio: Meets 6 hours per week.

ART* K112 - Drawing II °

3 CREDIT HOURS
Prerequisite: ART K111.*
This course is an exploration of drawing basics in various media including color, with an emphasis on composition and technique. Both representation and abstraction are explored. Students work with still life, portraiture, and the figure and a final project series of their own choice. Studio: Meets 6 hours per week.

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

Total: 15

Semester III

ART* K102 - Art History II °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course provides an introduction to the history of art from the mid-15th century through to contemporary from a global perspective. Major works in many media including painting, sculpture, installation art, and performance art will be covered. By the end of this course, students will have a visual vocabulary with which they can intelligently discuss and write about works of art. Regardless of whether the work is accessible and easy to admire or difficult and not readily understood, students will understand how to evaluate works of art not only for their beauty, but for other intrinsic values such as power of expression and boldness of communication. Outside readings and papers required.

ART* K288 - Portfolio Development I °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; ART* K111.*
Students will prepare a portfolio stressing the individual's career and/or education goals. This course is recommended for any student preparing to transfer, apply for graduate study or apply for a job in art or architecture. Students will become familiar with the essential business practices of the visual arts profession and will learn how to professionally photograph and present their work. Studio: Meets 6 hours per week.

GRA* K131 - Digital Photography

3 CREDIT HOURS
This course is an introduction to digital photography and basic photo-editing features of Adobe Photoshop. Students shoot digital images for specific assignments emphasizing exposure, depth-of-field, composition, and image quality. The introduction of digital photography techniques, editing, and creative approaches will be the focus. Students will read and report on famous photographers and photography literature. Each student is required to have a camera in which they can manually control the focus, shutter speed, aperture and ISO.

or

GRA* K140 - Publication Design °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; or permission of the instructor and knowledge of a word processing program.*
This course provides an introduction to graphic design. Proper file management, Macintosh computer navigation basics and fundamental techniques of the design process will be covered. Students will learn to create a graphic identity through proper typography, image editing and page layout. Graphic Design industry standard software will be used including Adobe Photoshop, Illustrator and InDesign. Classes consist of lectures, demonstrations, applied practice and critiques.

MAT* K137 - Intermediate Algebra °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "B-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course cultivates understanding and different representations of functions. Topics covered include linear, quadratic, exponential, rational, radical functions, equations, and expressions with emphasis on modeling and solving real world problems. A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). Please refer to online schedule and click on the CRN hyperlink and/or review the printed schedule to determine which faculty require math software in their section.

- _____- Social Science Elective **3 CREDIT HOURS**

Total: 15

Semester IV

ART* K152 - Painting II °

3 CREDIT HOURS
Prerequisite: ART K151 or permission of the instructor.*
In this class, students will get the opportunity to further their exploration of painting with acrylics through a variety of approaches including abstraction. Students will be encouraged to experiment with a variety of subject matter and themes as well as to develop their own individual styles. Studio: Meets 6 hours per week.

or

ART* K162 - Ceramics II °

3 CREDIT HOURS
Prerequisite: ART K161 or permission of instructor.*
This course is a continuation of Ceramics I, with the addition of advanced concepts and techniques. Students are required to develop a unified portfolio of work using a combination of sketches, research, and experiments to develop a theme. Studio: Meets 6 hours per week.

- _____- Art or Graphic Arts Elective **3 CREDIT HOURS**
- _____- Liberal Arts, Art or Graphics Elective **3 CREDIT HOURS**
- _____- Natural Science Elective **3 CREDIT HOURS**

GRA* K230 - Digital Imaging 1 °

3 CREDIT HOURS
Prerequisite: GRA K140 or GRA* K131 or permission of the instructor.*
Adobe Photoshop is the focus of this course which will provide students with a foundation in image manipulation and graphic design. This course concentrates on the high end capabilities of Photoshop as an illustration, design and photo retouching tool. Students will explore a wide range of manipulation techniques that can be applied to photos and graphics. Students will also study design principles and read and report on Photoshop artists.

Total: 15

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

Visual Fine Arts, Associate in Arts Degree Program Outcomes

Upon successful completion of all program requirements, students will be able to:

1. effectively utilize the fundamental elements and principles of two-dimensional and three-dimensional design, color, composition, line, form, texture, pattern, value and space to arrange effective compositions and communicate ideas.
2. demonstrate the skills and techniques necessary for studio art including the ability to safely use materials, tools and equipment specific to various media.
3. demonstrate the ability to visually represent a conceptual idea.
4. demonstrate the ability to follow a creative project from conception to completion.
5. compile a comprehensive portfolio of work that reflects the breadth of their study and prepares them for transfer to a baccalaureate institution and knowledge of the process of presenting ones work to the public.
6. possess desirable work habits, critical thinking, creative problem solving, good aesthetic judgment, self reliance and self discipline.
7. be able to critique, speak and write about their own work and the visual arts of others using an informed visual vocabulary.
8. demonstrate an understanding and appreciation of the relationship of works of art to the diversity of human culture, history and experience.

Graphic Arts

Graphic and Communication Arts Certificate

Degree Code: J23

Certificate Program

Contact: Kevin Amenta - 860-215-9402

This certificate program is designed to allow students to take advantage of the tremendous demand for the media in southeastern Connecticut and along the eastern seaboard. Students' exposure to courses and experiences in this program will make them qualified for media-related jobs, or will prepare them to create materials for private and public organizations.

Students may complete this certificate by completing the courses that are listed below.

Graphic and Communications Arts Certificate Curriculum Requirements

BMK* K241 - Principles of Advertising °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course surveys the basic elements, functions, and principles of advertising. Emphasis is on advertising's role as a marketing tool. Students study current advertising campaigns and marketing communication methods. Target marketing, image creation, and ethical aspects of advertising are discussed. Selection of print media, electronic media, and supportive promotional techniques are included. Students create their own comprehensive advertising campaigns using strategies learned in the course.

COM* K121 - Journalism °

3 CREDIT HOURS
Prerequisite: None required; ENG K101 or ENG* K101S recommended.*
This course is designed to give students an introduction to news writing. Students receive practice in writing hard news, feature stories, and editorials, as well as editorial decision-making. Word processing instruction is included. No previous experience necessary. COM* K121 meets the computer literacy requirement.

COM* K291 - Publications Practice I °

3 CREDIT HOURS
Prerequisite: COM K121 and GRA* K140 and GRA* K155 or permission of the instructor.*
This course is designed to train students to produce The Current, the student magazine. This involves researching, interviewing, writing, editing, photography, and proofreading. It also includes all the pre-press work (including digital imaging), which is done on computers, primarily using the Adobe Graphic Studio. Advertising (sales and design) is also part of this course.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

GRA* K140 - Publication Design °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; or permission of the instructor and knowledge of a word processing program.*
This course provides an introduction to graphic design. Proper file management, Macintosh computer navigation basics and fundamental techniques of the design process will be covered. Students will learn to create a graphic identity through proper typography, image editing and page layout. Graphic Design industry standard software will be used including Adobe Photoshop, Illustrator and InDesign. Classes consist of lectures, demonstrations, applied practice and critiques.

GRA* K155 - Advertising Design °

3 CREDIT HOURS
Prerequisite: Knowledge of a word processing program.
This computer graphics course focuses on using Adobe Photoshop to design various advertisements and prepare them for print and the web. Students will apply design principles, and type/image integration to complete design projects of moderate to increasing complexity. Emphasis is placed on project development and execution, the generation of ideas, concepts and teamwork in order to communicate persuasively and effectively. Student-designed computer lab projects include writing copy, brand positioning, client/agency relationship, copywriting, and proper research methods. GRA* K155 meets the Computer Literacy Requirement.

GRA* K230 - Digital Imaging 1 °

3 CREDIT HOURS
Prerequisite: GRA K140 or GRA* K131 or permission of the instructor.*
Adobe Photoshop is the focus of this course which will provide students with a foundation in image manipulation and graphic design. This course concentrates on the high end capabilities of Photoshop as an illustration, design and photo retouching tool. Students will explore a wide range of manipulation techniques that can be applied to photos and graphics. Students will also study design principles and read and report on Photoshop artists.

GRA* K260 - Web Design °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; GRA* K140 and GRA* K230; or permission of the instructor.*
This computers graphics course is an introduction to the concepts of professional web site design using the Industry-standards-based website development tools Dreamweaver and Adobe Photoshop. Students will be able to create, prepare, and manipulate documents, illustrations, and images for the web. The four design principles of contrast, repetition, alignment, and proximity will be discussed and utilized to create a web site using the authoring tools described above as well as the skills acquired in the prerequisite courses.

GRA* K131 - Digital Photography

3 CREDIT HOURS
This course is an introduction to digital photography and basic photo-editing features of Adobe Photoshop. Students shoot digital images for specific assignments emphasizing exposure, depth-of-field, composition, and image quality. The introduction of digital photography techniques, editing, and creative approaches will be the focus. Students will read and report on famous photographers and photography literature. Each student is required to have a camera in which they can manually control the focus, shutter speed, aperture and ISO.

COM* K166 - Video Filmmaking °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S and any 100-level Humanities or Social Sciences course.*
A creative workshop in which students will work with digital media to make their own movies. Students work with video camcorders and editing software. Students will learn scripting, shooting, editing and audio production techniques. Students will also research and write on various topics related to digital video and filmmaking. Each student is required to have access to a camera or camera phone which can shoot movies. This course is equivalent to ART* K185.

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 30

Graphic and Communication Arts, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. write news and feature stories.
2. edit the work of others.
3. use Adobe Pagemaker, a page layout program, to produce newsletters, brochures, flyers, advertisements, and a multipage tabloid publication.
4. use Adobe Photoshop to edit images, design images, combine text with images and prepare images for the web.
5. use Pagemaker, Photoshop and Multi-Ad creator to design and produce advertisements for print and the web.

Graphic Design, A.S.

Degree Code: KA15

Associate in Science

Program Coordinator: Kevin Amenta- 860-215-9402

This program is designed to provide students with a comprehensive general education in graphic design concepts, communication skills, technical skills, aesthetics, terminology and vocabulary, and to provide an awareness of the practical application of acquired technical skills. Computer use will be an integral and essential part of the program. The curriculum will prepare students for immediate employment in a variety of graphic design settings.

Graphic Design Curriculum Requirements

(suggested 2 year sequence)

Semester I

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students

with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

GRA* K131 - Digital Photography

3 CREDIT HOURS
This course is an introduction to digital photography and basic photo-editing features of Adobe Photoshop. Students shoot digital images for specific assignments emphasizing exposure, depth-of-field, composition, and image quality. The introduction of digital photography techniques, editing, and creative approaches will be the focus. Students will read and report on famous photographers and photography literature. Each student is required to have a camera in which they can manually control the focus, shutter speed, aperture and ISO.

IDS K105 - The First Year Experience °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# or higher.*
This course is designed to engage students as active participants within the college environment. Students will have the opportunity to acquire academic skills, attributes, awareness of self as learner, and to engage with the resources and activities within the Three Rivers Community College community. You can expect regular reading, writing and research assignments along with classroom discussion as you investigate how to be successful in this environment.

- MAT* K1XX°- Any 100-level Math course **3 CREDIT HOURS**

Total: 15

Semester II

COM* K101 - Introduction to Mass Communications °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S; any 100-level Humanities or Social Sciences course.*
This course is a survey of the American mass media and communication. Lectures and discussions will focus on the various print and electronic mass media industries, and the impact of mass communication on our society. The course is designed as an introductory course for those students who plans to major in graphic design and communication and for those who want to be informed about the development of the influence of modern mass media.

COM* K166 - Video Filmmaking °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S and any 100-level Humanities or Social Sciences course.*
A creative workshop in which students will work with digital media to make their own movies. Students work with video camcorders and editing software. Students will learn scripting, shooting, editing and audio production techniques. Students will also research and write on various topics related to digital video and filmmaking. Each student is required to have access to a camera or camera phone which can shoot movies. This course is equivalent to ART* K185.

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

GRA* K151 - Graphic Design I

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better and any 100 level Humanities or Social Sciences course.*

This course is designed to introduce students to graphic design. Topics include: proper file management, Macintosh computer navigation basics, fundamental techniques of the design process, and digital plagiarism. Students will learn to create a graphic identify through proper typography, image editing, and page layout. Graphic Design industry standard software will be used, including Adobe Photoshop, Illustrator, and InDesign. Classes consist of lectures, demonstrations, applied practice, and critiques.

SOC KXXX Social Science Elective

Total: 15

Semester III

BMK* K241 - Principles of Advertising °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course surveys the basic elements, functions, and principles of advertising. Emphasis is on advertising's role as a marketing tool. Students study current advertising campaigns and marketing communication methods. Target marketing, image creation, and ethical aspects of advertising are discussed. Selection of print media, electronic media, and supportive promotional techniques are included. Students create their own comprehensive advertising campaigns using strategies learned in the course.

GRA* K155 - Advertising Design °

3 CREDIT HOURS
Prerequisite: Knowledge of a word processing program.
This computer graphics course focuses on using Adobe Photoshop to design various advertisements and prepare them for print and the web. Students will apply design principles, and type/image integration to complete design projects of moderate to increasing complexity. Emphasis is placed on project development and execution, the generation of ideas,

concepts and teamwork in order to communicate persuasively and effectively. Student-designed computer lab projects include writing copy, brand positioning, client/agency relationship, copywriting, and proper research methods. GRA* K155 meets the Computer Literacy Requirement.

GRA* K230 - Digital Imaging 1 °

3 CREDIT HOURS
Prerequisite: GRA K140 or GRA* K131 or permission of the instructor.*
Adobe Photoshop is the focus of this course which will provide students with a foundation in image manipulation and graphic design. This course concentrates on the high end capabilities of Photoshop as an illustration, design and photo retouching tool. Students will explore a wide range of manipulation techniques that can be applied to photos and graphics. Students will also study design principles and read and report on Photoshop artists.

- _____- Natural Science Elective **3 CREDIT HOURS**
- _____- History Elective **3 CREDIT HOURS**

Total: 15

Semester IV

COM* K121 - Journalism °

3 CREDIT HOURS
Prerequisite: None required; ENG K101 or ENG* K101S recommended.*
This course is designed to give students an introduction to news writing. Students receive practice in writing hard news, feature stories, and editorials, as well as editorial decision-making. Word processing instruction is included. No previous experience necessary. COM* K121 meets the computer literacy requirement.

COM* K291 - Publications Practice I °

3 CREDIT HOURS
Prerequisite: COM K121 and GRA* K140 and GRA* K155 or permission of the instructor.*
This course is designed to train students to produce The Current, the student magazine. This involves researching, interviewing, writing, editing, photography, and proofreading. It also includes all the pre-press work (including digital imaging), which is done on computers, primarily using the Adobe Graphic Studio. Advertising (sales and design) is also part of this course.

GRA* K260 - Web Design °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; GRA* K140 and GRA* K230; or permission of the instructor.*
This computers graphics course is an introduction to the concepts of professional web site design using the Industry-standards-based website development tools Dreamweaver and Adobe Photoshop. Students will be able to create, prepare, and manipulate documents, illustrations, and images for the web. The four design principles of contrast, repetition, alignment, and proximity will be discussed and utilized to create a web site using the authoring tools described above as well as the skills acquired in the prerequisite courses.

GRA* K296 - Graphic Arts Internship °

3 CREDIT HOURS
Prerequisites: GRA* K140; GRA* K230; GRA* K155; COM* K291; and one other course in the program

This practicum is a 200-level course which allows students to work in a faculty-approved position in a graphic arts, creative services, pre-press, or advertising or media outlet. The student will use their design skills as well as hardware and software skills acquired in their course work at the college to comprehensively study a selected technical area of graphics technology. Their supervisor as well as the assigned faculty member from Three Rivers will evaluate each student. As part of the evaluative process, students will present a portfolio of their work from their practicum.

- _____- Art Elective **3 CREDIT HOURS ****

Total: 15

Note:

° Course has a prerequisite. Students should check course description.

** Consult with Program Coordinator when selecting elective.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

Graphic Design, Associate in Science Degree Program Outcomes

Graduates of the Graphic Design program will:

1. Demonstrate skills, techniques, and manipulation of computer equipment, tools and software programs necessary to create appropriate graphic design.
2. Demonstrate an understanding of design principles, design concepts and problem solving.
3. Compile a portfolio of work reflecting knowledge, techniques, and cretivity gained during the student's course of study.
4. Communicate ideas, needs and properly critique using specific graphic design vocabulary.
5. Demonstrate how to work effectively within a production group, follow a timeline and perform in a professional design environment.
6. Understand the historical foundations of visual communications and recognize contemporary design concepts/trends.
7. Gain industry experience through an internship.

Women's Studies

Women's Studies Certificate

Degree Code: J12

Certificate Program

Contact: Janet Hagen- 860-215-9433

This certificate program is designed to prepare students who are interested in Women's Studies to transfer to four-year institutions to pursue a major or minor. The certificate is also designed for students who may be interested in working in various private or non-profit sectors. Potential jobs may include working in domestic violence or welfare rights advocacy, public and community service, non-profit organization work, family counseling, sexual assault counseling, health care, public policy work, human resources, teaching, law, and public relations.

Students may complete this certificate by completing the courses that are listed below.

Women's Studies Certificate Curriculum Requirements

ART* K204 - History of Women in the Arts °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S and any 100-level Humanities, History or Anthropology class; or permission of the instructor.*
This course will cover a global history of women in the visual arts. Art terminology and visual language will be used to examine varied artworks by women from an assortment of historic, social and political and personal contexts. Because historically women have been underrepresented and excluded from participating in the visual arts, students will develop their abilities to critique and question the art historical tradition through a significant amount of writing, and thereby achieve a general level of knowledge and appreciation for the contributions of women artists throughout history.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

ENG* K261 - Women Writers Across Cultures °

3 CREDIT HOURS
Prerequisite: ENG K102 or permission of the instructor.*
This course is intended to broaden students' knowledge of literary traditions and themes from a non-western and multicultural approach through the lens of women's writing. Students will read numerous works by women and will explore the use of critical strategies in relation to those works. Writing assignments will stress critical analysis, including the incorporation of various critical strategies. Emphasis will be on the influence of geography, history, and social environments in shaping women's writing. Course fulfills International/Intercultural Requirement.

SOC* K103 - Social Problems

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to increase the understanding of the nature, scope, history, causes and complexity of contemporary social problems. The course emphasizes not only the problems but also proposed strategies for solution. Topics are studied in the context of many societies around the world, including those of Europe, Asia, Africa, and Latin America, in order to provide the student with a global and multicultural perspective on the issues. Topics vary from semester to semester according to current concerns and interests. Topics often included are poverty, crime, violence, substance abuse, racism, family issues, sexism, health care, environmental destruction, cities, and population. Course fulfills International/ Intercultural Requirement.

SOC* K211 - Sociology of Gender °

3 CREDIT HOURS
Prerequisite: Any 100-level anthropology, economics, history, political science, psychology, or sociology course; or permission of the instructor.
This course is designed for anyone interested in a better understanding of what it means to be male or female in societies, past and present, in the U.S. and around the world. Some topics to be explored include the transformation of gender roles; women's rights in education and at the workplace; the problems of rape and domestic violence; gender in politics, the military, and religion; the impact of gender on intimate relationships such as love, sexuality, friendship, marriage and family; the nature of sexual orientation and the problem of homophobia; and the global struggle for human rights of women and gays. Interrelationships of gender, sexual orientation, social class, race and ethnicity will be studied as an integral aspect of the course. The class format varies - lecture, discussion, films, and speakers.

WMS* K105 - Gender in the Everyday World °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course explores the core concepts central to the field of Women's and Gender Studies in connection to gender, sex and sexualities, race/ethnicity, and class. Some of the topics covered include feminism, social activism, sex trafficking, sexual assault and intimate-partner violence, influence of media, women in leadership, health care and reproductive rights, body image, and gender identity/expression. This course fulfills a liberal arts and sciences and/or humanities elective requirement. It does not fulfill a social sciences elective requirement.

Note:

°Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 24

Women's Studies, Certificate Program Outcomes

Upon successful completion of all program requirements graduates will be able to:

1. explain how women's positions are socially constructed through social identity locations (such as race/ethnicity, class, age, sexuality, abilities, etc.) and other social, cultural, and historical experiences and how these locations and experiences impact women's lives.
2. demonstrate strong written and oral communication skills by formulating and articulating ideas, developing positions, actively listening, and engaging in constructive dialogue on the topic of gender and women's issues.
3. identify and explain what career options and degree programs are available to women's studies major and minors.
4. demonstrate awareness of the importance of civic engagement by engaging in projects that promote the empowerment of women and girls.

Liberal Arts and Sciences/General Studies

General Studies

General Studies Certificate

Degree Code: J57

Certificate Program

Contact: Steven Neufeld- 860-215-9457

This certificate program is designed for students who have not decided on a specific academic or professional/technical goal to explore the broadest range of courses offered at Three Rivers Community College. Students tailor the certificate program to meet their individual needs and interests.

Students may complete this certificate by completing the courses that are listed below.

General Studies Certificate Curriculum Requirements

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

IDS K105 - The First Year Experience °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# or higher.*
This course is designed to engage students as active participants within the college environment. Students will have the opportunity to acquire academic skills, attributes, awareness of self as learner, and to engage with the resources and

activities within the Three Rivers Community College community. You can expect regular reading, writing and research assignments along with classroom discussion as you investigate how to be successful in this environment.

- _____- Math/Science elective **3-4 CREDIT HOURS**
- _____- Social Science elective **3 CREDIT HOURS**
- _____- Humanities/Speech elective **3 CREDIT HOURS**

Open Electives: 15-16 CREDIT HOURS

- _____- Open Elective **3 CREDIT HOURS**
- _____- Open Elective **3 CREDIT HOURS**
- _____- Open Elective **3 CREDIT HOURS**
- _____- Open Elective **3 CREDIT HOURS**
- _____- Open Elective **3 CREDIT HOURS**

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 30-32

General Studies, Certificate Program Outcomes

Upon successful completion of all program requirements graduates will be able to:

1. think critically, analytically and creatively.
2. communicate effectively in writing.
3. move beyond a narrow focus and recognize broader perspectives.
4. better understand the relationship between one's own self, others, and society in which we live.

General Studies, A.S.

FOR A DETAILED GENERAL STUDIES DEGREE PLANNER, CLICK HERE.

Degree Code: B31

Associate in Science

Program Contact: Steven Neufeld- 860-215-9457

The General Studies Associate in Science degree program is designed primarily for those individuals whose special interests cannot be accommodated within a Liberal Arts degree program or for those who wish to develop a broader base of knowledge for intellectual stimulation and personal growth. With more open electives and fewer required courses than the Liberal Arts and Sciences degree, the General Studies degree offers greater flexibility for individual

interest and needs. This program can also be suitable for transfer to a four-year institution, but more care and guidance in choosing electives will be necessary. Students interested in using the General Studies degree for transfer are advised to check carefully the specific requirements of the institution to which they intend to transfer. With the assistance of an academic advisor, the student may create a program of study suitable either as a foundation to transfer to a four-year college or as preparation for particular self-defined goals.

General Studies Curriculum Requirements

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

IDS K105 - The First Year Experience °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# or higher.*
This course is designed to engage students as active participants within the college environment. Students will have the opportunity to acquire academic skills, attributes, awareness of self as learner, and to engage with the resources and activities within the Three Rivers Community College community. You can expect regular reading, writing and re-search assignments along with classroom discussion as you investigate how to be successful in this environment.

- MAT* K1XX° - Any 100 Level MAT course or Higher MAT **3 CREDIT HOURS**
- HIS* KXXX - Any HIS course **3 CREDIT HOURS**

Electives

Arts Elective: **3 CREDIT HOURS**

Social Sciences Electives: **6 CREDIT HOURS**

Natural Sciences Elective: **3-4 CREDIT HOURS**

Advanced Liberal Arts and Sciences Electives: **6 CREDIT HOURS**

Open Electives: **24 CREDIT HOURS**

Note:

°Course has a prerequisite. Students should check course description.

+ It is important to note that no fewer than 60 credits are needed to complete the degree. If the one credit speech option is selected, students must be careful to take two four-credit courses somewhere in the program or take an extra course.

Students who are planning on transferring to a four-year institution should check with their advisors, their future schools, or refer to the Selecting Electives list regarding General Education Requirements.

∞ First Year Experience course equivalents are CJS* K100 - Perspectives of Criminal Justice ° and NUR* K108 - Perspectives of Nursing °.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to

50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60-61

Other Requirements:

In selecting courses, each student must fulfill the following requirements:

International/Intercultural Requirement

All degree-seeking students must complete one course which emphasizes a global, cross-cultural or multi-cultural perspective and encourages students to think beyond the boundaries of traditional Western European cultural perspectives.

Courses which satisfy this requirement are:

ANT* K105 Introduction to Cultural Anthropology °	ANT* K136 - Music Cultures of the World °
ANT* K230 Indigenous Peoples of the World °	HIS* K257 War and Society in World Civilization °

ARC* K102 Architecture of the World	HIS* K271 Modern Asia °
BIO* K180 Principles of Environmental Science	MUS* K104 World Music °
CJS* K172 Introduction to Terrorism and Homeland Security °	PHL* K151 World Religions °
ENG* K240 Studies in World Literature °	POL* K103 Introduction to International Relations °
ENG* K250 Studies in Ethnic Literature °	SOC* K103 Social Problems
ENG* K261 Women Writers Across Cultures °	SPA* K111 Elementary Spanish I °
ENV* K101 Environmental Studies	SPA* K112 Elementary Spanish II °
GEO* K111 World Regional Geography °	SPA* K211 Intermediate Spanish I °
HIS* K121 World Civilization I °	SPA* K212 Intermediate Spanish II °
HIS* K122 World Civilization II °	SSC* K210 World Issues °
HIS* K218 African American History °	SOC* K220 Racial & Ethnic Diversity °
HIS* K244 - Europe in the 20th Century °	

Oral Communication requirement

All degree-seeking students must complete one course to develop competency in oral communication; the courses which meet this requirement are: COM* K109 - Speech Practice ° **1 CREDIT HOUR** and COM* K173 - Public Speaking ° **3 CREDIT HOURS**.

Note:

These requirements do not increase the total number of credits needed to complete the degree; they can be met within the 60-61 credits of the degree program by choosing appropriate electives.

General Studies, Associate Degree Program Outcomes and Statement of Core Values

Three Rivers Community College is committed to the belief that the best preparation for life, and especially for careers that require specialized training, is a broad acquaintance with human knowledge. The General Studies degree program is designed to give students the opportunity to explore knowledge from multiple perspectives. Students are challenged to become intellectually curious, aesthetically aware and critically perceptive, and to develop their communicative and quantitative skills. Through the study of the natural sciences, the social sciences, and the humanities, the General Studies degree program gives students the flexibility to adapt to the changing needs of the workplace and the foundation necessary for lifelong learning and personal growth.

Students completing the general Studies program will develop the ability to:

- think critically and creatively
- work collaboratively as well as independently
- communicate effectively both in speaking and in writing
- reason quantitatively as well as verbally
- value artistic expression
- move beyond a narrow focus and recognize broader historical, cultural, global and scientific perspectives
- understand and reflect searchingly upon one's values and the values of others.

General education and career education are interactive components. They enrich each other by helping students to make career choices in keeping with their understanding of themselves and their world. Together, they provide the skills and perspectives that make possible the dignity of work and social contribution. They cultivate a framework of meaning, value, ethical purpose and commitment that enrich every aspect of life. They foster an attitude of critical inquiry, curiosity, openness and wonder that enables a spirit of lifelong learning.

Liberal Arts and Sciences

Liberal Arts and Sciences, A.A.

FOR A DETAILED LIBERAL ARTS & SCIENCES DEGREE PLANNER, CLICK HERE.

Degree Code: B57

Associate in Arts

Program Contact: Steven Neufeld - 860-215-9457

This program is designed primarily for students who plan to transfer to a four-year college or university to continue studies toward a baccalaureate degree in the liberal arts and sciences. It is also suitable for students who wish to engage in an educationally challenging experience for personal growth and intellectual development. The requirements and distribution of courses in this A.A. degree program are similar to the general education requirements in many Liberal Arts and Sciences baccalaureate degree programs. However, since there are variations in the requirements at different four-year institutions, students are advised to check carefully the specific requirements of the institution to which they intend to transfer.

There are specific pathways within the Liberal Arts and Sciences degree program to help students use this degree as a first step toward a long term goal, such as transferring to Eastern Connecticut State University, transferring to the University of Connecticut, or pursuing selected majors. Your academic advisor will have the details you need. You may also secure a copy of the Pathway Guides for transfer to specific programs and universities at the Student Development Office. Call 860-215-9017 for information.

Specific information on courses which meet elective requirements is also available from Student Services advisors and academic advisors.

Liberal Arts and Sciences Curriculum Requirements

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

- HIS*K____ Elective **3 CREDIT HOURS** (Choose from HIS* K121, HIS* K122, HIS* K201, HIS* K202)

IDS K105 - The First Year Experience °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# or higher.*
This course is designed to engage students as active participants within the college environment. Students will have the opportunity to acquire academic skills, attributes, awareness of self as learner, and to engage with the resources and activities within the Three Rivers Community College community. You can expect regular reading, writing and research assignments along with classroom discussion as you investigate how to be successful in this environment.

MAT* K146 - Math for the Liberal Arts °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process and eligible for either ENG* K101S or ENG* K101.*
This is a survey course designed to acquaint the liberal arts student with a broad spectrum of mathematical ideas not emphasized in traditional algebra courses. As a terminal mathematics course, it conveys the nature and diversity of mathematics, its methods, applications, and roles in society. Topics are selected from problem solving and critical thinking skills, graph theory, voting and apportionment, introduction to probability, linear programming, patterns and symmetry, linear and exponential applications; others may include fractal geometry, financial management, fair division schemes, game theory, or codes.

or

- _____- Higher MAT **3 CREDIT HOURS**

Electives

Arts Elective: **3 CREDIT HOURS**

Foreign Language Electives: **6-8 CREDIT HOURS**

Social Sciences Electives: **6 CREDIT HOURS**

Natural Sciences Electives: **7-8 CREDIT HOURS**

Liberal Arts and Sciences Electives: **6 CREDIT HOURS**

Advanced Liberal Arts and Sciences Electives: **6 CREDIT HOURS**

Open Electives: **9 CREDIT HOURS**

Note:

° Course has a prerequisite. Students should check course description.

+ It is important to note that no fewer than 61 credits are needed to complete the degree. If the one credit speech option is selected, students must be careful to take two four-credit courses somewhere in the program or take an extra course.

∞ First Year Experience course equivalents include CJS* K100 - Perspectives of Criminal Justice ° and NUR* K108 - Perspectives of Nursing °.

Students who are planning on transferring to a four-year institution should check with their advisors, their future schools, or refer to the Selecting Electives list regarding General Education Requirements.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 61-64

Other Requirements:

In selecting courses, each student must fulfill the following requirements:

International/Intercultural Requirement

All degree-seeking students must complete one course which emphasizes a global, cross-cultural or multicultural perspective and encourages students to think beyond the boundaries of traditional Western European cultural perspectives.

Courses which satisfy this requirement are:

ANT* K105 Introduction to Cultural Anthropology °	HIS* K244 Europe in the 20th Century °
ANT* K136 Music Cultures of the World °	HIS* K257 War and Society in World Civilization °
ANT* K230 Indigenous Peoples of the World °	HIS* K271 Modern Asia °
ARC* K102 Architecture of the World	MUS* K104 World Music °
BIO* K180 Principles of Environmental Science	PHL* K151 World Religions °
CJS* K172 Introduction to Terrorism and Homeland Security °	POL* K103 Introduction to International Relations °
ENG* K240 Studies in World Literature °	SOC* K103 Social Problems
ENG* K250 Studies in Ethnic Literature °	SPA* K111 Elementary Spanish I °
ENG* K261 Women Writers Across Cultures °	SPA* K112 Elementary Spanish II °
ENV* K101 Environmental Studies	SPA* K211 Intermediate Spanish I °
GEO* K111 World Regional Geography °	SPA* K212 Intermediate Spanish II °
HIS* K121 World Civilization I °	SSC* K210 World Issues °
HIS* K122 World Civilization II °	SOC* K220 Racial & Ethnic Diversity °
HIS* K218 African American History °	

Oral Communication Requirement

All degree-seeking students must complete one course to develop competency in oral communication; the courses which meet this requirement are: COM* K109 - Speech Practice ° **1 CREDIT HOUR** and COM* K173 - Public Speaking ° **3 CREDIT HOURS**.

Note:

These requirements do not increase the total number of credits needed to complete the degree; they can be met within the 61-64 credits of the degree program by choosing appropriate electives.

Liberal Arts and Sciences, Associate Degree Program Outcomes and Statement of Core Values

Three Rivers Community College is committed to the belief that the best preparation for life, and especially for careers that require specialized training, is a broad acquaintance with human knowledge. The Liberal Arts degree program is designed to give students the opportunity to explore knowledge from multiple perspectives. Students are challenged to become intellectually curious, aesthetically aware and critically perceptive, and to develop their communicative and quantitative skills. Through the study of the natural sciences, the social sciences, and the humanities, the Liberal Arts degree program gives students the flexibility to adapt to the changing needs of the workplace and the foundation necessary for lifelong learning and personal growth.

At the core of the Liberal Arts and Sciences is not any one discipline or knowledge base, but rather an attempt to perceive the interrelatedness of knowledge and the connectedness of human experience. In addition to exploring the traditions of thought and the central questions within selected areas of study, students completing the Liberal Arts and Sciences program will develop the ability to:

- think critically and creatively
- work collaboratively as well as independently
- communicate effectively both in speaking and in writing
- reason quantitatively as well as verbally
- value artistic expression
- move beyond a narrow focus and recognize broader historical, cultural, global and scientific perspectives.
- understand and reflect searchingly upon one's values and the values of others.

Liberal Arts and career education are interactive components. They enrich each other by helping students to make career choices in keeping with their understanding of themselves and their world. Together, they provide the skills and perspectives that make possible the dignity of work and social contribution. They cultivate a framework of meaning, value, ethical purpose and commitment that enrich every aspect of life.

They foster an attitude of critical inquiry, curiosity, openness and wonder that enables a spirit of lifelong learning.

Science

Environmental

Environmental Engineering Technology, A.S.

Degree Code: B19

Associate in Science

Program Coordinator: Diba Khan-Bureau - 860-215-9443

This program is designed to educate students in the general and technical aspects of environmental issues and common practice environmental procedures. The degree focuses on practical education with classes covering the basic quantitative and conceptual skills required of environmental engineering technicians. The student population for this program varies from recent high school graduates, to employees seeking retraining, and post-associate degree students looking for career changes. The broad-based curriculum meets the demands of a range of environmental positions. Graduates have gone on to work for manufacturing firms, regulatory agencies, and as consultants, or have continued their education at baccalaureate institutions. Due to the expanding environmental industry and high levels of environmental concern in Connecticut, this program has been in great demand.

Prerequisite to the Program

MAT* K186 - Precalculus °

4 CREDIT HOURS
Prerequisite: MAT K172 with a "C" grade or better or appropriate placement∞ through multiple- measures assessment process. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84 or TI-89).*
The course prepares for study of calculus. Students will expand their knowledge of algebraic and some early transcendental functions, and develop skills required for higher level math courses. Topics will also include: trigonometric functions, trigonometric identities and applications, introductory sequences and series.

Environmental Engineering Technology Curriculum Requirements

Semester I

BIO* K180 - Principles of Environmental Science

3 CREDIT HOURS
Corequisite: ENG K096 or higher. Please note: if completing ENG* K096 prior to enrolling in BIO* K180, a grade of "C#" or better is required for registration into this course.*
This is a basic course in environmental studies that introduces ecological principles and a global perspective on environmental problems such as deforestation, droughts, floods, soil erosion, overpopulation, food shortages and pollutants. Some field work will be included. Course fulfills International/Intercultural Requirement.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENV* K163 - Geomatics Spatial Analysis

3 CREDIT HOURS
This course will provide students with the fundamentals of the discipline of Geomatics, an amalgation of the sciences of geography, meaurement, and mapping. Coursework will include exercises utilizing geographic information systems (GIS) software, global navigation satellite systems (GNSS, commonly GPS) mobile units, and more traditional measurement surveying tools. Students will be introduced to the concept of three-dimensional modeling, and learn to develop simple and complex spatial models for multifaceted environmental processes and relationships.

ENV* K172 - Environmental Research Project I °

1 CREDIT HOUR
Prerequisite: Permission of the instructor.
This course introduces and develops skills in microscopy techniques, field research, literature searches, monitoring equipment usage, and teamwork, and provides hands-on experience in the field and laboratory.

- _____- Humanities or Social Science Elective **3 CREDIT HOURS**

Total: 13

Semester II

ENV* K110 - Environmental Regulations °

3 CREDIT HOURS
Prerequisite: ENV K101 .*
This course provides a broad view of federal, state, and municipal environmental regulations as they apply to industry, commercial establishments, local governmental facilities, and the individual citizen. It provides a practical approach to regulatory understanding to enable one to plan an effective and economically sound compliance program. Course topics include the Clean Air Act (CAA), Clean Water Act (CWA), Toxic Substance Control Act (TSCA), SARA Title III (Community Right-to-Know), and federal, state, and local regulations, covering such topics as hazardous material transportation, in-ground tank storage, and specific hazardous materials such as asbestos and PCBs.

ENV* K242 - Hydrology °

3 CREDIT HOURS
Prerequisite: MAT K172 or higher.*
This course features an emphasis on ground water. Topics include weather as it affects water resources, precipitation, stream flow, stream flow hydro graphics, rainfall run-off relationships, the impact of natural and man-made phenomena on water resources, and ground water hydrology.

ENV* K260 - Geomatics °

4 CREDIT HOURS
Prerequisite: ENV K163*
Geomatics is increasingly used to evaluate the various data models and structures used in the input management analysis and output of geographic data used in the sciences, environmental sciences and engineering and natural resources management. The Geomatics course will offer students further skills required in the study of Geographical Information Systems, GPS, spatial analyzes, photogrammetry & cartography providing understanding and field experience. Cartography is used in the area pertaining to preserving indigenous lands and documenting water and land rights, urban and transportation planning, wildlife habitat preservation and environmental impact analysis. This course will enable students to apply geomatics skills and knowledge in a growing field. Geomatics can be used to evaluate many issues, but not limited to, natural sciences and the environment. Research and modeling will be essential in the development, design and performance monitoring of a wide variety of spatial data. The Geomatics course will provide students with further knowledge of geographical information systems. Introduction to Geographical Information Systems is the preliminary course for students, which will lead to Geomatics giving the students further understanding of geographical information sciences, GPS and cartography. The combined courses provide options to obtain work or to continue an education to acquire a certificate, an A.S. or an advanced degree. The Geomatics class supports the new paradigm for a renewed effort in geospatial analyzes for charting and measuring the world.

ENV* K265 - Fundamental Measurements and Applications Lab

3 CREDIT HOURS
Corequisites: MAT K172. Recommended High School Chemistry or CHE* K111.*
This course will familiarize students with environmental analysis, instrumentation, and sampling methods. Students will have hands-on training and experience with various sampling analysis equipment and techniques. Upon completion the participants will understand the basic concepts necessary to choose and conduct environmental measurements in streams, lakes, and wetlands and for stormwater runoff, wastewater, gasses and soils. The student will

also be able to utilize computer applications to perform data analysis for all laboratory and field work methods completed.

ENV* K277 - Environmental Research Project II °

1 CREDIT HOUR
Prerequisite: ENV K172.*
This course further enhances the skills learned in ENV* K172. The course will include field work and flexible hours.

Total: 14

Semester III

BIO* K121 - General Biology I °

4 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Corequisites: CHE K111 or CHE* K121, either course with a "C" grade or better; or permission of the department chair. Please note: If completing CHE* K111 or CHE* K121 prior to enrolling in BIO* K121, a grade of "C" or better is required for registration into this course.*
This course introduces the major principles and concepts of modern biology. Topics to be covered include molecular and cellular biology, cell division, cellular transport systems, cellular metabolism, the specialization and differentiation of both plant and animal cells, and modern genetics. Three-hour lecture; one three-hour laboratory period.

CHE* K121 - General Chemistry I °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K172 and high school chemistry or CHE* K111 all passed with a "C" grade or better; or permission of the instructor or department chairperson.*
Corequisite: MAT K186.*
In this course, students will study the fundamental principles, theories, and laws of chemistry. Topics include atomictheory and the structure of the atom, the aggregated states of matter, kinetic molecular theory, chemical bonding, stoichiometry and periodicity, solutions, and colloids. Three- hour lecture; one three-hour laboratory period.

ENV* K245 - Water Resources Engineering

3 CREDIT HOURS
Corequisite: ENV K245L.*
This course studies the methodology used in determining storm water runoff for small urban areas. The theory and logic of both the Rationale Method and the Soil Conservation Services TR-55 are studied in detail. The quantity computations are covered, as well as the understanding of gutter analysis. As part of the lab, the student will design a storm drain system, including a cost estimate for the project.

ENV* K245L - Water Resources Engineering Lab

1 CREDIT HOUR
Corequisite: ENV K245.*
This course gives the methodology used in determining storm water runoff for small urban areas. This lab is used as a

practical exercise to develop the methods of Water Resources Engineering, including actual design of a storm water system with a cost estimate.

ENV* K278 - Environmental Research Project III °

1 CREDIT HOUR
Prerequisite: ENV K277.*
This course further enhances the skills learned in ENV* K277. The course will include field work and flexible hours. Advanced students will mentor less advanced students in this course.

MAT* K254 - Calculus I °

4 CREDIT HOURS
Prerequisite: MAT K186 with a 'C" grade or better.*
This is a first course in the calculus sequence intended for students who plan on majoring in mathematics, physical sciences, or engineering technology. Topics include: rate of change, limits, continuity, differentiation of algebraic, trigonometric, exponential, and logarithmic functions, differentials, applications of differentiation, definite and indefinite integrals, and applications of integration.

Total: 17

Semester IV

BIO* K122 - General Biology II °

4 CREDIT HOURS
Prerequisite: BIO K121 with a "C" grade or better or permission of the instructor.*
Corequisite: None required; CHE K122 is recommended.*
This course is a continuation of General Biology I. Topics to be covered include taxonomy, the diversity of life forms from the microbes to the animals, the structures and functions of both plant and animal systems, as well as ecology, ecosystems and evolution. (For transfer credit, student should take both BIO* K121 and BIO* K122.) Three-hour lecture; one three-hour laboratory period.

or

BIO* K235 - Microbiology °

4 CREDIT HOURS
Prerequisites: BIO K121 and CHE* K111 or CHE* K121 or permission of the instructor, all courses passed with a "C" grade or better. BIO* K122 is recommended.*
This course covers a comprehensive study of microorganisms. Topics covered will include the basic characteristics, morphology, physiology, growth, reproduction, and genetics of bacteria, as well as a brief taxonomical survey of the following microbial life forms: Archaea, Eubacteria (Cyanobacteria, Mycoplasms, Rickettsia, Chlamydia), Fungi, Algae, Protozoans, and Viruses. Emphasis will be on species that affect humans. Laboratory activities will include various techniques of staining, culturing, and isolating bacteria. The morphology and metabolic processes of select microbial groups will be studied. Students will learn to apply various modern bio- techniques that are used for controlling the growth of microbes, and to identify unknowns. Three hours of lecture; three hours of lab each week.

CHE* K122 - General Chemistry II °

4 CREDIT HOURS
Prerequisites: CHE K121 with a "C" or better; MAT* K186 with "C" grade or better.*
This course includes further study of the principles, theories, and laws of chemistry. Topics include thermo-chemistry, kinetics, chemical equilibrium, oxidation reduction and electro-chemistry, introduction to organic and nuclear chemistry, and the chemistry of the elements and their compounds. Three-hour lecture; one three-hour laboratory period. CHE* K121 - General Chemistry I ° and II are ordinarily both taken for transfer credit.

ENV* K208 - Long Island Sound Ecology °

3 CREDIT HOURS
Prerequisite: ENV K101 or permission of the instructor.*
This course is an ecological study of Long Island Sound marine environments. Emphasis is placed on the factors limiting the distribution of marine organisms and on the visual recognition of invertebrates, fish, and seaweeds. Extensive travel to off campus field study locations is featured. Pollution run-off to the Long Island Sound and urban areas will be discussed.

ENV* K220 - Hazardous Materials °

3 CREDIT HOURS
Prerequisite: None required; CHE K111 or CHE* K121 recommended.*
This course is a study of accident prevention, safety, industrial hygiene and proper procedures for handling hazardous materials. Properties of many industrial reagents and solvents are examined so they can be handled and stored properly. The following specific topics will be covered: Material Safety Data Sheets (MSDS), labeling, personnel training and records, emergency response program, toxicity routes of entry, storage, ventilation, personal protective equipment, barriers, and spills containment Requirements of OSHA, SPCC, RCRA, and TSCA will be reviewed to provide students with a working knowledge of the regulations. This course meets the requirements of 29 CFR 1910.120.

ENV* K279 - Environmental Research Project IV °

1 CREDIT HOUR
Prerequisite: ENV K278.*
This course further enhances the skills learned in ENV* K278. The course will include field work and flexible hours. Advanced students will mentor less advanced students in this course.

ENV* K291 - Environmental Engineering Technology Co-Op °

1 CREDIT HOUR
Prerequisite: Permission of the program coordinator.
Corequisite: Students must have completed all freshman level technology courses and have a GPA of 2.50 or better.
Students will work in industry gaining hands-on experience while applying academic knowledge acquired during their first year of classroom/laboratory college education. A specific project will be agreed upon by the co-op student, industry supervisor, and faculty advisor. A minimum of 225 documented industry contact hours must be devoted by the co-op student during the semester internship.

Total: 16

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

Environmental Engineering Technology, Associate in Science Degree Program Objectives

Graduates of the program in Environmental Engineering Technology will:

1. graduates will be qualified for to make technical and creative contributions to and find employment in environmental monitoring and measurements, policy and design in the practice of environmental engineering technology.
2. graduates will have an appreciation for the need to be lifelong learners.
3. graduates will demonstrate professionalism and a sense of societal and ethical responsibility in their professional endeavors.
4. graduates will engage in professional development or study in a four-year program to pursue flexible career paths amid future technological changes.

Environmental Engineering Technology, Associate in Science Degree Program Outcomes

By the time of graduation, students in the Environmental Engineering Technology program will:

1. practice the skills needed to work effectively in teams and as an individual.
2. demonstrate the ability to use appropriate mathematical, computational and graphic-thinking skills needed for environmental engineering technology applications.
3. combine oral, graphical and written communication skills to present and exchange information effectively and communicate design solutions.
4. know of a professional code of ethics describe concepts relating to environmental monitoring, policy, processes and continuous improvement.
5. describe how the concepts of environmental measurements and the design, management and operation of environmental facilities affect evaluation of analysis, policies and decision making.
6. illustrate an ability to think critically and identify, evaluate and solve complex environmental problems; demonstrate technical and provide practical applications in environmental control problem and solutions; and communicate solutions technically and effectively.
7. recognize actions and acts of professionalism that allow them to become informed and participating citizens cognizant of ethics, civic duty and social responsibility.
8. recognize the need to be lifelong learners.

Environmental Health and Safety Management Certificate

Degree Code: K09

Certificate Program

Contact: Diba Khan-Bureau - 860-215-9443

This program is designed for to enable students to apply their EH&S management skills in any workplace setting. Environmental, occupational health and safety is an important factor in all workplaces today. In all workplaces and schools, the law requires environmental management and occupational, health, and safety standards to be met. Having an EH&S management certificate will afford the students the opportunity to obtain work, become promoted at their present workplace, or continue their education. All credits can be applied towards an associate of science degree in environmental or civil engineering technology.

Students may complete this certificate by completing the courses that are listed below.

Environmental Health and Safety Management Certificate Curriculum Requirements

BMG* K202 - Principles of Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Fundamental principles of management and business operations are discussed with emphasis placed on management orientation, policy making, practical problem analysis, and philosophy. Attention also centers on the following: planning, organizing, directing, controlling, budgeting functions, qualitative and quantitative decision-making and financial analyses.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

ENV* K110 - Environmental Regulations °

3 CREDIT HOURS
Prerequisite: ENV K101 .*
This course provides a broad view of federal, state, and municipal environmental regulations as they apply to industry, commercial establishments, local governmental facilities, and the individual citizen. It provides a practical approach to regulatory understanding to enable one to plan an effective and economically sound compliance program. Course topics include the Clean Air Act (CAA), Clean Water Act (CWA), Toxic Substance Control Act (TSCA), SARA Title III

(Community Right-to-Know), and federal, state, and local regulations, covering such topics as hazardous material transportation, in-ground tank storage, and specific hazardous materials such as asbestos and PCBs.

ENV* K130 - Occupational Safety & Health

3 CREDIT HOURS
This course is an introduction to Occupational Safety & Health in the workplace. It will introduce students to the safety and health field and address the application of engineering, management principles, and techniques to safety, health, and loss control. The topics include general safety, health, and risk assessment concepts and terms. Discussions will include historical developments, program management, problem identification, engineering assessment, hazard recognition, evaluation, and control. The course work will also introduce the student to measurement and evaluation systems, legal and regulatory requirements, environmental health and safety, industrial hygiene, safety engineering, product safety and public health, risk assessment analysis and management, accident investigation, ergonomics, and ethics and professionalism. A visit to an industrial site will be included.

ENV* K220 - Hazardous Materials °

3 CREDIT HOURS
Prerequisite: None required; CHE K111 or CHE* K121 recommended.*
This course is a study of accident prevention, safety, industrial hygiene and proper procedures for handling hazardous materials. Properties of many industrial reagents and solvents are examined so they can be handled and stored properly. The following specific topics will be covered: Material Safety Data Sheets (MSDS), labeling, personnel training and records, emergency response program, toxicity routes of entry, storage, ventilation, personal protective equipment, barriers, and spills containment Requirements of OSHA, SPCC, RCRA, and TSCA will be reviewed to provide students with a working knowledge of the regulations. This course meets the requirements of 29 CFR 1910.120.

ENV* K295 - Environmental Issues Seminar

3 CREDIT HOURS
Corequisite: Recommended ENV K101 or BIO* K180 or by permission of instructor.*
This seminar consists of assigned readings and guest lecturers on various environmental topics that are important to the development of Environmental and Civil Engineering Technology students, but also valuable for anyone who wants to learn, understand, and write effectively about the environment. Some common seminar topics may include federal and state regulations, solid and municipal waste management, best management practices (BMPs), environmental restoration and remediation, alternative and renewable energy, sustainable landscape management, sustainable agriculture, stewardship, land use, water quality, stormwater management and global and local environmental quality trends. Students are required to discuss, think about, and write about the topics, carrying out their own library research, to support positions that they will develop.

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 24

Environmental Health and Safety Management, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. apply environmental, safety and health management skills in workplace settings.
2. implement written workplace procedures in the environmental, health and safety fields.
3. describe concepts of workplace safety and environmental management and be able to understand the roles and responsibilities of the EHS professionals and the decision-making process involved in everyday situations.
4. provide guidance in planning and implementing practices that promote safety and prevent workplace accidents.
5. use communication and interpersonal skills to establish the respect and authority an EHS professional needs to surmount institutional barriers for employee well-being and environmental protection.
6. recognize the limitations of human capabilities in the workplace.
7. identify workplace hazards, find the means to reform unsafe procedures and behaviors, and establish engineering and management controls to reduce hazards.
8. explain product safety requirements of the marketplace and describe engineering and management techniques to meet them.

Social Science

Criminal Justice

Criminal Justice Certificate

Degree Code: J75

Certificate Program

Contact: Jeffrey Crouch - 860-215-9418

This certificate program is designed to provide an opportunity for students to participate in a program leading to a certificate in Criminal Justice.

Students may complete this certificate by completing the courses that are listed below.

English Competency Requirement met by: _____

Criminal Justice Certificate Curriculum Requirements

CJS* K101 - Introduction to Criminal Justice °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course provides an overview of the criminal justice system in the United States. Students will be exposed to the

system's components: law enforcement, courts, and corrections from historical, theoretical, and philosophical perspectives. Students will have the opportunity to interact with criminal justice professionals and be challenged in both reading and writing

CJS* K201 - Criminology °

3 CREDIT HOURS
Prerequisite: CJS K101 or SOC* K101.*
Corequisite: ENG K101 or ENG* K101S.*
This course investigates the relationship between crime and society. Emphasis is placed on understanding theoretical explanations of deviant behaviors from multiple disciplinary perspectives. Students will have the opportunity to use current technologies and practices in assessing crime and crime patterns. They will engage in quantitative reasoning and social science methodologies. Students will explore public policy development and implementation as it relates to crime prevention, control and quality of life issues.

CJS* K211 - Criminal Law I °

3 CREDIT HOURS
Prerequisite: CJS K101.*
Corequisite: ENG K101 or ENG* K101S.*
This course involves comprehensive study of sources, distinctions, and limitations relating to criminal law; the development of criminal law in the United States; the principles of criminal liability; various crimes and their elements; and the criteria considered in determining capacity and defenses. Connecticut Penal Code is used to relate Model Penal Code and Common Law materials specifically to Connecticut. Case studies and briefs are used to emphasize the acts, the mental state, and the attendant circumstances that are necessary ingredients in proving crimes.

or

POL* K212 - Constitutional Law and Civil Rights °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
An intensive study and analysis of the United States Constitution and especially the Amendments to that Constitution; a study and review of court decisions which interpret the Constitution; a comprehensive study of court decisions which determine police policy and consideration of specific guidelines which must be followed in the criminal justice process.

CJS* K213 - Evidence & Criminal Procedure °

3 CREDIT HOURS
Prerequisite: CJS K101.*
Corequisite: ENG K101 or ENG* K101S.*
This course explores the historical background, kinds of evidence, and the development of the rules of evidence. Considered are the hearsay rule and its major exceptions, burden of proof, judicial notice, and presumptions. Students will examine the roles of the judge, jury, and prosecuting attorney. Other areas of study will include the grand jury, prosecution by indictment as well as other court procedures.

CJS* K220 - Criminal Investigation °

3 CREDIT HOURS
Prerequisite: CJS K101.*
Corequisite: ENG K101 or ENG* K101S.*
This course is designed to make the student aware of the fundamentals of criminal investigation. The student will learn

correct procedures and conduct at the crime scene, how to preserve evidence, and chain of custody. Emphasis is on the responsibility of the first responder. Additionally, students will review documentation, preparation, and testimony in court.

CJS* K225 - Forensic Science °

3 CREDIT HOURS
Prerequisites: CJS K101.*
Corequisites: ENG K101 or ENG* K101S.*
This course involves the examination of physical evidence including collecting, identifying, preserving: and transportation it. They will be exposed to the crime laboratory and its capabilities and limitations. Additionally, they will participate in field testing and learn the various purposes of kits and their function and design. Laboratory procedures will be demonstrated depending on existing and available facilities.

CJS* K250 - Police Organization & Administration °

3 CREDIT HOURS
Prerequisites: CJS K101; ENG* K101 or ENG* K101S.*
This course exposes the student to the complexities inherent in the administration of modern law enforcement organizations by presenting and analyzing a variety of management styles and administrative techniques used in such organizations. Students will examine many of the internal and external factors that impact contemporary law enforcement organizations (e.g., federal regulations, political structures, community needs, press, etc.). Students will be exposed to theoretical perspectives, practical applications and designs in an environment that encourages discussion, writing, and networking with local and state agencies.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

Note:

° Course has a prerequisite. Students should check course description.

The English Competency Requirement is met by placement into ENG* K101, or transfer credit, or completion of ENG* K096.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 27

Criminal Justice, Certificate Program Outcomes

Upon successful completion of this certificate program, graduates will be able to:

1. identify and explain the basic structures and functions of the criminal justice system.
2. interpret the basic concepts and functions of criminal law.
3. integrate multidisciplinary theories with constitute the basis for understanding criminality and victimization.
4. apply constitutional principles that protect the rights of individuals and regulate criminal justice practices and procedures.
5. discuss the importance of social and ethical issues confronting the criminal justice system.

Criminal Justice-Enforcement Option, A.S.

Degree Code: A02

Associate in Science

Program Coordinator: Jeffrey Crouch - 860-215-9418

This program is designed for students interested in pursuing criminal justice careers in an enforcement-oriented nucleus, and who plan to transfer to a four-year college. Students are urged to investigate and select the institution to which they will transfer as early as possible since each transfer situation must be planned to meet specific baccalaureate requirements.

Criminal Justice - Enforcement Curriculum Requirements

Semester I

CJS* K100 - Perspectives of Criminal Justice °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# grade or higher.*
Students will explore learning styles, develop college success strategies, engage in the practice of academic writing, reading and critical thinking within the context of the criminal justice system. This course satisfies the College's First-Year Experience requirement.

or

IDS K105 - The First Year Experience °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# or higher.*
This course is designed to engage students as active participants within the college environment. Students will have the opportunity to acquire academic skills, attributes, awareness of self as learner, and to engage with the resources and activities within the Three Rivers Community College community. You can expect regular reading, writing and research assignments along with classroom discussion as you investigate how to be successful in this environment.

CJS* K101 - Introduction to Criminal Justice °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course provides an overview of the criminal justice system in the United States. Students will be exposed to the system's components: law enforcement, courts, and corrections from historical, theoretical, and philosophical perspectives. Students will have the opportunity to interact with criminal justice professionals and be challenged in both reading and writing

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

SOC* K101 - Principles of Sociology

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a study of the major concepts used in the field of sociology. The nature of institutions will be examined both individually and in their dynamic interrelationship. Emphasis is placed on understanding the impact of society on our lives, and on increasing our effectiveness in controlling our destinies within it.

Total: 15

Semester II

CJS* K211 - Criminal Law I °

3 CREDIT HOURS
Prerequisite: CJS K101.*
Corequisite: ENG K101 or ENG* K101S.*
This course involves comprehensive study of sources, distinctions, and limitations relating to criminal law; the development of criminal law in the United States; the principles of criminal liability; various crimes and their elements; and the criteria considered in determining capacity and defenses. Connecticut Penal Code is used to relate Model Penal Code and Common Law materials specifically to Connecticut. Case studies and briefs are used to emphasize the acts, the mental state, and the attendant circumstances that are necessary ingredients in proving crimes.

CJS* K213 - Evidence & Criminal Procedure °

3 CREDIT HOURS
Prerequisite: CJS K101.*
Corequisite: ENG K101 or ENG* K101S.*
This course explores the historical background, kinds of evidence, and the development of the rules of evidence. Considered are the hearsay rule and its major exceptions, burden of proof, judicial notice, and presumptions. Students will examine the roles of the judge, jury, and prosecuting attorney. Other areas of study will include the grand jury, prosecution by indictment as well as other court procedures.

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

or

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

MAT* K123 - Elementary Statistics °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "C-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course considers fundamental concepts of probability and statistics. The topics include exploratory data analysis (tables, graphs, measures of central tendency and dispersion), basic probability, applications of binomial and normal distributions, confidence intervals, hypothesis testing and Chi-Square Goodness-of-Fit Test.

PSY* K111 - General Psychology I

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course provides an overview of the theories and research findings pertaining to scientific psychology with an emphasis on: the origins of psychology, nature and nurture, human diversity, theoretical models, research methodology, biological bases of thought and behavior, learning theory, sensation and perception, memory, stress and health as well as emotion and motivation.

Total: 15

Semester III

CJS* K201 - Criminology °

3 CREDIT HOURS
Prerequisite: CJS K101 or SOC* K101.*
Corequisite: ENG K101 or ENG* K101S.*
This course investigates the relationship between crime and society. Emphasis is placed on understanding theoretical explanations of deviant behaviors from multiple disciplinary perspectives. Students will have the opportunity to use current technologies and practices in assessing crime and crime patterns. They will engage in quantitative reasoning and social science methodologies. Students will explore public policy development and implementation as it relates to crime prevention, control and quality of life issues.

or

CJS* K202 - Juvenile Delinquency °

3 CREDIT HOURS
Prerequisite: CJS* K101
Corequisite: ENG K101 or ENG* K101S. SOC* K101 recommended.*
This course presents an introduction to both the structure and process of juvenile justice and delinquency in the United States. The course will examine the changing philosophy and theoretical perspectives of juvenile justice and delinquency by presenting an overview of the social, psychological, and biological explanations of juvenile deviance.

CJS* K220 - Criminal Investigation °

3 CREDIT HOURS
Prerequisite: CJS K101.*
Corequisite: ENG K101 or ENG* K101S.*
This course is designed to make the student aware of the fundamentals of criminal investigation. The student will learn correct procedures and conduct at the crime scene, how to preserve evidence, and chain of custody. Emphasis is on the responsibility of the first responder. Additionally, students will review documentation, preparation, and testimony in court.

CJS* K250 - Police Organization & Administration °

3 CREDIT HOURS
Prerequisites: CJS K101; ENG* K101 or ENG* K101S.*
This course exposes the student to the complexities inherent in the administration of modern law enforcement organizations by presenting and analyzing a variety of management styles and administrative techniques used in such organizations. Students will examine many of the internal and external factors that impact contemporary law enforcement organizations (e.g., federal regulations, political structures, community needs, press, etc.). Students will be

exposed to theoretical perspectives, practical applications and designs in an environment that encourages discussion, writing, and networking with local and state agencies.

CJS* K253 - Interpersonal Dynamics for Criminal Justice Professional °

3 CREDIT HOURS
Prerequisite: CJS K101.*
Corequisite: Any 200-level CJS course or POL K212.*
This course is designed to introduce the student to the major theories about interpersonal processes and their relevance to the problems within the criminal justice system. The course content flows from understanding the theories to techniques of interpersonal communication. Emphasis is placed on facilitating effective communication, sensitivity, decision-making and action planning in a multicultural society.

- _____- Restricted Elective **3 CREDIT HOURS @**

Total: 15

Semester IV

CJS* K225 - Forensic Science °

3 CREDIT HOURS
Prerequisites: CJS K101.*
Corequisites: ENG K101 or ENG* K101S.*
This course involves the examination of physical evidence including collecting, identifying, preserving: and transportation it. They will be exposed to the crime laboratory and its capabilities and limitations. Additionally, they will participate in field testing and learn the various purposes of kits and their function and design. Laboratory procedures will be demonstrated depending on existing and available facilities.

CJS* K291 - Criminal Justice Practicum °

3 CREDIT HOURS
Prerequisite: Permission of the instructor.
This practicum is a college-approved and supervised position related to the student's criminal justice program with public or private law enforcement or security occupations in which basic law enforcement, criminal investigation, probation, or corrections form a principal part of the work of the agency in which field work experience is undertaken. Students are evaluated by members of the college faculty and the staff of the cooperating agency. This is a capstone course.

or

CJS* K294 - Contemporary Issues in Criminal Justice °

3 CREDIT HOURS
Prerequisites: Permission of instructor or Criminal Justice program coordinator.
This capstone course is designed for students with a solid foundation of knowledge and exposure to practices in the field of Criminal Justice. The course provides students with opportunities to examine current issues in law enforcement, the judicial system and corrections through discussions with experts in the field. The focus and content of the course will change each year to reflect the changes in political and social thought and their impact on public policy.

HIS* K____- History Elective **3 CREDIT HOURS**
_____- Fine Arts Elective **3 CREDIT HOURS** +
_____- Natural Science Elective **3-4 CREDIT HOURS** ++

Total: 15-16

Note:

° Course has a prerequisite. Students should check course description.

+ Students should consult with their advisor for proper course selection.

++ Students wishing to transfer should check MATH/SCIENCE requirements at transfer institution.

@ Restricted electives are any CJS* elective or POL* K212 or HPE* K128 or ANT* K105 or PSY* K245 or PHL* K111.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60-61

Criminal Justice Enforcement, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. identify and explain the basic structures and functions of the criminal justice system.
2. interpret the basic concepts and functions of criminal law.
3. integrate multidisciplinary theories which constitute the basis for understanding criminality and victimization.
4. apply constitutional principles that protect the rights of individuals and regulate criminal justice practices and procedures.
5. discuss the importance of social and ethical issues confronting the criminal justice systems.

Additionally, the graduate will complete the comprehensive learning outcomes identified within the General Education Component.

Criminal Justice-Treatment Option, A.S.

Degree Code: A04

Associate in Science

Program Coordinator: Jeffrey Crouch - 860-215-9418

This program is designed to provide a broad overview of the criminal justice field, as well as specialized emphasis on career opportunities in a treatment-oriented nucleus, for students who plan to transfer to a four-year college.

Criminal Justice - Treatment Curriculum Requirements

Semester I

CJS* K100 - Perspectives of Criminal Justice °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# grade or higher.*
Students will explore learning styles, develop college success strategies, engage in the practice of academic writing, reading and critical thinking within the context of the criminal justice system. This course satisfies the College's First-Year Experience requirement.

or

IDS K105 - The First Year Experience °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# or higher.*
This course is designed to engage students as active participants within the college environment. Students will have the opportunity to acquire academic skills, attributes, awareness of self as learner, and to engage with the resources and activities within the Three Rivers Community College community. You can expect regular reading, writing and research assignments along with classroom discussion as you investigate how to be successful in this environment.

CJS* K101 - Introduction to Criminal Justice °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course provides an overview of the criminal justice system in the United States. Students will be exposed to the system's components: law enforcement, courts, and corrections from historical, theoretical, and philosophical perspectives. Students will have the opportunity to interact with criminal justice professionals and be challenged in both reading and writing

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

- _____- Fine Arts Elective **3 CREDIT HOURS**

Total: 15

Semester II

SOC* K101 - Principles of Sociology

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a study of the major concepts used in the field of sociology. The nature of institutions will be examined both individually and in their dynamic interrelationship. Emphasis is placed on understanding the impact of society on our lives, and on increasing our effectiveness in controlling our destinies within it.

CJS* K202 - Juvenile Delinquency °

3 CREDIT HOURS
Prerequisite: CJS* K101
Corequisite: ENG K101 or ENG* K101S. SOC* K101 recommended.*
This course presents an introduction to both the structure and process of juvenile justice and delinquency in the United States. The course will examine the changing philosophy and theoretical perspectives of juvenile justice and delinquency by presenting an overview of the social, psychological, and biological explanations of juvenile deviance.

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

or

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

MAT* K123 - Elementary Statistics °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "C-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course considers fundamental concepts of probability and statistics. The topics include exploratory data analysis (tables, graphs, measures of central tendency and dispersion), basic probability, applications of binomial and normal distributions, confidence intervals, hypothesis testing and Chi-Square Goodness-of-Fit Test.

PSY* K111 - General Psychology I

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course provides an overview of the theories and research findings pertaining to scientific psychology with an emphasis on: the origins of psychology, nature and nurture, human diversity, theoretical models, research methodology, biological bases of thought and behavior, learning theory, sensation and perception, memory, stress and health as well as emotion and motivation.

Total: 15

Semester III

CJS* K253 - Interpersonal Dynamics for Criminal Justice Professional °

3 CREDIT HOURS
Prerequisite: CJS K101.*
Corequisite: Any 200-level CJS course or POL K212.*
This course is designed to introduce the student to the major theories about interpersonal processes and their relevance to the problems within the criminal justice system. The course content flows from understanding the theories to techniques of interpersonal communication. Emphasis is placed on facilitating effective communication, sensitivity, decision-making and action planning in a multicultural society.

HSE* K183 - Substance Abuse °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This is a basic course in substance abuse and dependency. Topics will include an overview of physiological, psychological and social aspects of substance abuse. This course will have application for human service majors and others interested in the field of chemical addiction.

POL* K212 - Constitutional Law and Civil Rights °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
An intensive study and analysis of the United States Constitution and especially the Amendments to that Constitution; a study and review of court decisions which interpret the Constitution; a comprehensive study of court decisions which determine police policy and consideration of specific guidelines which must be followed in the criminal justice process.

PSY* K245 - Abnormal Psychology °

3 CREDIT HOURS
Prerequisite: PSY K111 or PSY* K112.*
This course offers an introduction to psychopathology and psychotherapy. A study of emotional disturbance includes: neuroses and personality disorders, psychoses, psycho diagnosis, and psychotherapy with an emphasis on how disorders begin and various treatments that are used. Topics in the course are: the nature of neurosis, anxiety reactions, obsessive-compulsive reactions, depressive reactions, hysteria and psycho-physiological reactions, personality disturbance, sexual deviance, addictions, theories of psychosis, forms of psychosis, somatic therapies, psychoanalytic therapies, behavior therapy, client-centered therapy, and group therapies.

SOC* K213 - Human Sexuality °

3 CREDIT HOURS
Prerequisite: Any 100-level anthropology, psychology or sociology course.
This course explores the social aspects of sexualities as they exist across different social groups. Students will analyze the Western hegemonic ideal of "sexuality" and expand their understanding of the many influences on patterns of sexual behavior. This includes a close examination of sexualities in relation to ethnic and racial boundaries and evolutionary, historical and cross-cultural perspectives.

Total: 15

Semester IV

CJS* K201 - Criminology °

3 CREDIT HOURS
Prerequisite: CJS K101 or SOC* K101.*
Corequisite: ENG K101 or ENG* K101S.*
This course investigates the relationship between crime and society. Emphasis is placed on understanding theoretical explanations of deviant behaviors from multiple disciplinary perspectives. Students will have the opportunity to use current technologies and practices in assessing crime and crime patterns. They will engage in quantitative reasoning and social science methodologies. Students will explore public policy development and implementation as it relates to crime prevention, control and quality of life issues.

CJS* K291 - Criminal Justice Practicum °

3 CREDIT HOURS
Prerequisite: Permission of the instructor.
This practicum is a college-approved and supervised position related to the student's criminal justice program with public or private law enforcement or security occupations in which basic law enforcement, criminal investigation, probation, or corrections form a principal part of the work of the agency in which field work experience is undertaken. Students are evaluated by members of the college faculty and the staff of the cooperating agency. This is a capstone course.

or

CJS* K294 - Contemporary Issues in Criminal Justice °

3 CREDIT HOURS
Prerequisites: Permission of instructor or Criminal Justice program coordinator.
This capstone course is designed for students with a solid foundation of knowledge and exposure to practices in the field of Criminal Justice. The course provides students with opportunities to examine current issues in law enforcement, the judicial system and corrections through discussions with experts in the field. The focus and content of the course will change each year to reflect the changes in political and social thought and their impact on public policy.

- _____- Natural Sciences Elective **3-4 CREDIT HOURS ++**
- HIS* K__ **- History Elective 3 CREDIT HOURS**
- _____- Restricted Elective **3 CREDIT HOURS @**

Total: 15-16

Note:

° Course has a prerequisite. Students should check course description.

++ Students wishing to transfer should check Math/Science requirements at transfer institution.

@ Restricted electives are any CJS* elective or POL* K212 or HPE* K128 or PHL* K111.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60-61

Criminal Justice Treatment, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. identify and explain the basic structures and functions of the criminal justice system.
2. integrate multidisciplinary theories which constitute the basis for understanding criminality and victimization.
3. apply constitutional principles that protect the rights of individuals and regulate criminal justice practices and procedures.
4. discuss the importance of social and ethical issues confronting the criminal justice systems.
5. explain the fundamental concepts of human services, especially case management, and group work.

Additionally, the graduate will complete the comprehensive learning outcomes identified within the General Educate Component

Early Childhood Education

Early Childhood Education, A.S.

Degree Code: A46

Accredited by the National Association for the Education of Young Children (NAEYC). 1313 L St. N.W. Suite 500, Washington DC 20005. (202) 232-8777, (800) 424-2460
www.NAEYC.org

Associate in Science

Program Coordinator: Sheila Skahan - 860-215-9475

This program is designed to provide education and experiences as a basis for employment in the field of early childhood working with children ages 0-8 and/or as a two-year educational foundation for students wishing to transfer to a four/five-year teaching certification program. This program prepares students to work in early care and education settings including child care, public school paraprofessionals (K-2) and related human service agencies. Our courses also address the needs of individuals already employed in the area of early education who want to enhance their professional competence and depth of knowledge. The goal of the plan is to create an "accessible pathway for career mobility for early childhood educators." TRCC currently has working relationships with the following colleges: ECSU,

SCSU, University of Hartford, Mitchell College, St. Joseph College, Charter Oak State College and The University of Connecticut: Human Development and Family Relations major.

Early Childhood Education Curriculum Requirements

Semester I

ECE* K101 - Introduction to Early Childhood Education °

3 CREDIT HOURS
Prerequisite: ENG K096 placement∞ or permission of the program coordinator based on ECE work experience.*
This course introduces students to a study of the historical, anthropological, psychological, philosophical, and social perspectives of early care and education for children ages 0-8. The course acquaints students with trends in educational settings including the organization, history, and governance of American schools. The course includes the study of child development, learning models, and the multiple roles in the early childhood education profession. An additional 10 hours of field observations will be required outside of class.

ECE* K182 - Child Development °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better or permission of the program coordinator based on ECE work experience.*
This course presents the basic principles, current research, and traditional theories of child development, from the prenatal period to the onset of adolescence, with an emphasis on the earlier years of childhood. Students will be guided in the development of a scientific and objective attitude toward the interpretation of child behavior and will study various methods of conducting research in child development. They will observe children and analyze their behavior in each of the following areas: physical abilities and motor skills, cognitive abilities, as well as social and emotional development. An additional 10 hours of field observations will be required outside of class.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

IDS K105 - The First Year Experience °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# or higher.*
This course is designed to engage students as active participants within the college environment. Students will have the opportunity to acquire academic skills, attributes, awareness of self as learner, and to engage with the resources and activities within the Three Rivers Community College community. You can expect regular reading, writing and research assignments along with classroom discussion as you investigate how to be successful in this environment.

PSY* K111 - General Psychology I

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course provides an overview of the theories and research findings pertaining to scientific psychology with an emphasis on: the origins of psychology, nature and nurture, human diversity, theoretical models, research methodology, biological bases of thought and behavior, learning theory, sensation and perception, memory, stress and health as well as emotion and motivation.

Total: 15

Semester II

ECE* K222 - Methods and Techniques in Early Childhood Education °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; ECE* K101; ECE* K182; or permission of the instructor.*
The course is designed for those students who have an understanding and knowledge of child development and children. The course will review the philosophical, sociological and pedagogical foundations of education and their applications in early childhood education settings. Students will apply actual principles of learning to the analysis of instructional approaches and curriculum development. This course will expose students to the fundamentals of classroom strategies, effective teaching tools and techniques for children ages 0-8. Observations of early childhood programs will be required. An additional 10 hours of field observations will be required outside of class.

ECE* K231 - Early Language & Literacy Development °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; ECE* K101; ECE* K182; or permission of the instructor.*
The course introduces students to language and literacy development in the young child from birth to eight years old. Students will explore the early childhood language arts curriculum including speaking, listening, writing, and reading skills. An emphasis will be on the influence of child development milestones on an emerging literacy development. This course will also include experience in the creation of a literacy-rich environment that engages children in developmentally- appropriate language areas. Observations of early childhood programs will be required. An additional 5 hours of field observations will be required outside of class.

- _____ ECE Elective **3 CREDIT HOURS**

SOC* K101 - Principles of Sociology

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a study of the major concepts used in the field of sociology. The nature of institutions will be examined both individually and in their dynamic interrelationship. Emphasis is placed on understanding the impact of society on our lives, and on increasing our effectiveness in controlling our destinies within it.

MAT* K123 - Elementary Statistics °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "C-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course considers fundamental concepts of probability and statistics. The topics include exploratory data analysis

(tables, graphs, measures of central tendency and dispersion), basic probability, applications of binomial and normal distributions, confidence intervals, hypothesis testing and Chi-Square Goodness-of-Fit Test.

(MAT* K137 or higher recommended for transfer)

Total: 15

Semester III

ECE* K210 - Observation Participation & Seminar °

3 CREDIT HOURS

Prerequisites: ENG K101 or ENG* K101S; ECE* K101; ECE* K182; or permission of the instructor.*

The course emphasizes techniques and strategies for recording children's (ages 0-8) behavior accurately and objectively through portfolio assessment. The course reviews CT Statewide Department of Education benchmarks and performance standards, and identifies the methodologies best used for assessment. The importance of child development from birth to eight years is emphasized and used in observation of children in a childcare setting, preschool programs, and K-3 classes. Observations of early childhood programs will be required. An additional 60 hours of field observations will be required outside of class.

ECE* K215 - The Exceptional Learner °

3 CREDIT HOURS

Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; ECE* K101; ECE* K182.*

This course provides an overview of the study of the exceptional child with an emphasis on the history, laws, concepts, practices, and terminology used by professionals in the field within inclusive settings. Causes, characteristics, needs, and implications of the intellectual, motor and sensory handicaps will be discussed. Additional topics will be addressed including diversification, multiculturalism, and parenting. Observations of early childhood programs will be required. An additional 5 hours of field observations will be required outside of class.

- _____ ECE Elective **3 CREDIT HOURS**

HIS* K201 - U.S. History I °

3 CREDIT HOURS

Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*

This course is a survey of American history from colonial times to 1877 including the major political, economic, social, cultural, and diplomatic developments in American history, such as the revolution, the Constitution, Jefferson, Hamilton, Jackson, Sectionalism, slavery, mid-century expansionism and the Civil War, and Reconstruction.

or

HIS* K202 - U.S. History II °

3 CREDIT HOURS

Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*

ey of United States history from Reconstruction to Bush with special emphasis on the development of the American economy, United States expansionism, race relations, the world wars, women's rights, the cities, the sixties, the depression, the Cold War, Watergate, Vietnam, and the 1980's. (HIS* K201 is not a prerequisite course for HIS* K202).

- _____ Science Elective (4 credit Science with lab recommended for transfer) **3-4 CREDIT HOURS**

Total: 15-16

Semester IV

ECE* K295 - Student Teaching Practicum °

6 CREDIT HOURS
Prerequisite: Completion of seven ECE courses or permission of ECE advisor; letters of recommendation; GPA of 3.0 recommended.
Guided observation, participation and supervised student teaching in NAEYC accredited centers or public schools grades K-3. The purpose of student teaching is to enable the student to apply child development theory and methodologies in a learning environment with children. Students will manage a classroom independently, plan, organize, implement and evaluate classroom activities. Students will complete a minimum of 200 hours of student teaching. Weekly seminars devoted to issues in early childhood education, curriculum prep and the experience of the student teacher will extend the individuals learning experience. This course also requires 3 hours of class time each week. Please note the following: Students must fulfill specific health requirements mandated by CT State Licensing or SDE, including annual physical and TB requirements. Additionally, students are required to complete a criminal record check prior to the semester. These expenses must be assumed by the student.

- _____ Fine Arts Elective **3 CREDIT HOURS** (as identified in Liberal Arts and Sciences, A.A.)

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

- _____ Any 200 level course in Sociology or Psychology **3 CREDIT HOURS**

Total: 15

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60-61

Early Childhood Education, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. promote child development and learning by knowing young children's needs and understanding the multiple influences on development and learning.
2. demonstrate an understanding of a variety of current and historical, philosophical and theoretical approaches to early childhood education.
3. build participation of families and communities in the learning and development of children.
4. understand the goals, benefits and uses of observing, documenting and assessing to support young children and families.
5. know, understand and use supportive interactions to focus on the children's needs and intersts and to build effective environments and routines for children.
6. understand the central concepts of content knowledge in early education and academic disciplines.
7. build meaningful curriculum using own knowledge and resources to design and implement problem-solving, creative thinking, academic and social competence.
8. identify and involve oneself with the professional early child hood field by upholding ethical standards and engaging in informed advocacy for children and the profession.

Human Services

Case Management Certificate

Degree Code: K06

Certificate Program

Contact: Joyce Martin- 860-215-9451

This certificate program is designed to prepare students for entry-level case management positions in social service agencies. Students already employed in social service organizations performing case management will acquire specific skills that will improve their career advancement opportunities. Students will learn how to apply the standard functions performed in case management (outreach, referral, intake, assessment, goal-setting, intervention planning, resource identification, interagency coordination, supportive counseling and therapy referral, advocacy, linking clients to formal agencies and informal social support systems, monitoring, reassessment and outcome evaluation discharge). This program curriculum will help students to conduct inperson assessments in order to develop individual treatment plans for effective interventions with vulnerable populations. Students will focus on the comprehensive identification and indexing of community resources. They will be able to apply the case management model in various areas of direct practice, e.g., child welfare, gerontology, substance abuse, mental health, housing and income maintenance. Students may completed this certificate by completing the courses that are listed below.

Case Management Certificate Curriculum Requirements

CSA* K105 - Introduction to Software Applications °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces some popular software packages currently being used in industry, business, and government such as Microsoft Word, Excel, Access, and PowerPoint. A small amount of time will be devoted to the Windows operating system environment. Recent versions of the software packages will be used. Strong reading, good writing,

and basic math skills are required. Prior computer usage experience (e.g. keyboard and mouse actions, file and folder management, Internet browsing) is assumed. Digital learning technologies will be used throughout the course.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K202 - Technical Writing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course is designed for students who want to develop writing skills needed in the workplace. After targeting an audience, students will complete an array of assignments: memos, instructions, proposals, formal analytical reports, etc. Topics for these assignments will relate to the student's major. Students will learn how to format pages, incorporate visuals into their writing, and give brief oral reports based on their written assignments. Students should have familiarity with word processing before enrolling in the course.

or

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

HLT* K155 - Personal Health °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This is a course on the physiological principles involved in the maintenance of individual health. Students will learn principles of hygiene, nutrition, communicable disease prevention, stress management, exercise, and other elements of personal life style that affects health.

HSE* K101 - Introduction to Human Services °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to familiarize students with the current theory and knowledge related to human services. The course will include a survey of the helping professions, including a history of social welfare and human service agencies. The course will include guest speakers and an opportunity to observe human service practice in local human services organizations. Students will be expected to complete 10 hours of volunteer service in the community.

HSE* K105 - Core Competencies in Community Health Work

3 CREDIT HOURS
This course provides an introduction to the role of the Community Health Outreach Worker within the healthcare delivery team. Emphasis is placed on cooperative service to provide effective, efficient, and appropriate services to underserved clients in diverse communities. Students will develop skills in areas of communication, data collection, documentation, time management, and providing linkages with referral agencies for health and social service related issues. Activities such as field trips, guest speakers, and class discussions will be integrated into course work.

HSE* K241 - Human Service Agencies & Organizations °

3 CREDIT HOURS
Prerequisite: HSE K210 or permission of the instructor.*
This course is an introduction to the study of community organization as a method in social work practice, which has as its major objective of practice the planning and implementation of programs directed toward some aspect of community change. The skills, methods, and functions of community service workers will be explored and integrated into the other skills and methods of social service practice, which are a part of a student's overall learning experiences in the social service program.

HSE* K251 - Work With Individuals & Families °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to provide an introduction to methods and skills leading to beginning competence in the social work process of helping individuals and families. The skills include assessment, planning, contracting, intervention, interviewing, and evaluation.

HSE* K281 - Human Services Field Work I °

3 CREDIT HOURS
Prerequisite: Permission of the instructor.
This course is a practicum/field work experience in human services which is defined as direct involvement in a non-classroom setting sponsored by the College and jointly supervised by the agency and faculty. Students are also expected to participate in a weekly seminar. Students must have completed a minimum of 30 credits with 12 credits in human service degree courses.

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 27

Case Management, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. demonstrate understanding of theories underlying social service practice.
2. demonstrate understanding of the case management method with vulnerable population groups.
3. demonstrate developmental, problem-solving, and coping capabilities of client-centered practice methods.
4. demonstrate ability to assess, plan for intervention, monitor, and evaluate outcomes in the case management method.

Human Services, A.S.

Degree Code: B37

Associate in Science

Program Coordinator: Joyce Martin - 860-215-9451

This program is designed to respond to the need to both prepare students for entry-level positions in human services, and to prepare students who plan to transfer to a four-year college or university for a baccalaureate degree in social work (BSW) or some other related field of study. The curriculum is designed to help students acquire knowledge, skills and competency in the methods of casework, group work, case management and community organization, with a focus on individuals, families, small groups, organizations and communities.

Note to students who plan to continue their education beyond the associate degree:
Students who intend to transfer are urged to investigate and select the institution to which they will transfer as early as possible since each transfer situation must be planned to meet specific baccalaureate requirements.

In general, the following choices will satisfy more of the requirements of the baccalaureate granting institutions:

1. completing BIO* K121 with lab or BIO* K115 with lab instead of HLT* K155.
2. completing MAT* K137 or higher.
3. completing two semesters of Spanish or French instead of Human Services electives or Sign Language.
4. completing ANT* K105 - Introduction to Cultural Anthropology ° as satisfaction of one of the open elective requirements.

Human Services Curriculum Requirements

CSA* K105 - Introduction to Software Applications °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces some popular software packages currently being used in industry, business, and government such as Microsoft Word, Excel, Access, and PowerPoint. A small amount of time will be devoted to the Windows operating system environment. Recent versions of the software packages will be used. Strong reading, good writing, and basic math skills are required. Prior computer usage experience (e.g. keyboard and mouse actions, file and folder management, Internet browsing) is assumed. Digital learning technologies will be used throughout the course.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English.

Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

HSE* K101 - Introduction to Human Services °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to familiarize students with the current theory and knowledge related to human services. The course will include a survey of the helping professions, including a history of social welfare and human service agencies. The course will include guest speakers and an opportunity to observe human service practice in local human services organizations. Students will be expected to complete 10 hours of volunteer service in the community.

HSE* K210 - Group & Interpersonal Relations °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course provides an overview of current group theory and knowledge of methods and skills leading to a beginning competence in group work practice. The course will combine theoretical and empirical concepts of group dynamics to be applied to a wide range of groups in a variety of settings.

HSE* K241 - Human Service Agencies & Organizations °

3 CREDIT HOURS
Prerequisite: HSE K210 or permission of the instructor.*
This course is an introduction to the study of community organization as a method in social work practice, which has as its major objective of practice the planning and implementation of programs directed toward some aspect of community change. The skills, methods, and functions of community service workers will be explored and integrated into the other skills and methods of social service practice, which are a part of a student's overall learning experiences in the social service program.

HSE* K251 - Work With Individuals & Families °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to provide an introduction to methods and skills leading to beginning competence in the social work process of helping individuals and families. The skills include assessment, planning, contracting, intervention, interviewing, and evaluation.

HSE* K281 - Human Services Field Work I °

3 CREDIT HOURS
Prerequisite: Permission of the instructor.
This course is a practicum/field work experience in human services which is defined as direct involvement in a non-classroom setting sponsored by the College and jointly supervised by the agency and faculty. Students are also expected to participate in a weekly seminar. Students must have completed a minimum of 30 credits with 12 credits in human service degree courses.

IDS K105 - The First Year Experience °

3 CREDIT HOURS
Prerequisites: ENG K096 placement∞ or completion of ESL* K063 with a C# or higher.*
This course is designed to engage students as active participants within the college environment. Students will have the opportunity to acquire academic skills, attributes, awareness of self as learner, and to engage with the resources and activities within the Three Rivers Community College community. You can expect regular reading, writing and research assignments along with classroom discussion as you investigate how to be successful in this environment.

MAT* K135 - Topics in Contemporary Math °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "C#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). This course will expose students to topics in mathematics that are useable and relevant in today's world. Students will apply mathematical ideas while working within a social context. Examples of topics will include: concerns about the growth of the national debt, environmental issues, probability, statistical implications in our lives, and current events issues.

POL* K111 - American Government °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Through open discussion of political issues and controversies, this course examines the framework of our democracy. The broad study focuses on the strengths and weaknesses of American national government. Topics such as election campaigns, political parties, presidential power, and individual liberties are explored.

PSY* K111 - General Psychology I

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course provides an overview of the theories and research findings pertaining to scientific psychology with an emphasis on: the origins of psychology, nature and nurture, human diversity, theoretical models, research methodology, biological bases of thought and behavior, learning theory, sensation and perception, memory, stress and health as well as emotion and motivation.

PSY* K201 - Life Span Development °

3 CREDIT HOURS
Prerequisite: PSY K111.*
This course will study the physical, psychosocial and cognitive development of humans from birth to death. There will be an emphasis on distinct time periods such as conception and development of the fetus, infancy, childhood, puberty and adolescence, young, middle, and late adulthood, and gerontology.

SOC* K101 - Principles of Sociology

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a study of the major concepts used in the field of sociology. The nature of institutions will be examined both individually and in their dynamic interrelationship. Emphasis is placed on understanding the impact of society on our lives, and on increasing our effectiveness in controlling our destinies within it.

SOC* K103 - Social Problems

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is designed to increase the understanding of the nature, scope, history, causes and complexity of contemporary social problems. The course emphasizes not only the problems but also proposed strategies for solution. Topics are studied in the context of many societies around the world, including those of Europe, Asia, Africa, and Latin America, in order to provide the student with a global and multicultural perspective on the issues. Topics vary from semester to semester according to current concerns and interests. Topics often included are poverty, crime, violence, substance abuse, racism, family issues, sexism, health care, environmental destruction, cities, and population. Course fulfills International/ Intercultural Requirement.

Please select one of the following three courses:

HLT* K155 - Personal Health °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This is a course on the physiological principles involved in the maintenance of individual health. Students will learn principles of hygiene, nutrition, communicable disease prevention, stress management, exercise, and other elements of personal life style that affects health.

BIO* K115 - Human Biology

4 CREDIT HOURS
Corequisite: ENG K096 or higher. Please note: if completing ENG* K096 prior to enrolling in BIO* K115, a grade of "C#" or better is required for registration into this course.*
This introductory course focuses on a presentation of human structure and function, including a survey of the body's system for students who want to be more knowledgeable about the life processes of their own bodies. Lab procedures do not involve animal dissections. This course does not meet the pre-admission requirement for the Nursing Program. Three-hour lecture; one three- hour laboratory period.

BIO* K121 - General Biology I °

4 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Corequisites: CHE K111 or CHE* K121, either course with a "C" grade or better; or permission of the department chair. Please note: If completing CHE* K111 or CHE* K121 prior to enrolling in BIO* K121, a grade of "C" or better is required for registration into this course.*
This course introduces the major principles and concepts of modern biology. Topics to be covered include molecular and cellular biology, cell division, cellular transport systems, cellular metabolism, the specialization and differentiation of both plant and animal cells, and modern genetics. Three-hour lecture; one three-hour laboratory period.

Human Services Elective or Foreign Language or Sign Language: 6-8 CREDIT HOURS

(In addition to human services courses, other courses in social sciences will satisfy the requirement if they are approved by the Program Coordinator of the Human Services Program)

Fine Arts Elective: 3 CREDIT HOURS

- Any art, music, theater, creative writing
  or

ARC* K102 - Architecture of the World

3 CREDIT HOURS
The course offers a global perspective of buildings, their settings, and the dissemination of ideas about architecture from the late Neolithic period to the present. Particular attention is given to the relationships of architectural expression, meaning and building technology and to issues arising when architectural traditions of one culture are imposed upon or otherwise adapted by another. Students will explore the impact of climate, economy, philosophy, social structure and technology on architecture by becoming familiar with some of the world's major monuments in architectural history. The course also integrates the visual arts that paralleled each era, exploring the fundamental elements of each movement as illustrated through aesthetic expression.

Open Electives: 3 CREDIT HOURS +++

Note:

° Course has a prerequisite. Students should check course description.

++ Practicum - Requires the consent of instructor.

+++ See program coordinator for recommendations

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60-63

Human Services, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. explain fundamental concepts of human services, especially case management, group work, community organization and supervision
2. explain the ethical principles and values governing the human service/social work profession.

3. explain the historical, social and political context within which the human services and social welfare services operate plan effective interventions with vulnerable population groups.
4. identify and index community resources.
5. integrate knowledge and abilities in a field placement situation.
6. identify entry level career opportunities in social service settings.
7. plan for career advancement and further educations.

Library Technology

Library Technology Certificate

Degree Code: J66

Certificate Program

Contact: Marie Shaw- 860-449-4411

This certificate program is designed to prepare individuals for employment as library technical assistants, as well as to improve the knowledge and skills of those already working in public, academic and special libraries. Our Library Technology certificate program is nationally accredited by the American Library Association through their Library Support Staff Certification (LSSC). Students who complete the Library Technology certificate at Three Rivers Community College demonstrate nationally accepted competencies of library service and operations. Students benefit from LSSC in many ways, such as it gives students proof of their achievements, their certification is portable in other states, and it provides students an edge on employment opportunities.

Students may complete this certificate by completing the courses that are listed below. Courses may be taken in any order with the exception of those that require a prerequisite.

Library Technology Certificate Curriculum Requirements

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

LIB* K101 - Introduction to Library Public Services

3 CREDIT HOURS
This course deals with the public service aspect of library work, which includes circulation, reserve, and publicity.

LIB* K104 - Introduction to Reference Services °

3 CREDIT HOURS
This course is designed to familiarize students with the use of general and specialized reference tools. Procedures and services in the library reference department are also discussed.

LIB* K116 - Cataloging and Classification °

3 CREDIT HOURS
Prerequisite: LIB K123.*
This course introduces both Dewey and Library of Congress Classification Systems. Also included are original descriptive and subject cataloging of print and non-print media, and copy cataloging by using MARC format.

LIB* K123 - Introduction to Library Tech Services

3 CREDIT HOURS
This course is designed to give students an understanding of the use of bibliographic tools, the skills to use them appropriately, and a basic knowledge of workflow in a technical processing department.

LIB* K125 - Digital Media

3 CREDIT HOURS
This course serves as an introduction to a variety of digital media forms as they are being used in the library and information service fields. Students will be exposed to such presentation software such as Facebook, Flickr, BitTorrent, Secondlife, podcasts, audiobooks, ebooks, Mp3 and Mp4 files. Students will also use digital cameras and sound recorders to create original content.

LIB* K127 - Management Strategies

3 CREDIT HOURS
This course covers the basic supervisory skills that are necessary for library technical assistants. Topics included are job descriptions, employee evaluation, motivation, conflict management, interpersonal communication, time management, training techniques, affirmative action, usage statistics, censorship, and Library Bill of Rights.

LIB* K201 - Digital Resources °

3 CREDIT HOURS
This course covers the theory and field practice of web sites, internet searching and search engines, online reference searches, shared databases, LANs, CD ROM technology, and library networks. LIB* K201 meets the computer literacy requirement.

- _____- Library Technology Elective **3 CREDIT HOURS +** *please choose from either course below:*
    - LIB* K120
    - LIB* K202 (contingent on advisor approval)

Note:

° Course has a prerequisite. Students should check college catalog course description.

LIB* K202 is required for students with no practical library experience.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 27

Library Technology, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. explain the mission of libraries, departments and services of libraries, and basic library policies.
2. demonstrate good customer service and communication skills.
3. recognize and explain common library terminology.
4. apply knowledge of basic technology skills (including online computer automation systems; word processing, email, Internet and other productivity software; and internet and database searching techniques) to assist patrons in a rapidly changing technological environment.
5. explain basic reference and information resources and referral procedures.
6. explain basic library classification systems and use them to catalog and retrieve materials.
7. demonstrate appropriate methods and techniques for material processing, storage, and preservation.

Pathway to Teaching Careers

Pathway to Teaching Careers, A.A.

Degree Code: C35

Associate in Science

Program Contact: Jennifer Nally - 860-215-9421

This program is designed to provide education and experiences which will allow students to transfer to Eastern Connecticut State University, and to meet the requirements to be accepted into a teacher training program. The field of education is a growing profession. The National Center for Education Statistics predicts increases in the annual numbers of new school teacher hires, both in public and private schools. This transfer program closely parallels the core requirements of the first two years of most four-year college teacher preparation programs in Connecticut. Students are advised to review the requirements of the transfer institution prior to course selection.

Pathway to Teaching Careers Curriculum Requirements

Composition, Literature and Speech: 9 CREDIT HOURS

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex

ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

Fine Arts: 3 CREDIT HOURS

Select one course from the following:

ARC* K102 - Architecture of the World

3 CREDIT HOURS
The course offers a global perspective of buildings, their settings, and the dissemination of ideas about architecture from the late Neolithic period to the present. Particular attention is given to the relationships of architectural expression, meaning and building technology and to issues arising when architectural traditions of one culture are imposed upon or otherwise adapted by another. Students will explore the impact of climate, economy, philosophy, social structure and technology on architecture by becoming familiar with some of the world's major monuments in architectural history. The course also integrates the visual arts that paralleled each era, exploring the fundamental elements of each movement as illustrated through aesthetic expression.

ART* K107 - Introduction to Studio Art

3 CREDIT HOURS
This is a course covering the fundamentals of visual art through hands-on experience. The course includes basic design and composition, color theory, study of three-dimensional form, and a thorough exploration of the creative process through the use of a wide variety of media and techniques, including drawing, painting, collage and mixed media sculpture. Not recommended for art majors. Meets 3 hours per week.

ART* K111 - Drawing I

3 CREDIT HOURS
This course is an introduction to basic drawing skills. The course includes work with still life, landscape, self-portrait,

and interior space in black and white media. Emphasis is placed on the importance of drawing through careful observation. A variety of techniques and styles are covered to arrange compositions and create the illusion of volume and perspective. Studio: Meets 6 hours per week.

ART* K121 - Two-Dimensional Design

3 CREDIT HOURS
This course is an introduction to the theory and practice of two-dimensional design. Students will use the principles of design as an expressive tool to communicate visually. A variety of black and white and color mediums will be used including drawing, painting and collage. Studio: Meets 6 hours per week.

THR* K101 - Introduction to Theater °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a basic survey of theatre including: the literature, history, structure, critical theory, theatre arts, and important figures. Note: This course satisfies the fine arts requirement.

THR* K110 - Acting I

3 CREDIT HOURS
Acting is the art of giving tangible life to the characters in a play. To do this actors use their physical, mental, and emotional apparatus individually and in concert with their peers. This course deals with these basic issues as well as the many other related topics that arise naturally from them.

THR* K121 - Play in Production I

3 CREDIT HOURS
This course will examine all aspects of production of a play. Students will work within the limitations of the college environment and explore stage management, publicity, costuming, makeup, limited set design, lighting, script analysis, and of course, acting. One play will be the focus of the course and will be presented at the end of the session.

MUS* K104 - World Music °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
A comparative survey of musical concepts, style, and performance practices of various world cultures. Course content will emphasize the context of musical expression within the different cultures examined. This course is equivalent to ANT* K136. Course fulfills International/ Intercultural Requirement.

ANT* K136 - Music Cultures of the World °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
A comparative survey of musical concepts, style, and performance practices of various world cultures. Course content will emphasize the context of musical expression within the different cultures examined. This course is equivalent to MUS* K104. Course fulfills International/ Intercultural Requirement.

Humanities (Foreign Language Requirement): 6 CREDIT HOURS

- Two semesters of the same foreign language are required. Only **Liberal Arts and Sciences electives** may be substituted if two years of the same language, with a grade of "C" or better, were completed at the high school level. High school transcript and college verification required for substitution.
- _____ **3 CREDIT HOURS**
- _____ **3 CREDIT HOURS**

Mathematics: 6 CREDIT HOURS

MAT* K137 - Intermediate Algebra °

3 CREDIT HOURS
Prerequisite: MAT K095 or MAT* K095I with a "B-#" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course cultivates understanding and different representations of functions. Topics covered include linear, quadratic, exponential, rational, radical functions, equations, and expressions with emphasis on modeling and solving real world problems. A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). Please refer to online schedule and click on the CRN hyperlink and/or review the printed schedule to determine which faculty require math software in their section.

MAT* K143 - Math for Elementary Education: Algebra and Number Systems °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. A TI-84(Plus) or TI-83(Plus) or TI-82 or TI-73 graphing calculator is strongly recommended.*
This course is designed for students planning to become certified in early childhood, elementary or middle school level education. Problem solving strategies will be developed and integrated throughout, in accordance with the NCTM Principles and Standards for School Mathematics. Topics include conceptual and relational understanding of the real numbers, including the subsets of whole numbers, integers, rational and irrational numbers, with an emphasis on place value and the associated operations. Topics from numeration systems, number theory and set theory will be developed as needed, with regular use of manipulatives and technology.

or

MAT* K146 - Math for the Liberal Arts °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process and eligible for either ENG* K101S or ENG* K101.*
This is a survey course designed to acquaint the liberal arts student with a broad spectrum of mathematical ideas not emphasized in traditional algebra courses. As a terminal mathematics course, it conveys the nature and diversity of mathematics, its methods, applications, and roles in society. Topics are selected from problem solving and critical thinking skills, graph theory, voting and apportionment, introduction to probability, linear programming, patterns and symmetry, linear and exponential applications; others may include fractal geometry, financial management, fair division schemes, game theory, or codes.

Sciences: 4 CREDIT HOURS

Select one course from the following:

AST* K111 - Introduction to Astronomy °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S with a "C" grade or better; MAT* K095 or MAT* K095I with a "C#" grade or better.*
In addition to understanding the mechanisms involved in ascertaining distance, temperature and movements of celestial bodies, students will be able to orientate themselves with the night sky by using constellations as guides. This material will also cover the ideas that account for the earth and heavenly bodies and their characteristics. This course is designed to develop an appreciation of the beauty and order of the universe. The laboratory portion of the course consists of activities in elementary astronomy designed to reinforce and extend knowledge of selected topics covered in the lecture portion of the course. Students who have taken AST* K101 will not receive credit for this course.

BIO* K115 - Human Biology

4 CREDIT HOURS
Corequisite: ENG K096 or higher. Please note: if completing ENG* K096 prior to enrolling in BIO* K115, a grade of "C#" or better is required for registration into this course.*
This introductory course focuses on a presentation of human structure and function, including a survey of the body's system for students who want to be more knowledgeable about the life processes of their own bodies. Lab procedures do not involve animal dissections. This course does not meet the pre-admission requirement for the Nursing Program. Three-hour lecture; one three- hour laboratory period.

EAS* K110 - The Earth Sciences

4 CREDIT HOURS
Corequisite: ENG K096. Please note: if completing ENG* K096 prior to enrolling in EAS* K110, a grade of "C#" or better is required for registration into this course.*
In this course, scientific studies of earth systems will be discussed. The topics to be covered will include astronomy, meteorology, geology, and oceanography. The fundamental principles of all four disciplines will be explored. This course is designed for students majoring in education or business, or any student desiring to meet the lab science requirement for the LAS degree. Some fieldwork is involved. Three hours lecture, three hours lab each week.

Earth or Physical Science: 3 CREDIT HOURS

Select one course from the following:

AST* K101 - Principles of Astronomy

3 CREDIT HOURS
Corequisite: ENG K096 or higher. Please note: if completing ENG* K096 prior to enrolling in AST* K101, a grade of "C#" or better is required for registration into this course.*
This course covers the ideas that account for the earth and heavenly bodies and their characteristics. This course is designed to develop an appreciation of the beauty and order of the universe. Observational exercises, including star identifications and use of the telescope, are included.

CHE* K111 - Concepts of Chemistry °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K137 or MAT* K137S with a "C" grade or better (or permission of the instructor on math requirement).*
This course offers a brief and comprehensive survey of important chemical theories and some of the applications of chemistry. Topics covered will include measurements in chemistry, atomic structures and chemical bonding, chemical reactions, states of matter, stoichiometry, theories of solution, and basic organic and biochemical concepts. Course

Design: CHE* K111 is meant for students with little or no background in chemistry who need the course in preparation for General Chemistry, or for students who need to meet a pre-admission requirement for nursing or other allied health programs, or those who need a lab science course.

OCE* K101 - Oceanography

3 CREDIT HOURS
Corequisite: ENG K096 or higher. Please note: if completing ENG* K096 prior to enrolling in OCE* K101, a grade of "C#" or better is required for registration into this course.*
This course covers the following topics: properties of sea water, marine ecology, waves, tides, currents, meteorology, ocean circulation, origin of the Long Island Sound, chemical oceanographic processes, life in the sea, and environmental modification and control.

Social Sciences: 9 CREDIT HOURS

HIS* K201 - U.S. History I °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a survey of American history from colonial times to 1877 including the major political, economic, social, cultural, and diplomatic developments in American history, such as the revolution, the Constitution, Jefferson, Hamilton, Jackson, Sectionalism, slavery, mid-century expansionism and the Civil War, and Reconstruction.

or

HIS* K202 - U.S. History II °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
ey of United States history from Reconstruction to Bush with special emphasis on the development of the American economy, United States expansionism, race relations, the world wars, women's rights, the cities, the sixties, the depression, the Cold War, Watergate, Vietnam, and the 1980's. (HIS* K201 is not a prerequisite course for HIS* K202).

PSY* K111 - General Psychology I

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course provides an overview of the theories and research findings pertaining to scientific psychology with an emphasis on: the origins of psychology, nature and nurture, human diversity, theoretical models, research methodology, biological bases of thought and behavior, learning theory, sensation and perception, memory, stress and health as well as emotion and motivation.

SOC* K101 - Principles of Sociology

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a study of the major concepts used in the field of sociology. The nature of institutions will be examined both individually and in their dynamic interrelationship. Emphasis is placed on understanding the impact of society on our lives, and on increasing our effectiveness in controlling our destinies within it.

Education: 15 CREDIT HOURS

EDU* K110 - Teaching In the 21st Century °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor or program coordinator.*
This course is designed for students considering education as a major and teaching as a profession. Students will have an opportunity to experience primary, middle and secondary education through site visits, guest speakers and varied media. Students will obtain a systematic body of knowledge from which they can develop a repertoire of teaching practices to meet the learning needs of students with diverse learning styles, developmental needs, cultural and socioeconomic backgrounds.

ECE* K182 - Child Development °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better or permission of the program coordinator based on ECE work experience.*
This course presents the basic principles, current research, and traditional theories of child development, from the prenatal period to the onset of adolescence, with an emphasis on the earlier years of childhood. Students will be guided in the development of a scientific and objective attitude toward the interpretation of child behavior and will study various methods of conducting research in child development. They will observe children and analyze their behavior in each of the following areas: physical abilities and motor skills, cognitive abilities, as well as social and emotional development. An additional 10 hours of field observations will be required outside of class.

or

PSY* K200 - Child Psychology °

3 CREDIT HOURS
Prerequisite: PSY K111.*
This course presents the basic principles, current research and traditional theories of child development, from the prenatal period to the onset of adolescence, with an emphasis on the earlier years of childhood. Students will be guided in the development of a scientific and objective attitude toward the interpretation of child behavior and will study various methods of conducting research in child development. They will observe children and analyze their behavior in each of the following areas: physical abilities and motor skills, cognitive abilities as well as social and emotional developments.

BBG* K115 - Business Software Applications °

3 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K123 or higher with a "C" grade or better.*
Using Microsoft Suite application software, students in this hands-on course will learn to use each of the software packages as they relate to the business environment. These software packages include an emphasis on Excel to build flexible spreadsheets used in business decision making, supplemented with Word to produce professional-looking documents, Access to select and analyze data to produce valid results, and Powerpoint to effectively present and communicate.

HLT* K155 - Personal Health °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*

This is a course on the physiological principles involved in the maintenance of individual health. Students will learn principles of hygiene, nutrition, communicable disease prevention, stress management, exercise, and other elements of personal life style that affects health.

PSY* K216 - Normal and Exceptional Child and Adolescent Development

3 CREDIT HOURS
Prerequisite: PSY K111 or PSY* K112.*
This course examines changes in the individual from conception through adolescence, including both typical and atypical aspects of physical, cognitive, linguistic, and social/ emotional development. Traditional and contemporary theories of psychology, as well as current research and methodology, will form the basis of the course content.

Other Electives: 6 CREDIT HOURS

Other/Electives (Courses applicable in the intended major, see advisor. Recommendations are ENG* K211 or above and other HIS course for elementary education)

- _____- Other Elective **3 CREDIT HOURS**
- _____- Other Elective **3 CREDIT HOURS**

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 61

Pathway to Teaching Careers, Associate in Arts Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. Work with others, think critically and gain an appreciation for learning.

2. Read, write, and communicate analytically in forms that involve the collection and documentation of outside sources.

3. Identify the role of the teacher in the classroom. Describe the route to becoming a successful teacher in Connecticut. List the requirements for teaching based on academic program requirements and state certification requirements.

4. Recognize broader historical, cultural, global and scientific perspectives as they relate to education.

5. Promote a respect for others, coupled with an understanding of ethical behavior and civic responsibility.

Nursing and Allied Health

Nursing

Nursing, A.S.

Degree Code: F30

Accredited by the Accreditation Commission for Education in Nursing (ACEN)
3343 Peachtree Rd NE, Suite 500, Atlanta, Georgia 30326
Telephone 404-975-5000
http://www.acenursing.org/

Associate in Science

Director of Nursing & Allied Health:
Edith Ouellet - 860-215-9460

The Connecticut Community Colleges Nursing Program:
Three Rivers Community College Campus

Three Rivers Community College is one of six campuses offering The Connecticut Community Colleges Nursing Program (CT-CCNP), an innovative associate degree nursing program offered at five Connecticut Community Colleges, and is designed to prepare registered nurses to function in the professional role utilizing current standards of nursing practice. As a campus site of CT-CCNP, TRCC is committed to the educational preparation of safe, competent, associate degree entry level practitioners of nursing. This is accomplished through an educational experience which involves active and diverse learning processes. Program graduates are prepared to assume the multi-faceted role of the professional nurse which includes planning and provision of care, client advocacy, communication, teaching, and managing human, physical, financial and technological resources. Graduates possess the ability to recognize and respond to current trends and issues while upholding standards of care through lifelong learning.
Nursing is a dynamic profession that incorporates evidenced-based theory and skills required for safe practice. Nursing practice integrates the art and science of nursing with theoretical principles from the natural, social, behavioral biological and physical sciences. Six core values provide the framework for organizing the curriculum. The core values are:

- Critical Thinking
- Safe and Competent Practice
- Caring
- Professionalism
- Communication
- Holistic Care

The CT-CCNP is a two-year four semester program which, upon successful completion, awards an Associate in Science Degree. Sixty-eight credits are required for graduation. These include general education courses and nursing courses sequenced to build from fundamental skills to complex critical thinking skills. The program is challenging in nature, demanding mathematics, science, social science and English skills as building blocks to all that encompasses nursing practice.

The Role of the Associate Degree Graduate within the Scope of Nursing Practice
The CT-CCNP will provide the student with the knowledge and technical skills to practice in a safe, effective and competent manner within the legal and ethical framework for an entry-level Registered Nurse. The scope of practice for the Associate Degree graduate is to provide and manage care for a diverse group of individuals, families and

communities in collaboration with members of the heath care team consistent with CT-CCNP core values. The course of study prepares graduates for employment in a variety of settings, extended-care facilities, acute-care hospitals, clinics, doctor's offices, etc.

Nursing Admission Requirements
See the catalog section on Selective Nursing Admission Criteria for explanation of nursing admissions criteria and process. Please visit us online at http://www.trcc.commnet.edu/Div_StudentServices/admissions/NursingStudent.shtml to obtain additional information. Please plan to attend a Nursing Information Session at the college, schedule is available on the website.

Articulation
Three Rivers Community College fully participates in the Connecticut Nursing Articulation Model for the educational advancement of all nurses. Licensed Practical Nurses may take the Connecticut League for Nursing/Charter Oak State College Bridge Course upon acceptance and enter as far along as the third semester of the program. Upon acceptance into the CT-CCNP at Three Rivers Community College, all LPN candidates are individually assessed by our Admissions Department and by specialized nursing advisors to determine appropriate placement in the program. All graduates are encouraged to advance their education in nursing toward the baccalaureate degree or further. Information about these opportunities is available at http://www.ct.edu/academics/nursing#agreements.

Nursing Curriculum Requirements

Admission Requirements

BIO* K211 - Anatomy & Physiology I °

4 CREDIT HOURS
Prerequisites: BIO K121 and CHE* K111 or higher passed with a "C" grade or better.*
This course is a comprehensive study of the gross anatomical structure and physiology of the human body pertaining to cells, tissues, membranes, organs, and the following systems: integumentary, skeletal, articular, muscular and nervous including special senses. Anatomy and Physiology is a two semester course. Students must enroll in both BIO* K211 and BIO* K212 for transfer credits to other institutions. Three-hour lecture; one three-hour laboratory period per week.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

Pre-requisite Requirement

BIO* K212 - Anatomy & Physiology II °

4 CREDIT HOURS
Prerequisite: BIO K211 with a "C-" grade or better*
This course is a continuation of *BIO* K211 - Anatomy & Physiology I* °, and covers the following systems: endocrine, circulatory, lymphatic, respiratory, digestive (nutrition), urinary (including fluids and electrolytes), and reproduction, as

well as human development and genetics. Anatomy and Physiology is a two semester course. Students must enroll in both *BIO* K211* and *BIO* K212* for transfer credit to other institutions. Three-hour lecture; one three-hour laboratory period per week.

Semester I

BIO* K235 - Microbiology °

4 CREDIT HOURS
Prerequisites: BIO K121 and CHE* K111 or CHE* K121 or permission of the instructor, all courses passed with a "C" grade or better. BIO* K122 is recommended.*
This course covers a comprehensive study of microorganisms. Topics covered will include the basic characteristics, morphology, physiology, growth, reproduction, and genetics of bacteria, as well as a brief taxonomical survey of the following microbial life forms: Archaea, Eubacteria (Cyanobacteria, Mycoplasms, Rickettsia, Chlamydia), Fungi, Algae, Protozoans, and Viruses. Emphasis will be on species that affect humans. Laboratory activities will include various techniques of staining, culturing, and isolating bacteria. The morphology and metabolic processes of select microbial groups will be studied. Students will learn to apply various modern bio- techniques that are used for controlling the growth of microbes, and to identify unknowns. Three hours of lecture; three hours of lab each week.

PSY* K111 - General Psychology I

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course provides an overview of the theories and research findings pertaining to scientific psychology with an emphasis on: the origins of psychology, nature and nurture, human diversity, theoretical models, research methodology, biological bases of thought and behavior, learning theory, sensation and perception, memory, stress and health as well as emotion and motivation.

NUR* K101 - Introduction to Nursing Practice °

8 CREDIT HOURS
Prerequisites: BIO K211; BIO* K212; ENG* K101 or ENG* K101S.*
Corequisites: BIO K235 and PSY* K111.*
The student will focus on concepts basic to nursing practice. Emphasis is placed on application of the nursing process, communication skills, and nursing practice procedure acquisition. Clinical and laboratory experiences offer opportunities to integrate theoretical principles and demonstrate caring and competence in beginning professional role development. Theory: 60 hours Clinical: 180 hours.

Total: 15

Semester II

PSY* K201 - Life Span Development °

3 CREDIT HOURS
Prerequisite: PSY K111.*
This course will study the physical, psychosocial and cognitive development of humans from birth to death. There will be an emphasis on distinct time periods such as conception and development of the fetus, infancy, childhood, puberty and adolescence, young, middle, and late adulthood, and gerontology.

SOC* K101 - Principles of Sociology

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course is a study of the major concepts used in the field of sociology. The nature of institutions will be examined both individually and in their dynamic interrelationship. Emphasis is placed on understanding the impact of society on our lives, and on increasing our effectiveness in controlling our destinies within it.

NUR* K102 - Family Health Nursing °

8 CREDIT HOURS
Prerequisites: NUR K101; BIO* K235; ENG* K101 or ENG* K101S; PSY* K111.*
Corequisites: *NUR* K103*; *PSY* K201*; *SOC* K101.*
The student will focus on issues affecting the family, including childbearing, childrearing, geriatric care and intermediate health care needs of limited duration. The medical surgical health problems include care for the client in the perioperative period and the client experiencing orthopedic and simple genito-urinary conditions. The course addresses several psychiatric disorders: anxiety and cognitive disorders, common child and adolescent psychiatric disorders. The student will have clinical rotations that provide experience caring for the childbearing family as well as caring for medical-surgical clients across the lifespan. Theory: 60 hours Clinical: 180 hours.

NUR* K103 - Pharmacology for Families across the Lifespan °

1 CREDIT HOUR
Prerequisites: NUR K101; BIO* K235; PSY* K111.*
Corequisites: NUR K102; PSY* K201; SOC* K101.*
The student will focus on the safe use, pharmacological principles, indications and nursing implications related to drug therapy when caring for individuals and families. Emphasis will be placed on medications used with perinatal, neonatal, pediatric, geriatric and peri-operative clients. The course will stress the general characteristics of selected medications and will include indications, pharmacokinetics, side effects, adverse effects, contraindications, administration, nursing implications across the lifespan, client education and relationship to prior learning. Theory: 15 hours.

Total: 15

Semester III

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

NUR* K201 - Nursing Care Of Individuals And Families I °

9 CREDIT HOURS
Prerequisites: NUR K102; NUR* K103; (or for LPN Articulation NUR* K131); PSY* K201; SOC* K101; BIO* K211; BIO* K212; ENG* K101 or ENG* K101S.*

Corequisites: NUR K202 and ENG* K102.*
The student will focus on holistic care of individuals and families across the lifespan with a variety of health care needs. The needs of clients experiencing endocrine, respiratory, gastrointestinal, cardiovascular conditions and selected mental health disorders are examined. Bioterrorism as a health care issue will be addressed. Clinical laboratory experience provides the student an opportunity to administer care to a diverse population of clients in a variety of acute care and community health care settings. The student will utilize critical thinking, caring, professionalism and communication skills in the care of the client. Emphasis is placed on provision of safe and competent care and development of the professional role as a member of a multidisciplinary health care team. Over the semester, the student is increasingly challenged with more complex client assignments in the clinical area. Theory: 60 hours Clinical: 225 hours.

NUR* K202 - Pharmacology for Individuals and Families with Intermediate Health Care Needs °

1 CREDIT HOUR
Prerequisites: NUR K102; NUR* K103 (or for LPN Articulation NUR* K131; PSY* K201; SOC* K101; BIO* K211; BIO* K212; ENG* K101 or ENG* K101S.*
Corequisites: NUR K201 and ENG* K102.*
The student will focus on pharmacologic principles related to the care of individuals and families across the lifespan with intermediate health care needs. Emphasis will be placed on medications used for clients who have endocrine, gastrointestinal, respiratory, cardiovascular, autoimmune, and psychiatric conditions and clients who are survivors of bioterrorism. Theory: 15 hours.

Total: 13

Semester IV

NUR* K203 - Nursing Care of Individuals And Families II °

8 CREDIT HOURS
Prerequisites: NUR K201; NUR* K202; ENG* K102.*
Corequisites: NUR K204; NUR* K205; a Humanities or Fine Arts elective.*
The student will focus on the holistic care of individuals, families, and groups with complex health care needs. The student will incorporate critical thinking, caring behaviors, professionalism, and communication skills when providing nursing care in a variety of acute, long-term and/ or community settings. The student will have an opportunity to manage a multi-client assignment with an emphasis on safe and competent practice. An observational experience with a visiting nurse agency, a dialysis unit and/or a cancer center will be provided. Theory: 45 hours Clinical: 225 hours.

NUR* K204 - Pharmacology for Individuals, Families and Groups with Complex Health Care Needs °

1 CREDIT HOUR
Prerequisites: NUR K201; NUR* K202; ENG* K102.*
Corequisites: NUR K203; NUR* K205; a Humanities or Fine Arts elective.*
The student will focus on safe use, pharmacologic principles, indications and nursing implications related to drug therapy in the care of individuals, families, and groups with complex health care needs. Emphasis will be placed on medications used for clients who have acute and chronic renal failure, oncology and neurological conditions, and multi-system dysfunction and clients who choose an alternative therapy. Theory: 15 hours.

NUR* K205 - Nursing Management and Trends °

2 CREDIT HOURS
Prerequisites: NUR K201; NUR* K202; ENG* K102.*
Corequisites: NUR K203; NUR* K204; a Humanities or Fine Arts elective.*
The student will explore the basic principles of management, leadership and collaborative relationships as they relate to providing safe and competent care. The focus is on the utilization of critical thinking skills to make decisions, priority setting, delegation, legal parameters of nursing practice and ethical issues. The student will expand the concept of caring to the profession of nursing through collegial and interdisciplinary communication. The course facilitates the transition of the student into the profession and his/her role in contemporary nursing practice. Theory: 30 hours.

- _____- Humanities or Fine Arts Elective **3 CREDIT HOURS** #

Total: 14

Note:

Students must be enrolled in the Nursing program in order to enroll in Nursing courses.

° Course has a prerequisite. Students should check course description.

May be taken prior to admission to the nursing program.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 68

Nursing, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. integrate the principles of the natural, physical, social, biological and behavioral sciences and nursing theory to provide holistic care to individuals, families and groups across the wellness-illness continuum.
2. integrate nursing process and critical thinking skills for decision making in nursing practice.
3. provide safe and competent care to clients utilizing evidenced-based practice, quantitative reasoning and technological proficiency.
4. integrate effective communication skills through professional interactions with individuals, families, groups and the health care team.
5. create an environment where therapeutic interventions reflect a respect for human dignity.
6. collaborate as a member of a multidisciplinary health team.
7. integrate accountability and responsibility for practice within the legal and ethical standards of the nursing profession.
8. function in the professional role utilizing current standards of nursing practice.

Waiver of Licensure Guarantee

Upon successful completion of the Associate of Sciences degree with a major in Nursing, the graduate is eligible to take the National Council of State Boards of Nursing's Licensure Examination for Registered Nurse (NCLEX-RN). Graduation from the CT-CCNP does not guarantee licensure to practice nursing. Licensure requirements and

procedures are the responsibility of the Connecticut Department of Public Health, State Board of Examiners for Nursing. Permission to take the NCLEX-RN examination is established by law and granted by the Connecticut State Board of Examiners for Nursing.

Felony Conviction

At the time of application for RN licensure an applicant will be asked the following question by the Connecticut Department of Public Health: "Have you ever been found guilty or convicted as a result of an act which constitutes a felony under the laws of this state, federal law or the laws of another jurisdiction and which, if committed within this state, would have constituted a felony under the laws of this state? If your answer is "yes", give full details, dates, etc., on a separate notarized statement and furnish a Certified Court Copy (with court seal affixed) or the original complaint, the answer, the judgment, the settlement, and/or the disposition."

Exercise Science

Exercise Science, A.S.

Degree Code: A81

Associate in Science

Program Coordinator: Heidi Zenie - 860-215-9485

This program is designed to provide a strong basic foundation in the area of exercise science as well as a broad background in general education. For those students seeking an entry level position in health and fitness, the Exercise Science program prepares students for necessary industry certifications and the knowledge and motivation to continue as life long learners in health and fitness. For students interested in furthering their education by transferring to a four-year institution, the program prepares students to transfer to an exercise science or other health related program.

Exercise Science Curriculum Requirements

Semester I

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

HIS* K1XX History Elective **3 CREDIT HOURS**

HPE* K105 - Introduction to Exercise Science °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*

An introduction of the profession of Fitness Training and the five components of physical fitness, as it relates human anatomy and physiology, exercise, and nutrition to fitness and its effects on the body.

MAT* K167 - Principles of Statistics °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process. Please refer to online schedule and click on the CRN hyperlink and/or review printed schedule in determining which faculty require math software in their course(s).*
This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one and two populations and confidence intervals.

or

MAT* K172 - College Algebra °

3 CREDIT HOURS
Prerequisites: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process.*
This course is a thorough and rigorous algebra course that strengthens the understanding of functions, their properties, multiple representations, and operations with functions. The function families studied include: polynomial, exponential, logarithmic, rational, and radical functions. Students will also learn linear and quadratic inequalities, absolute value equations and inequalities, linear and noninear systems.

PSY* K111 - General Psychology I

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course provides an overview of the theories and research findings pertaining to scientific psychology with an emphasis on: the origins of psychology, nature and nurture, human diversity, theoretical models, research methodology, biological bases of thought and behavior, learning theory, sensation and perception, memory, stress and health as well as emotion and motivation.

Total: 15

Semester II

BIO* K121 - General Biology I °

4 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Corequisites: CHE K111 or CHE* K121, either course with a "C" grade or better; or permission of the department chair. Please note: If completing CHE* K111 or CHE* K121 prior to enrolling in BIO* K121, a grade of "C" or better is required for registration into this course.*
This course introduces the major principles and concepts of modern biology. Topics to be covered include molecular and cellular biology, cell division, cellular transport systems, cellular metabolism, the specialization and differentiation of both plant and animal cells, and modern genetics. Three-hour lecture; one three-hour laboratory period.

CHE* K111 - Concepts of Chemistry °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better; MAT* K137 or MAT* K137S with a "C" grade or better (or permission of the instructor on math requirement).*
This course offers a brief and comprehensive survey of important chemical theories and some of the applications of chemistry. Topics covered will include measurements in chemistry, atomic structures and chemical bonding, chemical reactions, states of matter, stoichiometry, theories of solution, and basic organic and biochemical concepts. Course Design: CHE* K111 is meant for students with little or no background in chemistry who need the course in preparation for General Chemistry, or for students who need to meet a pre-admission requirement for nursing or other allied health programs, or those who need a lab science course.

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

HPE* K245 - Programming and Prescription I °

4 CREDIT HOURS
Prerequisite: HPE K105.*
Students will be introduced to fitness assessment, testing and exercise criteria as well as guidelines for safe and efficient cardiovascular resistance and speed and agility training techniques. Exercise testing and prescription for healthy cardiovascular, respiratory, endocrine, skeletal and nervous systems will be stressed. Pulmonary diseases and post orthopedic injuries will also be included in the context of this course. The need for essential nutrient intake is another important aspect of this course.

Total: 15

Semester III

BIO* K111 - Introduction to Nutrition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course covers the principles of nutrition, nutrients, their sources, the interaction between those nutrients and the human body, and the selection of adequate diets for different age groups.

BIO* K211 - Anatomy & Physiology I °

4 CREDIT HOURS
Prerequisites: BIO K121 and CHE* K111 or higher passed with a "C" grade or better.*
This course is a comprehensive study of the gross anatomical structure and physiology of the human body pertaining to cells, tissues, membranes, organs, and the following systems: integumentary, skeletal, articular, muscular and nervous including special senses. Anatomy and Physiology is a two semester course. Students must enroll in both BIO* K211 and BIO* K212 for transfer credits to other institutions. Three-hour lecture; one three-hour laboratory period per week.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

HPE* K241 - Exercise Physiology with lab °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S.*
Corequisite: BIO K211.*
This class will cover physiological responses/adaptations to exercise. Topics in this course include neuromuscular, metabolic, cardiovascular, hormonal and respiratory systems as they pertain to acute and chronic exercise. The major goal of the class is to develop a basic understanding of exercise physiology that will 1) allow the student to utilize exercise physiology in their daily lives and future profession, 2) prepare the student to take additional courses in exercise science.

HPE* K246 - Programming and Prescription II °

3 CREDIT HOURS
Prerequisite: HPE K245.*
This course is designed to introduce students to theories and techniques of exercise prescription for a variety of special populations (obese, diabetic, arthritic, pregnant, elderly, and the widely symptomatic). Guidelines for appropriate cardiovascular and resistance training for these groups will be discussed in detail. Protocols for prevention, diagnosis, treatment and rehabilitation will be stressed.

Total: 17

Semester IV

BIO* K212 - Anatomy & Physiology II °

4 CREDIT HOURS
Prerequisite: BIO K211 with a "C-" grade or better*
This course is a continuation of *BIO* K211 - Anatomy & Physiology I* °, and covers the following systems: endocrine, circulatory, lymphatic, respiratory, digestive (nutrition), urinary (including fluids and electrolytes), and reproduction, as well as human development and genetics. Anatomy and Physiology is a two semester course. Students must enroll in both *BIO* K211* and *BIO* K212* for transfer credit to other institutions. Three-hour lecture; one three-hour laboratory period per week.

HPE* K243 - Kinesiology with lab °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S; BIO* K211.*
This course will be designed as a basic introduction to the fundamentals of Kinesiology. The integration of the anatomy

of human movement and the mechanics of human movement will be the focal point of the course. Knowledge will be obtained through classroom lecture, hands on practical experiences, lab activities and other various assessment techniques. A broader understanding of human anatomy, through active movement and the application of this knowledge, in education, coaching, medicine and other areas of life in a practical method will be obtained.

HPE* K247 - Aspects of Strength and Conditioning

3 CREDIT HOURS
Prerequisite: HPE K245 or BIO* K115.*
This course will offer the student an understanding of physiological adaptations seen with functional resistance and anaerobic exercise to improve daily function and performance-related health components (power, speed, agility, coordination, and balance). Students will be exposed to a variety of scientific principles associated with resistance training design, periodization and functional training. New training methods and equipment will also be discussed as part of the special topics component of this course.

- _____- Fine Arts Elective **3 CREDIT HOURS**

Total: 14

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 61

Exercise Science, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. plan, administer, and evaluate wellness and fitness programs, nutrition projects, and exercise physiology in clinical, industrial and corporate environments.
2. describe and apply principles of leadership, including motivating, leading and directing.
3. develop a medically-based fitness model.
4. understand the terminology in medicine, health promotion and fitness.
5. gain an understanding of how to design exercise programs for special populations
6. understand how to establish exercise programs/prescriptions, exercise related goals and objectives, training modifications and program evaluation strategies.
7. collaborate with a variety of health care professionals through consultations and referrals in a multi-disciplinary approach to wellness.
8. think critically to effectively solve problems in a variety of dynamic environments.
9. effectively communicate with health career providers, fitness professionals, clients, administrators, family and community in the delivery of life long health and wellness.
10. Additionally, the graduate will complete the comprehensive learning outcomes identified within the General Education Component.

Sports and Leisure Management

Sports and Leisure Management, A.S.

Degree Code: A10

Associate in Science

Program Coordinator: Heidi Zenie - 860-215-9485

This program is designed to provide knowledge in the areas of recreational management, fitness and training, nutrition, facility design and management, marketing, business law, accounting, and risk management. Students receiving this degree could pursue careers as Athletic Directors or Facilities Managers, or in careers in professional sports management or in travel and leisure.

Sports and Leisure Management Curriculum Requirements

Semester I

ACC* K115 - Financial Accounting °

4 CREDIT HOURS
Prerequisites: ENG K101 or ENG* K101S placement ∞ or completion of ENG* K096 with a "C#" grade or better. ∞; MAT* K095 or MAT* K095I with a "C#" grade or better.*

This course is designed to cover basic accounting theory and practice as applied to the complete accounting cycle, including the use of current accounting systems and procedures and the preparation of financial statements. The course also covers Long-term Assets, Current & Long-Term Liabilities, and Corporate Reporting and Analysis.

ENG* K101 - Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
College Composition engages students in critical observation, reading, and writing. The course prepares the student for the exposition, analysis, and argument required in college writing, and for meeting the conventions of college English. Writing assignments require that students develop their own points of view and demonstrate understanding of complex ideas and issues. Methods for research, including use of the library, appropriate documentation, and incorporation of sources in original papers will be taught through assigned writings.

RLS* K110 - Introduction to Sports Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course explores the field of Sports Management. The student will learn the history, current trends, and career opportunities. Other topics include: an introduction to sports law, event mangement, sports marketing, and ethics.

PSY* K111 - General Psychology I

3 CREDIT HOURS
Corequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course provides an overview of the theories and research findings pertaining to scientific psychology with an emphasis on: the origins of psychology, nature and nurture, human diversity, theoretical models, research methodology, biological bases of thought and behavior, learning theory, sensation and perception, memory, stress and health as well as emotion and motivation.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prequisite: ENG K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Public Speaking introduces students to the principles and basic skills of effective speech communication. Students will research, compose and deliver speeches of increasing complexity and sophistication. The course familiarizes students with the strategies and techniques of successful informative and persuasive public speaking so students gain an understanding of how communication happens and how people participate in public discourses. The course also exposes students to the rhetorical dimensions of many types of public speech and teaches them to be morencritical listeners who can respond rhetorically to complex issues and ideas.

Total: 16

Semester II

BIO* K115 - Human Biology

4 CREDIT HOURS
Corequisite: ENG K096 or higher. Please note: if completing ENG* K096 prior to enrolling in BIO* K115, a grade of "C#" or better is required for registration into this course.*
This introductory course focuses on a presentation of human structure and function, including a survey of the body's system for students who want to be more knowledgeable about the life processes of their own bodies. Lab procedures do not involve animal dissections. This course does not meet the pre-admission requirement for the Nursing Program. Three-hour lecture; one three- hour laboratory period.

RLS* K101 - Introduction to Recreation and Leisure Services °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course surveys the organization and operation of recreational programs offered by community agencies, recreation service centers, industry, hospitals, camps and municipal and state recreation departments. Field experience to acquaint students with the nature and diversity of programs and services are included.

ECN* K101 - Principles of Macroeconomics °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces students to the basic concepts of the economic system. The first semester is primarily macroeconomics, with the emphasis on the economic thought process. Discussion of money and banking, national income, fiscal measures, and stabilizing the economy are all included.

HPE* K235 - Prevention Treatment of Athletic Injuries

3 CREDIT HOURS
This course covers risk management, injury prevention, medical conditions and disabilities and illnesses. Protective wrapping and strapping will be introduced. The course emphasizes the management of specific injuries, sports liability and basic rehabilitation. Student will become certified in First Aid and CPR/AED.

MAT* K146 - Math for the Liberal Arts °

3 CREDIT HOURS
Prerequisite: MAT K137 or MAT* K137S with a "C" grade or better or appropriate placement∞ through multiple-measures assessment process and eligible for either ENG* K101S or ENG* K101.*
This is a survey course designed to acquaint the liberal arts student with a broad spectrum of mathematical ideas not emphasized in traditional algebra courses. As a terminal mathematics course, it conveys the nature and diversity of mathematics, its methods, applications, and roles in society. Topics are selected from problem solving and critical thinking skills, graph theory, voting and apportionment, introduction to probability, linear programming, patterns and symmetry, linear and exponential applications; others may include fractal geometry, financial management, fair division schemes, game theory, or codes.

Total: 16

Semester III

RLS* K218 - Organization and Administration of Sport and Leisure °

3 CREDIT HOURS
Pre-requisite: RLS K101.*
This course will focus on the many administrative roles that an Athletic Director/ Manager assumes when developing, maintaining or improving sports programs. Topics will include facility design, staffing, equipment, operating practices, risk management, programming, budgeting and insurance.

BIO* K111 - Introduction to Nutrition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This introductory course covers the principles of nutrition, nutrients, their sources, the interaction between those nutrients and the human body, and the selection of adequate diets for different age groups.

BMK* K201 - Principles of Marketing °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This course introduces the four elements of the marketing mix: product decisions, pricing decisions, promotional decisions and distribution decisions. Emphasis is on the importance of marketing research and consumer behavior in the formulation of marketing strategies. Students study marketing principles and practices as they are applied to consumer and industrial products and services as well as in not-for-profit organizations. Additional topics include marketing in a global economy, ethics, and marketing information systems. The marketing campaigns of small and large companies are discussed as practical examples. Students develop their own marketing plans using strategy and principles learned in the course.

ENG* K102 - Literature & Composition °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S or permission of the instructor.*
Students learn how to read serious literature, how to develop an interpretation, and how to explain and support their ideas in writing. Through the study of selected works of fiction, poetry, and drama, students learn the elements of textual analysis and become familiar with the ways in which other critical approaches affect interpretation. In addition to continued instruction in composition, students are required to read and write frequently.

HLT* K155 - Personal Health °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
This is a course on the physiological principles involved in the maintenance of individual health. Students will learn principles of hygiene, nutrition, communicable disease prevention, stress management, exercise, and other elements of personal life style that affects health.

Total: 15

Semester IV

BBG* K231 - Business Law I °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S.*
This course provides the student with an understanding of fundamental legal principles and their applications to business transactions and to individual rights and obligations. Crimes and torts are examined, and special emphasis is placed on the study of the law of contracts.

HPE* K247 - Aspects of Strength and Conditioning

3 CREDIT HOURS
Prerequisite: HPE K245 or BIO* K115.*
This course will offer the student an understanding of physiological adaptations seen with functional resistance and anaerobic exercise to improve daily function and performance-related health components (power, speed, agility, coordination, and balance). Students will be exposed to a variety of scientific principles associated with resistance training design, periodization and functional training. New training methods and equipment will also be discussed as part of the special topics component of this course.

BMG* K202 - Principles of Management °

3 CREDIT HOURS
Prerequisite: ENG K101 or ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.*
Fundamental principles of management and business operations are discussed with emphasis placed on management orientation, policy making, practical problem analysis, and philosophy. Attention also centers on the following: planning, organizing, directing, controlling, budgeting functions, qualitative and quantitative decision-making and financial analyses.

- _____- Fine Arts Elective **3 CREDIT HOURS**
- RLS* K294- Sport and Leisure Management Practicum ° **1 CREDIT HOUR**

Total: 13

Note:

° Course has a prerequisite. Students should check course description.

* Indicates common course numbering within Connecticut Community College system.

Students should consult with their academic advisor regarding the minimum number of credits to be taken at TRCC and limits on non-traditional credits. 25% of TRCC degree requirements must be completed with TRCC coursework. Up to 50% of degree requirements can be fulfilled with non-traditional credit. Non-traditional credit includes CLEP/DSST exams, Credit by Exam, APL credit, and Military credit.

Grand Total: 60

Sports and Leisure Management, Associate in Science Degree Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. demonstrate an understanding of management issues and trends in the sport and exercise field.
2. understand the connection between various management functions and coordination of agency resources, programs and resources.
3. apply the concept areas related to personnel process, including candidate recruitment, candidate selection, orientation, training and development and performance appraisal.
4. demonstrate a mastery of the basic principles, concepts and terminology of today's marketing strategy.
5. develop an awareness of the importance of marketing in today's competitive, consumer-oriented society.
6. understand the importance of societal issues of computer security risks, privacy risks, identity theft and technological impacts on our culture.
7. demonstrate knowledge of the history and principles governing business law in the United States.
8. evaluate target populations to further understand the needs and options of a variety of participants.
9. have knowledge of the concept of activities of daily living and its importance in the overall health of the individual.
10. analyze the developmental characteristics for each stage life stage that are the most relevant to the design and delivery of leisure and recreation service.
11. identify key aspects of facility and equipment maintenance and cleaning, implement appropriate maintenance and cleaning schedules.
12. evaluate various strategies for effectively scheduling of facilities and programs.
13. identify common areas of potential litigation in the strength and conditioning facility.
14. demonstrate knowledge and application of inventory (cost flows; periodic; perpetual) accounting and reporting.

Faculty and Staff

Faculty and Staff

Office of the President

Mary Ellen Jukoski, President - B.A. cum laude, M.A, The College of Saint Rose; M.S., State University of New York; Ed.D., University of Memphis in Memphis, TN

April Hodson, Executive Assistant to the President - A.S., Three Rivers Community College; B.S., Eastern Connecticut State University

Louise J. Summa, Director of Strategic Partnerships - B.A., M.B.A., Anna Maria College

Faculty

Judith Albright, Professor of Nursing - B.S.N., M.S.N, University of Cincinnati; R.N.; CWOCN

Larisa Alikhanova, Department Chair- Mathematics, Professor of Mathematics - B.S. University of Yerevan; M.S., Moscow State University

Kevin Amenta, Assistant Professor of Communications and English - B.A., Television and Film Production, Hofstra University; M.A., Interactive Communications, Quinnipiac University

Allan A. Anderson, Department Chair - Technologies, Professor of Computer Science - B.S., Mankata State College; M.S., Purdue University

Cynthia Arpin, Assistant Professor of Nursing - B.S.N., M.S.N., University of Hartford

Maria Celesté Arrietta, Assistant Professor of Foreign Language - M.A., University of Connecticut; J.D. & B.A., University of Mórón, Argentina

Teri Ashton, Professor of Nursing - B.S.N., Central Connecticut State University; M.S.N., University of Hartford; CNE

Todd Barry, Full-Time Instructor of English - B.A., Princeton University; J.D., Ph.D. candidate, University of Connecticut;

Richard Bennett, Professor of Business - B.S., University of Akron College of Business; J.D., University of Akron School of Law

Arthur J. Braza, Professor of Accounting - B.S., B.A, M.B.A, Bryant College

Marcel Burch, Department Chair - English, Associate Professor of English - B.A., Eastern Connecticut State University; M.A., Southern Connecticut State University

Pamela Carroll, Professor of Psychology - B.A., Merrimack College; M.Ed., Harvard University

Michael Carta, Assistant Professor of Chemistry - B.A., M.S., University of Dayton

Irene Woods Clampet, Professor of Marketing/Retailing - A.A., City University of New York - Queensborough Community College; B.A., City University of New York - Queens College; M.B.A., St. John's University

Patricia Colonghi, Assistant Professor of Nursing - A.S., Middlesex Community College; B.S., Charter Oak State College; M.S.N., University of Hartford.

Mark Comeau, AIA, Professor of Architectural Design Technology - A.S., Thames Valley State Technical College; B.S., B.Arch., Roger Williams University; M.S., Rensselaer Polytechnic Institute; Licensed-Registered Architect, CT, RI, NY; NCARB Board Certified

James Copeland, Professor of Natural Sciences - B.S., M.S., Tennessee State University

Dan Courtney, Assistant Professor of Electrical Engineering Technology - A.S.E.T., Springfield Technical Community College; M.S.E.E., University of Massachusetts

Jeffrey Crouch, Professor of Criminal Justice - A.S., Mohegan Community College; A.A.S., Community College of the Air Force; B.S., Western Connecticut State University; M.P.A., Ph.D., University of Idaho

Nancy Czarzasty, Associate Professor of Nursing - A.S.N., Norwich University; B.S.N., Sacred Heart University; M.S., University of Arizona.

June Decker, Professor of Mathematics - A.B., Harvard College; M.S., University of Connecticut

Jennifer DeFrance, Associate Professor of Early Childhood Education - B.S., Rhode Island College; RI Certified K - 3; M.A., Rhode Island College; Ed.D., Johnson and Wales University

Terrence Delaney, Department Chair - Humanities, Professor of History - B.A., Eastern Connecticut State University; M.A., Ph.D., Clark University

Victoria Holdridge DiFilippo, Full-Time Instructor of English - B.S., University of New Hampshire; M.S., School for International Training

William Dopirak, Professor of Natural Sciences - A.S., Mohegan Community College; B.S., Eastern Connecticut State University; M.A. Central Connecticut State University

Michael Gentry, Assistant Professor of Engineering - B.S., M.S., Cornell University

Betti Gladue, Professor of Business - B.A., M.S., Eastern Connecticut State University

Elizabeth Godwin, Instructor of Mathematics - B.S., Miami University; M.S., Central Connecticut State University

Joan Graham, Professor of Nursing - B.S.N., Holy Family University; M.S.N, Drexel University; CNE

Ronald Greenier, Professor of Manufacturing/Mechanical/CAD Engineering Technology - B.S., M.S., Central Connecticut State University.

Janet Hagen, Associate Professor of English and Women's Studies - B.S., Minnesota State University; M.A., St. Cloud State University

G. Kent Harding, Professor of Industrial Management Technology - B.S., M.S.E.E., University of Maryland; M.B.A., Harvard; Certified Cost Analyst

Sandra Jeknavorian, Professor of Art - B.F.A., University of Hartford; M.F.A., University of Massachusetts

Joseph Johnson, Assistant Professor of Computer Science - B.S., University of Connecticut; M.S., Rensselaer Polytechnic Institute

Brian Kennedy, Professor of Mathematics - B.S., Rensselaer Polytechnic Institute; M.A., State University of New York

Diba Khan-Bureau, Professor of Civil/Environmental Engineering Technology - A.S., Thames Valley State Technical College; B.S., University of Connecticut; M.S., Rensselaer Polytechnic University; Ph.D., University of Connecticut

Frederick-Douglas Knowles, Assistant Professor of English - B.A., Eastern Connecticut State University; M.A., Southern Connecticut State University

Sarah Korpak, Full-Time Lecturer of Nursing - A.S.N.; B.S.N., Three Rivers Community College; M.S.N., Sacred Heart University

Dov Kugelmass, Department Chair - Social Science, Professor of Psychology - B.A., University of Connecticut; M.A., Southern Connecticut State University; Ph.D., University of Connecticut

Anne Lamondy, Professor of Nursing - B.S.N., St. Joseph College; M.S.N., Medical College of Pennsylvania, Hahnemann University; APRN

Jennifer Long, Professor of English - B.A., Northeastern University; M.Ed., Millersville University

Joyce M. Martin, Professor of Human Services - B.A., North Carolina Central University; M.S.W., University of Connecticut School of Social Work; Ph.D., Fordham University

Andrew Marvin, Full-Time Lecturer of English - B.A., Sacred Heart University; M.A., Southern Connecticut State University

Philip Mayer, Jr., Professor of Economics and Political Science - B.S., Villanova University; M.A., Kansas State University; M.L.S., Fort Hays State University

Ann McNamara, Professor of Science - B.S., M.S., University of Connecticut; Registered Dietitian

Kelly Molkenthin, Full-Time Instructor of Mathematics - B.S., Fairfield University; M.S., Ph.D., University of Rhode Island

Edwin Muenzner, Department Chair - Business, Assistant Professor of Accounting - A.S., Three Rivers Community College; B.S., Eastern Connecticut State University; M.S.A.T., University of Hartford; Certified Public Accountant

Steven Neufeld, Professor of Sociology and International Studies - B.A., Brown University; M.A., Ph.D., Northwestern University

Robert Niedbala, Professor of Physics and Mathematics - B.S. Lowell Technological Institute; M.S., Trinity College

D. David "Don" Pascal, Full-Time Lecturer of Chemistry - M.A., Ph.D., Indiana State University

Peter Patsouris, Professor of History and International Studies - B.A., Boston University; M. A., Providence College

Mary Ann Perez-Brescia, Assistant Professor of Nursing - A.S., Greater Hartford Community College; B.S.N., M.S.N., University of Hartford

Krista Prendergast, Assistant Professor of Nursing - B.S.N., University of Connecticut; M.S.N., University of Rhode Island; CNE

Lillian Rafeldt, Professor of Nursing - B.S.N., State University of New York; M.A., New York University; CNE

James A. Rhoades, Professor of Electrical Engineering Technology - B.S.E.E., Virginia Polytechnic Institute and State University; M.S.E.E., Rensselaer Polytechnic Institute

Nicola Ricker, Full-Time Instructor of Science - B.S., University of Connecticut; M.S., University of New Haven

Leslie Samuelson, Department Chair - Natural Sciences, Professor of Biology and Environmental Sciences - B.A., University of California at San Diego; M.S., San Diego State University

Patricia Sauter, Professor of Criminal Justice - B.A., Rosemont College; M.S., University of New Haven; Certificate of Advanced Graduate Studies, Johnson & Wales University

Nancy Scrivano, Professor of Nursing - B.S., Eastern Connecticut State University; M.S.N., University of Hartford; CNE

Sarah Selke, Associate Professor of Biology - B.S., Bates College; Ph.D., University of Florida

Joseph Selvaggio, Assistant Professor of English - B.A. Rutgers University; M.A., Southern Connecticut State University

James R. Sherrard, Professor of Nuclear Engineering Technology - B.S., U.S. Coast Guard Academy; M.S.N.E., M.S.N.A., Nav.E., Massachusetts Institute of Technology; M.S.M.E., University of Connecticut; M.S.N.S., Ph.D. (ABD), Catholic University of America; PE, Maryland

Shelia Skahan, Professor of Early Childhood Education - B.S., Lesley University; M.S., Wheelock College

Michael Stutz, Assistant Professor of Communications - B.A.,M.A., University of South Carolina

Roxanne Tisch, Associate Professor of Mathematics - B.S., Worcester Polytechnic Institute; M.S., M.A., Ph.D., University of Rhode Island

Susan Topping, Professor of English - B.A., Hunter College-City University of New York; M.A., Rutgers SUNJ

Heidi Zenie, Associate Professor of Exercise Science and Sports and Leisure Management,Acting Health and Wellness Coordinator - A.S., Mitchell College; B.S., Northeastern University; M.S., West Virginia University

Staff

Institutional Advancement

Betty Baillargeon, Director of Institutional Advancement - A.S., Three Rivers Community College; B.A., Eastern Connecticut State University

Meghan La Casse, Assistant Director of Institutional Advancement - B.S., University of Connecticut

Marketing and Public Relations

Kathryn Gaffney, Director of Marketing and Public Relations - B.A., Saint Mary's College, Notre Dame, IN; M.S., University of Saint Joseph

Tracy Rosiene, Educational Assistant, Public Relations - B.F.A., University of Connecticut

Institutional Research

Laura Qin, Director of Institutional Advancement - B.A., Wellesley College; M.B.A., Babson College

Academic Division

Jerry Ice, Academic Dean - B.A., Salem-International University (formerly Salem College); M.A., Montclair State University; Ed.D., Fordham University

Kacey McCarthy-Zaremba, Assistant to the Academic Dean - B.A., Eastern Connecticut State University

Kayla Moreno, Educational Assistant - B.S., B.A., Western New England University

Carole Lee, Administrative Assistant to the Academic Dean - A.S., Three Rivers Community-Technical College

Ronda Charette, Secretary I

Library

Mildred H. Hodge, Director of Library Services - B.A., Eastern Connecticut State University; M.L.S., University of Rhode Island; 6th Year Certificate, Southern Connecticut State University

Pamela Williams, Reference and Instruction Librarian - B.S., M.S.L.S., Florida State University

Kumar Appadwedula, Acquisitions and Interlibrary Loan Librarian - A.S., Three Rivers Community-Technical College; B.S., M.L.S., Southern Connecticut State University

Michele DeVeau, Cataloging Librarian - A.A., Mitchell College; B.A., Eastern Connecticut State University

Annie McCosh, Serials Librarian - A.A., Front Range Community College; B.A. Spring Arbor University

Laura Vasselle, Circulation and Reserves Librarian - B.F.A., Ohio State University; B.A., Trinity College; M.L.S., Kent State University

Nursing and Allied Health

Edie Ouellette, Director of Nursing and Allied Health, Associate Professor of Nursing - R.N., Saint Francis Hospital School of Nursing; B.S.N., Central Connecticut State University; M.S.N., University of Hartford.

Suzanne Turner, Full time Nursing Laboratory Coordinator - B.S.N., University of Rhode Island; M.S.N., St. Joseph's College, Maine

Learning Initiatives & College Career Pathways

Jodi Calvert, Director of Learning Initiatives - B.S./B.A., University of Arizona; M.Ed., Arizona State University

Amanda Caffary, Educational Assistant - B.A., University of Connecticut; M.A., University of Massachusetts Boston; M.A., University College London.

Erin Sullivan, Educational Assistant, Program Coordinator - B.A., Saint Joseph College; M.S.W., University of Connecticut

Tracy Dickson, Educational Assistant, College Career Pathways NACEP Coordinator - B.A., Saint Joseph College; MALS, Wesleyan University

Tutoring Center

Matthew Burbine, Academic Assistant - A.S., Three Rivers Community College; B.S., Eastern Connecticut State University

Writing Center

Jon Brammer, Writing Center Coordinator - B.A., University of California-Santa Barbara; M.A., University of Wisconsin-Milwaukee; M.A., Sacred Heart University

Maintenance

Arnie DeLaRosa, Director of Facilities - A.S., Thames Valley Community College; A.S., B.A., Wentworth University

Marc Filiatreault, Maintenance Supervisor 1 (Electrical) - A.S., University of Connecticut

Linda Champagne, Custodian

James Ellis, Lead Custodian

Otto Erazo, Custodian

James Fonner, Building Superintendent 1

Louis Forand, Custodian

Darryl Hill, Custodian

Emilio Martinez, Custodian

Amy Strong, Maintainer

Roy Tookes, Maintainer

Kurt Topping, Custodian

David Trahan, Custodian

Kevin Watson, Maintainer - B.S.G.S., Unity College

Business Office

Stephen H. Goetchius, Dean of Administrative Services, I.T. & Human Resources - B.S., U.S. Coast Guard Academy; M.S., U.S. Naval Postgraduate School

Gayle C. O'Neill, Director of Finance and Business Services - A.S., Mohegan Community College; B.S., Eastern Connecticut State University; M.B.A., Quinnipiac College

Christine Marceau, Administrative Assistant to the Dean of Administrative Services

Diane Jewett, Associate Fiscal Administrative Officer - A.S., Mohegan Community College

Barbara Watson-Barboza, Financial Clerk - A.S., Three Rivers Community College; B.S., Eastern Connecticut State University

Valerie Smith, Fiscal Administrative Officer - A.S., Three Rivers Community College; B.S., Charter Oak State College; M.S., Baypath College

Sandra Dean, Facilities Scheduler- A.S., Three Rivers Community College

Cashier

Phyllis Brown, Fiscal Administrative Assistant - A.S., Commonwealth College of Virginia; A.S. Three Rivers Community College

Purchasing

James M. Kelly, Fiscal Administrative Officer

Amy Main, Materials Storage Specialist

Human Resources/Payroll

Anthony Mitta, Associate Director of Human Resources for Payroll and Contract Administration - B.S., Eastern Connecticut State University

Barbara Billups, Administrative Assistant

Lori Angel, Coordinator of Benefits/HRIS - A.S., Three Rivers Community-Technical College; B.G.S., University of Connecticut

Susan Senay, Assistant Human Resources - B.S., Nichols College

Information Technology Services

Stephen H. Goetchius, Dean of Administrative Services, I.T. & Human Resources - B.S., U.S. Coast Guard Academy; M.S., U. S. Naval Postgraduate School

Cheryl A. Salva, Administrative Assistant to the Dean of Information Technology - A.S., Three Rivers Community-Technical College

Larry Davenport, Assistant Director of Information Technology - B.S., Roger-Williams University

Victoria Baker, Information Technology Technician 2 - A.S., Thames Valley State Technical College; B.G.S., M.A., University of Connecticut

Terry Browder, Information Technology Technician 2 - A.S., Three Rivers Community College (2 degrees), Certificates in Computer Applications and Networking Technology; B.S., Eastern Connecticut State University; CompTIA A+ Certified

Skye Cohen, Information Technology Technician 2 - B.S., University of Connecticut; B.S., Eastern Connecticut State University

Mark Davis, Coordinator of Academic Information Technology - Certificate, Porter & Chester Institute; A.S., Three Rivers Community College; Microsoft Certified Systems Engineer + Internet

Andrew Cullan, Information Technology Technician 2 - A.S., New England Institute of Technology; B.S., Western Governors University; Cisco Certified Network Associate

Olan Angulo, Information Technology Technician 2- A.S., Three Rivers Community College; B.S., Western Governors University; Cisco Certified Network Associate

Educational Technology

Kem Barfield, Director of Educational Technology - B.S., Southern Illinois University; M.S., University of New Haven

Workforce & Community Education

Marjorie R. Valentin, Associate Dean of Continuing Education/Community Service - A.S./A.A., Quinebaug Valley Community College; B.S., Nichols College; M.P.A., University of Hartford

Ana A. Gonzales, Continuing Education Assistant - A.S., Mohegan Community College; B.G.S., Eastern Connecticut State University

Judy Ames, Administrative Assistant

Jackie Staller, Office Assistant

Student Services

Stephan Finton, Acting Dean of Student Services, Enrollment Management and Workforce Development - B.S., United States Coast Guard Academy; M.B.A., John F. Kennedy University

Christine Languth, Acting Director of Student Success - B.A., Marist College; M.P.S., New York Institute of Technology

Jacqueline Phillips, Director of Student Services - A.A., Capital Community College; B.A., M.A., American International College; Ed.D., Nova Southeastern University

Marie Hoffman, Administrative Assistant - A.S., Quinebaug Valley Community College

Carolyn Prunier, Educational Assistant, Welcome Center and Testing Coodinator

Sandra Farwell, Part-time Educational Assistant, Welcome Center

Avery Rondeau, Part-time Educational Assistant, Welcome Center - B.M., Palm Beach Atlantic University; M.M., University of Connecticut

Sonia Rutchick, Part-time Educational Assistant, Welcome Center

Felicia Bullock, Part-time Educational Assistant, Evening Assistant for the Welcome Center

Kathleen Williams, Part-time Educational Assistant, Evening Assistant for the Welcome Center - B.S., Eastern Connecticut State University

Retention

Edward Derr, ConnCAS Educational Success Program Coordinator - B.A., Central CT State University; M.A., Northwestern University; 6th Year Degree in Education Administration, Sacred Heart University

Deirdre Sebastian, ConnCAS Counselor - B.A., Lincoln University, Lincoln, Pennsylvania; Masters in Developmental Psychology, Teachers College, Columbia University; Masters, Developmental Psychology, Boston University

Meg Wichser, Transition & Retention Specialist - B.A., Hartwick College; M.A., Colgate University; Graduate Certificate, Hartford Seminary

Admissions/Outreach/Recruitment

Margaret Hogan Stroup, Director of Admissions - B.A., M.A., Ohio State University

Steven Paternoster, Assistant Director of Admissions - B.S., M.B.A. University of New Haven

Rashita L. Parker, Registration Services Assistant - A.S., Quinebaug Valley Community College

Deborah DiCarlo, Registration Services Assistant - A.S., Mohegan Community College; B.S., Eastern Connecticut State University

Cynthia Andeen, Secretary I

Advising and Counseling

Kathleen Gray, Counselor/Transfer Credit Evaluation - B.A., University of Connecticut; M.S., Southern Connecticut State University

Sharon Lincoln, Advisor/WIA Advisor/Student Support Services - B.A., Connecticut College

Matthew Liscum, Counselor - B.S., State University of New York - Cortland; M.S., State University of New York - Oneonta

Elizabeth Willcox, Advisor - B.A. Eastern Connecticut State University

Celeste Warner, Part-time Educational Assistant, Career Placement - A.S., Mohegan Community College; B.S., Eastern Connecticut State University; Certificate, Three Rivers Community College

Financial Aid

Kenneth Briggs, Acting Director of Financial Aid - A.A., A.S., Three Rivers Community College; B.A., M.S., Eastern Connecticut State University

Hong-Yu Kovic, Financial Aid Counselor - B.S., Peking University; M.A., University of Texas; M.Div., Unification Theological Seminary; M.Ed., SUNY College

Donna Ramos, Financial Aid Assistant - A.S., Three Rivers Community-Technical College

Elaine M. Topalis, Processing Technician - A.S., Mohegan Community College; B.G.S., University of Connecticut

Registrar

Betty Williamson, Acting Registrar - A.S., Three Rivers Community College; B.S., Eastern Connecticut State University; M.S., Central Connecticut State University

Patrick Keller, Assistant Registrar - B.A., University of Connecticut

Terri DeBarros, Processing Technician - A.S., Three Rivers Community College

Veda Wellington, Secretary I - A.S., Three Rivers Community-Technical College; B.S., Eastern Connecticut State University; M.S., Southern Connecticut State University

Pauline Goyette, Office Assistant - A.S., Quinebaug Valley Community-Technical College; B.A., Eastern Connecticut State University

Jean Gustafson, Part-time Educational Assistant at the Groton Submarine Base - A.S., Mitchell College

Student Programs

Rhonda Spaziani, Director of Student Programs - B.A., Quinnipiac College; M.S., Southern Connecticut State University

Academic Calendar Fall 2018 - Summer 2019

(dates subject to change) revised 05/24/2018

- Fall 2018
- Winter 2018
- Spring 2019
- Summer 2019

PlEASE NOTE THAT FOR ANY STATE HOLIDAY NOT LISTED IN THE BELOW SESSION INFORMATION, CLASSES ARE HELD

FALL 2018 Standard 15 Week Session

Aug 27	Registration deadline and last day to drop classes for full tuition refund
Aug 28	Classes begin, add and drop periods begin
Sep 3	**Labor Day - college closed** *and*
	last day for registered students to add a class - online **(Aug 31 in person)**
Sep 4-7	Welcome Week
Sep 10	Last day to drop classes and partial tuition refund
Sep 17	Constitution Day observed (classes in session)
Sep 21	Professional Day (classes in session)
Sep 25	Last day to select audit option
Oct 16	Reading Day ***See** Additional Notes
Nov 1	Continuing Degree-Seeking Student Registration for Winter '18 Intersession and Spring '19 Semester
	Advising day (classes in session)
Nov 5	Advising day (classes in session)

Nov 6	Last day to select pass/fail option, last day to submit incomplete work from Spring '18 and Summer '18
Nov 15	New Student and Non Degree-Seeking Student Registration for Winter '18 Intersession and Spring '19 Semester, and last day to apply for spring graduation (May '19)
Nov 21	College open - no classes in session
Nov 22-25	**Thanksgiving recess**
Dec 9	Last day to withdraw from classes - online **(Dec 7 in person)**
Dec 16	Last day of 15 Week Session
Dec 21	Final grades due to Registrar's office
Dec 24	Grades available on web
Dec 25	**Christmas Day - college closed**

FALL 2018 Modular 7 Week Modules

Seven Week - Mod 1

Sep 3	**Labor Day - college closed** *and*
	Registration deadline and last day to drop classes for a full tuition refund - online **(Aug 31 in person)**
Sep 4	First day of class for Tues/Thurs classes
Sep 5	First day of class for Mon/Wed classes
Sep 10	Last day to drop classes and partial tuition refund
Sep 14	Last day to select audit option
Oct 5	Last day to select pass/fail option
Oct 16	Reading Day *See Additional Notes
Oct 19	Last day to withdraw from classes
Oct 22	Last day of class for Mon/Wed classes
Oct 23	Last day of class for Tues/Thur classes

Seven Week - Mod 2

Oct 23	Registration deadline and last day to drop classes online for a full tuition refund

Oct 24	First day of class for Mon/Wed classes
Oct 25	First day of class for Tues/Thurs classes
Oct 30	Last day to drop classes and partial tuition refund
Nov 5	Last day to select audit option
Nov 21	College open - no classes in session
Nov 22-25	**Thanksgiving recess**
Nov 23	Last day to select pass/fail option
Dec 10	Last day to withdraw from classes
Dec 12	Last day of class for Mon/Wed classes
Dec 13	Last day of class for Tues/Thurs classes

FALL 2018 Modular 12 Week/Flex Start Module

Sep 17	Registration deadline and last day to drop classes for a full tuition refund
Sep 18	12 week session begins
Sep 28	Last day to drop classes and partial tuition refund
Oct 9	Last day to select audit option
Oct 16	Reading Day* *See Additional Notes
Nov 12	Last day to select pass/fail option
Dec 10	Last day to withdraw from classes
Dec 14	12 week session ends

WINTER 2018 3 Week Session

Dec 26	Registration deadline and last day to drop classes for a full tuition refund
Dec 27	**Classes begin**
Jan 1	**New Year's Day observed - college closed - classes not in session**
Jan 15	Last day to withdraw from classes
Jan 17	Last day of classes
Jan 22	Final grades due

SPRING 2019 Standard 15 Week Session

Jan 17	New student orientation
Jan 21	**Martin Luther King Day - college closed**
Jan 23	Professional Day, Registration deadline and last day to drop classes for full tuition refund
Jan 24	Classes begin, Add and drop periods begin
Jan 30	Last day for registered students to add a class
Feb 6	Last day to drop classes and partial tuition refund
Feb 21	Last day to select audit option
Feb 15-18	**Presidents' Recess - classes not in session**
Feb 15	Classes NOT in session - college open
Feb 18	Classes NOT in session - college closed
Mar 11-17	**Spring Break - classes not in session**
Mar 15	Last day to apply for summer (August '19) graduation
Apr 1	Continuing Degree-Seeking Student Registration for Summer '19 Session and Fall '19 Semester
	Advising day (classes in session)
Apr 2	Advising day (classes in session)
Apr 4	Last day to select pass/fail option, last day to submit incomplete work from Fall '18 and Intersession '18
Apr 16	New Student and Non-Degree Seeking Student Registration for Summer '19 Session and Fall '19 Semester
Apr 19	**Day of Reflection - college closed**
May 10	Last day to withdraw from classes
May 19	Last day of 15 week session
May 21	Final grades due
May 22	**Commencement**
May 24	Student grades available on web
May 27	**Memorial Day - college closed**
June 15	Last day to apply for fall (December '19) graduation

SPRING 2019 Modular 7 Week Modules

Seven Week - MOD 1

Jan 27	Registration deadline and last day to drop classes for a full tuition refund online (**Jan 25 -** in person)
Jan 28	First day of class for Mon/Wed classes
Jan 29	First day of class for Tues/Thur classes
Feb 3	Last day to drop classes and partial tuition refund online (**Feb 1 -** in person)
Feb 8	Last day to select audit option
Feb 15-18	**Presidents' Recess - classes not in session**
Mar 1	Last day to select pass/fail option
Mar 11-17	**Spring Break - classes not in session**
Mar 20	Last day to withdraw from classes
Mar 21	Last day of class for Tues/Thurs classes
Mar 25	Last day of class for Mon/Wed classes

Seven Week - MOD 2

Mar 25	Registration deadline and last day to drop classes for a full tuition refund
Mar 26	First day of class for Tues/Thurs classes
Mar 27	First day of class for Mon/Wed classes
Apr 2	Last day to drop classes online and partial tuition refund
Apr 8	Last day to select audit option
Apr 19	**Day of Reflection - college closed**
Apr 26	Last day to select pass/fail option
May 12	Last day to withdraw from classes
May 13	Last day of class for Mon/Wed classes
May 16	Last day of class for Tues/Thurs classes

SPRING 2019 Modular 12 Week/Flex Start Module

Feb 12	Registration deadline and last day to drop classes for a full tuition refund
Feb 13	12 Week session begins

Feb 15-18	**Lincoln's and Washington's birthdays observed - classes not in session**
Feb 24	Last day to drop classes and partial tuition refund online (**Feb 22 -** in person)
Mar 6	Last day to select audit option
Mar 11-17	**Spring Break - classes not in session**
Apr 10	Last day to select pass/fail option
Apr 19	**Day of Reflection - college closed**
May 10	Last day to withdraw from classes
May 16	12 week session ends

SUMMER 2019 Session

7 Week Module

May 19	Registration deadline and last day to drop classes for full tuition refund - online **(May 17 in person)**
May 20	First day of class for Mon/Wed classes
May 21	First day of class for Tues/Thurs classes
May 27	**Memorial Day observed - college closed**
May 31	Last day to select audit option
Jun 15	Last day to apply for fall (December '19) graduation
Jun 21	Last day to select pass/fail option
Jul 4	**Independence Day observed - college closed**
Jul 5	Last day to withdraw from classes
Jul 8	Last day for Mon/Wed classes
Jul 9	Last Day for Tues/Thurs classes
Jul 11	Final Grades Due

8 Week Module

Jun 3	Registration deadline and last day to drop classes for full tuition refund
Jun 4	First day of class for Tues/Thurs classes

Jun 5	First day of class for Mon/Wed classes
Jun 15	Last day to apply for fall (December '19) graduation
Jun 19	Last day to select audit option
Jul 4	**Independence Day observed - college closed**
Jul 10	Last day to select pass/fail option
Jul 26	Last day to withdraw from classes
Jul 29	Last day of class for Mon/Wed classes
Jul 30	Last day of class for Tues/Thurs classes
Aug 1	Final grades due

6 WEEK Module

Jul 9	Registration deadline and last day to drop classes for full tuition refund
Jul 10	First day of class for Mon/Wed classes
Jul 11	First day of class for Tues/Thurs classes
Jul 19	Last day to select audit option
Aug 7	Last day to select pass/fail option
Aug 16	Last day to withdraw from classes
Aug 19	Last day of class for Mon/Wed classes
Aug 20	Last day of class for Tues/Thurs classes
Aug 21	Final grades due

*Please Note - Reading Days are to be used as study days, and/or optional make-up class time at the discretion of faculty members. No faculty member will be assigned additional duty during the scheduled reading days and no student shall be penalized for not attending any activities/classes on a reading day