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General Contact Info

Three Rivers Campus
574 New London Turnpike
Norwich, CT 06360-6598

Main number (860) 215-9000

Off-Campus Centers/Locations
Naval Submarine Base
Building 83
Groton, CT 06349
860-445-5575

TRCC Web Site www.threeｒｉｖｅｒｓ．ｅｄｕ

Online Information Services
http://my.commnet.edu

Email: Info3Rivers@trcc.commnet.edu

TRCC on Facebook
www.facebook.com/ThreeRiversCC

TRCC on Twitter
http://twitter.com/3RiversCC

Directory

Please call for office hours

Information Services (860) 215-9000
Accounting Office 215-9280
Admissions Information 215-9020
Advising & Counseling 215-9017
Assessment of Prior Learning 215-9018
Bookstore 887-6842
Career Services 215-9302
Cashier 215-9026
Continuing Education Office 215-9028
Disability Services 512-9017
Financial Aid Office 215-9040
Health and Wellness Center 215-9047
Library 215-9051
Lost and Found/Security 215-9053
Registrar’s Office 215-9064
Student Programs Office 215-9074
Sub Base Site 445-5575
Veteran’s Office 215-9235
Fax Numbers

Academic Division  (860) 215-9900
Admissions Office  215-9902
Business Office  215-9901
Cashier’s Office  215-9904
Registrar’s Office  215-9919
Student Programs Office  215-9920
Student Services Center  215-9902
Sub Base  445-9186
Workforce and Community Education  215-9905

TRCC Departments

Administration
Dr. Mary Ellen Jukoski, President  860-215-9001
Dr. Ann Branchini, Academic Dean  860-215-9904
Stephan Finton, Acting Dean of Student Services, Enrollment Management & Workforce Development  860-215-9003
Stephen Goetchius, Dean of Administration  860-215-9002
Marjorie Valentin, Associate Dean of Workforce and Community Education  860-215-9006

Department Chairs
Business: Ed Muenzner  860-215-9456
EMuenzner@trcc.commnet.edu

English: Marcie Burch  860-215-9410
MBurch@trcc.commnet.edu

Humanities: Terrence Delaney  860-215-9422
TDelaney@trcc.commnet.edu

Mathematics: Larisa Alikhanova  860-215-9401
LAlkhanova@trcc.commnet.edu

Sciences: Leslie Samuelson  860-215-9467
LSamuelson@trcc.commnet.edu

Nursing and Allied Health: Edith Ouellet  860-215-9460
EOuellet@trcc.commnet.edu

Social Sciences: Dov Kugelmas  860-215-9446
DKugelmas@trcc.commnet.edu

Technologies: Allan Anderson  860-215-9403
AAnderson@trcc.commnet.edu
President's Message

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

ConnSCU's Mission

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.

Three Rivers Community College's 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.

**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.

**About Three Rivers**

**History of Three Rivers**

*On May 5, 1992, the Connecticut General Assembly enacted Public Act 92-126 merging the community and technical colleges in five geographic areas of Connecticut. As a result, Thames Valley State Technical College and Mohegan Community College were officially combined to form a comprehensive, publicly supported college serving the diverse educational needs of the residents of the southeastern and eastern regions of the state. In November 1992, our newly consolidated college was renamed Three Rivers Community-Technical College in recognition of the region's three primary rivers: the Shetucket, the Yantic, and the Thames. The commuter college, now called Three Rivers Community College, had consisted of two campuses in Norwich, the Thames Valley campus and the Mohegan campus which have been consolidated as of December 2008 at the 574 New London Turnpike (Thames campus) address. The college has two off-campus instructional centers located at the Naval Submarine Base, and the Ella T. Grasso Southeastern Regional Vocational Technical School in Groton.*

*Through the integration of technical, career, and liberal arts programs within the College, Three Rivers' students are now able to move with greater ease from one program to another. More than 4,000 full- and part-time students in credit programs and 2,300 students in non-credit continuing education programs enroll each year at Three Rivers.*

**Programs of Study**

**Programs Ordered by Department:**

- Associate Degrees and Certificate Programs
Programs Ordered by Type:

Associate

Accounting Career, A.S.

Degree Code: A07

Accredited by the Association of Collegiate Business Schools and Programs (ACBSP)
11520 West 119th St. Overland Park, KS 66213
Telephone 913-339-9356

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 of the 63-64 credit curriculum.

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.

**BBG* K115 - Business Software Applications °**

3 CREDIT HOURS
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.

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.

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.

Total: 16

Semester II

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.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prerequisite: 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 more critical listeners who can respond rhetorically to complex issues and ideas.

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.

- _________ - Fine Arts Elective 3 CREDIT HOURS

Total: 16

Semester III

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.

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

BFN* K201 - Principles of Finance

3 CREDIT HOURS
Prerequisites: ACC* K111 or ACC* K115 and BBG* K115.
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.

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 IV

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* 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*.  
(ACC* K272 strongly recommended) 3 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.

- Natural Sciences Elective 3-4 CREDIT HOURS

Total: 15-16

Note:

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

* Indicates common course numbering within Connecticut Community College system.

++ ACC* K272 is strongly recommended.

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: 63-64

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 Transfer, A.S.

Degree Code: A09
Accounting is concerned with the preparation and maintenance of adequate, informative, and accurate systems of financial records for all kinds of public and private organizations and is among the fastest growing occupations in Southeastern Connecticut. This program is designed primarily for students who plan to transfer to a four-year college. Students are urged to investigate and select the institution which they will transfer as early as possible since each transfer situation must be planned to meet specific baccalaureate requirements. A minimum of 64 credits is required for graduation.

Accounting Transfer 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 placement.

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.

**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* K095 or MAT* K095I placement∞.

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.

**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.

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: 16

Semester II

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.

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* 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.

- _________-Natural Sciences Elective with lab 4 CREDIT HOURS

Total: 14

Semester III

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* 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.

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.

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.
**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 proficiency with algebraic skills and the conceptual understanding needed to be successful in the Calculus sequence. The topics include: sets, polynomial, exponential, logarithmic and rational functions, rational exponents, conic sections, right triangle trigonometry, matrices, polynomial, exponential, logarithmic and radical equations, linear and quadratic inequalities, absolute value equations and inequalities, linear and nonlinear systems.

Total: 15

Semester IV

**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.

**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.

**BFN* K201 - Principles of Finance**

**3 CREDIT HOURS**
Prerequisites: ACC* K111 or ACC* K115 and BBG* K115.

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.
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.

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

Accounting Transfer, 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 learned principles and skills to unique factual settings using correct vocabulary.
4. have obtained a well-rounded general education.
5. successfully transfer to a 4-year college/university.

Architectural Design Technology, A.S.

Degree Code: A21

Associate In Science

Program Coordinator: Mark Comeau - 860-215-9415

The Architectural Design Technology Associate Degree Program is designed to expand opportunities for those interested in the drafting/design fields. The program serves those seeking entry-level positions and those who plan on continuing studies at a university. The program exposes students to the fundamentals of traditional drafting and design and incorporates leading edge technology of computer-aided drafting (AutoCAD). Graduates of the program will be qualified to fill many diverse positions in the industry or transfer to a baccalaureate or professional degree program. Positions may include: design and production under the supervision of a registered architect, draftsman for construction or development firms, architectural representative for vendor sales, and designer/draftsman for facility planners.

Architectural Design Technology Curriculum Requirements

(suggested 2 year sequence)

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 - Computer-Aided Drafting**

**1 CREDIT HOUR**
*Corequisite: CAD* K107.
This course 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.

**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 - Building Materials**

3 CREDIT HOURS
This course introduces students to the source, use and limitations of materials used in building construction, while exploring methods of assembly and historic applications. Emphasis is placed on basic design concepts and the practical applications of building materials "in the field." Field observation is attained through site visits of projects under construction (as available).

**ARC* K137 - Architectural Detailing °**

1 CREDIT HOUR
*Prerequisites: ARC* K135/ARC* K135L.
*Corequisite: ARC* K137L.
This course introduces the methods and purpose of producing architectural drawing details that convey design intent to the construction industry while illustrating, with detail, the materials, assemblies and methods to be used in construction.

**ARC* K137L - Architectural Detailing Lab °**

2 CREDIT HOURS
*Prerequisites: ARC* K135/ARC* K135L.
*Corequisite: ARC* K137.
This course implements the principles of architectural detailing covered in the lecture portion of this course, as students gain working knowledge through construction observation, detail observation, and a hands-on scaled detail building project.

**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, structural and 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.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prerequisite: 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 morecritical listeners who can respond rhetorically to complex issues and ideas.

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).
This course prepares students for the study of Calculus I. It is the study of functions, their graphs and applications. The topics include polynomial and rational functions and their graphs, operations on radical expressions, matrices, exponential and logarithmic functions, trigonometric functions and their graphs, trigonometric identities, trigonometric applications, and determinants.

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: 19

Semester III
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.

or

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.

or

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.

ARC* K211 - Architecture Design I °

1 CREDIT HOUR
Prerequisites: ARC* K137/ARC* K137L.
Corequisite: ARC* K211L.
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
Prerequisites: ARC* K137/ARC* K137L.
Corequisite: ARC* K211.
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* 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* 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.
- __________ - Elective: Humanities and Arts 3 CREDIT HOURS

Total: 15-16

Semester IV

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** 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 °

2 CREDIT HOURS
*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 °

1.5 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.

- _________ - Open Elective 3 CREDIT HOURS
- _________ - Social Science Elective 3 CREDIT HOURS

Total: 15.5

Note:

° Course has a prerequisite. Students should check course description.
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: 65.5-66.5

Architectural Design Technology, Associate in Science Degree Program

Objectives

Graduates of the Architectural Design Technology program will:

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

Outcomes

Graduates of the Architectural Design 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 architectural design 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.
5. describe how the concepts of design program, spatial analysis, historical precedence, and material methods and assemblies affect the design process.
6. illustrate an ability to think critically and identify, evaluate and solve complex design problems; demonstrate creativity and functionality in design problem solutions; and communicate solutions graphically and effectively.
7. illustrate an ability to think critically and identify, evaluate and solve complex design problems; demonstrate creativity and functionality in design problem solutions; and communicate solutions graphically and effectively.
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 become lifelong learners.

Business Administration Management, A.S.

Degree Code: B60
Associate in Science

Program Contact: Ed Muenzner - 860-215-9456

This Management career program prepares individuals for management positions in small businesses, corporations, government, and public and private agencies upon completion of a 62-63 credit curriculum. Recent surveys show that there are increasing opportunities for managerial employment in areas such as finance, 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.

Business Administration Management Curriculum Requirements

Semester I

**ACC* K115 - Financial Accounting °**

4 CREDIT HOURS

Prerequisites: ENG* K101 or ENG* K101S placement \(\neq\) 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.

**BBG* K115 - Business Software Applications °**

3 CREDIT HOURS

Prerequisites: ENG* K101 or ENG* K101S placement \(\neq\) or completion of ENG* K096 with a "C#" grade or better; MAT* K095 or MAT* K095I placement \(\neq\).

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.

**ENG* K101 - Composition °**

3 CREDIT HOURS

Prerequisite: ENG* K101 or ENG* K101S placement \(\neq\) 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.

**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.

Total: 16

**Semester II**

**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.

**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.
COM* K173 - Public Speaking °

3 CREDIT HOURS
Prerequisite: 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 more critical listeners who can respond rhetorically to complex issues and ideas.

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.

• __________ - Fine Arts Elective 3 CREDIT HOURS

Total: 16

Semester III

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.
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* 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.

• Elective from the following prefixes: ACC*, BBG*, BES*, BFN*, BMG*, BMK*, HSP* 3 CREDIT HOURS

Total: 15

Semester IV

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* 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.
• Elective from the following prefixes: ACC*, BBG*, BES*, BFN*, BMG*, BMK*, HSP*. 3 CREDIT HOURS

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 - Industrial & Organizational Psychology °.

BMG* K218 - Operations Management °

3 CREDIT HOURS
Prerequisites: ACC* K118 or ACC* K233; MAT* K123 or MAT* K146 or MAT* K167 or MAT* K172 or MAT* K186.
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* 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 employee privacy.

• Natural Science Elective 3-4 CREDIT HOURS

Total: 15-16

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: 62-63

Business Administration Management, 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 field of Business Administration.
2. demonstrate knowledge of those principles and skills applicable to general business and those specific to the field of Business Administration.
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 Business Administration.

Business Administration Transfer, A.S.

Degree Code: A62

Associate in Science

Program Contact: Ed Muenzner - 860-215-9456

This program is designed primarily for those students who plan to transfer in business administration to a baccalaureate institution. Students are urged to investigate and select the institutions to which they will transfer as early as possible since each transfer situation must be planned carefully.

Business Administration Transfer Curriculum Requirements

Semester I

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* K095 or MAT* K095I placement.

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.
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.

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 proficiency with algebraic skills and the conceptual understanding needed to be successful in the Calculus sequence. The topics include: sets, polynomial, exponential, logarithmic and rational functions, rational exponents, conic sections, right triangle trigonometry, matrices, polynomial, exponential, logarithmic and radical equations, linear and quadratic inequalities, absolute value equations and inequalities, linear and nonlinear systems.

- __________ - Fine Arts Elective 3 CREDIT HOURS

Total: 15

Semester II

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.

**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.

**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* 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.

**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.
Total: 16

Semester III

**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.

**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.

**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.

**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* K102 - Principles of Microeconomics °**
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.

- Science Elective (Choose one of the following: AST* K101, BIO* K260 or CHE* K101)

Total: 19

Semester IV

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.

BFN* K201 - Principles of Finance °

3 CREDIT HOURS

Prerequisites: ACC* K111 or ACC* K115 and BBG* K115.

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.

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 - Industrial & Organizational Psychology °.

- Natural Sciences Elective with lab 4 CREDIT HOURS
- History Elective (Choose one of the following: HIS* K121, HIS* K122, HIS* K201, or HIS* K202)

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: 66

Business Administration Transfer, 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 field of Business Administration.
2. demonstrate knowledge of those principles and skills applicable to general business and those specific to the field of Business Administration.
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 transfer to a 4 year college/university Business Administration program.

Business Information Systems, A.S.

Degree Code: B75

Accredited by the Association of Collegiate Business Schools and Programs (ACBSP)
11520 West 119th St. Overland Park, KS 66213
Telephone 913-339-9356

Associate in Science

Program Coordinator: Betti Gladue - 860-215-9430

This program provides students with supplemental skills and knowledge that can be useful in a broad range of business management positions. In addition, the program prepares graduates for a more specialized positions in business information system and provides the background for transfer into bachelors degree programs in this area.

Business Information Systems Curriculum Requirements

Semester I
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.

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.

• __________ - Fine Arts Elective 3 CREDIT HOURS

Total: 12

Semester II

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. x; 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.

**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* K095 or MAT* K095I placement.

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.

**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.

**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.

Total: 16
Semester III

**BFN* K201 - Principles of Finance °**

3 CREDIT HOURS
Prerequisites: ACC* K111 or ACC* K115 and BBG* K115.
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.

**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 solve problems discussed in the lecture portion. Three lecture hours, one two-hour lab.

**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.

**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 proficiency with algebraic skills and the conceptual understanding needed to be successful in the Calculus sequence. The topics include: sets, polynomial, exponential, logarithmic and rational functions, rational exponents, conic sections, right triangle trigonometry, matrices, polynomial, exponential, logarithmic and radical equations, linear and quadratic inequalities, absolute value equations and inequalities, linear and nonlinear systems.
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 - Organizational Behavior °.

Total: 16

Semester IV

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.

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.

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.
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.

- Natural Sciences Elective with lab 4 CREDIT HOURS

Total: 17

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

Business Information Systems, 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 field of Business Information Systems.
2. demonstrate knowledge of those principles and skills applicable to general business and those specific to the field of Business Information Systems.
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 field of Business Information Systems.

Civil Engineering Technology, A.S.

Degree Code: A80

Associate in Science

Program Coordinator: Diba Khan-Bureau - 860-215-9443
This program prepares students with skills necessary for employment as civil engineering technicians with consulting firms, testing laboratories, utilities, and local, state and federal government agencies. Emphasis is placed on such tasks as: surveying, materials testing, drafting, construction inspection, design and erection of structures, transportation, water supplies and sewage treatment.

Civil Engineering Technology Curriculum Requirements

Prerequisites to the Program

**COM* K173 - Public Speaking**

3 CREDIT HOURS
*Prerequisite: 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 more critical listeners who can respond rhetorically to complex issues and ideas.

**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 proficiency with algebraic skills and the conceptual understanding needed to be successful in the Calculus sequence. The topics include: sets, polynomial, exponential, logarithmic and rational functions, rational exponents, conic sections, right triangle trigonometry, matrices, polynomial, exponential, logarithmic and radical equations, linear and quadratic inequalities, absolute value equations and inequalities, linear and nonlinear 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
CIV* K101 - Introduction to Civil Engineering and Materials

3 CREDIT HOURS
Corequisite: MAT* K172 or permission of the program coordinator.
This course will familiarize students to the field of civil engineering and engineering materials. The discussion of engineering materials past and present as well as the function of the civil engineer and how their role influenced history. Engineering materials such as aggregates, concrete, asphalt, steel, wood and other traditional as well as newer materials will be studied. Students will examine the physical properties, the composition, and the many uses of engineering materials in our daily lives. Students will be introduced to the "greening" of civil engineering techniques and methodologies. Sustainable infrastructures as well as our landscapes will be explored. Students will learn about the important role that civil engineers play in our everyday lives and how civil engineers developed our infrastructure from the beginning of time to the present and beyond to meet the challenges of the future. Students will visit several sites throughout the semester and have guest speakers from agencies, private firms and industry.

CIV* K150 - Surveying I

3 CREDIT HOURS
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

1.5 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.

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.

Total: 10.5
Semester II

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* K250 - Surveying II °

3 CREDIT HOURS
Prerequisites: CIV* K150 and CIV* K151.
Corequisite: CIV* K251.
This course is a continuation of Surveying I and covers boundary location, curves and curved boundary lines, areas, topographic surveys and mapping, connecting traverses, horizontal and vertical alignment of roadways, cross sectioning, profile leveling, and construction staking. This course is cross listed with ENV* K280.

CIV* K251 - Surveying II Lab °

1.5 CREDIT HOURS
Prerequisites: CIV* K150 and CIV* K151
Corequisite: CIV* K250.
This laboratory is a continuation of the laboratory work begun in Surveying I leading to the development of a boundary and topographic map of the site area. Further, a roadway in play, profile, and cross section is developed and located on the site.

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).

This course prepares students for the study of Calculus I. It is the study of functions, their graphs and applications. The topics include polynomial and rational functions and their graphs, operations on radical expressions, matrices, exponential and logarithmic functions, trigonometric functions and their graphs, trigonometric identities, trigonometric applications, and determinants.

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: 17.5

Semester III

CIV* K236 - Water Resources Engineering

3 CREDIT HOURS
Corequisite: CIV* K237.

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. This course is equivalent to ENV* K245.

or

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. This course is equivalent to CIV* K236.

CIV* K237 - Water Resources Engineering Lab
1 CREDIT HOUR
Corequisite: CIV* K236.
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 to actual design of a storm water system including a cost estimate. This course is equivalent to ENV* K245L.

or

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. This course is equivalent to CIV* K237.

ENV* K101 - Environmental Studies

3 CREDIT HOURS
Corequisite: ENG* K096 or higher. Please note: if completing ENG* K096 prior to enrolling in ENV* K101, a grade of "C#" or better is required for registration into this course.
This is a course that describes the study of the biological and physical aspects of the environment and environment-related issues, including procedures for lessening or controlling environmental pollution and related damage. Some field work will be included. This course is equivalent to BIO* K180 - Principles of Environmental Science. Course fulfills International/Intercultural requirement.

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.

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.

- __________ - Civil/Environmental Engineering Technical Elective 3 CREDIT HOURS †

Total: 20

Semester IV

CAD* K106 - Computer-Aided Drafting

1 CREDIT HOUR
Corequisite: CAD* K107.
This course 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.

CIV* K200 - Soils °

3 CREDIT HOURS
Prerequisite: MAT* K186.
Corequisite: CIV* K201.
The soils course and Lab, the capstone for the Civil and Environmental Engineering Technology programs, will highlight the experiences that the seniors have developed during their tenure in the programs. The many skills including the ability to read and analyze technical drawings, provide written technical presentations and to perform related computations will be realized. This includes the ability to read, analyze and solve technician-level written problems involving all levels of mathematical computations, geometric concepts and figures, and trigonometric functions. The students will learn to analyze the soil structure of a proposed building or construction site and to understand problems of existing structures due to conditions of the ground underneath them. Students in the soils class take soil samples and investigate spoil composition, drainage and grade, among other factors. They are required to interpret the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control Plan. This plan is a required regulation developed by the Connecticut Department of Environmental Protection Agency. This regulation is an
essential document for both the Civil and Environmental Engineering technology students. An understanding and being able to follow the prescribed procedures and guidelines will be expected.

**CIV* K201 - Soils Lab °**

1 CREDIT HOUR  
Prerequisite: MAT* K186.  
Corequisite: CIV* K200.  
This course explores the physical testing of soil, which includes determination of density, mechanical grain size analysis, hydrometer grain size analysis, liquid and plastic limits, moisture-density relationship, coefficient of permeability (constant and falling head), direct shear, and consolidation. Design of a septic system for a residential dwelling is taught.

**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.

- _________ Civil/Environmental Engineering Technical Elective 3 CREDIT HOURS †
- _________ Humanities/Social Sciences elective 3 CREDIT HOURS
- _________ Math/Science Elective 3 CREDIT HOURS

Total: 19

**Note:**

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

† Any CIV* or ENV* course (STRONGLY recommend CIV*, ENV*, GIS* K146 - Introduction to GIS as a Semester III elective). Other courses include BIO* K121, CHE* K111, ARC* K214, ARC* K241/ARC* K241L (3.5 credits), any CAD* course (except CAD* K106/CAD* K107 which is required), or MEC* course with the permission 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**
Civil Engineering Technology, Associate in Science Degree Program

Objectives

Graduates of the program in Civil Engineering Technology will:

1. be qualified to make technical and creative contributions in the civil engineering field and find employment in design, construction and maintenance of the physical and naturally built environment in the practice of civil engineering technology.
2. have an appreciation for the need to be lifelong learners.
3. demonstrate professionalism and a sense of societal 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.

Civil Engineering Technology, Associate in Science Degree Program

Outcomes

By the time of graduation, students in the Civil 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 technical-thinking skills needed for civil engineering technology applications.
3. Combine oral, technical and written communication skills to present and exchange information effectively and communicate design solutions.
4. know of a professional code of ethics
5. describe concepts relating to design, construction, operation or maintenance, infrastructure, policy, processes and continuous improvement.
6. describe how the concepts of planning, design, construction operation or maintenance of the built environment and global infrastructure affect evaluation of analysis, policies and decision making.
7. illustrate an ability to think critically and identify, evaluate and solve complex civil engineering technological problems;
8. demonstrate technical and provide practical applications in problem and solutions; and communicate solutions technically and effectively.
9. recognize actions and acts of professionalism that allow them to become informed and participating citizens cognizant of ethics, civic duty and social responsibility.
10. recognize the need to be lifelong learners.

Computer Science Technology, A.S.

Degree Code: B65

Associate in Science

Program Coordinator: Joseph Johnson - 860-215-9440

This 66 credit program is designed to provide students with skills consistent with entry-level computer programming and related jobs. The core curriculum combined with technical electives gives the student the flexibility to design a preferred track of concentration. Many students will seek employment as entry-level programmers immediately upon receiving the Associate Degree in Computer Science; however, others will use this as a first step in their pursuit of higher degrees at other institutions.
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 proficiency with algebraic skills and the conceptual understanding needed to be successful in the Calculus sequence. The topics include: sets, polynomial, exponential, logarithmic and rational functions, rational exponents, conic sections, right triangle trigonometry, matrices, polynomial, exponential, logarithmic and radical equations, linear and quadratic inequalities, absolute value equations and inequalities, linear and nonlinear 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 solve problems 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 °**
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 more critical listeners who can respond rhetorically to complex issues and ideas.

- Technical Elective 3 CREDIT HOURS

Total: 13

Semester II

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.

CST* K232 - Communications & Networking °

4 CREDIT HOURS
Prerequisite: None required. Recommended BBG* K115 or CSA* K105 or equivalent.
Students will become knowledgeable about basic internetworking concepts, including the use of internetworking software applications. Topics include routing/switching hardware, security, distributed client/server applications and architecture, intranets and intranet servers and browsers, networks and network servers, LANs/WANs, internetworking technologies, the OSI reference model for networking protocols, addressing and routing algorithms, TCP/IP implementation, the Internet, and the World Wide Web with emphasis on TCP/IP and the Internet. Basic concepts of network socket programming for client/server communications will be covered.

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). This course prepares students for the study of Calculus I. It is the study of functions, their graphs and applications. The topics include polynomial and rational functions and their graphs, operations on radical expressions, matrices, exponential and logarithmic functions, trigonometric functions and their graphs, trigonometric identities, trigonometric applications, and determinants.

- Fine Arts or Humanities Elective 3 CREDIT HOURS

Total: 18

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.
• __________ - Technical Elective 3 CREDIT HOURS

Total: 18

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), 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. Three lecture hours, one two-hour lab.

• __________ - 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.

ACC* K112 - Principles of Accounting II °

4 CREDIT HOURS
Prerequisite: ACC* K111.
This course is a continuation of the study of accounting theory and practice. Introduction to partnerships, corporations, managerial accounting, and analysis of financial statements. Computer lab time may be required for this course.

CSC* K208 - Advanced Visual Basic °

4 CREDIT HOURS
Prerequisite: CSC* K207.
This course is designed to provide the student with object oriented programming using Visual Basic.NET to create Windows applications, console applications, web applications, and web services. Topics include inheritance, polymorphism, graphics,
exception handling, multithreading, file I/O, database access, ASP.NET, web forms, web controls, and networking. Three lecture hours, one two-hour lab.

**CSC* K218 - C# Programming °**

**4 CREDIT HOURS**

*Prerequisite: CSC* K108.*

This course is designed to provide the student with an introduction to the .NET platform and object-oriented programming using the language of C#. Topics include console applications, windows applications, ASP.NET web applications, web services, inheritance, polymorphism, event handling, graphics, delegates, multi-threading, exception handling, 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), 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. 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* K235 - Database Development III °**

**4 CREDIT HOURS**

*Prerequisite: CSC* K233.*

This course will review SQL and will focus on advanced topics including logical query processing, query tuning, new query capabilities (sub queries, table expressions and ranking functions) and DBA features. Three lecture hours, one two-hour lab. The lab is the hands-on component to Database III and will feature the SQL Server database management system.

**CSC* K241 - Data Structures & Algorithms °**
4 CREDIT HOURS
Prerequisite: CSC* K216.
Students will acquire the facility to both design and implement computer programs using a procedure oriented language. The course will emphasize advanced programming techniques utilizing DATA STRUCTURES (stacks, linked, list, binary trees, etc.) and recursive algorithms. Three lecture hours, one two-hour lab.

CSC* K283 - Introduction to Assembler °

4 CREDIT HOURS
Prerequisite: CSC* K108.
This course is designed to provide students with an introduction to machine organization and machine language by learning to program in assembly language. Topics include macros, external subroutines, parameter passing conventions, linking assembly language modules to C∞∞ programs, machine instruction encoding, hardware port I/O, terminate and stay resident utilities, interrupt handlers, and the floating point unit. Three lecture hours, one two-hour lab.

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* K141 - Computer Hardware Maintenance °

4 CREDIT HOURS
Prerequisite: None required. Recommended BBG* K115 or CSA* K105 or equivalent.
This course will provide the principles of maintaining and troubleshooting the personal computer's hardware. The course will cover computer hardware, associated peripherals, configuration, optimization, and repair from the PC technician's point of view. Students will develop critical thinking and troubleshooting skills through emphasis on hands-on experience in installing, maintaining, and processing various problems with computer hardware. This course will begin preparing the student for the CompTIA Core Hardware Examinations for the A∞ certification.

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* K175 - Network Administration and Support °

4 CREDIT HOURS
Prerequisite: None required. Recommended BBG* K115 or CSA* K105 or equivalent.
The student will acquire detailed knowledge of networking technology, including basic network structure; the characteristics of star, bus, mesh, and ring topologies, and their advantages and disadvantages; the characteristics of segments and backbones; identification of the following: the major network operating systems, including Microsoft Windows NT, Novell NetWare, and Unix; the clients that best serve specific network operating systems and their resources; the directory services of the major network operating systems; and general networking and communications security. It is recommended but not required that this course be taken first.

CST* K176 - Internet Technologies °

4 CREDIT HOURS
Prerequisite: None required. Recommended BBG* K115 or CSA* K105 or equivalent.
This course surveys the various technologies that form and make the Internet work. It will prepare students to understand current technologies and make intelligent business decisions concerning the Internet. The student will acquire detailed knowledge of a wide range of internet basics, the knowledge and skills required to use and update client software, and to assist in the administration of internet/intranet sites. Additionally, the student will acquire detailed knowledge of programming related terms and the differences between popular client and server programming language.

CST* K177 - Server Technologies °

4 CREDIT HOURS
Prerequisite: None required. Recommended BBG* K115 or CSA* K105 or equivalent.
Students will acquire advanced-level technical knowledge of server issues and technology, including installation, configuration, upgrading, maintenance, and troubleshooting and disaster recovery. Additionally, students will acquire advanced knowledge of networking hardware, detailed knowledge of programming related terms and the differences between popular client and server programming language.

CST* K232 - Communications & Networking °

4 CREDIT HOURS
Prerequisite: None required. Recommended BBG* K115 or CSA* K105 or equivalent.
Students will become knowledgeable about basic internetworking concepts, including the use of internetworking software applications. Topics include routing/switching hardware, security, distributed client/server applications and architecture, intranets and intranet servers and browsers, networks and network servers, LANs/WANs, internetworking technologies, the OSI reference model for networking protocols, addressing and routing algorithms, TCP/IP implementation, the Internet, and the World Wide Web with emphasis on TCP/IP and the Internet. Basic concepts of network socket programming for client/server communications will be covered.
CST* K253 - Web E-Commerce °

4 CREDIT HOURS
Prerequisite: CST* K153 or permission of the instructor.
This course examines the essentials of electronic commerce including the business-to-consumer (B2C) and the business-to-
busine\r\nness (B2B) categories as well as the transactions and processes that support selling and purchasing activities. B2C topics
include the addition of server side programming (e.g. shopping cart software) to traditional web site design for the support of
order entry processing, and database technology to support both product catalogs and transactions for order fulfillment. B2B
topics include electronic purchase order and invoicing processes needed to implement electronic data interchange. The role of
XML in these activities, electronic commerce security, electronic payment systems, and international, legal and ethical issues are
examined. A case-study approach is used which analyzes business examples to provide real-world experience.

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/EET* K106; MAT* K137 or MAT* K137S.
Corequisites: EET* K135.
This course is an introduction to the internal physical behavior of solid state electronic devices. Conduction in metals and
semiconductors is considered. The characteristics of junction diodes, bipolar transistors, and field effect transistors are studied.
Biasing and thermal stabilization requirements and techniques are developed. Models, equivalent circuits, and applications are
emphasized. EET* K134 and EET* K135 are equivalent to PHO* K140.

EET* K135 - Electronics I Lab °

1 CREDIT HOUR
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisites: MAT* K186.
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* K134 and EET* K135 are equivalent to PHO* K140.
EET* K254 - Digital Electronics I °

3 CREDIT HOURS
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisite: EET* K255.
Students will engage in a comprehensive study of binary logic gates. The circuits for certain TTL, ECL, MOS, and CMOS 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.

and

EET* K255 - Digital Electronics I Lab °

1.5 CREDIT HOURS
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisite: EET* K254.
Students will engage in a comprehensive study of binary logic gates. The circuits for certain TTL, ECL, MOS, and CMOS 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.

EET* K258 - Microprocessors & Controls °

3 CREDIT HOURS
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisite: EET* K259.
Students will be introduced to the concepts involved in a single board microcomputer. Emphasis is placed upon using a microprocessor as a control device, and also in a microcomputer system. Various microprocessors and related integrated circuits are studied.

and

EET* K259 - Microprocessors & Controls Lab °

1.5 CREDIT HOURS
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisite: EET* K258.
This lab provides application of the concepts corresponding to the theory in EET* K258.

GRA* K260 - Web Design °

3 CREDIT HOURS
Prerequisites: ENG* K101 or ENG* K101S; GRA* K140; 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: 66
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, A.S.

Degree Code: B80

Associate in Science

Program Coordinator: Mark Comeau - 860-215-9415

The objective of the Construction Management Technology program is to provide students desiring a career in the construction industry with entry-level skills. The Associate in Science degree introduces students to a broad range of courses required for basic performance in offices which support the construction industry, including construction companies, architecture and engineering firms. Course subjects include construction drawings and documentation, computer-aided design, building materials and codes, site and environmental appreciation and in addition, students will gain exposure to the principal concepts of accounting and management.

Construction Management Curriculum Requirements

(suggested 2 year sequence)

Semester I

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.

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 proficiency with algebraic skills and the conceptual understanding needed to be successful in the Calculus sequence. The topics include: sets, polynomial, exponential, logarithmic and rational functions, rational exponents, conic sections, right triangle trigonometry, matrices, polynomial, exponential, logarithmic and radical equations, linear and quadratic inequalities, absolute value equations and inequalities, linear and nonlinear 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.

- Fine Arts Elective 3 CREDIT HOURS

Total: 16

Semester II
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.

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.

CIV* K150 - Surveying I

3 CREDIT HOURS
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

1.5 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.

ENV* K101 - Environmental Studies

3 CREDIT HOURS
Corequisite: ENG* K096 or higher. Please note: if completing ENG* K096 prior to enrolling in ENV* K101, a grade of "C#" or better is required for registration into this course.
This is a course that describes the study of the biological and physical aspects of the environment and environment-related issues, including procedures for lessening or controlling environmental pollution and related damage. Some field work will be included. This course is equivalent to BIO* K180 - Principles of Environmental Science. Course fulfills International/Intercultural requirement.

- _________ - Technical Elective 3 CREDIT HOURS
Total: 16.5

Semester III

**ARC* K108 - Building Materials**

**3 CREDIT HOURS**
This course introduces students to the source, use and limitations of materials used in building construction, while exploring methods of assembly and historic applications. Emphasis is placed on basic design concepts and the practical applications of building materials "in the field." Field observation is attained through site visits of projects under construction (as available).

**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, structural and 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.

**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.

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).
This course prepares students for the study of Calculus I. It is the study of functions, their graphs and applications. The topics include polynomial and rational functions and their graphs, operations on radical expressions, matrices, exponential and logarithmic functions, trigonometric functions and their graphs, trigonometric identities, trigonometric applications, and determinants.

Total: 19

Semester IV

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.
ARC* K241 - Site Analysis °

2 CREDIT HOURS
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 °

1.5 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* 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. This course is equivalent to CIV* K229.

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.

• Technical Elective 3 CREDITS HOURS

Total: 16.5

Note:
Construction Management, Associate in Science Degree Program

Outcomes

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

1. succeed in entry level work in construction management well
2. prepared to take advantage of opportunities into supervisory positions.
3. expand their technical knowledge through lifelong learning and, if desired, further higher education.
4. work ethically and responsibly in the construction industry apply their knowledge individually and in teams to solve technical and management problems.

Criminal Justice-Enforcement Option, A.S.

Degree Code: A02

Associate in Science

Program Coordinator: Jeffrey Crouch - 860-215-9418

This 60-61 credit program provides education as a basis for employment or further advancement in the criminal justice field. This program is designed for students interested in pursuing 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. A minimum of 60 credits is required for graduation.

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 more critical listeners who can respond rhetorically to
complex issues and ideas.

ENG* K101 - Composition °

3 CREDIT HOURS
Prequisite: 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.
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 @
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.

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 60-61 credit program provides a broad overview of the field of criminal justice as well as specialized emphasis on career opportunities, knowledge and skills in areas of treatment. This program is designed for students interested in pursuing careers in a treatment-oriented nucleus and 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
Prerequisite: 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
Prerequisite: 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 more critical 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.

**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.
* 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

E-Commerce, A.S.

Degree Code: A06

Associate in Science

Program Coordinator: Betti Gladue - 860-215-9430

In this 60-61 degree credit program students will obtain a working knowledge of E-Commerce as well as expertise in the area of web, programming, and databases. They will learn how to develop and maintain websites and become competent in the other aspects of business, technology, and the worldwide web.

E-Commerce involves many different technical and business skills. The occupational field of E-Commerce will be of the fastest growing in the industry.

E-Commerce 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.
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* K095 or MAT* K095I placement.

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.

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.

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.

Total: 16

Semester II
**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.

**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 solve problems discussed in the lecture portion. Three lecture hours, one two-hour lab.

**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.

- _________ - Social Sciences Elective 3 CREDIT HOURS
Semester III

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.

or

• ________ - Business Elective 3 CREDIT HOURS

or

• ________ - Computer Science Elective 3 CREDIT HOURS

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prerequisite: 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 more critical listeners who can respond rhetorically to complex issues and ideas.

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.

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.

Total: 13

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.

**CST* K253 - Web E-Commerce °**

4 CREDIT HOURS
*Prerequisite: CST* K153 or permission of the instructor.*
This course examines the essentials of electronic commerce including the business-to-consumer (B2C) and the business-to-business (B2B) categories as well as the transactions and processes that support selling and purchasing activities. B2C topics include the addition of server side programming (e.g. shopping cart software) to traditional web site design for the support of order entry processing, and database technology to support both product catalogs and transactions for order fulfillment. B2B topics include electronic purchase order and invoicing processes needed to implement electronic data interchange. The role of XML in these activities, electronic commerce security, electronic payment systems, and international, legal and ethical issues are examined. A case-study approach is used which analyzes business examples to provide real-world experience.

**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.

- __________ - Natural Sciences Elective 3-4 CREDIT HOURS

Total: 14-15

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

E-Commerce, Associate in Science Degree Program Outcomes

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

1. understand the use of current accounting systems and procedures.
2. understand and use Microsoft Suite application software; fundamental concepts underlying the current database technology; and Web Design and Development concepts.
3. understand the fundamental legal principles and their applications to business transactions and to individual rights and obligations.
4. understand the fundamental principles of management and business operations.
5. understand marketing research and consumer behavior in the formulation of marketing strategies.
6. understand computer design, programming, information processing and algorithmic problem solving.
7. understand the essentials of electronic commerce including electronic purchase order and invoicing, electronic commerce security, electronic payment systems and basic network security.

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 64 credit 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 para professionals (K-2) and related human service agencies. Our courses also address the needs of individuals already employed in the area of early education 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." The plan will award a minimum of 18 credits in early childhood education, 3-6 credits in child growth and development and a minimum of 30 credits in General Education. 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

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. Observations of early childhood programs will be required.

**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.

**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.

**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.

**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.

**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.

**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.
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.
- ECE Electives (6 Credits): Please choose any course in ECE*, EDU*, PSY* K204 or PSY* K220.

Total: 30

Arts and Humanities

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

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.

- Science elective with Lab 4 CREDIT HOURS

Mathematics

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)

Technology

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* K095 or MAT* K095I placement.
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
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.

Social Sciences

**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.

- Any 200 level course in Sociology, Psychology or Ethics 3 CREDIT HOURS

Open Elective (3 Credits):

Best Choice for Transfer:

**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.*

A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). This course meets the mathematics requirement for liberal arts (non-science) transfer students. The topics covered are selected from set theory, counting and probability, and basic statistics, linear programming, game theory, Markov process, difference equations, and mathematical modeling.

**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.

Study 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).

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.

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.

SSC* K210 - 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 U.S. and other nations due to ever-increasing global interdependence. Topics vary from semester to semester depending on current concerns and interests. Topics often covered include: the impact of economic globalization on jobs and communities, the role of the U.S. military in the world, the international drug trade, changing immigration patterns, the globalization of hate groups, environmental destruction, population growth, global health issues, the survival of indigenous peoples, and women's rights as human rights. Attention is paid both to 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 UN. Course fulfills International/Intercultural Requirement.

And/or any of the following:
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.

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 movements 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.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prerequisite: 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 more critical listeners who can respond rhetorically to complex issues and ideas.

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.

SSC* K210 - 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 U.S. and other nations due to ever-increasing global interdependence. Topics vary from semester to semester depending on current concerns and interests. Topics often covered include: the impact of economic globalization on jobs and communities, the role of the U.S. military in the world, the international drug trade, changing immigration patterns, the globalization of hate groups, environmental destruction, population growth, global health issues, the survival of indigenous peoples, and women's rights as human rights. Attention is paid both to 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 UN. Course fulfills International/Intercultural Requirement.

Total: 34

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: 64

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 interests 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 childhood field by upholding ethical standards and engaging in informed advocacy for children and the profession.

Electrical Engineering Technology, A.S.
For over 30 years, the Electrical Engineering Technology program has been supplying qualified technicians for Connecticut industry as well as for firms throughout the New England area.

In the program, an intensive study is made of the fundamentals of electric circuits, solid state electronics, and their application in the electronic circuits and control systems. This study prepares the graduates for employment in a variety of electronic technology positions, as well as transfer to baccalaureate engineering technology programs. Due to major impact of the computer in our society, the curriculum includes a concentration on digital circuits and digital control systems. In addition to the electrical specialties, the student in this technology studies a core of related courses such as physics and advanced mathematical applications. To meet the requirements of the degree the student also pursues studies in the humanities and social sciences. Excellent transfer programs exist throughout New England for graduates who wish to continue on to a four-year degree.

Electrical 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 proficiency with algebraic skills and the conceptual understanding needed to be successful in the Calculus sequence. The topics include: sets, polynomial, exponential, logarithmic and rational functions, rational exponents, conic sections, right triangle trigonometry, matrices, polynomial, exponential, logarithmic and radical equations, linear and quadratic inequalities, absolute value equations and inequalities, linear and nonlinear 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

**CAD* K106 - Computer-Aided Drafting**
1 CREDIT HOUR
Corequisite: CAD* K107.
This course 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* K095L.
Corequisites: EET* K106; 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.

EET* K106 - Electric Circuits & Systems Lab °

1 CREDIT HOUR
Prerequisite: MAT* K095 or MAT* K095L.
Corequisite: EET* K105.
This lab 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* K114*, PHY* K115* or PHY* K103* 4 CREDIT HOURS

Total: 14
Semester II

EET* K119 - Advanced Circuits and Systems °

3 CREDIT HOURS
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisites: EET* K120.
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. Electrical Engineering Technology majors are expected to use this course to complete a year of study of circuits and systems.

EET* K120 - Advanced Circuits and Systems Lab °

1 CREDIT HOUR
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisites: EET* K119.
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/EET* K106; MAT* K137 or MAT* K137S.
Corequisites: EET* K135.
This course is an introduction to the internal physical behavior of solid state electronic devices. Conduction in metals and semiconductors is considered. The characteristics of junction diodes, bipolar transistors, and field effect transistors are studied. Biasing and thermal stabilization requirements and techniques are developed. Models, equivalent circuits, and applications are emphasized. EET* K134 and EET* K135 are equivalent to PHO* K140.

EET* K135 - Electronics I Lab °

1 CREDIT HOUR
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisites: MAT* K186.
This course supports Electronics I by providing the student with practical experience in the handling and measurement of semiconductor devices. Computer simulation and bench measurement experiments will be performed in studying the operational characteristics of basic semiconductor devices. EET* K134 and EET* K135 are equivalent to PHO* K140.

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). This course prepares students for the study of Calculus I. It is the study of functions, their graphs and applications. The topics include polynomial and rational functions and their graphs, operations on radical expressions, matrices, exponential and logarithmic functions, trigonometric functions and their graphs, trigonometric identities, trigonometric applications, and determinants.

Total: 15

Semester III

EET* K254 - Digital Electronics I °

3 CREDIT HOURS  
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.  
Corequisite: EET* K255.  
Students will engage in a comprehensive study of binary logic gates. The circuits for certain TTL, ECL, MOS, and CMOS 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.

EET* K255 - Digital Electronics I Lab °

1.5 CREDIT HOURS  
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.  
Corequisite: EET* K254.  
Students will engage in a comprehensive study of binary logic gates. The circuits for certain TTL, ECL, MOS, and CMOS 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.

EET* K264 - Data Acquisition and Controls °
3 CREDIT HOURS
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisite: EET* K265.
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, signal processing and communications, frequency and transient response, feedback control techniques, mechanical systems and mechanical power transmission. Students will learn the basics of measurements and data acquisition using Labview based exercises.

EET* K265 - Data Acquisition and Controls Lab °

1 CREDIT HOURS
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisite: EET* K264.
This lab 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.

EET* K274 - Electronic Communication Systems °

3 CREDIT HOURS
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisite: EET* K275.
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.

EET* K275 - Electronic Communication Systems Lab °

1.5 CREDIT HOURS
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisite: EET* K274.
This course supports Communications I by providing students with hands-on experience in the design, check-out, and evaluation of the various circuits and subsystems that comprise a communications system. Both computer simulation and bench experimentation are emphasized in gaining a familiarization with the circuitry and instrumentation involved.

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: 18.5

Semester IV

EET* K258 - Microprocessors & Controls °

3 CREDIT HOURS
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisite: EET* K259.
Students will be introduced to the concepts involved in a single board microcomputer. Emphasis is placed upon using a microprocessor as a control device, and also in a microcomputer system. Various microprocessors and related integrated circuits are studied.

EET* K259 - Microprocessors & Controls Lab °

1.5 CREDIT HOURS
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisite: EET* K258.
This lab provides application of the concepts corresponding to the theory in EET* K258.

EET* K266 - Advanced Controls and Robotics °

3 CREDIT HOURS
Prerequisites: EET* K264/EET* K265.
Corequisite: EET* K267.
This course familiarizes students with the sensors, programmable controllers, and actuators that make up modern day robots. Automatic control system techniques are used to implement robot analysis and design. This course is equivalent to MFG* K221 - Mechatronics.

EET* K267 - Advanced Controls and Robotics Lab °

1 CREDIT HOUR
Prerequisites: EET* K264/EET* K265.
Corequisite: EET* K266.
This lab provides students with hands-on experience with the sensors, programmable controllers, and actuators used in robotics. A microcomputer controlled system design project is included. EET*
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
- ________ - Humanities/Social Science Elective 3 CREDIT HOURS

Total: 17.5

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: 65

Electrical 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 Engineering Technology, Associate in Science Degree Program Outcomes
By the time of graduation, students in the Electrical 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 technical-thinking skills needed for engineering technology applications.
3. Combine oral, technical and written communication skills to present and exchange information effectively and to direct activities involving electrical technology.
4. know of a professional code of ethics.
5. describe concepts relating to quality, timeliness and continuous improvement.
6. describe how the concepts of electric circuits, electrical measurements, digital electronic devices, programmable logic circuits, electrical measurements, digital electronic devices, programmable logic circuits, electromechanical and automated systems, affect the design, maintenance and operation of electrical systems.
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

Engineering Science, A.S.

Degree Code: B18

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: Michael Gentry- 860-215-9428

The "Engineering Science Pathway" consists primarily of coursework in engineering, mathematics, and the sciences. In addition to the 68-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

General Education:
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 atomic theory 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.
Students will be introduced 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

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.

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

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.

MEC* K150 - Solid Modeling I

1 CREDIT HOUR
Corequisite: MEC* K151.
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, 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 functionality of drawing automation. One hour lecture/discussion and four hours of lab per week.

MEC* K151 - Solid Modeling I Lab
2 CREDIT HOUR
Corequisite: MEC* K150.
This lab in conjunction with the corresponding lecture 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, 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 functionality of drawing automation. One hour lecture/discussion and four hours of lab per week.

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.

- Social Sciences Elective 3 CREDIT HOURS +++

Total: 15

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 solve problems discussed in the lecture portion. Three lecture hours, one two-hour lab.

**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 ++
- ________ - Technical 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: 68**

**Engineering Science, Associate in Science Degree Program Outcomes**

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

1. transition seamlessly into a Bachelor of Science Degree Program in Engineering with Junior level status in the receiving institution as part of the Engineering Science Pathway Program.
2. demonstrate the ability to assist in research, development, design, production, testing and various other functions associated with engineering.
3. demonstrate a good understanding of engineering principles/concepts.
4. demonstrate a good understanding of mathematical concepts.
5. demonstrate good working knowledge of state-of-the-art hardware and software in support of engineering design.
6. demonstrate the ability to think through a problem in a logical manner.
7. organize and carry through to conclusion the solution to a problem.
8. demonstrate good communication skills
9. demonstrate teamwork skills.

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 retraining students to post-associate degree students looking for career change. The curriculum is broad-based to meet 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.

Environmental Engineering Technology Curriculum Requirements

Prerequisites to the Program

**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.

Semester I

**ENG* K101 - Composition °**

**3 CREDIT HOURS**

Prerequisite: ENG* K101 or ENG* K101S placements; 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* K101 - Environmental Studies**

3 CREDIT HOURS
Corequisite: ENG* K096 or higher. Please note: if completing ENG* K096 prior to enrolling in ENV* K101, a grade of "C#" or better is required for registration into this course.
This is a course that describes the study of the biological and physical aspects of the environment and environment-related issues, including procedures for lessening or controlling environmental pollution and related damage. Some field work will be included.
This course is equivalent to BIO* K180 - Principles of Environmental Science. Course fulfills International/Intercultural requirement.

**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 CIV* K146 or GIS* K146.

**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* 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.

**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**
This course is a thorough and rigorous algebra course, that strengthens the proficiency with algebraic skills and the conceptual understanding needed to be successful in the Calculus sequence. The topics include: sets, polynomial, exponential, logarithmic and rational functions, rational exponents, conic sections, right triangle trigonometry, matrices, polynomial, exponential, logarithmic and radical equations, linear and quadratic inequalities, absolute value equations and inequalities, linear and nonlinear systems.

or

**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).  
This course prepares students for the study of Calculus I. It is the study of functions, their graphs and applications. The topics include polynomial and rational functions and their graphs, operations on radical expressions, matrices, exponential and logarithmic functions, trigonometric functions and their graphs, trigonometric identities, trigonometric applications, and determinants.

Total: 16-17

**Semester II**

**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.

**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.

**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* 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.

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).
This course prepares students for the study of Calculus I. It is the study of functions, their graphs and applications. The topics include polynomial and rational functions and their graphs, operations on radical expressions, matrices, exponential and logarithmic functions, trigonometric functions and their graphs, trigonometric identities, trigonometric applications, and determinants.

or

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.
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 atomic theory 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* 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. This course is cross listed with CIV* K250.

ENV* K245 - Water Resources Engineering  

3 CREDIT HOURS
**CIV* K236 - Water Resources Engineering**

**3 CREDIT HOURS**  
*Corequisite: CIV* K237.*  
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. This course is equivalent to ENV* K245.

**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. This course is equivalent to CIV* K237.

**CIV* K237 - Water Resources Engineering Lab**

**1 CREDIT HOUR**  
*Corequisite: CIV* K236.*  
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 to actual design of a storm water system including a cost estimate. This course is equivalent to ENV* K245L.

**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* 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.

Total: 19

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.

**CIV* K200 - Soils °**

**3 CREDIT HOURS**
*Prerequisite: MAT* K186.*
*Corequisite: CIV* K201.*
The soils course and Lab, the capstone for the Civil and Environmental Engineering Technology programs, will highlight the experiences that the seniors have developed during their tenure in the programs. The many skills including the ability to read and analyze technical drawings, provide written technical presentations and to perform related computations will be realized. This includes the ability to read, analyze and solve technician-level written problems involving all levels of mathematical computations, geometric concepts and figures, and trigonometric functions. The students will learn to analyze the soil structure of a proposed building or construction site and to understand problems of existing structures due to conditions of the ground underneath them. Students in the soils class take soil samples and investigate spoil composition, drainage and grade, among other factors. They are required to interpret the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control Plan. This plan is a required regulation developed by the Connecticut Department of Environmental Protection Agency. This regulation is an essential document for both the Civil and Environmental Engineering technology students. An understanding and being able to follow the prescribed procedures and guidelines will be expected.

**CIV* K201 - Soils Lab °**

**1 CREDIT HOUR**
*Prerequisite: MAT* K186.*
*Corequisite: CIV* K200.*
This course explores the physical testing of soil, which includes determination of density, mechanical grain size analysis, hydrometer grain size analysis, liquid and plastic limits, moisture- density relationship, coefficient of permeability (constant and falling head), direct shear, and consolidation. Design of a septic system for a residential dwelling is taught.

**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.

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

**Total: 15**

**Note:**

° Course has a prerequisite. Students should check course description.
Students must complete ENV* K220 or other 40-hour HAZWOPER training before graduation.

+ This course is a Semester IV optional cohort course.

* 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

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.

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.
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.

**HPE* K105 - Introduction to Fitness and Training °**

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* 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.

**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 proficiency with algebraic skills and the conceptual understanding needed to be successful in the Calculus sequence. The topics include: sets, polynomial, exponential, logarithmic and rational functions, rational exponents, conic sections, right triangle trigonometry, matrices, polynomial, exponential, logarithmic and radical equations, linear and quadratic inequalities, absolute value equations and inequalities, linear and nonlinear 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: 14

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.

**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.

**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.

**RLS* K101 - Introduction to Recreation and Leisure Services °**

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

or

**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.

Total: 17

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
Prerequisite: 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 more critical listeners who can respond rhetorically to complex issues and ideas.

HPE* K241 - Exercise Physiology with lab °
4 CREDIT HOURS
Prerequisite: 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* 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: 18

Semester IV

BIO* K212 - Anatomy & Physiology II °

4 CREDIT HOURS
Prerequisite: BIO* K211 with a "C" grade or better. CHE* K111 or higher strongly recommended.
A continuation of BIO* K211 - Anatomy & Physiology I °, this course 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. BIO* K212 is offered in the spring semester only. Three-hour lecture; one three-hour laboratory period per week.

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.
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* 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

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

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.

Finance and Banking, A.S.

Degree Code: A97

Associate in Science

Program Coordinator: Edwin Muenzner- 860-215-9456

This 62-63 credit curriculum is for students intending on entering the workforce and pursuing a business career immediately after graduating. This curriculum places greater specialization on Business Specialization courses and less on General Education. The goal is for graduates to be sufficiently competent to perform in the business world within their chosen career field immediately upon graduation.

Finance and Banking 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.

**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* K095 or MAT* K095I placement.

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.

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.

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.

Total: 16

Semester II

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.

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.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prerequisite: 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 more critical listeners who can respond rhetorically to complex issues and ideas.

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.

• _________ - Fine Arts Elective 3 CREDIT HOURS

Total: 15

Semester III

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* 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.

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* 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.
 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

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.

BFN* K201 - Principles of Finance °

3 CREDIT HOURS
Prerequisites: ACC* K111 or ACC* K115 and BBG* K115.
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.

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.

• __________ - Natural Sciences Elective 3-4 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: 62-63

Finance and Banking, 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 field of Finance and Banking.
2. demonstrate knowledge of those principles and skills applicable to general business and those specific to the field of Finance and Banking.
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 field of finance and banking.

Fire Technology and Adminstration, A.S.

Degree Code: F05

Associate in Science

Program Coordinator: Adam Kerop- 860-625-0179

The Fire Technology and Administration program is designed to provide advanced training and education on the college level that develops competent technicians who are, or will become, leaders in fire protection, prevention and administration. It also provides training and education for personnel of insurance companies and other industries involved in fire prevention and protection practices.

Working in career and volunteer fire departments, in local, state and federal government agencies, in industry, in architectural and construction firms, insurance organizations, and in related groups, the fire technologist knows the need for fire prevention activities, the necessity to educate both children and adults in fire safety, and the importance of enforcing fire prevention codes. The program of study, which leads to the Associate in Science Degree in Fire Technology and Administration, is planned to help students meet the professional standards established by the National Fire Protection Association, the Connecticut Commission on Fire Prevention and Control, and the Connecticut Fire Marshal's Training Council.

Fire Technology and Administration 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.

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.

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: 10

Semester II

COM* K173 - Public Speaking

3 CREDIT HOURS
Prerequisite: 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 more critical 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.

**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.

**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* 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).*

This course prepares students for the study of Calculus I. It is the study of functions, their graphs and applications. The topics include polynomial and rational functions and their graphs, operations on radical expressions, matrices, exponential and logarithmic functions, trigonometric functions and their graphs, trigonometric identities, trigonometric applications, and determinants.

**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: 19-20

Semester III

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.

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* 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.

- ________ - Humanities/Social Science Elective 3 CREDIT HOURS
- ________ - Technical Elective 3 CREDIT HOURS

Total: 19

Semester IV

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* 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.

- ________ - Humanities/Social Science Elective 3 CREDIT HOURS
- ________ - Open Elective 3 CREDIT HOURS #

Total: 18

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

# Elective credits may be granted for Connecticut certification as an Emergency Medical Technician, Fire Fighter III, Fire Instructor II and Fire Marshal/Fire Inspector and for some National Fire Academy courses. Appropriate transfer credits may also be accepted from other accredited colleges.

* 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: 66-67

Fire Technology and Administration, Associate in Science Degree Program Outcomes

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

1. apply appropriate principles of fire technology and administration in a variety of situations.
2. analyze fire technology problems and solve them logically and holistically.
3. demonstrate proficiency in computer use in fire service.
4. communicate effectively with municipal officials.
5. demonstrate empathy regarding the crisis nature of fire technology.
6. demonstrate respect for diversity in the workplace
7. explain the importance of physical wellness and its relationship to effective fire technology.
8. demonstrate sound ethical, philosophical and moral professional characteristics.
9. adopt a commitment to professional growth by attending meeting, seminars and continuing education programs.
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**

Contact: Allan Anderson- 860-215-9403

The General Engineering Technology (GET) program was developed 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 Coop, 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)

**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.

**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.

**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 proficiency with algebraic skills and the conceptual understanding needed to be successful in the Calculus sequence. The topics include: sets, polynomial, exponential, logarithmic and rational functions, rational exponents, conic sections, right triangle trigonometry, matrices, polynomial, exponential, logarithmic and radical equations, linear and quadratic inequalities, absolute value equations and inequalities, linear and nonlinear systems.

**MFG* K102 - Manufacturing Processes**

3 CREDIT HOURS  
*Corequisite: MFG* K103.*  
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.

**MFG* K103 - Manufacturing Processes Lab**

1 CREDIT HOUR  
*Corequisites: MFG* K102 and TCN* K105.*  
This course provides laboratory emphasis on common metal cutting tools and lathe operations, as well as on associated precision measuring tools and instruments. The labs will involve set-ups and procedures for milling machines, lathes, grinders, drill presses, and some measuring instruments.

**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: 18

Semester II

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prerequisite: 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 more critical 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).
This course prepares students for the study of Calculus I. It is the study of functions, their graphs and applications. The topics include polynomial and rational functions and their graphs, operations on radical expressions, matrices, exponential and logarithmic functions, trigonometric functions and their graphs, trigonometric identities, trigonometric applications, and determinants.
MEC* K150 - Solid Modeling I

1 CREDIT HOUR
Corequisite: MEC* K151.
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, 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 functionality of drawing automation. One hour lecture/discussion and four hours of lab per week.

MEC* K151 - Solid Modeling I Lab

2 CREDIT HOUR
Corequisite: MEC* K150.
This lab in conjunction with the corresponding lecture 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, 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 functionality of drawing automation. One hour lecture/discussion and four hours of lab per week.

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: 17

Semester III

MEC* K154 - Solid Modeling II °

1 CREDIT HOUR
Prerequisite: MEC* K150 and MEC* K151.
Corequisite: MEC* K155.
This course in conjunction with the corresponding lab is designed to further enhance the students 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. One hour lecture.

**MEC* K155 - Solid Modeling II Lab °**

**2 CREDIT HOURS**  
*Prerequisite: MEC* K150 and MEC* K151.  
*Corequisite: MEC* K154.*  
This lab in conjunction with the corresponding lecture is designed to further enhance student's ability to combine and apply mechanical design principles using 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. Four hour lab.

**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.

- ________ - Humanities/Social Science Elective 3 CREDIT HOURS  
- ________ - Open Elective 3 CREDIT HOURS  
- ________ - Technical Elective 3 CREDIT HOURS  
- ________ - Technical Elective Lab 1 CREDIT HOUR

Total: 17

**Semester IV**

**EET* K105 - Electric Circuits & Systems °**

**3 CREDIT HOURS**  
*Prerequisite: MAT* K095 or MAT* K095L.  
*Corequisites: EET* K106; 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.
1 CREDIT HOUR
Prerequisite: MAT* K095 or MAT* K095I.
Corequisite: EET* K105.
This lab 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
- _________ - Technical Elective 3 CREDIT HOURS
- _________ - Technical 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.

+ May substitute EET* K105 - Electric Circuits & Systems °/EET* K106 - Electric Circuits & Systems Lab °

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

Electives for Option in Laser and Fiber Optics:

PHO* K101 - Intro to Light and Lasers

4 CREDIT HOURS
Corequisite: MAT* K095 OR MAT* K095I.
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 applications 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 PHY* K103 - Introduction to Light and Lasers. One 3 hour lecture; one 2 hour lab.
PHO* K241 - Introduction to Laser Technology °

3 CREDIT HOURS
Prerequisites: PHO* K101.
Corequisite: PHO* K242.
This course provides an introduction to the physics of lasers, laser output characteristics, and types of lasers. Application of lasers will be explored through online and print journals and field trips to local companies that build, integrate or use lasers.

PHO* K242 - Introduction to Laser Technology Lab °

1 CREDIT HOURS
Prerequisites: PHO* K101 or permission of instructor.
Corequisites: PHO* K241 and TCN* K105.
This lab 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.

MFG* K118 - Computer Controlled Laser Materials Processing °

3 CREDIT HOURS
Prerequisites: TCN* K105; PHO* K101 or MEC* K262 or permission of instructor.
Corequisite: MFG* K119.
A study of the mechanics, components, characteristics and control of lasers used in the processing of engineering materials. The differences between laser material processing and conventional methods will be examined. The interactions between laser beams and materials on atomic and macro scales will be discussed. Specific processes such as thermal processing, surface hardening, and cladding, joining, cutting, marking and welding will be introduced. Students will be exposed to computer numerical control (CNC) concepts and programming.

MFG* K119 - Computer Controlled Laser Materials Processing Lab °

1 CREDIT HOUR
Prerequisites: TCN* K105; PHO* K101 or MEC* K262; or permission of instructor.
Corequisite: MFG* K118.
The lab will provide hands-on experiences reinforcing and supplementing the course content. Labs will be conducted at a regional site.

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.

or

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.

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.

Degree Code: B31

Associate in Science

Program Leader: Peter Patsouris- 860-215-9462

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
Prerequisite: 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 more critical listeners who can respond rationally to complex issues and ideas.

or

COM* K109 - Speech Practice °

1 CREDIT HOUR
Prerequisite: ENG* K101 and ENG* K101S placement or completion of ENG* K096 with a "C#" grade or better.
Students will learn to give a five-minute, organized, extemporaneously delivered oral presentation. Emphasis will be placed on overcoming speech anxiety, acquiring confidence, planning a brief presentation, and practicing speech delivery. This course is an option for completing the oral communication requirement in the General Studies and Liberal Arts and Science degree. It does not substitute for COM* K173 - Public Speaking °.
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

Arts Elective: 3 CREDIT HOURS
Any course in:
- art
- graphic arts
- music
- theater
- creative writing

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.

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.

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.

Social Sciences Electives: 9 CREDIT HOURS

One course must be history.

The other two may be chosen from: anthropology, economics, geography, history, international studies, political science, psychology, sociology, social sciences, the following courses:

**CJS* K101 - Introduction to Criminal Justice**

3 CREDIT HOURS
Prerequisite: 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* K102 - Intro to Corrections**

3 CREDIT HOURS
Prerequisite: ENG* K101 and ENG* K101S placement or completion of ENG* K096 with a "C#" grade or better.
This course is designed to provide an introduction to the history and philosophy that form the basis for current correctional standards and practices. Changes in correctional philosophies, institutional architecture and treatment will be studied in their relationship to change in society. Emphasis will be placed on understanding the development of the components of the current correctional system, i.e. probation, incarceration, parole, work release and home arrest. CJS* K101 may be taken as a prerequisite or corequisite to this course.

- CJS* K121

**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* 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* 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.

**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.

**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.

- all human services courses except HSE* K281 - Human Services Field Work I °

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

Courses in:

- astronomy
- biology
- chemistry
- earth science
- ecology
ENV* K101 - Environmental Studies

3 CREDIT HOURS
Corequisite: ENG* K096 or higher. Please note: if completing ENG* K096 prior to enrolling in ENV* K101, a grade of "C#" or better is required for registration into this course.

This is a course that describes the study of the biological and physical aspects of the environment and environment-related issues, including procedures for lessening or controlling environmental pollution and related damage. Some field work will be included.

This course is equivalent to BIO* K180 - Principles of Environmental Science. Course fulfills International/Intercultural requirement.

- geology
- marine science
- nutrition
- oceanography
- physics

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.

- does NOT include HLT* K155 - Personal Health °.

Advanced Liberal Arts and Sciences Electives: 6 CREDIT HOURS

Any 200 course in:

- art
- foreign languages
- graphic arts
- literature
- philosophy

COM* K291 - Publications Practice I °

3 CREDIT HOURS
Prerequisite: COM* K121 or GRA* K140 or 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.
COM* K292 - Publications Practice II °

3 CREDIT HOURS
Prerequisite: COM* K291.
I write the more advanced stories for the magazine, as well as edit the newer students' work. ENG* K251 students will assume more responsibility for page layout and digital imaging, primarily using the Adobe Graphic Studio in this second course.

• theater
• creative writing
• natural sciences
• social sciences (except HIS* K201 and HIS* K202)
• math

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* 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* 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.

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.

Open Electives: 24 CREDIT HOURS

Open electives should be chosen in consultation with an advisor with no more than 15 hours selected from any one subject area.

- ________ - 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
- ________ - 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.

+ 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:

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

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

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

Students will learn to give a five-minute, organized, extemporaneously delivered oral presentation. Emphasis will be placed on overcoming speech anxiety, acquiring confidence, planning a brief presentation, and practicing speech delivery. This course is an option for completing the oral communication requirement in the General Studies and Liberal Arts and Science degree. It does not substitute for COM* K173 - Public Speaking °.
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 more critical listeners who can respond rhetorically to complex issues and ideas.

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.

Selecting Electives

For the student who has not yet made a decision where to transfer but would eventually like to transfer, a list of courses are accepted as General Education Requirements at ECSU, CCSU, and UCONN.
Transfer Advising Tools

Advising tools have been created for General Studies students seeking a specialized major in the areas of Biology, Chemistry, Forensic Science, Pre-Allied Health, and Pre-Radiology. The selection of recommended courses within advising tools prepares students seeking a Bachelor degree at a transfer institution. Students should check with their transfer institution to ensure the course selection fits the needs of their program.

Graphic Design, A.S.

Degree Code: KA15

Associate in Science

Program Coordinator: Kevin Amenta- 860-215-9402

The purpose of this Graphic Design option is 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

*Prerequisite: 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 more critical 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 iPhoto 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 camera techniques, handling, and creative approaches will be the focus. Students will read and report on famous photographers and photography literature. The minimum camera requirement is an advanced digital camera in which you can manually control the f-stop, focus, ISO, and exposure length.

### 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* 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. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84)._ This course cultivates understanding and different representations of functions. The course covers linear, quadratic, exponential, rational, radical functions, equations and expressions and operations on them with emphasis on modeling and solving real world problems.

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. This course is equivalent to ART* K185 Video Filmmaking.

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* 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 overview of applications used in the field of Graphic Design: Photoshop, Illustrator, InDesign and Acrobat Pro. Students also learn file managements and computer navigation basics including scanning software. Students study page design, typography, and image editing. Emphasis will be on the use of the computer for writing, editing, imaging and publication design. Students will read and report on graphic design topics.

- Social Science Elective 3 CREDIT HOURS

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 or GRA* K140 or 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; 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 creativity 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.

Hospitality Management: Casino Management Option, A.S.

Degree Code: B68

Accredited by the Association of Collegiate Business Schools and Programs (ACBSP)
11520 West 119th St. Overland Park, KS 66213
Telephone 913-339-9356

Associate in Science

Contact Person: Edwin Muenzner - 860-215-9456

The Hospitality Management program prepares students for career opportunities in the growing hospitality industry in Southeastern Connecticut. Students completing the Hospitality Management degree program are well prepared for a wide variety of management-level positions in the hospitality industry. In addition, students are able to successfully transfer credits to obtain higher degrees at other colleges and universities.

Casino Management Option Curriculum Requirements

General Education 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 more critical listeners who can respond rhetorically to complex issues and ideas.

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.

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* 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.

- ________ - Fine Arts Elective 3 CREDIT HOURS
- ________ - Natural Sciences Elective 3-4 CREDIT HOURS

Business Core Requirements

ACC* K115 - Financial Accounting °

4 CREDIT HOURS
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.

**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* K095 or MAT* K095I placement.

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.

**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.

Business Specialization Requirements

**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.

- **__________ - Business Elective 3 CREDIT HOURS**
  or

**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.

**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* 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* 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.

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: 63-64
Hospitality Management, Casino Management Option, Associate in Science Degree Program Outcomes

Upon successful completion of any Hospitality Management Associate in Science degree program, graduates will be able to:

1. demonstrate knowledge of general business vocabulary and vocabulary specific to the field of Hospitality Management.
2. demonstrate knowledge of those principles and skills applicable to general business and those specific to the field of Hospitality Management.
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 field of Hospitality Management.

Hospitality Management: Hotel Management Option, A.S.

Degree Code: B69

Accredited by the Association of Collegiate Business Schools and Programs (ACBSP)
11520 West 119th St. Overland Park, KS 66213
Telephone 913-339-9356

Associate in Science

Contact Person: Edwin Muenzner - 860-215-9456

The Hospitality Management program prepares students for career opportunities in the growing hospitality industry in Southeastern Connecticut. Students completing the Hospitality Management degree are well prepared for a wide variety of management-level positions in the hospitality industry. In addition, students are able to successfully transfer credits to obtain higher degrees at other colleges and universities.

Hotel Management Option Curriculum Requirements

General Education Requirements

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prerequisite: 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 more critical listeners who can respond rhetorically to complex issues and ideas.

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.

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* 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.

• _________ - Fine Arts Elective 3 CREDIT HOURS
• _________ - Natural Sciences Elective 3-4 CREDIT HOURS

Business Core Requirements

ACC* K115 - Financial Accounting °

4 CREDIT HOURS
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.

**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* K095 or MAT* K095I placement.*

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.

**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.

Business Specialization Requirements

**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.

- Business Elective 3 CREDIT HOURS

**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.

**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* 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* 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.

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: 63-64
Hospitality Management, Hotel Management Option, Associate in Science
Degree Program Outcomes

Upon successful completion of any Hospitality Management Associate in Science degree program, graduates will be able to:

1. demonstrate knowledge of general business vocabulary and vocabulary specific to the field of Hospitality Management.
2. demonstrate knowledge of those principles and skills applicable to general business and those specific to the field of Hospitality Management.
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 field of Hospitality Management.

Hospitality Management: Restaurant Management Option, A.S.

Degree Code: B70

Accredited by the Association of Collegiate Business Schools and Programs (ACBSP)
11520 West 119th St. Overland Park, KS 66213
Telephone 913-339-9356

Associate in Science

Contact Person: Edwin Muenzner - 860-215-9456

The Hospitality Management program prepares students for career opportunities in the growing hospitality industry in Southeastern Connecticut. Students completing the Hospitality Management degree program are well prepared for a wide variety of management-level positions in the hospitality industry. In addition, students are able to successfully transfer credits to obtain higher degrees at other colleges and universities.

Restaurant Management Option Curriculum Requirements

General Education Requirements

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prerequisite: 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 more critical listeners who can respond rhetorically to complex issues and ideas.

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.

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* 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.

- _________ - Fine Arts Elective 3 CREDIT HOURS
- _________ - Natural Science Elective with lab 3-4 CREDIT HOURS

Business Core Requirements

ACC* K115 - Financial Accounting °

4 CREDIT HOURS
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.

**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* K095 or MAT* K095I placement.

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.

**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.

Business Specialization Requirements

**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.

- ________ - Business Elective 3 CREDIT HOURS  
  or

**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.

**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.

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: 63-64
Hospitality Management, Restaurant Management Option, Associate in Science Degree Program Outcomes

Upon successful completion of any Hospitality Management Associate in Science degree program, graduates will be able to:

1. demonstrate knowledge of general business vocabulary and vocabulary specific to the field of Hospitality Management.
2. demonstrate knowledge of those principles and skills applicable to general business and those specific to the field of Hospitality Management.
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 field of Hospitality Management.

Human Services, A.S.

Degree Code: B37

Associate in Science

Program Coordinator: Joyce Martin - 860-215-9451

The Human Services Associate of Science program responds both to the need to 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 and 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.

Laser and Fiber Optic Technology, A.S.

Degree Code: A95
The Laser and Fiber Optic Technology program was created to meet the critical need for laser electro-optic technicians in Connecticut, which has the third highest concentration of laser and fiber optic firms in the nation.

The program has a solid core of electronics courses, including electric circuits, solid state electronics, digital circuits and electronic communications. Proficiency in laser optics is gained through courses in geometric and wave optics, laser and fiber optics.

In addition to the major specialty courses, students also study mathematics, English, communications and the humanities.

Students who complete the program have the opportunity to transfer to baccalaureate programs in applied physics or engineering technology, or to find immediate employment in the burgeoning laser and fiber optics field.

### Laser and Fiber Optic Technology Curriculum Requirements

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<td><em><em>EET</em> K105 - Electric Circuits &amp; Systems °</em>*</td>
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### EET* K105 - Electric Circuits & Systems °

**3 CREDIT HOURS**  
*Prerequisite: MAT* K095 or MAT* K095I.*  
*Corequisites: EET* K106; 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.

### EET* K106 - Electric Circuits & Systems Lab °

**1 CREDIT HOUR**  
*Prerequisite: MAT* K095 or MAT* K095I.*  
*Corequisite: EET* K105.*  
This lab 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.

**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 proficiency with algebraic skills and the conceptual understanding needed to be successful in the Calculus sequence. The topics include: sets, polynomial, exponential, logarithmic and rational functions, rational exponents, conic sections, right triangle trigonometry, matrices, polynomial, exponential, logarithmic and radical equations, linear and quadratic inequalities, absolute value equations and inequalities, linear and nonlinear systems.

**PHO* K101 - Intro to Light and Lasers**

4 CREDIT HOURS  
Corequisite: MAT* K095 OR MAT* K095I.
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 applications 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 PHY* K103 - Introduction to Light and Lasers. One 3 hour lecture; one 2 hour lab.

Total: 17

**Semester II**

**EET* K119 - Advanced Circuits and Systems °**

3 CREDIT HOURS  
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.  
Corequisites: EET* K120.
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. Electrical Engineering Technology majors are expected to use this course to complete a year of study of circuits and systems.

**EET* K120 - Advanced Circuits and Systems Lab °**
1 CREDIT HOUR
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisites: EET* K119.
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.

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).
This course prepares students for the study of Calculus I. It is the study of functions, their graphs and applications. The topics include polynomial and rational functions and their graphs, operations on radical expressions, matrices, exponential and logarithmic functions, trigonometric functions and their graphs, trigonometric identities, trigonometric applications, and determinants.

PHO* K241 - Introduction to Laser Technology °

3 CREDIT HOURS
Prerequisites: PHO* K101.
Corequisite: PHO* K242.
This course provides an introduction to the physics of lasers, laser output characteristics, and types of lasers. Application of lasers will be explored through online and print journals and field trips to local companies that build, integrate or use lasers.

PHO* K242 - Introduction to Laser Technology Lab °

1 CREDIT HOURS
Prerequisites: PHO* K101 or permission of instructor.
Corequisites: PHO* K241 and TCN* K105.
This lab 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.

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 III

**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.

**EET* K264 - Data Acquisition and Controls °**

**3 CREDIT HOURS**
*Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.*
*Corequisite: EET* K265.*
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, signal processing and communications, frequency and transient response, feedback control techniques, mechanical systems and mechanical power transmission. Students will learn the basics of measurements and data acquisition using Labview based exercises.

**EET* K265 - Data Acquisition and Controls Lab °**

**1 CREDIT HOURS**
*Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.*
*Corequisite: EET* K264.*
This lab 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.

**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.
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* K140 - Optoelectronics °

4 CREDIT HOURS
Prerequisites: EET* K105/EET* K106 and PHO* K101.
This course introduces semiconductor technology and devices, with an emphasis on optoelectronic devices, including LEDs, laser diodes, and photodiodes. Analysis and design of circuits containing these devices will be covered, as will current applications. The course includes a lab component. This course is equivalent to EET* K134/EET* K135.

Total: 18

Semester IV

PHO* K230 - Laser Electronics °

4 CREDIT HOURS
Prerequisites: EET* K134/EET* K135 or PHO* K140; TCN* K105; or permission of instructor.
This course will focus on the design and analysis of electronic circuits and devices of particular interest to the field of photonics, including LEDs, LDs, and their driver circuitry; optical receivers, laser and flash lamp power supplies; displays; opt-isolators; optical sensors; solar cells; direct and external modulators. The lab portion of the course includes experiments and simulations to parallel the lecture.

PHO* K251 - Fiber Optic Systems and Devices °

3 CREDIT HOURS
Prerequisites: PHO* K101.
Corequisites: PHO* K252.
This course will introduce parameters describing optical fibers, fiber optic system components, waveguide transmission as well as non-telecommunications uses of fiber. Fiber coupling, splicing, and testing will also be covered. Concepts from optics and electronics will be used extensively to explain the operation of fiber systems and devices.

PHO* K252 - Fiber Optic Systems and Devices Lab °
1 CREDIT HOURS
* Prerequisites: PHO* K101.
* Corequisite: PHO* K251
This laboratory course accompanies PHO* K251 and provides practical experience applying and testing fiber optic connectors and splices, fusion splicing, and using instrumentation such as optical loss test sets and the optical time domain reflectometer (OTDR). Students will measure fiber optic parameters and work active and passive devices commonly found in fiber optic systems.

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 Elective 3 CREDIT HOURS
- _________ - Social Science Elective 3 CREDIT HOURS

Total: 17

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

Laser and Fiber Optic Technology, Associate in Science Degree Program Outcomes

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

1. use general electronic and optical test instrumentation as well as specialized instrumentation such as optical spectrum analyzers and laser beam analyzers.
2. specify, mount, and align optical components and install, align, and operate support and positioning equipment.
3. demonstrate proper optical fiber handling techniques, including connectorization, splicing and the use of optical sources, meters and OTDR.
4. survey a laser work area, citing unsafe conditions present.
5. work cooperatively with team members to gather and analyze data using applicable software and report results in both oral and written format.
6. read and interpret vendor catalogs and instruction manuals.

Liberal Arts and Sciences, A.A.

Degree Code: B57

Associate in Arts

Program Leader: Steven Neufeld - 860-215-9457

The Liberal Arts and Sciences Associate in Arts degree 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)-383-5217 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 "CII" 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 more critical listeners who can respond rhetorically to complex issues and ideas.

or

COM* K109 - Speech Practice °
1 CREDIT HOUR
Prequisite: ENG* K101 and ENG* K101S placement or completion of ENG* K096 with a "C#" grade or better.
Students will learn to give a five-minute, organized, extemporaneously delivered oral presentation. Emphasis will be placed on overcoming speech anxiety, acquiring confidence, planning a brief presentation, and practicing speech delivery. This course is an option for completing the oral communication requirement in the General Studies and Liberal Arts and Science degree. It does not substitute for COM* K173 - Public Speaking °.

ENG* K101 - Composition °

3 CREDIT HOURS
Prequisite: 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
Prequisite: 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
Prequisites: 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
Prequisite: MAT* K137 or MAT* K137S 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 meets the mathematics requirement for liberal arts (non-science) transfer students. The topics covered are selected from set theory, counting and
probability, and basic statistics, linear programming, game theory, Markov process, difference equations, and mathematical modeling.

or

- ________ - Higher MAT 3 CREDIT HOURS

Arts Elective: 3 CREDIT HOURS

Please choose one of 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.

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.

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.

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.

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.

Foreign Language Electives: 6-8 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 higher were completed at the high school level. High school transcript and college verification required for substitution. Students who plan on transferring should verify foreign language requirements at the transfer institution.

- ________- Foreign Language Elective 3-4 CREDIT HOURS
- ________- Foreign Language Elective 3-4 CREDIT HOURS

Social Sciences Electives: 6 CREDIT HOURS

Courses may be chosen from:

- anthropology
Natural Sciences Electives: 7-8 CREDIT HOURS

Courses may be chosen from:

- biology (except nutrition)
- chemistry
- earth science
- physics
- physical 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.

Note:

One course must include a lab.

Liberal Arts and Sciences Electives: 6 CREDIT HOURS

Courses may be chosen from:

- anthropology
- biology
- chemistry
- earth science
- economics
- foreign languages
- geography
- history
- literature
- math (higher than MAT* K146)
- philosophy
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.

- physics
- political science
- psychology
- sociology

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.

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.

**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.

**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 course introduces students to the historical and contemporary issues that have shaped and affected women's lives within the discipline of Women's Studies. It offers students the opportunity to learn about the feminist movements and women's contributions toward social change. Emphasis will be on family, health, work, education, religion, violence against women, and popular culture. Incorporates projects that promote social change and the empowerment of women. This course fulfills a liberal arts and sciences and/or humanities elective requirement. It does not fulfill a social sciences elective requirement.

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

Courses may be chosen from any 200 level course in:

- anthropology
- biology
- chemistry
- economics
- foreign languages
- geography
- history,(except HIS* K201 and HIS* K202)
- literature
- math
- philosophy
- physical 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* K093I 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.

- physics
- political science
- psychology
- sociology

Open Electives: 9 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.

‡ 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:

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

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

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

Students will learn to give a five-minute, organized, extemporaneously delivered oral presentation. Emphasis will be placed on overcoming speech anxiety, acquiring confidence, planning a brief presentation, and practicing speech delivery. This course is an
option for completing the oral communication requirement in the General Studies and Liberal Arts and Science degree. It does not substitute for COM* K173 - Public Speaking.

**COM* K173 - Public Speaking**

3 CREDIT HOURS

*Prerequisite:* 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 more critical listeners who can respond rhetorically to complex issues and ideas.

**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.

**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.
Selecting Electives - Transfer

For the student who has not yet made a decision where to transfer but would eventually like to transfer, a list of courses are accepted as General Education Requirements at ECSU, CCSU, and UCONN.

Manufacturing Engineering Technology, A.S.

Degree Code: B64

Associate in Science

Program Coordinator: Michael Gentry - 860-215-9428

The Manufacturing Engineering Technology program is an excellent example of the merger between 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 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 proficiency with algebraic skills and the conceptual understanding needed to be successful in the Calculus sequence. The topics include: sets, polynomial, exponential, logarithmic and rational functions, rational exponents, conic sections, right triangle trigonometry, matrices, polynomial, exponential, logarithmic and radical equations, linear and quadratic inequalities, absolute value equations and inequalities, linear and nonlinear systems.

**PHY* K114 - Mechanics**

4 CREDIT HOURS
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* K150 - Solid Modeling I**

1 CREDIT HOUR

Corequisite: MEC* K151.

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, 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 functionality of drawing automation. One hour lecture/discussion and four hours of lab per week.

**MEC* K151 - Solid Modeling I Lab**

2 CREDIT HOUR

Corequisite: MEC* K150.

This lab in conjunction with the corresponding lecture 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, 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 functionality of drawing automation. One hour lecture/discussion and four hours of lab per week.

**MFG* K102 - Manufacturing Processes**

3 CREDIT HOURS
Corequisite: MFG* K103.
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.

MFG* K103 - Manufacturing Processes Lab

1 CREDIT HOUR
Corequisites: MFG* K102 and TCN* K105.
This course provides laboratory emphasis on common metal cutting tools and lathe operations, as well as on associated precision measuring tools and instruments. The labs will involve set-ups and procedures for milling machines, lathes, grinders, drill presses, and some measuring instruments.

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: 11

Semester II

EET* K105 - Electric Circuits & Systems °

3 CREDIT HOURS
Prerequisite: MAT* K095 or MAT* K095I.
Corequisites: EET* K106; 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.

EET* K106 - Electric Circuits & Systems Lab °

1 CREDIT HOUR
Prerequisite: MAT* K095 or MAT* K095I.
Corequisite: EET* K105.
This lab 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).
This course prepares students for the study of Calculus I. It is the study of functions, their graphs and applications. The topics include polynomial and rational functions and their graphs, operations on radical expressions, matrices, exponential and logarithmic functions, trigonometric functions and their graphs, trigonometric identities, trigonometric applications, and determinants.

MEC* K154 - Solid Modeling II °

1 CREDIT HOUR
Prerequisite: MEC* K150 and MEC* K151.
Corequisite: MEC* K155.
This course in conjunction with the corresponding lab is designed to further enhance the students 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. One hour lecture.

MEC* K155 - Solid Modeling II Lab °

2 CREDIT HOURS
Prerequisite: MEC* K150 and MEC* K151.
Corequisite: MEC* K154.
This lab in conjunction with the corresponding lecture is designed to further enhance student's ability to combine and apply mechanical design principles using 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. Four hour lab.

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* K262 - Materials Science °
3 CREDIT HOURS
Prerequisites: MFG* K102/MFG* K103.
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/MFG* K103; 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.

- _________ - Fine Arts Elective 3 CREDIT HOURS

Total: 21

Semester III

EET* K264 - Data Acquisition and Controls °

3 CREDIT HOURS
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisite: EET* K265.
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, signal processing and communications, frequency and transient response, feedback control techniques, mechanical systems and mechanical power transmission. Students will learn the basics of measurements and data acquisition using Labview based exercises.

EET* K265 - Data Acquisition and Controls Lab °

1 CREDIT HOURS
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisite: EET* K264.
This lab 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.

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: 16

Semester IV

MFG* K118 - Computer Controlled Laser Materials Processing °

3 CREDIT HOURS
Prerequisites: TCN* K105; PHO* K101 or MEC* K262 or permission of instructor.
Corequisite: MFG* K119.
A study of the mechanics, components, characteristics and control of lasers used in the processing of engineering materials. The differences between laser material processing and conventional methods will be examined. The interactions between laser beams and materials on atomic and macro scales will be discussed. Specific processes such as a thermal processing, surface hardening, and cladding, joining, cutting, marking and welding will be introduced. Students will be exposed to computer numerical control (CNC) concepts and programming.
MFG* K119 - Computer Controlled Laser Materials Processing Lab °

1 CREDIT HOUR
Prerequisites: TCN* K105; PHO* K101 or MEC* K262; or permission of instructor.
Corequisite: MFG* K118.
The lab will provide hands-on experiences reinforcing and supplementing the course content. Labs will be conducted at a regional site.

MFG* K221 - Mechatronics

3 CREDIT HOURS
Corequisites: EET* K264 and EET* K265.
This interdisciplinary course 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 - Advanced Controls and Robotics °.

MFG* K222 - Mechatronics Lab

1 CREDIT HOUR
Corequisites: EET* K264 and EET* K265.
This interdisciplinary lab course 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 developmental, 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.

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 spreadsheets 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.

- __________ - Science Elective with lab 4 CREDIT HOURS

Total: 18

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: 66

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

The Manufacturing Engineering Technology program is an excellent example of the merger between 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

(considered 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 proficiency with algebraic skills and the conceptual understanding needed to be successful in the Calculus sequence. The topics include: sets, polynomial, exponential, logarithmic and rational functions, rational exponents, conic sections, right triangle trigonometry, matrices, polynomial, exponential, logarithmic and radical equations, linear and quadratic inequalities, absolute value equations and inequalities, linear and nonlinear 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**

3 CREDIT HOURS  
*Corequisite: MFG* K103.*  
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.

**MFG* K103 - Manufacturing Processes Lab**

1 CREDIT HOUR  
*Corequisites: MFG* K102 and TCN* K105.*  
This course provides laboratory emphasis on common metal cutting tools and lathe operations, as well as on associated precision
measuring tools and instruments. The labs will involve set-ups and procedures for milling machines, lathes, grinders, drill
presses, and some measuring instruments.

**PHO* K101 - Intro to Light and Lasers**

4 CREDIT HOURS  
*Corequisite: MAT* K095 OR MAT* K095I.*  
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 applications 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 PHY* K103 - Introduction to
Light and Lasers. One 3 hour lecture; one 2 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: 15
Semester II

**CAD* K106 - Computer-Aided Drafting**

1 CREDIT HOUR  
Corequisite: CAD* K107.  
This course 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: EET* K106; 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.

**EET* K106 - Electric Circuits & Systems Lab °**

1 CREDIT HOUR  
Prerequisite: MAT* K095 or MAT* K095I.  
Corequisite: EET* K105.  
This lab 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).
This course prepares students for the study of Calculus I. It is the study of functions, their graphs and applications. The topics include polynomial and rational functions and their graphs, operations on radical expressions, matrices, exponential and logarithmic functions, trigonometric functions and their graphs, trigonometric identities, trigonometric applications, and determinants.

**PHO* K241 - Introduction to Laser Technology**

3 CREDIT HOURS
Prerequisites: PHO* K101.
Corequisite: PHO* K242.
This course provides an introduction to the physics of lasers, laser output characteristics, and types of lasers. Application of lasers will be explored through online and print journals and field trips to local companies that build, integrate or use lasers.

**PHO* K242 - Introduction to Laser Technology Lab**

1 CREDIT HOURS
Prerequisites: PHO* K101 or permission of instructor.
Corequisites: PHO* K241 and TCN* K105.
This lab 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.

Total: 18

Semester III

**EET* K264 - Data Acquisition and Controls**

3 CREDIT HOURS
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisite: EET* K265.
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, signal processing and
communications, frequency and transient response, feedback control techniques, mechanical systems and mechanical power
transmission. Students will learn the basics of measurements and data acquisition using Labview based exercises.

**EET* K265 - Data Acquisition and Controls Lab °**

1 CREDIT HOURS  
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.  
Corequisite: EET* K264.  
This lab 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.

**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.

**PHO* K140 - Optoelectronics °**

4 CREDIT HOURS  
Prerequisites: EET* K105/EET* K106 and PHO* K101.  
This course introduces semiconductor technology and devices, with an emphasis on optoelectronic devices, including LEDs, laser diodes, and photodiodes. Analysis and design of circuits containing these devices will be covered, as will current applications. The course includes a lab component. This course is equivalent to EET* K134/EET* K135.  
- __________ - Fine Arts Elective 3 CREDIT HOURS  
- __________ - Science Elective with Lab 4 CREDIT HOURS

Total: 18

**Semester IV**

**MFG* K118 - Computer Controlled Laser Materials Processing °**

3 CREDIT HOURS  
Prerequisites: TCN* K105; PHO* K101 or MEC* K262 or permission of instructor.  
Corequisite: MFG* K119.
A study of the mechanics, components, characteristics and control of lasers used in the processing of engineering materials. The differences between laser material processing and conventional methods will be examined. The interactions between laser beams and materials on atomic and macro scales will be discussed. Specific processes such as a thermal processing, surface hardening, and cladding, joining, cutting, marking and welding will be introduced. Students will be exposed to computer numerical control (CNC) concepts and programming.

**MFG* K119 - Computer Controlled Laser Materials Processing Lab °**

1 CREDIT HOUR
Prerequisites: TCN* K105; PHO* K101 or MEC* K262; or permission of instructor.
Corequisite: MFG* K118.
The lab will provide hands-on experiences reinforcing and supplementing the course content. Labs will be conducted at a regional site.

**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* K230 - Laser Electronics °**

4 CREDIT HOURS
Prerequisites: EET* K134/EET* K135 or PHO* K140; TCN* K105; or permission of instructor.
This course will focus on the design and analysis of electronic circuits and devices of particular interest to the field of photonics, including LEDs, LDs, and their driver circuitry; optical receivers, laser and flash lamp power supplies; displays; opt-isolators; optical sensors; solar cells; direct and external modulators. The lab portion of the course includes experiments and simulations to parallel the lecture.

**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.
Total: 17

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: 68

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

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.

Marketing/Career, A.S.

Degree Code: B61

Accredited by the Association of Collegiate Business Schools and Programs (ACBSP)
11520 West 119th St. Overland Park, KS 66213
Telephone 913-339-9356

Associate in Science
Program Coordinator: Irene Clampet - 860-215-9414

Marketing is recognized as the critical element in the success of large and small businesses and public or private organizations. The Marketing career program prepares students for professional positions in marketing, advertising, distribution and sales in profit and not-for-profit businesses and as entrepreneurs.

Marketing/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 placement ☹.

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.

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* K095 or MAT* K095I placement ☹.

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.

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* 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: 16

Semester II

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* 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.

**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*_____ - Marketing Elective 3 CREDIT HOURS +

**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.

Total: 16

Semester III

**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* 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.

- BMK* K___ - Marketing Elective 3 CREDIT HOURS +

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prerequisite: 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 more critical listeners who can respond rhetorically to complex issues and ideas.

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.

Total: 15

Semester IV

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
- Elective from the following prefixes: ACC*, BBG*, BES*, BFN*, BMG*, BMK*, HSP* 3 CREDIT HOURS
- BMK* K___ - Marketing Elective 3 CREDIT HOURS +

GRA* K140 - Publication Design °

3 CREDIT HOURS
Prerequisite: ENG* K101 or ENG* K101S placements: 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 overview of applications used in the field of Graphic Design: Photoshop, Illustrator, InDesign and Acrobat Pro. Students also learn file managements and computer navigation basics including scanning software. Students study page design, typography, and image editing. Emphasis will be on the use of the computer for writing, editing, imaging and publication design. Students will read and report on graphic design topics.
- _________ - Fine Arts Elective 3 CREDIT HOURS
- _________ - Natural Sciences Elective 3-4 CREDIT HOURS

Total: 15-16

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: 62-63

+ Marketing Electives

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.

Marketing, 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 field of Marketing.
2. demonstrate knowledge of those principles and skills applicable to general business and those specific to the field of Marketing.
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 field of Marketing.

**Marketing/Transfer, A.S.**

Degree Code: A91

Accredited by the Association of Collegiate Business Schools and Programs (ACBSP)
11520 West 119th St. Overland Park, KS 66213
Telephone 913-339-9356

Associate in Science

Program Coordinator: Irene Clampet - 860-215-9414

Marketing is recognized as the critical element in the success of large and small businesses and public or private organizations. The Marketing Transfer program prepares students for baccalaureate Marketing programs which may lead to professional positions in marketing, advertising, distribution and sales in profit and not-for-profit businesses and as entrepreneurs.

**Marketing/Transfer 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.

**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* K095 or MAT* K095I placement.
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.

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* 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: 16

Semester II

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.

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* 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.

PSY* K247 - Industrial & Organizational Psychology °

3 CREDIT HOURS
Prerequisite: ENG* K101 or ENG* K101S 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 - Organizational Behavior °.

Total: 12

Semester III

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.

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* 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.

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 proficiency with algebraic skills and the conceptual understanding needed to be successful in the Calculus sequence. The topics include: sets, polynomial, exponential, logarithmic and rational functions, rational exponents, conic sections, right triangle trigonometry, matrices, polynomial, exponential, logarithmic and radical equations, linear and quadratic inequalities, absolute value equations and inequalities, linear and nonlinear systems.
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.

BFN* K201 - Principles of Finance °

3 CREDIT HOURS
Prerequisites: ACC* K111 or ACC* K115 and BBG* K115.
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.

- _________ - Fine Arts Elective 3 CREDIT HOURS
- _________ - Natural Sciences Elective with lab 4 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

Marketing, 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 field of Marketing.
2. demonstrate knowledge of those principles and skills applicable to general business and those specific to the field of Marketing.
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 transfer to a 4-year college/university Marketing program.

Mechanical Engineering Technology, A.S.

Degree Code: B62

Associate in Science

Program Contact: Michael Gentry - 860-215-9428

The Mechanical Engineering Technology program involves 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

MAT* indicates that some students may require specific placement based on prior learning or assessment.
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 proficiency with algebraic skills and the conceptual understanding needed to be successful in the Calculus sequence. The topics include: sets, polynomial, exponential, logarithmic and rational functions, rational exponents, conic sections, right triangle trigonometry, matrices, polynomial, exponential, logarithmic and radical equations, linear and quadratic inequalities, absolute value equations and inequalities, linear and nonlinear 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
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

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* K150 - Solid Modeling I
1 CREDIT HOUR
Corequisite: MEC* K151.
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, 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 functionality of drawing automation. One hour lecture/discussion and four hours of lab per week.

MEC* K151 - Solid Modeling I Lab

2 CREDIT HOUR
Corequisite: MEC* K150.
This lab in conjunction with the corresponding lecture 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, 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 functionality of drawing automation. One hour lecture/discussion and four hours of lab per week.

MFG* K102 - Manufacturing Processes

3 CREDIT HOURS
Corequisite: MFG* K103.
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.

MFG* K103 - Manufacturing Processes Lab

1 CREDIT HOUR
Corequisites: MFG* K102 and TCN* K105.
This course provides laboratory emphasis on common metal cutting tools and lathe operations, as well as on associated precision measuring tools and instruments. The labs will involve set-ups and procedures for milling machines, lathes, grinders, drill presses, and some measuring instruments.

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.
COM* K173 - Public Speaking °

3 CREDIT HOURS
Prerequisite: 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 more critical listeners who can respond rhetorically to complex issues and ideas.

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).
This course prepares students for the study of Calculus I. It is the study of functions, their graphs and applications. The topics include polynomial and rational functions and their graphs, operations on radical expressions, matrices, exponential and logarithmic functions, trigonometric functions and their graphs, trigonometric identities, trigonometric applications, and determinants.

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* K154 - Solid Modeling II °

1 CREDIT HOUR
Prerequisite: MEC* K150 and MEC* K151.
Corequisite: MEC* K155.
This course in conjunction with the corresponding lab is designed to further enhance the students 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. One hour lecture.

**MEC* K155 - Solid Modeling II Lab °**

**2 CREDIT HOURS**  
*Prerequisite: MEC* K150 and MEC* K151.  
*Corequisite: MEC* K154.*  
This lab in conjunction with the corresponding lecture is designed to further enhance student's ability to combine and apply mechanical design principles using 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. Four hour lab.

**MEC* K262 - Materials Science °**

**3 CREDIT HOURS**  
*Prerequisites: MFG* K102/MFG* K103.*  
*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/MFG* K103; 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: 21
Semester III

**EET* K105 - Electric Circuits & Systems °**

**3 CREDIT HOURS**
Prerequisite: MAT* K095 or MAT* K095I.
Corequisites: EET* K106; 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.

**EET* K106 - Electric Circuits & Systems Lab °**

**1 CREDIT HOUR**
Prerequisite: MAT* K095 or MAT* K095I.
Corequisite: EET* K105.
This lab 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* 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 perform 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* 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* 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.

_Total: 18_

**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.

**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.*

*Corequisite: MEC* K282.*

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
- __________ - Technical Elective 2-3 CREDIT HOURS ++

**Total: 17-18**

**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 °

++ The technical elective may include additional CAD courses or specialized courses such as Welding Engineering Applications (with approval of 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: 67-68

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
The Nuclear Engineering Technology program operates in 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, the Associate Degree in Nuclear Engineering Technology is but one step in their academic career as they move on to pursue higher degrees upon graduating from Three Rivers.

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).

This course prepares students for the study of Calculus I. It is the study of functions, their graphs and applications. The topics include polynomial and rational functions and their graphs, operations on radical expressions, matrices, exponential and logarithmic functions, trigonometric functions and their graphs, trigonometric identities, trigonometric applications, and determinants.

**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
Prerequisite: 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 more critical 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 atomic theory 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 plant 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
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. The CT-CCNP 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. CHE* K111 or higher strongly recommended. A continuation of BIO* K211 - Anatomy & Physiology I °, this course 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. BIO* K212 is offered in the spring semester only. 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
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

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 you 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 Coordinator: Jennifer DeFrance - 860-215-9421

This 61 credit program is designed to provide education and experiences which will allow students to transfer to Eastern Connecticut State University meeting 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
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
Prerequisite: 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 more critical listeners who can respond rhetorically to complex issues and ideas.

Fine Arts: 3 CREDIT HOURS

Select two 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: 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.
- __________ - Humanities Elective 3 CREDIT HOURS
- __________ - Humanities Elective 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. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84).
This course cultivates understanding and different representations of functions. The course covers linear, quadratic, exponential, rational, radical functions, equations and expressions and operations on them with emphasis on modeling and solving real world problems.

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.
A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). This course meets the mathematics requirement for liberal arts (non-science) transfer students. The topics covered are selected from set theory, counting and probability, and basic statistics, linear programming, game theory, Markov process, difference equations, and mathematical modeling.

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.

or

**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.

or

**ENV* K101 - Environmental Studies**

3 CREDIT HOURS

Corequisite: ENG* K096 or higher. Please note: if completing ENG* K096 prior to enrolling in ENV* K101, a grade of "C#" or better is required for registration into this course.

This is a course that describes the study of the biological and physical aspects of the environment and environment-related issues, including procedures for lessening or controlling environmental pollution and related damage. Some field work will be included. This course is equivalent to BIO* K180 - Principles of Environmental Science. Course fulfills International/Intercultural requirement.

**Social Sciences**

**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.

This course is a survey 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

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 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.

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* K095 or MAT* K0951 placement.

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.
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.

Small Business Entrepreneurial Studies, A.S.

Degree Code: A64

Accredited by the Association of Collegiate Business
Schools and Programs (ACBSP)
11520 West 119th St. Overland Park, KS 66213
Telephone 913-339-9356

The Associate in Science

Program Contact: Ed Muenzner - 860-215-9456

The Small Business and Entrepreneurial Studies associate degree program prepares students to start their own businesses as well as developing careers in business management. It gives students the knowledge and skills needed to develop a business plan and run a small business. This program also serves those individuals who are already in business or in corporations and want to develop entrepreneurial components of that business.

Small Business and Entrepreneurial Studies 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.

**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* K095 or MAT* K095I placement.*

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.

**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.

**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.

Total: 16

Semester II

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.

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.

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.

- ________ - Fine Arts Elective 3 CREDIT HOURS
Total: 16

Semester III

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.

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* 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.

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prerequisite: 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 more critical listeners who can respond rhetorically to complex issues and ideas.

- Business Elective with one of the following prefixes: ACC*, BBG*, BES*, BFN*, BMG*, BMK* or HSP*. 3 CREDIT HOURS
Total: 15

Semester IV

**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* 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.

**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.

**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).

- Natural Sciences Elective *3-4 CREDIT HOURS*

Total: 15-16
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: 62-63

Small Business and Entrepreneurial Studies, 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 field of Entrepreneurship.
2. demonstrate knowledge of those principles and skills applicable to general business and those specific to the field of Entrepreneurship.
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 field of Entrepreneurship after graduating.

Sports and Leisure Management, A.S.

Degree Code: A10

Associate in Science

Program Coordinator: Heidi Zenie - 860-215-9485

This 62 credit program will provide the student with knowledge in areas of recreational management, fitness and training, nutrition, facility design and management, marketing, business law, accounting and risk management. Students receiving this degree would work as an Athletic Director, Facilities Manager, in Professional Sports Management, and travel/leisure.

Sports and Leisure Management Curriculum Requirements

Semester I

**ACC* K115 - Financial Accounting °**
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.

**HPE* K105 - Introduction to Fitness and Training °**

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* 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.

**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. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84).

This course cultivates understanding and different representations of functions. The course covers linear, quadratic, exponential, rational, radical functions, equations and expressions and operations on them with emphasis on modeling and solving real world problems.
Total: 15

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.

**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* K130 - Weight Training/Fitness °**

**3 CREDIT HOURS**
Prerequisite: ENG* K096 placement or 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.

**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.

Total: 16

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.

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.

COM* K173 - Public Speaking °

3 CREDIT HOURS

Prerequisite: 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 more critical listeners who can respond rhetorically to complex issues and ideas.

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.

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: 16

Semester IV

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* K095 or MAT* K095I placement.
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.

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.

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.

- __________ - Fine Arts 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: 62

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: Michael Gentry - 860-215-9428

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.

Technology 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 more critical listeners who can respond rhetorically to complex issues and ideas.

ENG* K101 - Composition °

3 CREDIT HOURS
Prequisite: 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
Prequisite: 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
Prequisites: 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 atomic theory 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).*

This course prepares students for the study of Calculus I. It is the study of functions, their graphs and applications. The topics include polynomial and rational functions and their graphs, operations on radical expressions, matrices, exponential and logarithmic functions, trigonometric functions and their graphs, trigonometric identities, trigonometric applications, and determinants.

**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

MEC* K150 - Solid Modeling I

1 CREDIT HOUR
Corequisite: MEC* K151.
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, 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 functionality of drawing automation. One hour lecture/discussion and four hours of lab per week.

MEC* K151 - Solid Modeling I Lab

2 CREDIT HOUR
Corequisite: MEC* K150.
This lab in conjunction with the corresponding lecture 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, 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 functionality of drawing automation. One hour lecture/discussion and four hours of lab per week.

- Directed Elective 3 CREDIT HOURS
- Directed Elective 3 CREDIT HOURS

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
- 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 state-of-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: James Copeland- 860-215-9416

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 more critical listeners who can respond rhetorically to complex issues and ideas.

ECN* K102 - Principles of Microeconomics °

3 CREDIT HOURS
Prequisite: 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.
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
In this course, students will study the fundamental principles, theories, and laws of chemistry. Topics include atomic theory 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). This course prepares students for the study of Calculus I. It is the study of functions, their graphs and applications. The topics include polynomial and rational functions and their graphs, operations on radical expressions, matrices, exponential and logarithmic functions, trigonometric functions and their graphs, trigonometric identities, trigonometric applications, and determinants.

**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

4.5 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, cycloalkanes, 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

4.5 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: Allan Anderson - 860-215-9403

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 Drafting Option Curriculum Requirements

General Education:

Arts/Humanities

**COM* K173 - Public Speaking** °

*3 CREDIT HOURS*

*Prerequisite: 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 more critical 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.

**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).
This course prepares students for the study of Calculus I. It is the study of functions, their graphs and applications. The topics include polynomial and rational functions and their graphs, operations on radical expressions, matrices, exponential and logarithmic functions, trigonometric functions and their graphs, trigonometric identities, trigonometric applications, and determinants.

**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 - Computer-Aided Drafting**

**1 CREDIT HOUR**
Corequisite: CAD* K107.
This course 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**  
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.

**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**

**1 CREDIT HOUR**

Prerequisites: CAD* K106/CAD* K107 and latest CAD release working knowledge.
Corequisite: CAD* K203.
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* K203 - Cad - Advanced Topics Lab**

**2 CREDIT HOURS**

Prerequisites: CAD* K106/CAD* K107 and latest CAD release working knowledge.
Corequisite: CAD* K202.
This course covers drawing assignments that will include topics involved with applications revolving around three dimensional solids modeling.

**CAD* K250 - Cad 3-D Parametric Modeling**

**1 CREDIT HOUR**

Prerequisites: CAD* K106/CAD* K107 and latest CAD release working knowledge.
Corequisite: CAD* K251.
This course will introduce the student to the concepts of a 3-D parametric modeling program. Lecture topics will include 3-D concepts, designer fundamentals, constraints, display parameters and the formulation of 3-D assembly drawings.

**CAD* K251 - Cad 3-D Parametric Modeling Lab**

**2 CREDIT HOURS**

Prerequisites: CAD* K106/CAD* K107 and latest CAD release working knowledge.
Corequisite: CAD* K250.
Students will learn the techniques of developing a drawing in 3-D from the beginning facets of geometry development. The
drawing assignments will include practical real world applications. Students will be developing visual skills necessary to design complex structures. The major emphasis of lab assignments will be 3-D assemblies.

**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 functionality 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. CAD* K111 may be used for this purpose.

* 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 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.
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 67 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 12 credits toward fulfillment of the 67 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 bachelor's degree program.

Electrical Option Curriculum Requirements

General Education:

Arts/Humanities

COM* K173 - Public Speaking ³

3 CREDIT HOURS
Prerequisite: 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 more critical listeners who can respond rhetorically to complex issues and ideas.

ENG* K101 - Composition ³

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
**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.

**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. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84).
This course cultivates understanding and different representations of functions. The course covers linear, quadratic, exponential, rational, radical functions, equations and expressions and operations on them with emphasis on modeling and solving real world problems.

**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).
This course prepares students for the study of Calculus I. It is the study of functions, their graphs and applications. The topics include polynomial and rational functions and their graphs, operations on radical expressions, matrices, exponential and logarithmic functions, trigonometric functions and their graphs, trigonometric identities, trigonometric applications, and determinants.

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 - Computer-Aided Drafting

1 CREDIT HOUR
Corequisite: CAD* K107.
This course 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
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.

MEC* K262 - Materials Science °

3 CREDIT HOURS
Prerequisites: MFG* K102/MFG* K103.
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/MFG* K103; 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.

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
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 more critical listeners who can respond rhetorically to complex issues and ideas.

**ENG* K101 - Composition °**

3 CREDIT HOURS
Prerequisite: ENG* K101 or ENG* K101S.
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 atomic theory 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).

This course prepares students for the study of Calculus I. It is the study of functions, their graphs and applications. The topics include polynomial and rational functions and their graphs, operations on radical expressions, matrices, exponential and logarithmic functions, trigonometric functions and their graphs, trigonometric identities, trigonometric applications, and determinants.

**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

MEC* K150 - Solid Modeling I

1 CREDIT HOUR
Corequisite: MEC* K151.
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, 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 functionality of drawing automation. One hour lecture/discussion and four hours of lab per week.

**MEC* K151 - Solid Modeling I Lab**

**2 CREDIT HOUR**  
*Corequisite: MEC* K150.*  
This lab in conjunction with the corresponding lecture 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, 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 functionality of drawing automation. One hour lecture/discussion and four hours of lab per week.

**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: Michael Gentry- 860-215-9428

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 more critical 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

*Prequisite: 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

*Prequisite: 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 atomic theory 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). This course prepares students for the study of Calculus I. It is the study of functions, their graphs and applications. The topics include polynomial and rational functions and their graphs, operations on radical expressions, matrices, exponential and logarithmic functions, trigonometric functions and their graphs, trigonometric identities, trigonometric applications, and determinants.

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: Allan Anderson- 860-215-9403

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 more critical listeners who can respond rhetorically to complex issues and ideas.

ENG* K101 - Composition °

3 CREDIT HOURS
Prequisite: 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
Prequisite: 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).
This course prepares students for the study of Calculus I. It is the study of functions, their graphs and applications. The topics include polynomial and rational functions and their graphs, operations on radical expressions, matrices, exponential and logarithmic functions, trigonometric functions and their graphs, trigonometric identities, trigonometric applications, and determinants.
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 - Computer-Aided Drafting

1 CREDIT HOUR
Corequisite: CAD* K107.
This course 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
3 CREDIT HOURS
Corequisite: MFG* K103.
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.

MFG* K103 - Manufacturing Processes Lab

1 CREDIT HOUR
Corequisites: MFG* K102 and TCN* K105.
This course provides laboratory emphasis on common metal cutting tools and lathe operations, as well as on associated precision measuring tools and instruments. The labs will involve set-ups and procedures for milling machines, lathes, grinders, drill presses, and some measuring instruments.

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: EET* K106; 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.

EET* K106 - Electric Circuits & Systems Lab °

1 CREDIT HOUR
Prerequisite: MAT* K095 or MAT* K095I.
Corequisite: EET* K105.
This lab 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* K252 - Strength of Materials Lab °**

1 CREDIT  
Prerequisites: MEC* K114.  
Corequisites: MEC* K250.

This laboratory is intended to reinforce the principles of Strength of Materials and Statics by a combination of different physical experiments whereby deflection of materials can be measured, as well as calculating appropriate reactions and determining the strength of materials utilizing a series of equipment as part of this laboratory exercise.

**MEC* K262 - Materials Science °**

3 CREDIT HOURS  
Prerequisites: MFG* K102/MFG* K103.  
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/MFG* K103; 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, Technology 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-of-the-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 60 credit 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.

**COM* K173 - Public Speaking**

3 CREDIT HOURS

*Prerequisite: 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 more critical listeners who can respond rhetorically to complex issues and ideas.

**GRA* K131 - Digital Photography**

3 CREDIT HOURS

This course is an introduction to digital photography and iPhoto 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 camera techniques, handling, and creative approaches will be the focus. Students will read and report on famous photographers and photography literature. The minimum camera requirement is an advanced digital camera in which you can manually control the f-stop, focus, ISO, and exposure length.

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* 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* 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* 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 overview of applications used in the field of Graphic Design: Photoshop, Illustrator, InDesign and Acrobat Pro. Students also learn file managements and computer navigation basics including scanning software. Students study page design, typography, and image editing. Emphasis will be on the use of the computer for writing, editing, imaging and publication design. Students will read and report on graphic design topics.

**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. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84).** This course cultivates understanding and different representations of functions. The course covers linear, quadratic, exponential, rational, radical functions, equations and expressions and operations on them with emphasis on modeling and solving real world problems.

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
- [ ] — Social Science 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: 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 an 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

Program Coordinator: Edwin Muenzner- 860-215-9456

Students wishing specific training in accounting and other business subjects for upgrading in their present positions or entry into business or industry may complete the 30 credit hour certificate program by completing the courses that are listed below. 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.

**BFN* K201 - Principles of Finance °**

**3 CREDIT HOURS**

*Prerequisites: ACC* K111 or ACC* K115 and BBG* K115.*

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* K095 or MAT* K095I placement.

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.

Accounting Core Certificate

Degree Code: J37

Certificate Program

Program Coordinator: Edwin Muenzner- 860-215-9456

This 15 credit hour certificate program is designed for students wishing specific training in accounting and other business subjects for upgrading their present positions or entry into business or industry. Students may complete this certificate by completing the courses that are listed below. Students may complete this certificate by completing the courses that are listed below.

English Competency Requirement met by: ________________

Accounting Core 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.

**Note:** °Course has a prerequisite. Students should check course description.

The English Competency Requirement is met by placement in ENG* K101, 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: 15

Accounting Core, Certificate 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 field of Accounting.
2. demonstrate knowledge of those principles and skill 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.

Advertising/Public Relations Certificate

Degree Code: KJ10

Certificate Program

Program Coordinator: Irene Clampet - 860-215-9414

This 30 credit certificate program is designed to serve students' needs and interests in several ways. The certificate provides a skill-based knowledge for entrepreneurs and for individuals seeking entry-level employment in the communications and promotion departments of both large and small businesses. The program can also improve the promotional skills of professionals in profit and not-for-profit organizations.

Students may complete this certificate by completing the courses that are listed below.

Advertising/Public Relations Certificate Curriculum Requirements

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.
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 more critical listeners who can respond rhetorically to complex issues and ideas.

BMK* K106 - Principles of Selling °

3 CREDIT HOURS
Prequisite: 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* K201 - Principles of Marketing °

3 CREDIT HOURS
Prequisite: 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
Prequisite: 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.

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.

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 overview of applications used in the field of Graphic Design: Photoshop, Illustrator, InDesign and Acrobat Pro. Students also learn file managements and computer navigation basics including scanning software. Students study
page design, typography, and image editing. Emphasis will be on the use of the computer for writing, editing, imaging and publication design. Students will read and report on graphic design topics.

**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.

**Note:**

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

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**Grand Total: 30**

**Advertising/Public Relations, 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 not-for-profit organizations in order to satisfy the needs and wants of society.

2. apply the practical use of marketing strategies, promotional tools and communication techniques in order to pursue a professional career in advertising/public relations.

3. demonstrate skills in internal and external communication techniques, including verbal, non-verbal, written and technological.

4. apply knowledge from a cross section of marketing theories to solve marketing problems and develop effective promotional communications.

5. demonstrate competency in marketing, advertising, public relations and sales presentations, including the use of business software.

6. explain the role of marketing and its interrelationship with other functional areas in order to achieve organizational goals.
Architectural Drafting Technology Certificate

Degree Code: J19

Certificate Program

Program Coordinator: Mark Comeau - 860-215-9415

The architectural Design Technology Certificate Program is designed to expand opportunities for those interested in the drafting/design fields. The program serves those seeking entry-level positions and those who plan on continuing studies at a university. The program exposes students to the fundamentals of traditional drafting and design and incorporates leading edge technology of computer-aided drafting (AutoCAD). Graduates of the program will be qualified to fill many diverse positions in the industry or transfer to a baccalaureate or professional degree program. Positions may include: design and production person under the supervision of a registered architect, draftsperson for construction or development firms, architectural representative for vendor sales and draftsperson for facility planners.

Students may complete this certificate by completing the courses that are listed below.

Architectural Drafting Technology Certificate Curriculum Requirements

(suggested 2 semester sequence)

Semester I

ARC* K108 - Building Materials

3 CREDIT HOURS
This course introduces students to the source, use and limitations of materials used in building construction, while exploring methods of assembly and historic applications. Emphasis is placed on basic design concepts and the practical applications of building materials "in the field." Field observation is attained through site visits of projects under construction (as available).

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 - Computer-Aided Drafting

1 CREDIT HOUR  
Corequisite: CAD* K107.  
This course 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 placements; 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

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.

ARC* K137 - Architectural Detailing °

1 CREDIT HOUR
Prerequisites: ARC* K135/ARC* K135L.
Corequisite: ARC* K137L.
This course introduces the methods and purpose of producing architectural drawing details that convey design intent to the construction industry while illustrating, with detail, the materials, assemblies and methods to be used in construction.

ARC* K137L - Architectural Detailing Lab °

2 CREDIT HOURS
Prerequisites: ARC* K135/ARC* K135L.
Corequisite: ARC* K137.
This course implements the principles of architectural detailing covered in the lecture portion of this course, as students gain working knowledge through construction observation, detail observation, and a hands-on scaled detail building project.

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, structural and 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 HOURS
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.

Total: 9
Note:

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

* Indicates common course numbering within Connecticut Community College system.

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Grand Total: 24

Architectural Drafting Technology, Certificate Program Outcomes

Graduates of the Architectural Design Technology program will:

1. demonstrate a mastery of the basic skill sets required for entry level in architectural drafting and design.
2. integrate a core curriculum with architectural design theory, technical background and practice elements in order to seek advanced professional degrees.
3. pursue expanded opportunities in the drafting and graphics fields for those with previous experience in allied areas.
4. demonstrate competence in the specific traditional and Associate Degree and Certificate Programs computer drafting skills required in today's architectural industry, consisting of conceptual, schematic, developmental and construction detail drawing.
5. demonstrate and apply skills necessary for visual thinking and graphic problem solving.
6. use and produce appropriate materials with industry standard software applications.
7. provide sufficient explanation of drafting and drawing components.
8. adopt a life-long learning and intellectual growth as an integral part of a career in architectural drafting technology due to ever-evolving components and systems.

Basic Business Skills Certificate

Degree Code: K25

Certificate Program

Program Coordinator: Edward Muenzner- 860-215-9456

This 24-25 credit 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* K095 or MAT* K095I placement∞.
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
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.

**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 placements 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 more critical 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.

ECN* K101 - Principles of Macroeconomics °

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

Program Contact: Ed Muenzner - 860-215-9456

This 29 credit hour 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* K095 or MAT* K095I placement.
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; MAT* K123 or MAT* K146 or MAT* K167 or MAT* K172 or MAT* K186.
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.
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 Information Systems Certificate

Degree Code: J50

Certificate Program

Program Coordinator: Betti Gladue - 860-215-9430

This 27-29 credit hour certificate program is designed for students who seek to acquire the basic working skills to enter a business, wish to expand their opportunities and choices, and/or transfer to Eastern or another 4-year university.

Students may complete this certificate by completing the courses that are listed below.

Business Information Systems Certificate Curriculum Requirements

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* K095 or MAT* K095I placement.

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.

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.

CSC* K108 - Introduction to Programming °

4 CREDIT HOURS
Prerequisite: 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 solve problems 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.

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.

Restricted Electives: 10-12 CREDIT HOURS

Please select 3 from the following list of courses:

ACC* K115 - Financial Accounting °
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.

**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.

**CST* K175 - Network Administration and Support °**

**4 CREDIT HOURS**
Prerequisite: None required. Recommended BBG* K115 or CSA* K105 or equivalent.
The student will acquire detailed knowledge of networking technology, including basic network structure; the characteristics of
CST* K176 - Internet Technologies °

4 CREDIT HOURS
Prerequisite: None required. Recommended BBG* K115 or CSA* K105 or equivalent.
This course surveys the various technologies that form and make the Internet work. It will prepare students to understand current technologies and make intelligent business decisions concerning the Internet. The student will acquire detailed knowledge of a wide range of internet basics, the knowledge and skills required to use and update client software, and to assist in the administration of internet/intranet sites. Additionally, the student will acquire detailed knowledge of programming related terms and the differences between popular client and server programming language.

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: 27-29

Business Information Systems, Certificate Program Outcomes

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

1. demonstrate a fundamental understanding of a computer's operating system with regard to file management, system tools and the customization of the computing environment.
2. design, develop and implement programs to solve various data processing problems using the current programming language and Visual Basic.
3. demonstrate use of computer applications including word processing, spreadsheets, presentation software, database management, and Internet browser software to enhance personal productivity.

Business Information Systems Core Certificate

Degree Code: J09

Certificate Program
This 14 credit hour certificate program is designed for students who seek to acquire the basic working skills to enter a business, wish to expand their opportunities and choices, and/or transfer to Eastern or another 4-year university.

Students may complete this certificate by completing the courses that are listed below.

English Competency Requirement met by:_______________

Business Information Systems Core Certificate Curriculum Requirements

**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* K095 or MAT* K095I placement.

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.

**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 solve problems discussed in the lecture portion. Three lecture hours, one two-hour lab.

**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.

**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.

Note:

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

The English Competency Requirement is met by placement into ENG* K101, 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: 14

Business Information Systems Core, Certificate 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 field of Business Information Systems.
2. demonstrate knowledge of those principles and skills applicable to general business and those specific to the field of Business Information Systems.
3. demonstrate the ability to apply learned principles and skills to unique factual settings using correct vocabulary.

Business Management Core Certificate

Degree Code: KJ38

Certificate Program

Program Contact: Ed Muenzner- 860-215-9456

This 14 credit hour certificate program is designed for students who seek to acquire the basic working skills to enter a business, wish to expand their opportunities and choices, and/or transfer to Eastern or another 4-year university.

Students may complete this certificate by completing the courses that are listed below.

English Competency Requirement met by:______________
Business Management Core 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.

**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 - Industrial & Organizational Psychology °.

**BMG* K218 - Operations Management °**

3 CREDIT HOURS
Prerequisites: ACC* K118 or ACC* K233; MAT* K123 or MAT* K146 or MAT* K167 or MAT* K172 or MAT* K186.
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).

Note:

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

The English Competency Requirement is met by placement into ENG* K101, 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: 15

Business Information Systems Core, Certificate 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 field of Business Information Systems.
2. demonstrate knowledge of those principles and skills applicable to general business and those specific to the field of Business Information Systems
3. demonstrate the ability to apply learned principles and skills to unique factual settings using correct vocabulary.

Case Management Certificate

Degree Code: K06

Certificate Program

Program Coordinator: Joyce Martin- 860-215-9451

This 27 credit 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 complete this certificate by completing the courses that are listed below.

Case Management Certificate Curriculum Requirements

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.

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
Prerequisite: 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 more critical 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.

**Casino Management Certificate**

Degree Code: K02

**Certificate Program**

Contact Person: Edwin Muenzner - 860-215-9456

Students may complete this certificate by completing the course that are listed below.
Casino 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* 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* 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* 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

Communication and Customer Relations Certificate

Degree Code: J03

Certificate Program

Contact Person: Edwin Muenzner - 860-215-9456

Student may complete this certificate by completing the course that are listed below.

Communication and Customer Relations Certificate Curriculum Requirements

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.

or

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.

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 more critical listeners who can respond rhetorically to complex issues and ideas.

**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* 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.

**Note:**

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

* Indicates common course numbering within Connecticut Community College.

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**Grand Total: 15-16**

**Computer Applications Certificate**
Certificate Program

Program Coordinator: Joseph Johnson - 860-215-9440

This 30-credit certificate program has been designed to prepare students for employment in various computer support positions, from designing the screen layout for data entry operation to a webpage for a small company.

Students may complete this certificate by completing the courses that are listed below.

Computer Applications 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.

**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.

**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.
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* K232 - Communications & Networking

4 CREDIT HOURS
Prerequisite: None required. Recommended BBG* K115 or CSA* K105 or equivalent.
Students will become knowledgeable about basic internetworking concepts, including the use of internetworking software applications. Topics include routing/switching hardware, security, distributed client/server applications and architecture, intranets and intranet servers and browsers, networks and network servers, LANs/WANs, internetworking technologies, the OSI reference model for networking protocols, addressing and routing algorithms, TCP/IP implementation, the Internet, and the World Wide Web with emphasis on TCP/IP and the Internet. Basic concepts of network socket programming for client/server communications will be covered.

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.

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.

or

- ________ - Higher Math 3 CREDIT HOURS
- ________ - Open Elective 3 CREDIT HOURS

Note:
° Course has a prerequisite. Students should check course description.
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Grand Total: 30

Computer Applications, Certificate Program Outcomes

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

1. read and prepare standard types of business communications.
2. demonstrate a high level of skill in the use of word processing software.
3. use computer software to create an effective presentation.
4. use spreadsheet software to create sophisticated worksheets and graphs.
5. use database application software to create, update and query a database.
6. integrate text and objects produced in word processing, spreadsheet, database management, and presentation software applications with Internet resources to create documents.
7. plan, design, develop, and maintain professional Web sites using HTML and Web page development software, and create and optimize images and animation.
8. demonstrate understanding of network technology protocols, including structure, communication, architecture and standards.
9. demonstrate appropriate interpersonal, human relations skills.

Computer-Aided Drafting Certificate

Degree Code: J46

Certificate Program
This Computer-Aided Drafting (CAD) one-year certificate program prepares 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

**CAD* K106 - Computer-Aided Drafting**

1 CREDIT HOUR  
Corequisite: CAD* K107.  
This course 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  
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 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.

- Technical Elective/Lab 3-4 CREDIT HOURS **

Total: 12-13

Semester II

**CAD* K202 - Cad - Advanced Topics °**

1 CREDIT HOUR
Prerequisites: CAD* K106/CAD* K107 and latest CAD release working knowledge.
Corequisite: CAD* K203.
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* K203 - Cad - Advanced Topics Lab °**

2 CREDIT HOURS
Prerequisites: CAD* K106/CAD* K107 and latest CAD release working knowledge.
Corequisite: CAD* K202.
This course covers drawing assignments that will include topics involved with applications revolving around three dimensional solids modeling.

**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, structural and 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.

or

CAD* K250 - Cad 3-D Parametric Modeling °

1 CREDIT HOUR
Prerequisites: CAD* K106/CAD* K107 and latest CAD release working knowledge.
Corequisite: CAD* K251.
This course will introduce the student to the concepts of a 3-D parametric modeling program. Lecture topics will include 3-D concepts, designer fundamentals, constraints, display parameters and the formulation of 3-D assembly drawings.

CAD* K251 - Cad 3-D Parametric Modeling Lab °

2 CREDIT HOURS
Prerequisites: CAD* K106/CAD* K107 and latest CAD release working knowledge.
Corequisite: CAD* K250.
Students will learn the techniques of developing a drawing in 3-D from the beginning facets of geometry development. The drawing assignments will include practical real world applications. Students will be developing visual skills necessary to design complex structures. The major emphasis of lab assignments will be 3-D assemblies.

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* 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. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84).
This course cultivates understanding and different representations of functions. The course covers linear, quadratic, exponential, rational, radical functions, equations and expressions and operations on them with emphasis on modeling and solving real world problems.

Total: 12
Note:

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

** Tech elective requires approval of the Program Advisor. Recommended choices include CAD* K130/CAD* K131, MEC* K150/MEC* K151 or ARC* K135/ARC* K135L.

* Indicates common course numbering within Connecticut Community College system.

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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

Program Coordinator: Mark Comeau - 860-215-9415

The objective of the Construction Management Certificate program is 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, architecture 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 - Building Materials**

**3 CREDIT HOURS**
This course introduces students to the source, use and limitations of materials used in building construction, while exploring methods of assembly and historic applications. Emphasis is placed on basic design concepts and the practical applications of building materials "in the field." Field observation is attained through site visits of projects under construction (as available).

**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 - Computer-Aided Drafting**

**1 CREDIT HOUR**
*Corequisite: CAD* K107.*
This course 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. This course is equivalent to CIV* K229.

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. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). This course cultivates understanding and different representations of functions. The course covers linear, quadratic, exponential, rational, radical functions, equations and expressions and operations on them with emphasis on modeling and solving real world problems.

Directed Elective: 3 CREDIT HOURS

Please select from the following courses:

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* K137 - Architectural Detailing °

1 CREDIT HOUR
Prerequisites: ARC* K135/ARC* K135L.
Corequisite: ARC* K137L.
This course introduces the methods and purpose of producing architectural drawing details that convey design intent to the construction industry while illustrating, with detail, the materials, assemblies and methods to be used in construction.

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* K241 - Site Analysis °

2 CREDIT HOURS
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.

Total: 15

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

Program Coordinator: Jeffrey Crouch - 860-215-9418

This program provides an opportunity for students to participate in a 30 credit 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
Prerequisite: 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.

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  
*Prerequisite: 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 more critical 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.

Customer Service Certificate

Degree Code: J06

Associate in Science

Program Coordinator: Irene Clampet - 860-215-9414

This 15 credit certificate is designed to develop skills in the area of customer service in a variety of business settings. It includes skills in effective communication, problem solving techniques and professional behavior in relationships with customers. These relationships are for internal and external customers in both business-to-business and consumer-focused environments. The studies in this certificate program focus on the concepts of return on customer and customer relationship management, which are perspectives tantamount to success in today's business world. This certificate will benefit students seeking entry level positions in customer service and working professionals who want to enhance their understanding of clear, effective communication with a business' internal and external customers. All of the courses required in the degree include hands-on assignments which apply course concepts to real world business experiments. Students may complete this certificate by completing the courses that are listed below.

Customer Service Certificate Curriculum Requirements

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.

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 choose one from the following 4 courses: 3 CREDIT HOURS

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* 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* 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: 15

Customer Service, Certificate Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:
1. understand the importance of customer satisfaction.
2. apply practical marketing communication strategies in serving the needs and wants of customers.
3. demonstrate competency in customer service using a variety of communication techniques including written, verbal, nonverbal and electronic.
4. possess skills in professional demeanor, service attitude and business etiquette.

E-Commerce Certificate

Degree Code: J11

Certificate Program

Program Coordinator: Betti Gladue- 860-215-9430

This 29 credit certificate program provides the foundation for students to have an introductory knowledge of the management of the web, programming and databases. Students who earn their certificate will gain a better understanding of aspects in business, technology and the worldwide web. All courses in this certificate may be applied toward the E-Commerce, A.S.

Students may complete this certificate by completing the courses that are listed below.

English Competency Requirement met by: ________________

E-Commerce Certificate Curriculum Requirements

Semester I

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* K095 or MAT* K095I placement.

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.

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.

**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 solve problems discussed in the lecture portion. Three lecture hours, one two-hour lab.

**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

**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.
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.

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.

CST* K253 - Web E-Commerce °

4 CREDIT HOURS
Prerequisite: CST* K153 or permission of the instructor.
This course examines the essentials of electronic commerce including the business-to-consumer (B2C) and the business-to-business (B2B) categories as well as the transactions and processes that support selling and purchasing activities. B2C topics include the addition of server side programming (e.g. shopping cart software) to traditional web site design for the support of order entry processing, and database technology to support both product catalogs and transactions for order fulfillment. B2B topics include electronic purchase order and invoicing processes needed to implement electronic data interchange. The role of XML in these activities, electronic commerce security, electronic payment systems, and international, legal and ethical issues are examined. A case-study approach is used which analyzes business examples to provide real-world experience.

Total: 15

Note:
° Course has a prerequisite. Students should check course description.
* Indicates common course numbering within Connecticut Community College system.

The English Competency Requirement is met by placement score in ENG* K101, or transfer credit or completion of ENG* K096.

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

E-Commerce, Certificate Program Outcomes

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

1. go on to wide-ranging careers in business or computer science as well as e-commerce entrepreneurship.
2. develop technical skills in computer literacy, internet marketing and e-commerce, internet security, website development, business law, database technology, and internet business model, including a well-rounded understanding of business.
3. develop, design and implement business and computer related programs to solve various data processing problems using the current programming language.

Early Childhood Education Certificate

Degree Code: J89

Certificate Program

Program Coordinator: Sheila Skahan - 860-215-9475

This program offers entering students and those already employed in the childcare field an opportunity to increase their knowledge and update their skills. Students may complete this 30 credit program by completing the courses that are listed below. Students may complete this certificate by completing the courses that are listed below.

Early Childhood Certificate Curriculum Requirements

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. Observations of early childhood programs will be required.

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.

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.

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.

- ECE* K290° - Student Teaching I 3 CREDIT HOURS
- ECE*_____ - Early Childhood Elective (see program coordinator) 3 CREDIT HOURS
- ECE*_____ - Early Childhood Elective (see program coordinator) 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.

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.

**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**

**Early Childhood Education, Certificate Program Outcomes**

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

1. explain the development of the child from conception to early adolescence in all areas, including personal and social, physical, cognitive and creative development.
2. explain the theory, curriculum, and organization of childcare programs working with children 0-8.
3. plan a basic integrated curriculum for the learning development of the child from 0-8.
4. understand the goals, benefits and uses of observing, documenting, and assessing to support young children and families.
5. recognize the special needs of children and use supportive interactions to focus on the child's needs and interests.
6. demonstrate the ability to work in an early childcare setting by planning curriculum, interacting positively with children and demonstrating professional standards.

**Environmental Health and Safety Management Certificate**

Degree Code: K09

**Certificate Program**

Program Coordinator: Diba Khan-Bureau - 860-215-9443
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. The certificate will enable students to apply their EH&S management skills in any workplace setting. 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* K101 - Environmental Studies**

3 CREDIT HOURS
Corequisite: ENG* K096 or higher. Please note: if completing ENG* K096 prior to enrolling in ENV* K101, a grade of "C#" or better is required for registration into this course.
This is a course that describes the study of the biological and physical aspects of the environment and environment-related issues, including procedures for lessening or controlling environmental pollution and related damage. Some field work will be included. This course is equivalent to BIO* K180 - Principles of Environmental Science. Course fulfills International/Intercultural requirement.

**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. This course is equivalent to BIO* K289.

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

Program Leader: Peter Patsouris - 860-215-9462
This certificate program provides the opportunity 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
- ________ - 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

Program Advisor: Kevin Amenta - 860-215-9402

This certificate 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 qualifies 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 or GRA* K140 or 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 overview of applications used in the field of Graphic Design: Photoshop, Illustrator, InDesign and Acrobat Pro. Students also learn file managements and computer navigation basics including scanning software. Students study page design, typography, and image editing. Emphasis will be on the use of the computer for writing, editing, imaging and publication design. Students will read and report on graphic design topics.

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; 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.

or

• __________ - 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
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.

Health Career Pathways Certificate

Degree Code: K55

Certificate Program

Program Coordinator: Edith Ouellet, Interim Director of Nursing & Allied Health - 860-215-9427

This program is designed to assist the student to achieve success in healthcare programs. Students will be provided with the foundation necessary for healthcare professions. Credits for this program may be applied toward healthcare program requirements within Connecticut's Community College system. However, completion of this program does not guarantee automatic acceptance into any healthcare program. Students are responsible for verifying specific requirements for their programs of interest.

Students may complete this certificate by completing the courses that are listed below.

Health Career Pathways Certificate Curriculum Requirements

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* 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. CHE* K111 or higher strongly recommended.*

A continuation of BIO* K211 - Anatomy & Physiology I, this course 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. BIO* K212 is offered in the spring semester only. Three-hour lecture; one three-hour laboratory period per week.

**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.

**HLT* K103 - Investigations in Health Careers**

**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 in meeting the expectations of a health care curriculum and career. The students will become familiar with the rigors of higher education and the specific skills needed to maximize their opportunity for academic and clinical success. The course will include a comprehensive overview of the duties and responsibilities associated with clinical competency. Interdisciplinary learning strategies, correlating clinical and didactic education, life management skills, work ethics, and critical thinking skills necessary for all health provides will be emphasized.
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. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). This course cultivates understanding and different representations of functions. The course covers linear, quadratic, exponential, rational, radical functions, equations and expressions and operations on them with emphasis on modeling and solving real world problems.

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.

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

Health Career Pathways, Certificate Program Outcomes

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

1. demonstrate competence in written and oral communication.
2. demonstrate critical thinking, logical reasoning and problem solving skills.
3. effectively utilize and interpret medical terminology.
4. identify a variety of career opportunities and roles available in health care professions.
5. meet most requirements for entrance into health care programs.
6. demonstrate an understanding of the impact of psychological principles and how they relate to the health care field.

Hotel Management Certificate
Certificate Program

Contact Person: Edwin Muenzner - 860-215-9456

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 placements 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.
Introduction to Manufacturing (Level 1)

Degree Code: K56

Certificate Program

Program Contact: Michael Gentry - 860-215-9428

This 26-31 credit 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 - Computer-Aided Drafting

1 CREDIT HOUR
Corequisite: CAD* K107.
This course 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: EET* K106; 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.

**EET* K106 - Electric Circuits & Systems Lab °**

1 CREDIT HOUR
Prerequisite: MAT* K095 or MAT* K095I.
Corequisite: EET* K105.
This lab 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/MFG* K103.
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/MFG* K103; 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

4 CREDIT HOURS
Corequisite: MAT* K095 OR MAT* K095I.
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 applications 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 PHY* K103 - Introduction to Light and Lasers. One 3 hour lecture; one 2 hour lab.

MFG* K102 - Manufacturing Processes

3 CREDIT HOURS
Corequisite: MFG* K103.
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.

MFG* K103 - Manufacturing Processes Lab

1 CREDIT HOUR
Corequisites: MFG* K102 and TCN* K105.
This course provides laboratory emphasis on common metal cutting tools and lathe operations, as well as on associated precision measuring tools and instruments. The labs will involve set-ups and procedures for milling machines, lathes, grinders, drill presses, and some measuring instruments.

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

Program Coordinator: Daniel Courtney - 860-215-9417

This Laser and Fiber Optic Technology Certificate 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 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

MFG* K102 - Manufacturing Processes

3 CREDIT HOURS
Corequisite: MFG* K103.
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.

MFG* K103 - Manufacturing Processes Lab

1 CREDIT HOUR
Corequisites: MFG* K102 and TCN* K105.
This course provides laboratory emphasis on common metal cutting tools and lathe operations, as well as on associated precision measuring tools and instruments. The labs will involve set-ups and procedures for milling machines, lathes, grinders, drill presses, and some measuring instruments.

MFG* K118 - Computer Controlled Laser Materials Processing °
3 CREDIT HOURS
Prerequisites: TCN* K105; PHO* K101 or MEC* K262 or permission of instructor.
Corequisite: MFG* K119.
A study of the mechanics, components, characteristics and control of lasers used in the processing of engineering materials. The differences between laser material processing and conventional methods will be examined. The interactions between laser beams and materials on atomic and macro scales will be discussed. Specific processes such as a thermal processing, surface hardening, and cladding, joining, cutting, marking and welding will be introduced. Students will be exposed to computer numerical control (CNC) concepts and programming.

MFG* K119 - Computer Controlled Laser Materials Processing Lab °

1 CREDIT HOUR
Prerequisites: TCN* K105; PHO* K101 or MEC* K262; or permission of instructor.
Corequisite: MFG* K118.
The lab will provide hands-on experiences reinforcing and supplementing the course content. Labs will be conducted at a regional site.

PHO* K101 - Intro to Light and Lasers

4 CREDIT HOURS
Corequisite: MAT* K095 OR MAT* K095I.
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 applications 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 PHY* K103 - Introduction to Light and Lasers. One 3 hour lecture; one 2 hour lab.

PHO* K241 - Introduction to Laser Technology °

3 CREDIT HOURS
Prerequisites: PHO* K101.
Corequisite: PHO* K242.
This course provides an introduction to the physics of lasers, laser output characteristics, and types of lasers. Application of lasers will be explored through online and print journals and field trips to local companies that build, integrate or use lasers.

PHO* K242 - Introduction to Laser Technology Lab °

1 CREDIT HOUR
Prerequisites: PHO* K101 or permission of instructor.
Corequisites: PHO* K241 and TCN* K105.
This lab 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.
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.

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

Program Contact: Michael Gentry- 860-215-9428

This Lean Manufacturing Certificate was developed 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**
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.

This 30 credit 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.

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
Prerequisite: CSA* K105.
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:
  o LIB* K120 Literature for Children
  o LIB* K202 # Supervised Field Placement (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/DSSST exams, Credit by Exam, APL credit, and Military credit.
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

Program Coordinator: Irene Clampet - 860-215-9414

This 28 credit 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, 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.

Marketing Core Certificate

Degree Code: J13

Certificate Program

Program Coordinator: Irene Clampet - 860-215-9414

This 15 credit 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.

English Competency Requirement met by:________________

Marketing Core Certificate Curriculum Requirements
**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.

Note:

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

English Competency Requirement is met by placement into ENG* K101, transfer credit, or successful 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: 15

Marketing Core, Certificate 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 field of marketing.
2. demonstrate knowledge of those principles and skills applicable to general business and those specific to the field of marketing.
3. demonstrate the ability to apply learned principles and skills to unique factual settings using correct vocabulary.

Networking Technology Certificate

Degree Code: K07

Associate in Science

Program Coordinator:
Allan Anderson - 860-215-9403

The Networking Technology Certificate program will provide students with marketable skills that grow increasingly crucial in the present technological age. Networking Technology courses are hands-on and offer students and opportunity to develop knowledge an skills in networking technologies. After completing the Networking Technology Certificate Program, students will be eligible to take the CompTIA Network+, i-Net+, Server+, and Security+ Certification exams. Students may complete this certificate by completing the courses that are listed below.

Networking Technology Certificate Curriculum Requirements
Semester I (Fall)

CST* K175 - Network Administration and Support °

4 CREDIT HOURS
Prerequisite: None required. Recommended BBG* K115 or CSA* K105 or equivalent.
The student will acquire detailed knowledge of networking technology, including basic network structure; the characteristics of star, bus, mesh, and ring topologies, and their advantages and disadvantages; the characteristics of segments and backbones; identification of the following: the major network operating systems, including Microsoft Windows NT, Novell NetWare, and Unix; the clients that best serve specific network operating systems and their resources; the directory services of the major network operating systems; and general networking and communications security. It is recommended but not required that this course be taken first.

CST* K176 - Internet Technologies °

4 CREDIT HOURS
Prerequisite: None required. Recommended BBG* K115 or CSA* K105 or equivalent.
This course surveys the various technologies that form and make the Internet work. It will prepare students to understand current technologies and make intelligent business decisions concerning the Internet. The student will acquire detailed knowledge of a wide range of internet basics, the knowledge and skills required to use and update client software, and to assist in the administration of internet/intranet sites. Additionally, the student will acquire detailed knowledge of programming related terms and the differences between popular client and server programming language.

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.
Semester II (Spring)

CST* K177 - Server Technologies °

4 CREDIT HOURS
Prerequisite: None required. Recommended BBG* K115 or CSA* K105 or equivalent.
Students will acquire advanced-level technical knowledge of server issues and technology, including installation, configuration, upgrading, maintenance, and troubleshooting and disaster recovery. Additionally, students will acquire advanced knowledge of networking hardware, detailed knowledge of programming related terms and the differences between popular client and server programming language.

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.

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.

Note:

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

## Technical Elective in Computer Science Technology, A.S.

* 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: 25

Networking Technology, Certificate Program Outcomes

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

1. demonstrate an understanding of the typologies and functions of local and wide area networks, intranets, and internets and the Internet.
2. implement and administer network operating systems, network security, user accounts and file sharing, backups and data redundancy, servers, software licensing, network monitoring and virus protection.
3. install and support network components, including modems, hubs, network adapters, switches, repeaters and routers.
4. understand and be able to describe network protocols, structures, communication architecture and standards.
5. recognize and explain networking terminology, components, and applications.

Restaurant Management Certificate

Degree Code: K04

Certificate Program

Contact Person: Edwin Muenzner - 860-215-9456

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 placements; 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
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**

**Retail Management Certificate**

Degree Code: J24

**Certificate Program**

Program Coordinator: Irene Clampet - 860-215-9414
This 28 credit certificate program is designed to provide students with an opportunity to develop a skill-based foundation for a career in retail operations and management or as retail entrepreneurs. Completion of the requirements of this program will prepare the student for success in all facets of retail management. Students may complete this certificate by completing the courses that are listed below.

**Retail 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.

**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* 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* 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.

**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 overview of applications used in the field of Graphic Design: Photoshop, Illustrator, InDesign and Acrobat Pro. Students also learn file managements and computer navigation basics including scanning software. Students study page design, typography, and image editing. Emphasis will be on the use of the computer for writing, editing, imaging and publication design. Students will read and report on graphic design topics.

**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:**
Retail Management, Certificate Program Outcomes

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

1. explain the practical use of marketing strategies as they are applied in a retail environment in order to pursue a professional career in retail management.
2. demonstrate skills in the elements of retail management, including merchandising, supervision, customer service, and promotional activities.
3. demonstrate skills in leadership, motivation, and teamwork, including the ability to work with diverse groups in a retail environment.
4. apply knowledge from other business disciplines to create effective retail strategies and solve retail business problems.
5. demonstrate competency in quantitative and qualitative decision-making using technology and research techniques.
6. explain to role of the consumer in retail management and strategy.

Security Loss Prevention Certificate

Degree Code: J26

Certificate Program

Program Coordinator: Jeffrey Crouch - 860-215-9418

This 27 credit certificate program prepares individuals for careers in security and loss prevention. Opportunities for employment in Southeastern Connecticut include work in industrial, corporate, business, retail and nuclear-based firms. Persons already employed in the field may pursue this certificate to upgrade their knowledge and skills while enhancing their career mobility. Students may complete this certificate by completing the courses that are listed below.

Prerequisite Requirements:

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.

Security and Loss Prevention 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* 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* 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* K230 - Security Administration °

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* 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

- ________ - 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.

Note:

The following courses should be taken prior to all others: ENG* K101, CJS* K101, CJS* K103.

The following courses should be taken after CJS* K101 in the precise order: CJS* K230, CJS* K231, CJS* K211, CJS* K220, CJS* K213, CJS* K291.

° Course has a prerequisite. Students should check course description.
@ May be exempted through placement score.
* 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

Security Loss and Prevention, Certificates Program Outcomes

Upon successful completion of this 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. apply constitutional principles that protect the rights of individuals and regulate criminal justice practices and procedures.
4. identify and explain the basic operational roles of private police and the basic theories involved in the supervision of security personnel.

Small Business Entrepreneurial Studies Certificate

Degree Code: J07

Certificate Program

Program Coordinator: Ed Muenzner - 860-215-9456
This 28-29 credit hour certificate 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; MAT* K123 or MAT* K146 or MAT* K167 or MAT* K172 or MAT* K186.
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

Program Coordinator: Michael Gentry- 860-215-9428

The Supply Chain Management Certificate was developed 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

Surveying and Mapping Technician

Degree Code: J08

Certificate Program

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

This 27.5 credit certificate program is designed to provide students with entry-level skills required to fill technician jobs in the areas of measuring and mapping the earth's surface and establishing official land, airspace and water boundaries. This certificate gives students the opportunity to discover the fundamentals of surveying and mapping along with the establishing foundational skills used to execute engineering calculations. This two-semester certificate consists of courses that will enable students to apply these skills in one of the fastest growing fields. Employment of surveyors and mapping technicians is expected to grow 19% from 2008 to 2018, which is faster than the average for all occupations (Bureau of Labor Statistics). Having a surveying and mapping certificate will afford students the opportunity to obtain work or continue their education to acquire an A.S. or an advanced degree. Surveying and mapping are integral in infrastructure building, all phases in construction and environmental planning and land-use in the United States today. In today's economy and in the consideration of the "new" paradigm of re-surveying and mapping the Earth this certificate is very timely.

Students may complete this certificate by completing the courses that are listed below.

Surveying and Mapping Technician Certificate Curriculum Requirements

Semester I

ARC* K241 - Site Analysis °

2 CREDIT HOURS
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 °
1.5 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.

CIV* 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 ENV* K146 or GIS* K146.

GIS* 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 CIV* K146 or ENV* K146.

CIV* K150 - Surveying I

3 CREDIT HOURS
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

1.5 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.

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. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84).
This course cultivates understanding and different representations of functions. The course covers linear, quadratic, exponential, rational, radical functions, equations and expressions and operations on them with emphasis on modeling and solving real world problems.

Total: 14

Semester II

CAD* K106 - Computer-Aided Drafting

1 CREDIT HOUR
Corequisite: CAD* K107.
This course 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.

CIV* K250 - Surveying II °

3 CREDIT HOURS
Prerequisites: CIV* K150 and CIV* K151.
Corequisite: CIV* K251.
This course is a continuation of Surveying I and covers boundary location, curves and curved boundary lines, areas, topographic surveys and mapping, connecting traverses, horizontal and vertical alignment of roadways, cross sectioning, profile leveling, and construction staking. This course is cross listed with ENV* K280.

CIV* K251 - Surveying II Lab °

1.5 CREDIT HOURS
Prerequisites: CIV* K150 and CIV* K151
Corequisite: CIV* K250.
This laboratory is a continuation of the laboratory work begun in Surveying I leading to the development of a boundary and topographic map of the site area. Further, a roadway in play, profile, and cross section is developed and located on the site.

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), Toxics 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.

- Directed Elective 3 CREDIT HOURS (see advisor) +

Total: 13.5

Note:
° Course has a prerequisite. Students should check course description.
+ Directed Electives: See advisor for course suggestions. (ARC* K214, CAD* K214/CAD* K215, ENV* K101, ENV* K130, ENV* K295)

* Indicates common course numbering within Connecticut Community College system.

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Grand Total: 27.5

Surveying and Mapping Technician, Certificate Program Outcomes

Graduates of the Surveying and Mapping Technician certificate program will:

1. an ability to apply knowledge of mathematics, science and applied science.
2. an ability to design experiments and conduct experiments as well as analyze and interpret data.
3. an ability to function on multi-disciplinary teams.
4. an ability to identify and solve applied science problems.
5. an understanding of professional and ethical responsibility.
6. an ability to communicate effectively.
7. the broad education necessary to understand the impact of solutions in global and societal context.
8. an ability to use the techniques, skills, modern scientific and technical tools necessary for surveying and mapping practice.
9. the ability to function as effective individuals.
10. a recognition of the need for and the ability to engage in life-long learning.

Sustainable Facilities Management Certificate

Degree Code: K57

Certificate Program

Program Coordinator: Mark Comeau - 860-215-9415

This 27.5 credit certificate program is designed to provide students with entry-level skills required to fill technician jobs in the areas of sustainable design and planning, and sustainable facilities operations. This two-semester certificate consists of courses that will reinforce existing construction industry workforce with new skill sets while training individuals new to the industry, in the areas of sustainable environment as defined by the U.S. Green Building Council and the Building Performance Institute. This certificate program will provide new opportunities for skilled-displaced workers while building on their previous experience and knowledge, and will play a role in the training of a new workforce essential to building and operating facilities that are energy efficient; utilize renewable energy sources; contribute less to carbon footprint; are constructed of sustainable and green materials, systems and components. This certificate was funded by a USDOL Community-Based Training Grant, as implemented by the Employment and Training Administration.

Students may complete this certificate by completing the courses that are listed below.

Sustainable Facilities Management Certificate Curriculum Requirements

Semester I

ARC* K108 - Building Materials

3 CREDIT HOURS
This course introduces students to the source, use and limitations of materials used in building construction, while exploring methods of assembly and historic applications. Emphasis is placed on basic design concepts and the practical applications of building materials "in the field." Field observation is attained through site visits of projects under construction (as available).

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 - Computer-Aided Drafting

1 CREDIT HOUR
Corequisite: CAD* K107.
This course 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* K214 - Sustainable Design
This course explores sustainability in design, healthy design, renewable energy, cogeneration, recycling, low VOC, zero carbon, and LEED as they relate to regional and urban planning, building design, building envelope, building interior environment, site ecology, energy resources, and infrastructure and transportation.

**ARC* K225 - Alternative Building Systems °**

3 CREDIT HOURS
Prerequisite: ARC* K108.
Students will gain working knowledge of alternative building systems (students should have previous knowledge of traditional building systems). Areas covered include building siting, structural alternatives, envelope and weathering systems, industry-standard design and performance criteria (LEED & BPI), interior environmental quality, and mechanical-electrical-plumbing systems. Students will demonstrate applied learning through case study work.

**ARC* K241 - Site Analysis °**

2 CREDIT HOURS
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 °**

1.5 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.

**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.
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: 27.5

Sustainable Facilities Management, Certificate Program Outcomes

Graduates of the Sustainable Facilities Management certificate program will:

1. attain basic knowledge of sustainable industry theory, technical background, and application elements for facility design, construction, and operations.
2. demonstrate competency in the specific traditional and computer drafting skills required in today's construction industry.
3. be able to identify sustainable design and planning strategies, i.e. building orientation and exposure, natural day lighting, walk-able community planning, etc.
4. be able to identify sustainable building products by understanding both upstream production and downstream byproduct effects.
5. understand and be able to adopt a philosophy of life-long learning and intellectual growth, an integral part of a career in sustainable facilities management and its evolving components and systems.
6. be able to practice workplace skills related to functional employment, including but not limited to: basic and necessary arithmetic computations, effective writing and corresponding, maintaining a safe and healthy workplace environment, and workplace ethics and teamwork.
7. identify LEED point assignments and understand their concepts and applicability toward LEED certification.

Sustainable Landscape Ecology and Conservation Technician Certificate

Degree Code: K58

Certificate Program

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

This 24 credit certificate program is designed to provide students with entry-level skills required to fill technician jobs in the areas of sustainable landscape design, planning and conservation. This two-semester certificate consists of courses that will
enable students to apply sustainable landscape ecology skills and knowledge in a fast rising "green" and sustainable workforce. As green infrastructure alternatives are increasingly used to manage storm water, improve air quality and reduce the urban heat island affect, jobs in engineering, engineering technology, and research and modeling will be essential in the development, design and performance monitoring of green systems. The certificate in sustainable landscape ecology and conservation will provide students with the options to obtain work or to continue their education to acquire an A.S. or an advanced degree. Sustainable operations and alternative energy are growing more central to the American and global economy. This certificate supports the new paradigm for sustainable living.

This certificate was funded by a USDOL Community-Based Training Grant, as implemented by the Employment and Training Administration.

Students may complete this certificate by completing the courses that are listed below.

**Sustainable Landscape Ecology and Conservation Certificate Curriculum Requirements**

**ARC* K214 - Sustainable Design**

3 CREDIT HOURS
This course explores sustainability in design, healthy design, renewable energy, cogeneration, recycling, low VOC, zero carbon, and LEED as they relate to regional and urban planning, building design, building envelope, building interior environment, site ecology, energy resources, and infrastructure and transportation.

**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* K101 - Environmental Studies**

3 CREDIT HOURS
Corequisite: ENG* K096 or higher. Please note: if completing ENG* K096 prior to enrolling in ENV* K101, a grade of "C#" or better is required for registration into this course.
This is a course that describes the study of the biological and physical aspects of the environment and environment-related issues, including procedures for lessening or controlling environmental pollution and related damage. Some field work will be included. This course is equivalent to BIO* K180 - Principles of Environmental Science. Course fulfills International/Intercultural requirement.

**ENV* K110 - Environmental Regulations °**
ENV* K146 - Introduction to GIS

3 CREDIT HOURS
Prerequisite: ENV* K101.

This course will provide an introduction to Geographic Information Systems (GIS) and explore various data models and structures used in the input management, analysis, and output of geographic data. Students will develop hands-on experience through the 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 CIV* K146 or GIS* K146.

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 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 soil stewardship and sustainability.

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 programs, 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. This course is equivalent to BIO* K289.

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

Sustainable Landscape Ecology and Conservation Technician, Certificate Program Outcomes

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

1. demonstrate familiarity with key terms, concepts, principles, methods and techniques of sustainable ecological design.
2. apply their knowledge within environmental design settings to solve specific ecological design problems.
3. work and learn in an interdisciplinary environment.
4. apply natural resource problem-solving skills. continue active, student-directed learning for professional development.
5. practice excellent written and oral communication skills.

Technical Writing Certificate

Degree Code: J04

Certificate Program

Program Contact: Christine Hammond - 860-215-9434

This 21 credit program is designed to provide students with an opportunity to improve their writing skills. Students may complete this certificate by completing the courses that are listed below.
Technical Writing Certificate Curriculum Requirements

COM* K173 - Public Speaking °

3 CREDIT HOURS
Prerequisite: 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 more critical 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.

ENG* K208 - Introduction to English as Language °

3 CREDIT HOURS
Prerequisite: ENG* K101 or ENG* K101S with a "C" grade or better.
This course challenges assumptions students may have about language by examining the diversity and changes of the English language. Topics include the nature of language, a brief history of the English language, ethnic and regional varieties of English, grammar issues, the mass media's use of language, and social aspects of language.

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 overview of applications used in the field of Graphic Design: Photoshop, Illustrator, InDesign and Acrobat Pro. Students also learn file management and computer navigation basics including scanning software. Students study page design, typography, and image editing. Emphasis will be on the use of the computer for writing, editing, imaging and publication design. Students will read and report on graphic design topics.

- ________ - Restricted Elective (see below) 3 CREDIT HOURS
- ________ - Restricted Elective (see below) 3 CREDIT HOURS

Note:

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

* Indicates common course numbering within Connecticut Community College system.

Please check with your advisor regarding minimum number of credits to be taken at TRCC and limits on non-traditional credits.

Restricted Electives:

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.

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 or GRA* K140 or 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.

COM* K292 - Publications Practice II

3 CREDIT HOURS
Prerequisite: COM* K291.
I write the more advanced stories for the magazine, as well as edit the newer students' work. ENG* K251 students will assume more responsibility for page layout and digital imaging, primarily using the Adobe Graphic Studio in this second 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.

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.

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; 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.

Grand Total: 21

Technical Writing, Certificate Program Outcomes

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

1. sharpen writing and critical thinking skills.
2. develop a writing portfolio.
3. adapt writing for different audiences.
4. improve chances for employment and promotion.
Web Design and Development Certificate

Degree Code: K08

Associate in Science

Program Coordinator: Allan Anderson - 860-215-9403

The Web Design and Development Certificate Program will provide students with marketable skills that grow increasingly crucial in the present technological age. Web Design and Development courses are strictly hands-on and offer students an opportunity to create their own web site with web development software. Students will acquire the skills to master wizards, templates and other features of popular software packages. After completing the Web Design and Development Certificate Program, students will be able to design professional web pages, create and optimize images and animations, and manage complex web sites.

Students may complete this certificate by completing the courses that are listed below.

Web Design and Development Certificate Curriculum Requirements

Semester I

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.

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 overview of applications used in the field of Graphic Design: Photoshop, Illustrator, InDesign and Acrobat Pro. Students also learn file managements and computer navigation basics including scanning software. Students study page design, typography, and image editing. Emphasis will be on the use of the computer for writing, editing, imaging and publication design. Students will read and report on graphic design topics.

or

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.

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.

or

• __________ - Higher Math 3 CREDIT HOURS

Semester II

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* K253 - Web E-Commerce °
4 CREDIT HOURS
Prerequisite: CST* K153 or permission of the instructor.
This course examines the essentials of electronic commerce including the business-to-consumer (B2C) and the business-to-business (B2B) categories as well as the transactions and processes that support selling and purchasing activities. B2C topics include the addition of server side programming (e.g. shopping cart software) to traditional web site design for the support of order entry processing, and database technology to support both product catalogs and transactions for order fulfillment. B2B topics include electronic purchase order and invoicing processes needed to implement electronic data interchange. The role of XML in these activities, electronic commerce security, electronic payment systems, and international, legal and ethical issues are examined. A case-study approach is used which analyzes business examples to provide real-world 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.

GRA* K260 - Web Design °

3 CREDIT HOURS
Prerequisites: ENG* K101 or ENG* K101S; GRA* K140; 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.

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

Web Design and Development, Certificate Program Outcomes
Upon successful completion of all program requirements, graduates will be able to:

1. demonstrate an understanding of and familiarity with web graphics.
2. demonstrate an understanding of and a familiarity with fundamental network environment concepts.
3. demonstrate an understanding of and familiarity with web site development requirements, skills and techniques, and web site design principles.
4. demonstrate an understanding of and familiarity with emerging web technologies.
5. demonstrate an understanding of and familiarity with e-commerce solutions.
6. demonstrate an understanding of and familiarity with the requirements for promoting and maintaining a web site online.
7. demonstrate an understanding of and familiarity with web programming languages, including markup and scripting languages.

Women's Studies Certificate

Degree Code: J12

Certificate Program

Program Leader: Janet Hagen- 860-215-9433

This 24 credit certificate program prepares students who are interested in Women's Studies to transfer to 4-year institutions to pursue a major or minor in Women's Studies. 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 test 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.

**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.

**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 course introduces students to the historical and contemporary issues that have shaped and affected women's lives within the discipline of Women's Studies. It offers students the opportunity to learn about the feminist movements and women's contributions toward social change. Emphasis will be on family, health, work, education, religion, violence against women, and popular culture. Incorporates projects that promote social change and the empowerment of women. 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.

Other Programs

Arts Elective: 3 CREDIT HOURS

Any course in:
art
graphic arts
music
theater
creative writing
ANT* K136 - Music Cultures of the World °
MUS* K104 - World Music °
ARC* K102 - Architecture of the World

Fine Arts Electives for Business Programs

FINE ARTS ELECTIVES
Architecture of the World
Art
Art History
Creative Writing
Graphic Arts
Music
Music Cultures
Music History
Theatre
Fine Arts Electives for Exercise Science Program

FINE ARTS ELECTIVES

ART* K101 Art History I
ART* K102 Art History II
MUS* K101 Music History & Appreciation
ANT* K136/MUS* K104 Music Cultures of the World/World Music
THR* K101 Introduction to Theater

Fine Arts Electives for Technology Programs

FINE ARTS ELECTIVES

Art (including ARC* K102)
Graphic Arts
Music
Theater

Humanities Electives for Technology Programs

HUMANITIES ELECTIVES

Art (including ARC* K102)
Communication (Not COM* K109 & COM* K121)
English (Not 100, 101, 102, 202 & 296)
Foreign Language
Graphic Arts
Literature
Music (Including ANT* K136)
Philosophy
Sign Language
Theater
**Humanities or Fine Arts Electives for Nursing Program**

**HUMANITIES OR FINE ARTS ELECTIVES**

Art

ARC* K102 - *Architecture of the World*

Communications (excl. 109 121)

English (excl. 100, 101, 102, 202 and 296)

Foreign Language

Graphic Arts

Literature

Music (incl. ANT* K136 - *Music Cultures of the World*)

Philosophy

Sign Language

Theatre

**Natural Science Elective for Technology Programs**

**NATURAL SCIENCE ELECTIVE**

Astronomy

Biology

Chemistry

Earth science

Ecology

ENV* K101

Geology

Marine science

Nutrition

Oceanography

Physics

SCI* K250

NOT HLT* K155
Natural Science Electives for Business Programs

NATURAL SCIENCE ELECTIVES
Astronomy
Biology
Botany
Chemistry
Earth Science
Ecology/Marine Ecology
Environmental Sciences
Geology
Marine Sciences
Nutrition
Oceanography
Physics

Natural Sciences Elective for Visual Fine Arts Program

NATURAL SCIENCES ELECTIVES
Astronomy
Biology
Chemistry
Earth Science
Ecology ENV* K101 Environmental Studies
Geology
Marine Science
Nutrition
Oceanography
Physics
SCI* K250 Integrated Science

Natural Sciences Electives for Graphic Design Program
NATURAL SCIENCES ELECTIVES

Astronomy
Biology
Chemistry
Earth science
Ecology
ENV* K101 Environmental Studies
Geology
Marine science
Nutrition
Oceanography
Physics
SCI* K250 Process & Inquiry of Natural Science

Social Science Electives for Technology Programs

SOCIAL SCIENCE ELECTIVES

Anthropology
Criminal Justice (Not 124, 220, 225, 291)
ECE (182, 215, & 225 ONLY)
Economics
History
Human Services (not 281)
Geography
Political Science
Psychology
Sociology
Social Science

Social Sciences Elective for Graphic Design Program

SOCIAL SCIENCES ELECTIVES
Anthropology
Criminal Justice
Early Childhood
Economics
Geography
History
Human Services
International studies
Political science
Psychology
Sociology

Social Sciences Electives for Business Programs

SOCIAL SCIENCES ELECTIVES
Anthropology
Criminal Justice (excl. 124, 220 and 225)
Early Childhood (182, 215 and 225 ONLY)
Economics
Geography
History
Human Services (excl. 291)
Political Science
Psychology
Social Science
Sociology

Social Sciences Electives for Visual Fine Arts Program

SOCIAL SCIENCES ELECTIVES
Anthropology
Economics
Admissions

All inquiries regarding admission should be addressed to:
Admissions Office
Three Rivers Community College
574 New London Turnpike
Norwich, Connecticut, 06360
Telephone: (860) 215-9016
admissions@threerivers.edu

Visit www.threerivers.edu and click on "Admissions"

General Admissions Philosophy

Three Rivers maintains an open admissions policy and extends the opportunity for higher education to individuals who demonstrate the motivation and maturity needed to benefit from community college instruction. The College provides educational opportunities to people regardless of age, religion, racial or ethnic background or disabilities.

The College accepts all graduates of accredited high schools, individuals who hold a General Educational Diploma (GED), mature adults who demonstrate the ability to perform academically at a college level, high school students accepted for early admission or those participating in the College Career Pathways Program.

Applications are accepted year-round for fall, spring, summer and winter sessions. Applicants can apply online or download the Application for Admission from the college's website. Instructions on how to apply to the college are found in the Admissions section of the College's website at www.threerivers.edu and as described in this catalog under the How to Apply to the College section below. Applications 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, Groton, CT.

Admission to the College provides access to higher education and many other academic benefits. Academic excellence necessitates adherence to a code of standards. 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 be admitted with the understanding that they will take advantage of the College's developmental courses in math and English prior to pursuing the curricula of their chosen programs.
Admission to the Nursing, A.S. 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 Apply to the College

Degree or Certificate Students

New Students (First Time Attending College)

Step 1: APPLY FOR ADMISSION

All students desiring to enroll in classes at Three Rivers Community College must complete an application for admission.

**Download and Complete an Application Form.** A $20 non-refundable application fee is required with a completed application form (if you have applied to another Connecticut Community College, you do not pay the fee again). High school seniors may take the completed application and fee to their high school's guidance office to be mailed to the College. Address to the Admissions Office, Three Rivers Community College, 574 New London Turnpike, Norwich, Connecticut, 06360.

Application for Admissions

Or

Apply Online Now

You will need a credit card to complete an online application. Former students or applicants of any Connecticut Community College do not need to pay the $20 application fee.

**Recommended Application Deadline** - Two weeks before the semester or session begins.

**Please Note:** Your TRCC Admissions Acknowledgment Letter, Acceptance Letter and other correspondence will be sent to the email address you provide on the Application.

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". You may 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.

**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. Submit a copy of your high school transcript with graduation date, high school 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. Students who have completed the high school equivalency test should submit a copy of their GED Certificate. 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 full-time and part-time matriculating (degree and certificate seeking) students born after 1956, and enrolled in post-secondary school 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 on the State Immunization Policy, including exemptions from this requirement, refer to the State Immunization Policy Form.

Course Placement for English and/or math - Course Placement is an assessment of basic skills in mathematics, reading and writing. Assessment for course placement may be necessary to help advisors assess readiness for college-level classes and assist in selecting appropriate courses.

- Prior College: Students who have successfully completed college level English and math credits may fulfill the course placement requirement when they provide an academic adviser with unofficial transcripts of prior coursework.
- SAT and/or ACT Scores (if available): Please submit your scores to the Admissions Office.
- High School Transcript (required if you graduated within the last 5 years): Please submit a copy of your transcript to the Admissions Office.
- Accuplacer Placement Test: Required for all new, first-time college students.

More information on course placement is included in the Additional Admissions Information section of this catalog.

NOTE: Three Rivers recommend 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, all documentation must be received before you will be permitted to register for classes.

STEP 4: REGISTER FOR CLASSES

Payment of fees is expected at the time of registration. The total tuition owed is payable by the payment date deadline specified by the college each semester. An official financial aid award can be applied as payment. Payment plans are available for students registering for 6 or more credits. Contact the Cashier's Office at (860) 215-9026 for more information.

Registration Deadline - Registration ends the day before the semester or session begins.

- New, First-Time College Students - Must attend an Advising and Registration Workshop (for students only), to register for their first semester courses and learn about degree programs and strategies for college success. Once you have taken the placement test and submitted all supporting documents, you will be directed to sign up for an Advising and Registration Workshop and choose your classes. Advising and Registration Workshops may not be available for late applicants. Please visit the Welcome Center (Room A113) for information regarding late applications.
- Transfer Students (those who have previously attended college) - Will meet with an adviser to review previous college work and select classes. Transfer students should bring copies of their prior college transcripts in order to facilitate the registration process. Detailed information on the registration process will be provided in your emailed acceptance letter.

After registering for their initial semester at TRCC, degree-seeking transfer students, from regionally accredited institutions of higher education, 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. This will simplify online registration. Official military transcripts should be sent to the Registrar's Office as well. In addition, transfer students wishing to receive credit at Three Rivers for course work completed at another college, by CLEP or DSST.

- Readmitting Students (former Three Rivers' students who are returning after an absence of at least two years) - An application fee is not required if paid at the time of initial application to the College. Readmitting students are
encouraged to contact an adviser to discuss how prior course work at Three Rivers or from other colleges attended may apply to current degree requirements. Detailed information on the registration process will be provided in your emailed acceptance letter.

**Note:** Students seeking readmission who have been on academic or disciplinary suspension should refer to the General Academic Information section of this catalog.

- **International Students (foreign student F-1 visa)** - Three Rivers is authorized under Federal law to enroll non-immigrant students with a permanent residence outside the U.S. but who wish to be in the U.S. on a temporary basis and hold an appropriate visa. Applicants for a student F-1 visa should contact the Admissions Office at (860) 215-9237 for more information.

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/](http://studyinthestates.dhs.gov/)

**INTERNATIONAL STUDENT VISA PROCEDURES**

Applicants for a student visa (F1 status) must complete the following procedures at least six weeks in advance of the semester in which they wish to enroll. Special circumstances may be considered on an individual basis.

The following documents must be submitted to the Admissions office:

- **Complete an Application Form** (3 months prior to the start of classes is recommended) - Provide a valid email and include the $20.00 Application Fee (do not send cash).

- **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.

- **For Students Living with a Sponsor:** Provide a notarized Affidavit of support by a sponsor who is a U.S. citizen or permanent resident stating that he or she will assume responsibility for room, board and usual and emergency expenses. If the student depends on funds from a source outside the United States, it may be necessary to determine if restrictions exist. Copies of bank statements which certify that sufficient funds are available to cover tuition, fees, living expenses and books for at least one year must also be submitted.

- **For Students Living Independently:** Provide proof of your ability to cover educational and living expenses in U.S. currency. Copies of bank statements which certify that sufficient funds are available to cover tuition, fees, living expenses and books for at least one year must also be submitted.

- **Immunization:** Connecticut State Law requires that all full-time degree and certificate seeking students enrolled in post-secondary schools be adequately protected 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 to insure adequate immunization. Please refer to the [Immunization Form](#) for more 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, in college level courses. All new students are required to take a computerized placement test to assess basic skills in English and mathematics and demonstrate English proficiency. The computerized placement test or Accuplacer, as this test is known, is administered in person only at Three Rivers.

- **Placement Test:** Your email address will be the official mode of communication for scheduling the placement test. Once your Application for Admission to the college has been processed you will receive an email on how to schedule the placement test. An Admissions Adviser will receive a copy of your test and will contact you with your next step. Refer to the [Testing Center/Placement Testing](#) page for more information on this requirement and how you may be eligible for a waiver.
• **Passport:** Provide a Copy of your passport with expiration date including attached I-94 or if applicable, a copy of previously issued I-20.

**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.

For more information on International Students refer to the Admissions section of the College's home page at www.threerivers.edu.

## Non-Degree Students

Non-degree students are those who are taking credit courses but are not working towards a degree or certificate at Three Rivers. Persons applying as non-degree students must complete the required Application for Admission form. A $20 nonrefundable application fee must accompany the completed application form. The application fee will be waived if it has been submitted to another Connecticut Community College. Non-degree students are ineligible for financial aid and some veterans' benefits.

College transcripts may be required when non-degree seeking students wish to enroll in courses that have prerequisites. 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.

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 computerized 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. More information on course placement is included in the Additional Admissions Information section of this catalog.

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 Immunization Form in the Admissions section of the College's home page at: www.threerivers.edu.

## Connecticut Community College Nursing Program

*Capital Community College, Gateway Community College, Naugatuck Valley Community College, Norwalk Community College, Three Rivers Community College*

Students seeking admission to the Associate Degree in Nursing program must fulfill nursing admission criteria to qualify for this selective admission program. These criteria are in addition to the general admission policies of the college.

Students accepted into the Associate Degree in Nursing Program begin in either the fall or spring semester. Meeting minimum admission requirements does not guarantee admission into the nursing program.

However, students may enter the college at any time to prepare for this program as General Studies, pre-nursing students. Prospective nursing applicants are strongly encouraged to attend a nursing information session to learn more about this selective
admission program. Call Nursing Admissions at 860-215-9056 for dates and times of upcoming sessions or visit the College website at www.threerivers.edu and select the link for admissions, and then nursing admissions.

**Nursing Application Process**

Applicants are required to complete a common nursing application. The nursing application is only available online and can be accessed through Banner Self Service. Applicants must have an eight-digit banner number (first eight digits of the NetID) in order to access the application. Applicants who do not have a banner number must first complete a general college application at their college of first choice and be accepted into that college before a banner number is issued. Advisors/Counselors are available at each college to guide applicants through the application process.

The application period for the nursing program is November 1 - February 1 of each year. Applicants to the CT-CCNP must complete the online nursing application and submit all required documentation to the Admissions Office at the College of First Choice by the February 1, 2016 deadline. "College of First Choice" is the college that the applicant would most like to attend. All items received after this date will be marked late and the applicant will not be eligible for admission.

It is recommended that applicants use a PC rather than a Mac when attempting to access the online application. Please make sure your browser allows pop-ups. Do not use a smart phone to submit your application. Recommended browsers are Internet Explorer and Google Chrome.

Applicants may select a second choice college at the initial time of application. An applicant should only list the college(s) to which s/he would be willing to commute. (Please note: clinical sites could be within an hour radius of the college, and may require a mandatory parking fee.)

You do not need to wait for your fall course grades or TEAS results in order to submit your nursing application; however all application materials (including all final official transcripts) must be sent to the Admission Office at the College of First Choice and must be postmarked to the College of First Choice no later than February 1, 2016. Late applications and transcripts will not be accepted. All applications that are completed by the February 1, 2016 deadline will be reviewed; applicants will be notified prior to May 1 as to their admission status. Notification regarding admission into the program is done through Self Service.

No acceptance letters will be mailed.

All initial communication with students will be done through the applicant's community college email address. Applicants that have not activated their community college email address should go to http://www.ct.edu/netid for more information.

**Application Requirements**

Students are required to submit the following by the February 1, 2016 deadline:

- General College application submitted to the college of first choice (separate from the nursing program application) with application fee of $20.00 for first-time applicants to any of the twelve Connecticut Community Colleges.

- Online CT-CCNP application.

- Official high school transcripts* or high school diploma indicating date of graduation, General Educational Development (GED) diploma, or State High School Equivalency diploma. If the applicant is using high school chemistry to satisfy the admission requirement, official high school transcripts are required.

- Official SAT and/or ACT score reports, if applicable (refer to the Admissions Requirements section for clarification).
Official College/University transcripts from ALL colleges ever attended (including all CT Community Colleges), regardless of the age of the transcripts and applicability to the nursing program.*

Official TEAS V results, if not taken at a CT Community College.

Official AP, CLEP, DANTES and other military transcripts must be submitted if the applicant is using one of these tests to meet a specific admissions requirement. See page 10 of the Nursing Information Packet for additional information.

Proof of immunizations - consult with your college of first choice for current immunization requirements.

* All transcripts must be final transcripts. Students taking courses in the fall or winter semester must submit transcripts that include their fall and winter grades. All transcripts (including those with course withdrawals, course failures, and remedial/developmental courses) must be submitted regardless of the age of the transcripts and applicability to the nursing program. This includes any college credits earned while in high school.

Students who have attended or are currently attending one of the twelve CT Community Colleges must submit community college transcripts from all previously attended Connecticut Community Colleges to the College of First Choice. Please complete an e-transcript request for each college in Banner Self-Service. No deadline extensions will be given to applicants who fail to submit required transcripts from the CT Community Colleges by the application deadline.

A student who has received a grade of failure (F) or unsatisfactory in the clinical component of any course in a health career program is not eligible for admission into the CT-CCNP. A "health career program" is defined as any nursing or allied health program whose curriculum has both a classroom and clinical component.

Admission Requirements

- Proof of high school completion.
- A score of 40 or higher on the College Level Math portion of the Accuplacer; OR SAT Math score of 550 or higher; OR a score of 22 or higher on the ACT Math test; OR Connecticut Community College MAT*136 or 137, or equivalent or higher, with a grade of C or higher, completed prior to application deadline of February 1, 2016.
- One year of high school Chemistry with a lab or Connecticut Community College CHE*111 or equivalent with a grade of C or higher, completed within five years prior+ to application deadline of February 1, 2016.
- A passing score on the computer proficiency test (taken at your college of first choice)++ or completion of Connecticut Community College CSA*105, CSA*106 or CSC*101 or equivalent, with a grade of C or higher, completed prior to application deadline of February 1, 2016.
- Connecticut Community College ENG*101: English Composition, or equivalent, with a grade of C or higher, completed prior to application deadline of February 1, 2016.
- Connecticut Community College BIO*211: Anatomy and Physiology I, or equivalent, with a grade of C+ or higher, completed within five years prior+ to application deadline of February 1, 2016.
- Connecticut Community College BIO*212: Anatomy and Physiology II, or equivalent, with a grade of C+ or higher, completed within five years prior+ to application deadline of February 1, 2016 or completed during, but no later, than the spring semester of application year.

**2.7 Nursing GPA** - based only on the college courses with grades that meet the nursing admission and nursing program curriculum requirements. The Nursing GPA is a calculation specific to CT-CCNP applicants and may differ from your
• **TEAS V Score.** Applicants must have an adjusted individual total score of 53.3% or higher, and must be submitted by **February 1, 2016**. Test scores will be valid for three years from the testing date (Feb 1, 2013 - Feb 1-2016).

+ "Five years prior" is defined as having completed the course between December 2010 and February 1, 2016.

++ Please refer to the Computer Literacy section below for additional information on this requirement.

There may be prerequisite courses that must be successfully completed prior to taking the courses required for admission. Challenge exams may exist for certain admission requirements. Please consult with your College of First Choice for additional information. Students should complete the required Accuplacer computerized placement test. The placement test may be waived for students who have prior college English and/or mathematics credits.

### Computer Literacy

Applicants must demonstrate computer literacy as an admissions requirement in one of the following ways:

1. **Proficiency Exam** - a comprehensive test designed for those who are very proficient in computers. If you question your skills, take the appropriate class or attempt the test early so you can register for the appropriate computer course if needed well in advance of the application deadline. Proficiency tests have limited scheduled times and are not given on a "on demand" basis. It is the responsibility of the applicant to contact the college of first choice for future scheduled times. **The computer proficiency exam is non-transferable and can only be taken at the college of first choice.**

2. **Successful completion of CSA*105/CSA*106: Introduction to Software Applications or CSC*101: Introduction to Computers (or equivalent) with a grade of C or higher.**

### TEAS V

The TEAS V is a multiple choice test that evaluates essential academic skills: math, science, reading, and English. It is recommended that applicants review biology, chemistry, and math content in preparation for taking the TEAS V. The test will take approximately 3 ½ hours to complete. Applicants cannot reschedule their test date. Testing fees are non-refundable.

**Applicants must obtain an adjusted individual total score of 53.3% or higher on the TEAS V to be considered for admission.** Tests taken prior to February 1, 2013 will not be accepted.

Applicants may retake the TEAS V as many times as desired. The CT-CCNP will use the applicant's highest TEAS V score when determining eligibility.

The TEAS V is administered at Capital, Gateway, Naugatuck Valley, Northwestern CT, Norwalk and Three Rivers. If the TEAS V is taken at a site other than one of the Connecticut Community Colleges, applicants must have official results sent by ATI to the College of First Choice by February 1, 2016. **All community college testing sites will be charging a proctor fee in addition to ATI’s registration fee. More information on the proctor fee is provided at: Three Rivers’ Teas Testing web site**

For testing schedules and registration information, go to [www.atitesting.com/ctcteas](http://www.atitesting.com/ctcteas). Applicants must have an account with ATI and select a CT-CCNP college as their "Institution" of choice in order to register for the TEAS. **Applicants must log into their ATI account in order to see available testing dates within the community college system.**

A study manual for the TEAS V is available through [www.atitesting.com](http://www.atitesting.com). Online practice tests are also available through ATI. For additional information about the TEAS V, please visit [www.atitesting.com](http://www.atitesting.com).

### GPA Calculation
The Nursing GPA is calculated by the Admissions Office at the College of First Choice. Nursing GPA is based only on the college courses with grades that meet the nursing admission and nursing program curriculum requirements. The three required science courses (BIO*211, BIO*212 38 CHE*111) must have been taken within the past five years (December 2010 - application deadline of February 1, 2016).

If an applicant is using a course from a Fresh Start semester to meet a nursing admission or program curriculum requirement, that course will count in the calculation of the applicant's Nursing GPA.

High School Chemistry will not be calculated in the Nursing GPA.

For a list of acceptable courses that will meet the CT-CCNP's humanities/fine arts elective requirement, please see www.ct.edu/files/pdfs/nursing-electives.pdf.

Repeat Courses

If a student repeats a course, the highest grade received will be used in calculating the student's Nursing GPA.

Formula for Computing Ranking

Eligible applicants who meet all of the application and admission requirements are assigned a rank number. Rank numbers are computed by the following formula:

\[
25\% = \text{TEAS V score} \\
25\% = \text{BIO*211 (Anatomy and Physiology I) grade} \\
50\% = \text{Nursing GPA}
\]

Selection Process: Rank, Random, Wait-list

Rank Selection (75%):

All eligible applicants will be ranked by the CT-CCNP. Each college will fill 75% of their seats by rank.

Random Selection (25%):

Common pool of remaining applicants will consist of all students who were eligible for the program, but were not selected through rank selection. Students will be placed on a list for their College of First Choice and will be selected for that college in random order until the college is full.

Applicants will be considered for random selection at their second choice college if that college has space that wasn't filled through its own random selection process. Once all colleges are filled, the remaining applicants will go onto a wait-list.

Wait-list:

Applicants on the wait-list will be ranked using their original CT-CCNP rank number. The wait-list will be divided into six separate lists based on the College of First Choice. When openings occur, applicants will be selected (in rank order) from the
wait-list at that college and offered the nursing seat. Applicants who refuse an offer from their college of first choice will be removed from consideration for the current academic year.

In the event that a college's initial wait-list is exhausted, applicants choosing that college as their second choice will be rank ordered and offered spaces as they become available. An applicant can refuse the offer of a space at their College of Second Choice and go back onto the wait-list at their College of First Choice.

The wait-list will not carry over from year to year. Applicants who are not selected from the wait-list will need to submit a new application if they want to be considered for admission to the nursing program the following year. Students would need to contact the Admissions Office at the College of First Choice to see what application information is still on file.

**Additional Information**

**Before being permitted to participate in clinical experiences, all students must have on file a health and immunization assessment by a Health care Provider which documents fitness to participate in the clinical area. This is to be documented per the instructions on the Health Assessment Form (available on the College Website on the Nursing Resources Page). All students must demonstrate proof of current Basic Life Support Certification as a Health care Provider through the American Heart Association or the American Red Cross. Clinical experiences are provided at various community hospitals and other health care facilities within the broader Eastern Connecticut community. In addition to regular tuition and fees, nursing students incur additional expenses such as: uniforms, nursing textbooks and supplies, nursing lab fee, cost of required standardized testing and transportation to clinical settings.

Please note that all nursing courses currently use an Internet based Course Management System that requires computer access and several specific software programs. If you have questions regarding computer requirements, please call the Nursing Division office at (860)215-9301.

**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.

**Additional Admissions Information**

**Course Placement**

After being admitted to the college, all new first-time students are required to complete an assessment of basic skills in mathematics, reading and writing. Assessment for course placement may be necessary to help advisors assess readiness for college-level classes and assist in selecting appropriate courses. Students then use this information to make decisions about the number of courses they will take, the sequence in which courses are taken and long-term educational planning.
Assessments for Course Placement in English and Math

1. **Prior College or University Students** who have earned math and/or English credits may fulfill the course placement requirement when they provide unofficial transcripts of prior coursework to an academic adviser.

2. **All SAT and/or ACT Scores** may be considered when determining Course Placement. Please submit your scores to the Admissions Office.

3. **High School Transcript** - With the assistance of an academic adviser, students can use their current high school transcript to assist with course placement.

4. **Other Assessment Tests** - You may be required to schedule a computerized assessment test to assist with Course Placement for English and/or math.

*Note:* Degree recipient status is not an automatic exemption from prerequisite standards.

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 assessment including placement test scores.

**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 assessment, including placement test scores, prior to enrolling in college-level course work. These courses are designed to give students the foundational skills that are fundamental to successfully completing college-level courses. See **ENG* K096, MAT 095 and MAT* K095I** in the Credit Course Description in this catalog.

Veterans and Reservists

1. 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 eligible for the Montgomery GI Bill (Chapter 1606 38 1607) must contact the College VA Representative and supply the Notice of Basic Eligibility form in order to file for benefits.

See the Tuition, Fees and Refunds 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, 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.

2. Vocational Rehabilitation - For information, students should contact the Veterans Administration in Newington, CT at 800-827-1000

3. 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

**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. A confidential disabilities disclosure form is sent to all newly admitted students. Students who submit a self-disclosure form will receive a letter indicating the name and phone number of the student's disability service provider, requesting that they contact the disability service provider to arrange an appointment. Elevators are available and special parking areas and entrances are conveniently located near the elevators.

**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; (857) 284-4879 or (617) 357-9620, or from the following website: www.nebhe.org/tuitionbreak

**Public Disclosure**

**Student Right-To-Know Act**
In compliance with the Student-Right-To-Know and campus Security Act of 1990 (Public Law 101 542), graduation, transfer, still enrolled, and combined success rates for all first-time, full-time degree or certificate seeking freshman, are provided to inform current and prospective students and all other interested parties.

A link to the Student-Right-To-Know reports for all colleges in the CT Community College System is provided below:

Student Right to Know

www.threerivers.edu/President/Inst_Research/HEA.shtml

Continuing Notice of Nondiscrimination

Three Rivers Community College does not discriminate on the basis of race, color, religious creed, age, gender, gender identity or expression, national origin, marital status, ancestry, present or past history of mental disorder, learning disability or physical disability, veteran status, sexual orientation, genetic information or criminal record. The following person has been designated to handle inquiries regarding the non-discrimination policies: Equity and Diversity Officer, 574 New London Turnpike, Norwich, CT 06360. 860-215-9486.

For more information, refer to the Equity and Diversity web page

Registration & Records

REGISTRATION WEBSITE:

Visit www.threerivers.edu and click on "Register for classes"

Registration Procedures

All students must be admitted to the College in order to register for classes during designated registration periods before each semester. Students should go to www.threerivers.edu to see the schedule of classes and click on Register for Classes on the home page to see specific registration procedures and policies.

New Students: If this is the first time attending college, students will register for courses in a Freshman Advising Session after your course placement by multiple assessment. See Admissions section for more details.

Transfer and Re-admitted Students: Transfer and readmitted students will meet with an admissions advisor before registration. Students should bring test scores, unofficial transcripts and/or grade reports of previous work to this meeting so they can register at that time. Official copies of previous transcripts should also be sent directly to the Registrar's office as soon as possible. This will allow the student to register online as prerequisite courses will be recorded at TRCC.

Continuing Students: Students enrolled in a degree program who have attended TRCC within the last two years can register during the early registration period; online or in-person. In a student's first semester at TRCC they are required to see their assigned advisor before registering for their second semester. All students should seek advisement whenever needed. The electronic Degree Evaluation tool at http://my.commnet.edu can also be used to assist students with course selection and graduation requirements. Times and locations for registration appear on the web with specific procedures.

Degree Candidate (matriculated student) - 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 are eligible to apply for financial aid and qualify for early registration.

Non-Degree (non-matriculated student) - A student who is enrolled on a course-by-course basis and is not in a degree or certificate program at Three Rivers.
Students in either of the above classifications may register full-time (minimum of 12 credits per semester) or part-time (maximum of 11 credits per semester).

All degree candidates and full time non-degree students must meet College Immunization Requirements. See Admissions section for specific immunization requirements.

Auditing Courses

A student who wishes to take a credit course without earning credit can register as an auditor by the fourth week in the semester. 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 who elect to Audit cannot reverse this choice at a later point. Students are not eligible to receive financial aid, Veteran Benefits, or Tuition Assistance for audited courses. Please check the Academic Calendar Fall 2014- Summer 2015 for the specific Audit deadline.

Schedule Changes - Dropping and Adding Courses

Specific dates for semester and module courses are in the Academic Calendar Fall 2014- Summer 2015.

Adding Courses

Students may add courses online or in person through the first week of the semester provided there is an opening in the desired class and the student meets course prerequisites, if any.

Dropping Courses

Students may drop courses online or in person through the first week of the semester. Courses dropped in the add/drop period will not appear on the student's transcript. Students may only drop courses in person during the second week of the semester.

Withdrawing from Courses

Specific dates for semester and module courses are in the Academic Calendar Fall 2014- Summer 2015.

After the last drop date as specified in the academic calendar, students may withdraw from courses online or by completing the appropriate form which is available online or in any Student Services Office. If necessary you can withdraw by phone by calling the Registrar's Office. Withdrawals are accepted up until the week before classes end - check the specific date in 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.

Note: Failure to attend class is not an acceptable method of either dropping or withdrawing. This will result in an N grade if the instructor has no basis for a grade or a failing grade of "F" on the student's permanent transcript. This can seriously affect future reinstatement, transfer to another college and financial aid. Non-attendance either before or after the start of classes does not cancel the financial obligation to pay 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 may enroll for courses at another College tuition free; if the home college does not offer the course, and if space is available at the host college which is offering the course. At Three Rivers cross registration begins two weeks before the semester begins.

- 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. The policy does not apply to self-supporting courses in the summer session and winter intersessions. Summer Session and Winter.

**Intersession Registration**

The College offers day and evening self-supporting courses during the summer and winter intersession 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 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 degrees. Students are encouraged to check the appropriateness of their course selection with their advisors. Summer session schedules and registration information are available in early spring online at www.threerivers.edu.

**Student Records**

**Retention of Records**

Three Rivers 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 of 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
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 in connection with, but not limited to:
- 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 [http://www.threerivers.edu/Div_StudentServices/Registrar/documents/FERPA-OptOut-Form.pdf](http://www.threerivers.edu/Div_StudentServices/Registrar/documents/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 purposes 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
- Degrees received
- Most recent educational institution attended

For the purposes of disclosure to/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 vs. Part-time status
- Anticipated graduation date
- Graduation date
- Student identification number

Financial Aid

FINANCIAL AID WEBSITE:
Visit www.threerivers.edu and click on "Student Services" then "Financial Matters"

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. 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. Complete and submit the Free Application for Federal Student Aid (FAFSA) on-line at www.fafsa.ed.gov.
3. 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, 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, and indirect costs including 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 at least 67% 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/FinAid_Academic_Progress_Policy.pdf.

If you are currently suspended you can appeal your status by completing the following form:

**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 situation. 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.

**Governors 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 enrolled as undergraduates at Connecticut's public and nonprofit independent institutions of higher education.

**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.
Family 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.

Tuition, Fees and Refunds

All Tuition & Fee Information

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
Student Activity Fees:

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

Auxiliary Activity Fees:

Application Fee* $20.00
Program Enrollment Fee (2) $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.

Fees are subject to change; College Presidents, with the approval of the Chancellor, are authorized to waive General and Special Fees of students enrolled in special programs when the circumstances justify such action.

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 Servicemember'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 without prior notice. Students are urged to consult the College's web site 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. 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 be a Connecticut resident for a minimum of 12 months, with the exception of active duty military personnel and their families and those who meet the New England Board of Higher Education (RSP/NEBHE) guidelines. International students issued an I-20 and those on temporary work visas are not entitled to the in-state tuition rates for Connecticut residents.

**Student Services Information**

The mission of the Student Development and 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 Counseling & Advising 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 Counseling and Advising Center supports students during these times and throughout their college journey. Staffed with dedicated professionals, the Counseling and Advising Center offers a full range of academic 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 Counseling and Advising Center is a major resource for students adjusting to and navigating through college. The Center focuses on academic success and 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.

Career Counseling

Counseling and Advising 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. Services include career assessment, individual and group counseling, and programs such as "Dress for Success," networking, and career expos. 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.

**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. Students also have access to online portfolio services to provide employers with examples of projects, art work, awards, etc. Individual appointments and group workshops for students help to write effective resumes, enhance and practice interviewing skills, and implement job search strategies. Employers are welcomed on campus to recruit students and attend Career Expos. Ongoing collaboration with faculty across disciplines also support student 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**

Counseling and Advising 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 Counseling and Advising 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.

**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. Student Support Services in the 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, family and parenting needs.
College Transfer

The Counseling and Advising 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 and Western

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 will 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.

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's 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 both schools throughout their associate degree program. Students are guaranteed admission to the designated university upon completion of the degree with a 2.0 grade point average.
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 and 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. 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.

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's 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 Fairfield University, Central CT State University, Goodwin College, Sacred Heart University, Southern CT State University, 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. Please go to the following website for more details: www.commnet.edu/nursing/Educational_Opportunities.asp.
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's 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.

Agreement with Bismarck State College - Electric Power Technology

The Community College System has entered into an agreement with Bismarck State College to offer Three Rivers students enrolled in the Technology Studies, A.S. to take online classes in Electric Power Technology at Bismarck State College as a career pathway in the energy industry. The courses will apply to the Associate's degree program at the community college. This agreement is in conjunction with CL&P and includes a summer internship. Students need to contact Dan Courtney, Program Coordinator for Technology Studies, at (860) 215-9417 to review the application process.

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 Agree with Fairfield University School of Engineering

The School of Engineering of Fairfield University will accept associate degree graduates from the Electrical 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 to transfer to Post University's baccalaureate degree in Sport Management. Students that earn an 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 form TRCC will be eligible for a 10% discount off the published tuition price.

**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's 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's 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's 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 River's 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.

**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 preengineering 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 Professor Patrick Knowles at (860) 215-9445 for specific information and course availability.

**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 F211, and at the Student Services Welcome Center.

**Student Insurance**

All full-and part-time students are automatically covered under the "School Time Only" Accident Insurance Plan offered through the Connecticut Community College system. "School Time Only" is defined as the time students are attending classes or participating in and traveling to an activity sponsored by the College.

**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, Veterans Oasis Center, and 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, 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 (F211).

Student IDs can be obtained through the Student Programs Office in room F211 or at the Welcome Center Desk in room A113. The IDs can be used in the library to check out books and other materials and for Wellness Center check-in. 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 has a list of participating retailers. Lost IDs will be replaced, but a nominal fee may be charged for this service.

**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 the College will certify the student's 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, documenting continued class attendance, 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. 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 and Refunds sections in this catalog.

**Oasis Center**

The Oasis Center is a resource center for student veterans. It is a place where veterans can meet, offer support to one another, and obtain information about benefits and other services available to them. The 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 session. In addition to providing a comfortable dining area, the cafeteria serves as a general lounge and study space. The "Cyber Café" is conveniently located at the main entrance and provides additional quick food and beverage service during off peak times. Cash, credit and debit cards are accepted at both locations. 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

A complete text of all institutional policies is available in the office of the Dean of Student Development and Services and is located on the TRCC website.

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, gender identity or expression, age, national origin, ancestry, present or past history of mental disability, genetic information, marital status, mental retardation, 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 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.

**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.
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.

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 disability, genetic information, marital status, mental retardation, 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:
   1. 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
   2. 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, mental retardation or 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
3. 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.

**Policy on Student Conduct**

**Section 1: Student Code of Conduct Policy**

[CLICK HERE TO VIEW THIS POLICY:](http://www.threerivers.edu/President/Policies/BOR-StudentCodeofConductPolicy.pdf)

Sexual Misconduct, Sexual Assault and Intimate Partner Violence Policy

[CLICK HERE TO VIEW THIS POLICY:](http://www.threerivers.edu/President/Policies/BOR-SexualMisconductPolicy.pdf)
Campus Security Policies and Crime Statistics

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. Copies of the student handbook are distributed annually to all students and employees. Prospective students and prospective employees 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.

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 Policy

Smoking is permitted on Three Rivers Campuses only in specifically designated locations. Smokers may refer to the college web site for information about current locations or refer to signage posted at the college. This policy also includes electronic cigarettes also known as e-cigarettes.

- Since the success of this program is largely dependent on the support of the entire college community, everyone, including smokers and non-smokers are asked to comply or assist with the following new rules:
- Do not smoke or use tobacco products/e-cigarettes in front of either main campus nor within 100 feet of any entrances or windows (unless in a specifically designated smoking area).
- To the fullest extent possible try to extinguish smoking materials before leaving your vehicle.
- Only light up and use tobacco products/e-cigarettes within the designated areas...not en-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 new rules and about the location of authorized smoking areas.
- Please report any habitual or flagrant violations to any of the Three Rivers' management staff.

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:
   1. occupying and preventing authorized use of facilities
   2. damaging, removing, or destroying college property
   3. preventing instruction, research, or other authorized activity by disorderly conduct and/or interfering with access to facilities
   4. physically detaining or removing any person engaged in lawful and/or normal college functions
   5. failing to comply with directives from college officials or law enforcement personnel issued in the performance of their duties.

Service Dogs Policy

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 Policy

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.

General Academic Information

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The following academic policies and standards for Three Rivers Community College were ratified for the merged institution in May, 1993. All policies 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 year at TRCC. After participating in an advising session 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:

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<thead>
<tr>
<th>Name</th>
<th>Program</th>
<th>Office</th>
<th>Phone (860)</th>
<th>E-Mail</th>
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<tr>
<td>Albright, Judith</td>
<td>Nursing/Pre-Nursing</td>
<td>C-262</td>
<td>860-215-9400</td>
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<tr>
<td>Arpin, Cynthia</td>
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<tr>
<td>Arrieta, Maria C.</td>
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<tr>
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<td>Rhoades, James</td>
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<td>C-232</td>
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<td>Liberal Arts/General Studies</td>
<td>C-254</td>
<td>860-215-9481</td>
<td>STopping@three rivers.edu</td>
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</tbody>
</table>
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. A student obtains a Plan of Study, has their advisor sign it, and retains it as an 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.

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. 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](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 Associate 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:
   1. 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.

   2. 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.

   3. 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.

   4. 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 Program on Noncollegiate Sponsored Instruction's (PONSI) College Credit Recommendations, and Charter Oak State College's Connecticut Credit Assessment Program Course Reviews.
1. 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.

2. 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.
   
   1. **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 during the fall and spring semesters. Contact the Student Development Office for information about this program.

   2. **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.

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. The credits gained through this evaluation process are applicable towards an associate degree at Three Rivers. A minimum of 25% must be granted in residence by Three Rivers.

   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, challenge exam 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.

Graduates of the Community College will 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's 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 are required to 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.

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.

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<tr>
<th>Grade</th>
<th>Grade Points</th>
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<tbody>
<tr>
<td>A</td>
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<tr>
<td>A-</td>
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</tr>
<tr>
<td>B+</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
<td>Good</td>
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</table>
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, using such a forms and procedures as the college may prescribe. 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 10th 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 10th 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.

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-#, 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:

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<th>Credits</th>
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<tr>
<td>MAT* K137</td>
<td>B</td>
<td>3</td>
<td>x 3.0 = 9.0</td>
</tr>
<tr>
<td>ENG* K101</td>
<td>A-</td>
<td>3</td>
<td>x 3.7 = 11.1</td>
</tr>
<tr>
<td>PSY* K111</td>
<td>C</td>
<td>3</td>
<td>x 2.0 = 6.0</td>
</tr>
<tr>
<td>BIO* K121</td>
<td>A</td>
<td>4</td>
<td>x 4.0 = 16.0</td>
</tr>
</tbody>
</table>

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<th></th>
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<td>Total</td>
<td>13</td>
<td>42.1</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Cumulative GPA Hours</th>
<th>Overall GPA</th>
<th>Academic Standing</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5 - 11.99</td>
<td>1.5 - 4.0</td>
<td>Good Standing</td>
</tr>
<tr>
<td>0.5 - 11.99</td>
<td>0.0 - 1.49</td>
<td>Written Warning</td>
</tr>
<tr>
<td>12 - 30.99</td>
<td>1.7 - 4.0</td>
<td>Good Standing</td>
</tr>
<tr>
<td>12 - 30.99</td>
<td>0.0 - 1.69</td>
<td>Academic Probation</td>
</tr>
<tr>
<td>31 - 999.99</td>
<td>2.0 - 4.0</td>
<td>Good Standing</td>
</tr>
</tbody>
</table>
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**

<table>
<thead>
<tr>
<th>Academic Standing</th>
<th>Progress Evaluation</th>
<th>Combined Academic Standing</th>
<th>TRCC Restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good Standing</td>
<td>Good Standing</td>
<td>Good Standing</td>
<td>No Restrictions</td>
</tr>
<tr>
<td>Good Standing</td>
<td>Probation</td>
<td>Progress Probation</td>
<td>Warning Letter</td>
</tr>
<tr>
<td>Written Warning</td>
<td>Good Standing</td>
<td>GPA Written Warning</td>
<td>Warning Letter</td>
</tr>
<tr>
<td>Written Warning</td>
<td>Probation</td>
<td>Warning and Progress Probation</td>
<td>Warning Letter</td>
</tr>
<tr>
<td>Academic Probation</td>
<td>Good Standing</td>
<td>GPA Probation</td>
<td>9 Credit Limit</td>
</tr>
<tr>
<td>Academic Probation</td>
<td>Probation</td>
<td>GPA and Progress Probation</td>
<td>9 Credit Limit</td>
</tr>
<tr>
<td>Academic Suspension</td>
<td>Good Standing</td>
<td>GPA Suspension</td>
<td>Cannot Register</td>
</tr>
<tr>
<td>Academic Suspension</td>
<td>Probation</td>
<td>Progress Probation and GPA Suspension</td>
<td>Cannot Register</td>
</tr>
</tbody>
</table>

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 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.

**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. 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.
   1. 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.
   2. 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 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. 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.
   1. 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**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Application Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring (May) Graduation</td>
<td>Apply by November 15</td>
</tr>
<tr>
<td>Summer (August) Graduation</td>
<td>Apply by March 15</td>
</tr>
<tr>
<td>Fall (December) Graduation</td>
<td>Apply by June 15</td>
</tr>
</tbody>
</table>

*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 granted by Three Rivers.

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.

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.

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.

Computer Literacy

As part of a commitment to a holistic approach to academic competencies, the faculty of TRCC recognize that computer proficiency is an essential skill in the 21st Century, and is somewhat unique to each area of study. Each program of study has identified either specific courses or embedded competencies within required courses, that have been determined to provide the appropriate depth and level of computer literacy to best prepare the graduate of that program for a successful future. For more information on this, students should consult with their academic advisor.

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 holds over 45,000 books, 200 leisure reading books, e-books, 150 periodicals, DVDs, CDs, IPads, kindles, and laptop computers, for use by both the College community and the general public. The library offers several amenities including seven group study rooms, individual study carrels, Wi-Fi, scanning and photocopying. As a member of the Ex Libris Voyager network, the DONALD R. WELTER LIBRARY shares resources with 11 Connecticut Community Colleges Libraries.

In addition, materials can be retrieved through the interlibrary service provided by OCLC (contains over 313 million records and 2 billion holding locations), and reQuest (a statewide Library Catalog of Connecticut). In request one can search over 5 million titles from more than 400 Connecticut libraries and place items on interlibrary loan, through academic, public, school and special libraries in the state. reQuest is a service through iCONN. Please note all interlibrary loan transactions within the state are delivered once a week to the library.

The DONALD R. WELTER LIBRARY is staffed with a Reference Librarian who provides assistance and information to all patrons. The Library offers an instructional program on properly utilizing the library. Library Instruction is available for both groups and individuals upon request. The Library Instruction program is emphasized so that the Library is also a teaching unit in the college, which will provide an unlimited interdisciplinary approach to knowledge. Its purpose is to help create a richer learning environment in which students learn to do independent study with individualized instruction. The ultimate goal of the DONALD R. WELTER LIBRARY is to provide an environment where learning takes place for lifelong learners.

Tutoring and Academic Success Centers (TASC Website)

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, the Mathematics Computer Lab, and the Language Arts 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
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 website 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.

LANGUAGE ARTS LAB

The Reverend David L. Cannon Language Arts Lab has five computer stations dedicated to language study in addition to a collection of translation dictionaries and foreign language texts. Each workstation has Rosetta Stone software available for students studying Spanish.

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 transfer. 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, one or more of the following plug-ins may be needed: RealPlayer, QuickTime, Shockwave, Adobe Flash Player and Adobe Reader. Generally, Internet Explorer will automatically download any plug-ins required by a particular page. To learn more about computer requirements visit the Browser Tune-up link at http://www.commnet.edu/pora/tuneup/default.asp.

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 (Internet Explorer and Chrome on a Widows 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/Div_IT/EducationalTechnology/Student.shtml.

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

Requires Javascript Enabled Yes
Requires Java Enabled/Allowed (version 1.7.0 55) Yes
Requires Cookies Enabled Yes

Operating Systems

Microsoft Windows XP, Vista, 7, 8, 8.1
MacOS* OS X Tiger, Leopard, Snow Leopard, Mavericks
Linux O/S Supported

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.

Development 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.

Servicemembers Opportunity College (SOC)

Many servicemembers and their families enroll annually in a variety of college courses ranging from computer science, management and accounting to math, social science, and the humanities. The College has served as a Servicemembers Opportunity College, maintaining an office and classrooms at the Naval Submarine Base in Groton. College courses, academic counseling, and registration for service members and their families are provided. College credit courses are offered in the Educational Services Center in Building 83 on the Subase. College credit is awarded for military training in conjunction with the ACE Guide.

Three Rivers also belongs to the SOC Degree Network System, which affords Service members and their spouses the opportunity to complete their TRCC degree when relocating. Eligible students should contact the Subase Coordinator or Registrar for information about completing a SOC agreement. As a SOC College, Three Rivers is part of a network of two-year institutions that has agreed to accept, in transfer, what they have previously determined to be comparable course work in a given curriculum. Student agreements are made with active duty military students and their spouses at no charge and make it easier to transfer credits and complete degrees when relocating. The SOC office, located at the Subase in Building 83, is open Monday through Thursday, 10 a.m.-2 p.m. The phone number is (860) 445-5575.

Catalog Home

General Contact Info

Three Rivers Campus
574 New London Turnpike
Norwich, CT 06360-6598

Main number (860) 215-9000

Off-Campus Centers/Locations
Naval Submarine Base
Building 83
Groton, CT 06349
860-445-5575

TRCC Web Site www.threerivers.edu

Online Information Services
http://my.commnet.edu

Email: Info3Rivers@trcc.commnet.edu
Directory

Please call for office hours

Information Services (860) 215-9000
Accounting Office 215-9280
Admissions Information 215-9020
Advising & Counseling 215-9017
Assessment of Prior Learning 215-9018
Bookstore 887-6842
Career Services 215-9302
Cashier 215-9026
Continuing Education Office 215-9028
Disability Services 512-9017
Financial Aid Office 215-9040
Health and Wellness Center 215-9047
Library 215-9051
Lost and Found/Security 215-9053
Registrar's Office 215-9064
Student Programs Office 215-9074
Sub Base Site 445-5575
Veteran's Office 215-9235

Fax Numbers

Academic Division (860) 215-9900
Admissions Office 215-9902
Business Office 215-9901
Cashier's Office 215-9904
Registrar's Office 215-9919
Student Programs Office 215-9920
Student Services Center 215-9902
Sub Base 445-9186
Workforce and Community Education 215-9905

TRCC Departments

Administration
Dr. Mary Ellen Jukoski, President 860-215-9001
Dr. Ann Branchini, Academic Dean 860-215-9904
Stephan Finton, Acting Dean of Student Services, Enrollment Management & Workforce Development 860-215-9003
Stephen Goetchius, Dean of Administration 860-215-9002
Marjorie Valentin, Associate Dean of Workforce and Community Education 860-215-9006

Department Chairs
Business: Ed Muenzner 860-215-9456
EMuenzner@trcc.commnet.edu

English: Marcie Burch 860-215-9410
MBurch@trcc.commnet.edu

Humanities: Terrence Delaney 860-215-9422
TDelaney@trcc.commnet.edu

Mathematics: Larisa Alikhanova 860-215-9401
LALikhanova@trcc.commnet.edu

Sciences: Leslie Samuelson 860-215-9467
LSamuelson@trcc.commnet.edu

Nursing and Allied Health: Edith Ouellet 860-215-9460
EOuellet@trcc.commnet.edu
Department Chairs

Social Sciences: Dov Kugelmass
DKugelmass@trcc.commnet.edu 860-215-9446

Technologies: Allan Anderson
AAnderson@trcc.commnet.edu 860-215-9403

Accreditation and Memberships

Scholastic Accreditation

Three Rivers Community College is accredited by the Connecticut Board of Regents for Higher Education and the New England Association of Schools and Colleges (NEASC), Inc., a non-governmental, nationally recognized organization whose affiliated institutions include elementary schools through collegiate institutions offering post-graduate instruction.

Accreditation of an institution by the NEASC indicates that it meets or exceeds criteria for the assessment of institutional quality periodically applied through a peer group review process. An accredited school or college 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 NEASC is not partial but applies to the institution as a whole. As such, it is not a guarantee of the quality 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 status of an institution's accreditation by NEASC should be directed to the administrative staff of the school or college.

Individuals may also contact the Association:

New England Association of Schools and Colleges
209 Burlington Road, suite 201
Bedford, Massachusetts 01730-1433
781.271.0022
cihe@neasc.org

Professional Accreditation

The following engineering technology programs offered at Three Rivers Community College (TRCC) campus are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc. (TAC/ABET). 111 Market Place, Suite 1050, Baltimore, Maryland 21202, (410-347-7700)

- Architectural Design Technology
- Civil Engineering Technology
- Electrical Engineering Technology
- Environmental Engineering Technology
- Manufacturing Engineering Technology
The Nursing Program is accredited by the National League for Nursing Accrediting Commission, Inc., 3343 Peachtree Road NE, Suite 850, Atlanta, Georgia 30326

The following business programs offered at TRCC are accredited by the Association of Collegiate Business School and Programs, 11520W 119th Street, Overland Park, KS 66213

- Accounting Career
- Accounting Transfer
- Business Administration Business Information Systems Option
- Business Administration Transfer
- Business Administration Management
- Business Office Technology: Administrative Assistant
- Hospitality Management Casino Management Option
- Hospitality Management Hotel management Option
- Hospitality Management Restaurant Management Option
- Marketing

Memberships

The College is a member of the following national organizations:

- Association of American Colleges and Universities (AAC&U)
- American Association of Community Colleges (AACC)
- American Association of University Women (AAUW)
- American Association of Women in Community Colleges (AAWCC)
- American Society of Engineering Educators (ASEE)
- American Technical Education Association (ATEA)
- Association of Admissions and Registrars Organization (AACRO)
- Association of Collegiate Business Schools and Programs (ACBSP)
- College Consortium of International Studies (CCIS)
- Concurrent Admissions Program (ConAP)
- Connecticut Campus Compact (CCC)
- Council for Support and Advancement of Education (CASE)
- National Association of Student Financial Aid Administrators (NASFAA)
- National Association of Veterans Administration (NAVA)
- National Coalition of Campus Children's Centers (NCCCC)
- National Council of Instructional Administrators (NCIA)
- National Council on Black American Affairs (NCBAA)
- Servicemembers Opportunity Colleges (SOC)
- The College Board

Division of 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 offsite 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 on a demand basis. Our experience with business and industry can help you reach your business goals. No other single source can provide you with so many different resources, conveniently and reliably.

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 whether you have 10 employees, 100 employees, or more.

- 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 training approach that will accomplish the results that you want
- Learn about our top-notch team of trainers and instructors - all of whom have industry experience
- Schedule training at your convenience.

Employers for whom we have provided customized training programs are: Atlantic Packaging; Birk Manufacturing; City of Norwich; General Dynamics/Electric Boat Corp.; The Gilman Brothers; High Hopes LLC; Lawrence + Memorial Hospital; MetroCast Telecommunications Inc.; New London & Norwich Adult Education; PCC Structural; Pfizer Inc.; Seconn Fabrication; TVCCA; Trumpf Inc.; W. W. Backus Hospital; and Westminster Tool, Inc.

Topics for which we are currently experiencing the greatest demand are manufacturing, healthcare, leadership and management development, computer-related software applications, laser safety training, cultural competence, team building and communication skills.

Three Rivers specializes in unique hybrid-courses, which combine credit, as well as noncredit classes, and many can be customized for distance learning.

Enrollment

The Division of Workforce & Community Education 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 in the exact amount, check or credit card payments (Visa 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) 215-9905.

Noncredit Installment Payment Plans

Students registering for noncredit programs costing $300 or more may enter into a payment plan agreement. This allows students to defer full payment of tuition beyond the initial registration date. An initial payment of 1/2 tuition is due with the registration form. The balance is due two weeks prior to the start of the initial program. To initiate the payment plan, please contact the Workforce & Community Education Office.

WIA - Workforce Investment Act Funding

Are you unemployed, recently downsized, or under-employed? Three Rivers Community College offers a number of WIA approved training programs that are funded through the Connecticut Department of Labor. Please contact your local CTWorks Office to see if you qualify or visit their website at www.ctdol.state.ct.us/wia to review the listing of qualifying programs.

Veterans' Tuition Reimbursement

Please contact the Three Rivers' Veterans Representative at 860-215-9235 for qualification requirements.

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 Division of Workforce & Community Education office by mail, e-mail (WCEinfo@threerivers.edu), fax 860-215-9905 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 Division of Workforce & Community Education 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, Patient Care Technician, Emergency Medical 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 46 manufacturing companies from eastern and southeastern Connecticut whose mission is to educate and develop tomorrow's 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, culinary instruction, dance, digital photography, Zumba® fitness, and more.

**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/trccee.

Contact Workforce Education

For information about the noncredit programs and services of the Division of Workforce and Community Education please visit us on campus Monday - Friday from 8:00 AM - 5:00 PM in room C-135, call our main office at 860-215-9028 or visit our website at http://www.trcc.commnet.edu/Div_WorkforceEducation/

Seniors' Programs

Adventures in Lifelong Learning

Adventures in Lifelong Learning is under the auspices of Three Rivers Community College, Division of Workforce & Community Education. 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.

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 collegelevel 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, Electric Circuits & Systems Lab ° is a co-
requisite for Electric Circuits & Systems °.

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 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 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 anthropology, economics, history, geography, psychology, political science, sociology, international studies and selected courses from other disciplines.

TAC OF ABET
Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.

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.

Course Descriptions
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, vendor fraud, money laundering, customer fraud and management fraud with respect to the Sarbanes-Oxley Act.

ACC* K112 - Principles of Accounting II °

4 CREDIT HOURS
Prerequisite: ACC* K111.
This course is a continuation of the study of accounting theory and practice. Introduction to partnerships, corporations, managerial accounting, and analysis of financial statements. Computer lab time may be required for this course.

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* K206 - Anthropology of Music °

3 Credit Hours
Prerequisites: Completion of ENG* K101 or ENG* K101S; and any anthropology, music, or sociology course; or permission of the instructor.

This course is an introduction to the core concepts of ethnomusicology, an inter-disciplinary study that combines cultural anthropology and musicology to better understand how people give meaning to music as cultural expression. A significant amount of writing and a major research paper will be required. This course is equivalent to MUS* K209.

ANT* K230 - Indigenous Peoples of the World °

3 CREDIT HOURS
Prerequisites: ENG* K101 or ENG* K101S and any 100-level social science course; or permission of the instructor.

This course examines the historical and cultural experiences of indigenous peoples from around the world. The main objective is to gain a better understanding of the impact that modernization and globalization has had on the development of these cultures through an investigation of select groups from areas such as (but not limited to) Australia, Sub-Saharan Africa, and the Americas. The course will use studies from cultural anthropology, archaeology, linguistics, and ethnomusicology to increase students' exposure to alternative means for living in and understanding the world. A significant amount of writing and a major research project will be required. 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 - Building Materials**

3 CREDIT HOURS
This course introduces students to the source, use and limitations of materials used in building construction, while exploring methods of assembly and historic applications. Emphasis is placed on basic design concepts and the practical applications of building materials "in the field." Field observation is attained through site visits of projects under construction (as available).

**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* K137 - Architectural Detailing °

1 CREDIT HOUR
Prerequisites: ARC* K135/ARC* K135L.
Corequisite: ARC* K137L.
This course introduces the methods and purpose of producing architectural drawing details that convey design intent to the construction industry while illustrating, with detail, the materials, assemblies and methods to be used in construction.

ARC* K137L - Architectural Detailing Lab °

2 CREDIT HOURS
Prerequisites: ARC* K135/ARC* K135L.
Corequisite: ARC* K137.
This course implements the principles of architectural detailing covered in the lecture portion of this course, as students gain working knowledge through construction observation, detail observation, and a hands-on scaled detail building project.

ARC* K211 - Architecture Design I °

1 CREDIT HOUR
Prerequisites: ARC* K137/ARC* K137L.
Corequisite: ARC* K211L.
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
Prerequisites: ARC* K137/ARC* K137L.
Corequisite: ARC* K211.
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
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 Design

3 CREDIT HOURS
This course explores sustainability in design, healthy design, renewable energy, cogeneration, recycling, low VOC, zero carbon, and LEED as they relate to regional and urban planning, building design, building envelope, building interior environment, site ecology, energy resources, and infrastructure and transportation.

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* K225 - Alternative Building Systems °

3 CREDIT HOURS
Prerequisite: ARC* K108.
Students will gain working knowledge of alternative building systems (students should have previous knowledge of traditional building systems). Areas covered include building siting, structural alternatives, envelope and weathering systems, industry-standard design and performance criteria (LEED & BPI), interior environmental quality, and mechanical-electrical-plumbing systems. Students will demonstrate applied learning through case study work.
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 °

2 CREDIT HOURS
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 °

1.5 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* K280 - Professional Practice

3 CREDIT HOURS
This course introduces the student to the methodologies and philosophies of architectural office practice. Subjects covered include firm organization and management, client relations, marketing and attaining projects, and project production and management. Emphasis is placed on the everyday tasks of managing a firm and its projects. Working knowledge is attained through actual job files setup and execution of common AIA and other project management documents.

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.*  
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. *This course is equivalent to COM* K166 Video Filmmaking.*

**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.
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* K095 or MAT* K095I placement.
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 Management, 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; or 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* K111 or ACC* K115 and BBG* K115.
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* K145 - General Zoology °

4 CREDIT HOURS
Prerequisite: ENG* K101 or ENG* K101S placement or completion of ENG* K096 with a "C#" grade or better; or permission of the department chair.
Corequisite: None required; CHE* K121 or CHE* K111 is recommended.
organisms from the protozoan's to the chordates. Aspects of anatomy, physiology, reproduction, development and genetics of select groups will be covered. 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.
Corequisite: None required; CHE* K121 or CHE* K111 highly recommended.
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. This course is equivalent to ENV* K101 - Environmental Studies. 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. CHE* K111 or higher strongly recommended.
A continuation of BIO* K211 - Anatomy & Physiology I °, this course 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. BIO* K212 is offered in the spring semester only. 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, BIO* K155 or BIO* K145, 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* K272 - Marine Ecology °**

4 CREDIT HOURS
Prerequisites: ENG* K101 or ENG* K101S; MAT* K137 or MAT* K137S or higher; CHE* K111 or higher; and BIO* K121 or BIO* K155 or BIO* K145 required, all courses passed with a "C" grade or better.

This course is an ecological study of marine organisms and their environments that includes estuaries, tidal marshes, rocky shores, coral reefs, hydrothermal vents and the open ocean. The interaction of plants and animals with each other and their physical environment will be stressed. Lab fieldwork involves off campus sites to study local marine environments.

**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. This course is equivalent to ENV* K295 - Environmental Issues Seminar.

**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 °**
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 - Industrial & Organizational Psychology °.

BMG* K218 - Operations Management °

3 CREDIT HOURS
Prerequisites: ACC* K118 or ACC* K233; MAT* K123 or MAT* K146 or MAT* K167 or MAT* K172 or MAT* K186.
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 employee privacy.

Business-Marketing

BMK* K103 - Principles of Retailing
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
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 - Computer-Aided Drafting

1 CREDIT HOUR
Corequisite: CAD* K107.
This course 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* K111 - Cad Latest Version Update °**

1 CREDIT HOUR  
Prerequisites: CAD* K106/CAD* K107.
This course is designed to update AutoCAD skills and is for those who are familiar with the basic AutoCAD program. Topics addressed will be the new commands within the latest release. A series of drawing assignments designed to explore the new concepts will be completed. General topics will include the graphic screen layout including any new features and how they are used.

**CAD* K124 - Computer-Aided Drafting - Electrical**

1 CREDIT HOUR  
Corequisite: CAD* K125.
The student will learn the techniques of printed circuit board layout and design. Topics will include conductor spacing, conductor thickness and width, device architecture, and electrical noise considerations. A discussion of the features of popular PC board programs will be included.

**CAD* K125 - Computer-Aided Drafting - Electrical Lab**

2 CREDIT HOURS  
Corequisite: CAD* K124.
Students will learn how to use CAD software to develop electronic symbol libraries and create schematic diagrams. Other computer programs will be used to generate lists, lay out components, and perform routing.

**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 °

1 CREDIT HOUR
Prerequisites: CAD* K106/CAD* K107 and latest CAD release working knowledge.
Corequisite: CAD* K203.
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* K203 - Cad - Advanced Topics Lab °

2 CREDIT HOURS
Prerequisites: CAD* K106/CAD* K107 and latest CAD release working knowledge.
Corequisite: CAD* K203.
This course covers drawing assignments that will include topics involved with applications revolving around three-dimensional solids modeling.

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, structural and 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 HOURS
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* 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.

CAD* K250 - Cad 3-D Parametric Modeling °

1 CREDIT HOUR
Prerequisites: CAD* K106/CAD* K107 and latest CAD release working knowledge.
Corequisite: CAD* K251.
This course will introduce the student to the concepts of a 3-D parametric modeling program. Lecture topics will include 3-D concepts, designer fundamentals, constraints, display parameters and the formulation of 3-D assembly drawings.

CAD* K251 - Cad 3-D Parametric Modeling Lab °

2 CREDIT HOURS
Prerequisites: CAD* K106/CAD* K107 and latest CAD release working knowledge.
Corequisite: CAD* K250.
Students will learn the techniques of developing a drawing in 3-D from the beginning facets of geometry development. The drawing assignments will include practical real world applications. Students will be developing visual skills necessary to design complex structures. The major emphasis of lab assignments will be 3-D assemblies.

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 atomic theory 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

4.5 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, cycloalkanes, 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

4.5 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.

CHE* K232 - Intro to Environmental Chem °

4 CREDIT HOURS
Prerequisite: CHE* K111 or higher, with a "C" grade or better.
This course will present the natural cycles of the land, water, and air. It will identify and explain problems stemming from human or industrial impact. Common practices and proposed plans for dealing with environmental problems will be discussed. Laboratory will stress chemical investigation of water, soil, and air samples. Proper techniques for water and soil sampling in field work are included. Three-hour lecture; one three-hour lab each week.

CHE* K240 - Analytical Chemistry °

4 CREDIT HOURS
Prerequisites: CHE* K121; CHE* K122; MAT* K186 or higher; all courses passed with a "C" grade or better.
This course features the fundamental techniques and theoretical study in quantitative analysis of elements and compounds. Topics covered will include gravimetric, volumetric, oxidation-reduction and potentiometric methods of analysis. Specific laboratory experiments will be performed in the area of quantitative analysis. Three-hour lecture; one three-hour lab period 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* K101 - Introduction to Civil Engineering and Materials

3 CREDIT HOURS
Corequisite: MAT* K172 or permission of the program coordinator.
This course will familiarize students to the field of civil engineering and engineering materials. The discussion of engineering materials past and present as well as the function of the civil engineer and how their role influenced history. Engineering materials such as aggregates, concrete, asphalt, steel, wood and other traditional as well as newer materials will be studied. Students will examine the physical properties, the composition, and the many uses of engineering materials in our daily lives. Students will be introduced to the "greening" of civil engineering techniques and methodologies. Sustainable infrastructures as well as our landscapes will be explored. Students will learn about the important role that civil engineers play in our everyday lives and how civil engineers developed our infrastructure from the beginning of time to the present and beyond to meet the challenges of the future. Students will visit several sites throughout the semester and have guest speakers from agencies, private firms and industry.

CIV* 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 ENV* K146 or GIS* K146.
CIV* K150 - Surveying I

3 CREDIT HOURS
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

1.5 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 °

3 CREDIT HOURS
Prerequisite: MAT* K186.
Corequisite: CIV* K201.
The soils course and Lab, the capstone for the Civil and Environmental Engineering Technology programs, will highlight the experiences that the seniors have developed during their tenure in the programs. The many skills including the ability to read and analyze technical drawings, provide written technical presentations and to perform related computations will be realized. This includes the ability to read, analyze and solve technician-level written problems involving all levels of mathematical computations, geometric concepts and figures, and trigonometric functions. The students will learn to analyze the soil structure of a proposed building or construction site and to understand problems of existing structures due to conditions of the ground underneath them. Students in the soils class take soil samples and investigate spoil composition, drainage and grade, among other factors. They are required to interpret the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control Plan. This plan is a required regulation developed by the Connecticut Department of Environmental Protection Agency. This regulation is an essential document for both the Civil and Environmental Engineering technology students. An understanding and being able to follow the prescribed procedures and guidelines will be expected.

CIV* K201 - Soils Lab °

1 CREDIT HOUR
Prerequisite: MAT* K186.
Corequisite: CIV* K200.
This course explores the physical testing of soil, which includes determination of density, mechanical grain size analysis, hydrometer grain size analysis, liquid and plastic limits, moisture-density relationship, coefficient of permeability (constant and falling head), direct shear, and consolidation. Design of a septic system for a residential dwelling is taught.
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
Prerequisite: MEC* K114.
Corequisite: CIV* K223.
The following topics are covered in this course: principles in the design and detailing of steel beams, columns, tension and compression members and connections; fabrication drawings; concepts in design, detailing, and inspection of reinforced concrete structures.

CIV* K223 - Structural Design Lab °

1 CREDIT HOUR
Prerequisite: MEC* K114.
Corequisite: CIV* K222.
In this lab, students will be assigned problem sets and projects based on the lecture topics covered in the CIV* K222 - Structural Design ° lecture.

CIV* K229 - Construction Estimating °

3 CREDIT HOURS
Prerequisite: Recommended some knowledge of the construction industry.
This 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. This course is equivalent to CTC* K229.

CIV* K236 - Water Resources Engineering

3 CREDIT HOURS
Corequisite: CIV* K237.
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. This course is equivalent to ENV* K245.

**CIV* K237 - Water Resources Engineering Lab**

1 CREDIT HOUR
Corequisite: CIV* K236.
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 to actual design of a storm water system including a cost estimate. This course is equivalent to ENV* K245L.

**CIV* K250 - Surveying II**

3 CREDIT HOURS
Prerequisites: CIV* K150 and CIV* K151.
Corequisite: CIV* K251.
This course is a continuation of Surveying I and covers boundary location, curves and curved boundary lines, areas, topographic surveys and mapping, connecting traverses, horizontal and vertical alignment of roadways, cross sectioning, profile leveling, and construction staking. This course is cross listed with ENV* K280.

**CIV* K251 - Surveying II Lab**

1.5 CREDIT HOURS
Prerequisites: CIV* K150 and CIV* K151
Corequisite: CIV* K250.
This laboratory is a continuation of the laboratory work begun in Surveying I leading to the development of a boundary and topographic map of the site area. Further, a roadway in play, profile, and cross section is developed and located on the site.

**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* K102 - Intro to Corrections °

3 CREDIT HOURS
Prequisite: ENG* K101 and ENG* K101S placement∞ or completion of ENG* K096 with a "C#" grade or better.
This course is designed to provide an introduction to the history and philosophy that form the basis for current correctional standards and practices. Changes in correctional philosophies, institutional architecture and treatment will be studied in their relationship to change in society. Emphasis will be placed on understanding the development of the components of the current correctional system, i.e. probation, incarceration, parole, work release and home arrest. CJS* K101 may be taken as a prerequisite or corequisite to this course.
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
Prerequisite: 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 Administration °

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 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* K109 - Speech Practice °

1 CREDIT HOUR
Prerequisite: ENG* K101 and ENG* K101S placements or completion of ENG* K096 with a "C#" grade or better.
Students will learn to give a five-minute, organized, extemporaneously delivered oral presentation. Emphasis will be placed on overcoming speech anxiety, acquiring confidence, planning a brief presentation, and practicing speech delivery. This course is an option for completing the oral communication requirement in the General Studies and Liberal Arts and Science degree. It does not substitute for COM* K173 - Public Speaking °.

**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* 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. This course is equivalent to ART* K185 Video Filmmaking.

**COM* K173 - Public Speaking °**

3 CREDIT HOURS
Prerequisite: 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 more critical 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* K291 - Publications Practice I °**

**3 CREDIT HOURS**  
_Prerequisite: COM* K121 or GRA* K140 or 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.

**COM* K292 - Publications Practice II °**

**3 CREDIT HOURS**  
_Prerequisite: COM* K291._

I write the more advanced stories for the magazine, as well as edit the newer students' work. ENG* K251 students will assume more responsibility for page layout and digital imaging, primarily using the Adobe Graphic Studio in this second 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. Call the Admissions Office for 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* K101 - Windows, the Internet & E-Mail

1 CREDIT HOUR
This introductory course covers the basics of working with the Windows operating systems, file handling, searching for information on the Internet, and configuring and using e-mail. This course cannot be taken if you have successfully completed CSA* K105.

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.

CSA* K135 - Spreadsheet Applications

3 CREDIT HOURS
Prerequisites: ACC* K125 or BBG* K115 or CSA* K101 or CSA* K105; MAT* K095 or MAT* K095I or appropriate placement through multiple-measure assessment process; or permission of the instructor
This course is designed to deliver the beginning, intermediate, and advanced capabilities of Microsoft Excel in a hands-on teaching environment. Topics range from the basics of creating, editing, and formatting a spreadsheet; creating charts; absolute and relative addressing in formulas and functions; and Object Linking and Embedding to creating and using a worksheet database list management; linking workbooks; creating templates; and recording macros.
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 solve problems 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* K208 - Advanced Visual Basic °

4 CREDIT HOURS
Prerequisite: CSC* K207.
This course is designed to provide the student with object oriented programming using Visual Basic.NET to create Windows applications, console applications, web applications, and web services. Topics include inheritance, polymorphism, graphics, exception handling, multithreading, file I/O, database access, ASP.NET, web forms, web controls, and networking. 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* K218 - C# Programming °

4 CREDIT HOURS  
Prerequisite: CSC* K108.  
This course is designed to provide the student with an introduction to the .NET platform and object- oriented programming using the language of C#. Topics include console applications, windows applications, ASP.NET web applications, web services, inheritance, polymorphism, event handling, graphics, delegates, multi-threading, exception handling, file I/O, and networking. 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), 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. 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.

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* K235 - Database Development III °

4 CREDIT HOURS
Prerequisite: CSC* K233.
This course will review SQL and will focus on advanced topics including logical query processing, query tuning, new query capabilities (sub queries, table expressions and ranking functions) and DBA features. Three lecture hours, one two-hour lab. The lab is the hands-on component to Database III and will feature the SQL Server database management system.

CSC* K241 - Data Structures & Algorithms °

4 CREDIT HOURS
Prerequisite: CSC* K216.
Students will acquire the facility to both design and implement computer programs using a procedure oriented language. The course will emphasize advanced programming techniques utilizing DATA STRUCTURES (stacks, linked, list, binary trees, etc.) and recursive algorithms. Three lecture hours, one two-hour lab.
CSC* K255 - Systems Analysis Design & Development °

4 CREDIT HOURS
Prerequisite: CSC* K108 or permission of the instructor.
This course introduces students to the principles and methods of systems analysis and design. Case studies and individualized student projects demonstrate and give students experience in systems analysis and design. The approach emphasizes attainment of project goals while taking into account constraints with respect to time, cost, personnel, equipment, etc.

CSC* K283 - Introduction to Assembler °

4 CREDIT HOURS
Prerequisite: CSC* K108.
This course is designed to provide students with an introduction to machine organization and machine language by learning to program in assembly language. Topics include macros, external subroutines, parameter passing conventions, linking assembly language modules to C∞∞ programs, machine instruction encoding, hardware port I/O, terminate and stay resident utilities, interrupt handlers, and the floating point unit. Three lecture hours, one two-hour lab.

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* K141 - Computer Hardware Maintenance °

4 CREDIT HOURS
Prerequisite: None required. Recommended BBG* K115 or CSA* K105 or equivalent.
This course will provide the principles of maintaining and troubleshooting the personal computer's hardware. The course will cover computer hardware, associated peripherals, configuration, optimization, and repair from the PC technician's point of view. Students will develop critical thinking and troubleshooting skills through emphasis on hands-on experience in installing, maintaining, and processing various problems with computer hardware. This course will begin preparing the student for the CompTIA Core Hardware Examinations for the A∞ certification.

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* K175 - Network Administration and Support °

4 CREDIT HOURS
Prerequisite: None required. Recommended BBG* K115 or CSA* K105 or equivalent.
The student will acquire detailed knowledge of networking technology, including basic network structure; the characteristics of star, bus, mesh, and ring topologies, and their advantages and disadvantages; the characteristics of segments and backbones; identification of the following: the major network operating systems, including Microsoft Windows NT, Novell NetWare, and Unix; the clients that best serve specifics network operating systems and their resources; the directory services of the major network operating systems; and general networking and communications security. It is recommended but not required that this course be taken first.

CST* K176 - Internet Technologies °

4 CREDIT HOURS
Prerequisite: None required. Recommended BBG* K115 or CSA* K105 or equivalent.
This course surveys the various technologies that form and make the Internet work. It will prepare students to understand current technologies and make intelligent business decisions concerning the Internet. The student will acquire detailed knowledge of a wide range of internet basics, the knowledge and skills required to use and update client software, and to assist in the administration of internet/intranet sites. Additionally, the student will acquire detailed knowledge of programming related terms and the differences between popular client and server programming language.
CST* K177 - Server Technologies °

4 CREDIT HOURS
Prerequisite: None required. Recommended BBG* K115 or CSA* K105 or equivalent.
Students will acquire advanced-level technical knowledge of server issues and technology, including installation, configuration, upgrading, maintenance, and troubleshooting and disaster recovery. Additionally, students will acquire advanced knowledge of networking hardware, detailed knowledge of programming related terms and the differences between popular client and server programming language.

CST* K232 - Communications & Networking °

4 CREDIT HOURS
Prerequisite: None required. Recommended BBG* K115 or CSA* K105 or equivalent.
Students will become knowledgeable about basic internetworking concepts, including the use of internetworking software applications. Topics include routing/switching hardware, security, distributed client/server applications and architecture, intranets and intranet servers and browsers, networks and network servers, LANs/WANs, internetworking technologies, the OSI reference model for networking protocols, addressing and routing algorithms, TCP/IP implementation, the Internet, and the World Wide Web with emphasis on TCP/IP and the Internet. Basic concepts of network socket programming for client/server communications will be covered.

CST* K241 - System Software Maintenance °

4 CREDIT HOURS
Prerequisite: CST* K141 or permission of instructor.
This course will cover the principles of maintaining the personal computer's operating systems software. The course will cover installing, configuring, upgrading, diagnosing, and troubleshooting computer operating system software from the PC technician's point of view. Students will develop critical thinking and troubleshooting skills through an emphasis on hands-on experience in installing, maintaining, and processing various problems with computer desktop operating system software. This course will be preparing the student for the CompTIA Operating System Technologies Examination for the A+ certification.

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* K253 - Web E-Commerce °

4 CREDIT HOURS
Prerequisite: CST* K153 or permission of the instructor.
This course examines the essentials of electronic commerce including the business-to-consumer (B2C) and the business-to-business (B2B) categories as well as the transactions and processes that support selling and purchasing activities. B2C topics include the addition of server side programming (e.g. shopping cart software) to traditional web site design for the support of order entry processing, and database technology to support both product catalogs and transactions for order fulfillment. B2B topics include electronic purchase order and invoicing processes needed to implement electronic data interchange. The role of XML in these activities, electronic commerce security, electronic payment systems, and international, legal and ethical issues are examined. A case-study approach is used which analyzes business examples to provide real-world experience.

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. This course is equivalent to CIV* K229.
Dental Hygiene

DNT* K105 - Introduction to Dental Hygiene I °

1 CREDIT HOUR
Prerequisite: ENG* K096 placement.<br/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. Observations of early childhood programs will be required.

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* K106 - Music and Movement for Children °

3 CREDIT HOURS
Prerequisite: ENG* K096 placement:; ECE* K101 and ECE* K182 recommended.
This course is designed for students to acquire skills to plan and implement creative music and movement experiences for children from infancy to age eight. Areas of exploration will include singing, listening to music, rhythmic activities, multicultural music, dance, movement, and the daily integration of music and movement in classrooms. All students will build a repertoire of music and movement education experience.

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.

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.

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.

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.
**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.

**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
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.*

*Corequisite: EET* K106; 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.

**EET* K106 - Electric Circuits & Systems Lab °**

*1 CREDIT HOUR*

*Prerequisite: MAT* K095 or MAT* K095I.*

*Corequisite: EET* K105.*

This lab 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* K115 - Electrical Graphics Lab**

*1.5 CREDIT HOURS*

*Corequisites: EET* K105/EET* K106.*
Students will learn basic electronic drafting techniques used to produce schematic diagrams, block and logic diagrams, printed circuit drawings, and chassis drawings. Construction of the student-designed printed circuit assembly is included.

**EET* K116 - Electric Network Analysis**

3 CREDIT HOURS
Prerequisite: MAT* K095 or MAT* K095I.
Corequisites: EET* K117; MAT* K137 or MAT* K137S.
The emphasis of this course will be on circuit analysis techniques such as Thevenin's Theorem, Norton's Theorem, Superposition Theorem, Loop, Mesh, and Nodal Analysis.

**EET* K117 - Electric Network Analysis Lab**

1 CREDIT HOUR
Prerequisite: MAT* K095 or MAT* K095I.
Corequisites: EET* K116; MAT* K137 or MAT* K137S.
Students will be assigned laboratory exercises to achieve the goals of EET* K116.

**EET* K119 - Advanced Circuits and Systems**

3 CREDIT HOURS
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisites: EET* K120.
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. Electrical Engineering Technology majors are expected to use this course to complete a year of study of circuits and systems.

**EET* K120 - Advanced Circuits and Systems Lab**

1 CREDIT HOUR
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisites: EET* K119.
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* K124 - Micro Computer System Analysis**
3 CREDIT HOURS
Corequisite: EET*K125.
This course is designed for military personnel who have the equivalent of 4 semester hours of digital electronics. This course, in conjunction with military credits, will give the student credit for EET*K254, EET*K255, EET*K258, and EET*K259. The emphasis of this course will be on using a microprocessor in a micro-computer system.

EET*K125 - Micro Computer System Analysis Lab

1 CREDIT HOUR
Corequisite: EET*K124.
Students will be assigned laboratory exercises to achieve the goals of EET*K124.

EET*K134 - Electronics I °

3 CREDIT HOURS
Prerequisites: EET*K105/EET*K106; MAT*K137 or MAT*K137S.
Corequisites: EET*K135.
This course is an introduction to the internal physical behavior of solid state electronic devices. Conduction in metals and semiconductors is considered. The characteristics of junction diodes, bipolar transistors, and field effect transistors are studied. Biasing and thermal stabilization requirements and techniques are developed. Models, equivalent circuits, and applications are emphasized. EET*K134 and EET*K135 are equivalent to PHO*K140.

EET*K135 - Electronics I Lab °

1 CREDIT HOUR
Prerequisites: EET*K105/EET*K106; MAT*K137 or MAT*K137S.
Corequisites: MAT*K186.
This course supports Electronics I by providing the student with practical experience in the handling and measurement of semiconductor devices. Computer simulation and bench measurement experiments will be performed in studying the operational characteristics of basic semiconductor devices. EET*K134 and EET*K135 are equivalent to PHO*K140.

EET*K140 - Energy Conversion Systems °

3 CREDIT HOURS
Prerequisites: EET*K105/EET*K106.
Corequisite: EET*K141.
This course covers topics in the use of electrical machinery to convert energy from mechanical to electrical form and the converse. Included are DC machines, AC machines, stepper motors, and basics of starters and controllers.
EET* K141 - Energy Conversion Systems Lab

1 CREDIT HOUR
Prerequisites: EET* K105/EET* K106.
Corequisite: EET* K140.
Students will be assigned laboratory experiments that provide hands-on experience, with lab versions of the machinery discussed in the lecture part of the course.

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* K162 - Electronic Applications

3 CREDIT HOURS
Prerequisite: MAT* K095 or MAT* K095I.
Corequisites: MAT* K137 or MAT* K137S and EET* K163.
This course is a degree level study of Basic Electronics. It is designed for students who are NOT in the Electrical Engineering Technology degree program or for students who need to upgrade their skills before enrolling in the EET program. Recommended for Computer Science Technology students.

EET* K163 - Electronic Applications Lab

1 CREDIT HOUR
Prerequisite: MAT* K095 or MAT* K095I.
Corequisites: MAT* K137 or MAT* K137S and EET* K162.
This course is the lab component to Electronic Applications. It is designed for students who are NOT in the Electrical Engineering Technology degree program or for students who need to upgrade their skills before enrolling in the EET program. Recommended for Computer Science Technology students.

**EET* K234 - Electronics II**

**3 CREDIT HOURS**  
*Prerequisites: EET* K134/EET* K135.  
*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/EET* K135.  
*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/EET* K106; MAT* K137 or MAT* K137S.  
*Corequisite: EET* K255.*

Students will engage in a comprehensive study of binary logic gates. The circuits for certain TTL, ECL, MOS, and CMOS 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.

**EET* K255 - Digital Electronics I Lab**

**1.5 CREDIT HOURS**  
*Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.  
*Corequisite: EET* K254.*

Students will engage in a comprehensive study of binary logic gates. The circuits for certain TTL, ECL, MOS, and CMOS 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.
EET* K258 - Microprocessors & Controls °

3 CREDIT HOURS
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisite: EET* K259.
Students will be introduced to the concepts involved in a single board microcomputer. Emphasis is placed upon using a microprocessor as a control device, and also in a microcomputer system. Various microprocessors and related integrated circuits are studied.

EET* K259 - Microprocessors & Controls Lab °

1.5 CREDIT HOURS
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisite: EET* K258.
This lab provides application of the concepts corresponding to the theory in EET* K258.

EET* K264 - Data Acquisition and Controls °

3 CREDIT HOURS
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisite: EET* K265.
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, signal processing and communications, frequency and transient response, feedback control techniques, mechanical systems and mechanical power transmission. Students will learn the basics of measurements and data acquisition using Labview based exercises.

EET* K265 - Data Acquisition and Controls Lab °

1 CREDIT HOURS
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisite: EET* K264.
This lab 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.

EET* K266 - Advanced Controls and Robotics °

3 CREDIT HOURS
Prerequisites: EET* K264/EET* K265.
Corequisite: EET* K267.
This course familiarizes students with the sensors, programmable controllers, and actuators that make up modern day robots. Automatic control system techniques are used to implement robot analysis and design. This course is equivalent to MFG* K221 - Mechatronics.

EET* K267 - Advanced Controls and Robotics Lab °

1 CREDIT HOUR
Prerequisites: EET* K264/EET* K265.
Corequisite: EET* K266.
This lab provides students with hands-on experience with the sensors, programmable controllers, and actuators used in robotics. A microcomputer controlled system design project is included. EET*

EET* K274 - Electronic Communication Systems °

3 CREDIT HOURS
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisite: EET* K275.
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.

EET* K275 - Electronic Communication Systems Lab °

1.5 CREDIT HOURS
Prerequisites: EET* K105/EET* K106; MAT* K137 or MAT* K137S.
Corequisite: EET* K274.
This course supports Communications I by providing students with hands-on experience in the design, check-out, and evaluation of the various circuits and subsystems that comprise a communications system. Both computer simulation and bench experimentation are emphasized in gaining a familiarization with the circuitry and instrumentation involved.

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.
Students will be introduced 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* 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.

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* 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* K208 - Introduction to English as Language °**

**3 CREDIT HOURS**
Prerequisite: ENG* K101 or ENG* K101S with a "C" grade or better.
This course challenges assumptions students may have about language by examining the diversity and changes of the English language. Topics include the nature of language, a brief history of the English language, ethnic and regional varieties of English, grammar issues, the mass media's use of language, and social aspects of language.

**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.

Environmental Engineering Technology

ENV* K101 - Environmental Studies

3 CREDIT HOURS
Corequisite: ENG* K096 or higher. Please note: if completing ENG* K096 prior to enrolling in ENV* K101, a grade of "C#" or better is required for registration into this course.
This is a course that describes the study of the biological and physical aspects of the environment and environment-related issues, including procedures for lessening or controlling environmental pollution and related damage. Some field work will be included. This course is equivalent to BIO* K180 - Principles of Environmental Science. Course fulfills International/Intercultural requirement.

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 CIV* K146 or GIS* K146.

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 soil 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. This course is equivalent to CIV* K236.

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. This course is equivalent to CIV* K237.

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* 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, wastewater 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. This course is cross listed with CIV* K250.

**ENV* K291 - Environmental 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.
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. This course is equivalent to BIO* K289.

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 Grammar I

4 CREDIT HOURS
In this intensive course, students will work extensively on the sentence level of beginner/high beginner grammatical structure through speaking, listening, and writing exercises and language learning games. They will also generate personal writing through narration, description and opinion. Students will be introduces to the writing process and oral reading strategies.
ESL* K061 - Writing With Oral Practice and Grammar II

4 CREDIT HOURS
Prerequisite: ESL* K060 with a "C#" grade or better.
In this course, a continuation of ESL* K060, students will practice sentence level and paragraph skills of low-intermediate intermediate grammatical structures through speaking, listening, and writing exercises and language learning games. They will develop composition skills by learning to organize information in a variety of different ways including by order of importance and compare and contrast. Students will also study vocabulary online and keep a vocabulary journal. Oral reading strategies will be emphasized.

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 Grammar III *

4 CREDIT HOURS
Prerequisite: ESL* K061 with a "C#" or better.
In the final course of this series, students will complete their study of intermediate grammatical structures. Writing assignments will shift from one paragraph to the essay as students learn to incorporate facts, examples, reason, and more into their paragraphs. Students will study vocabulary on-line and keep a vocabulary journal. Reading strategies such as annotating, summarizing, and paraphrasing will also be introduced.

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
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 CIV* K146 or ENV* K146.

**Geology**

**GLG* K110 - Connecticut Field Geology °**

1 CREDIT HOUR
Prerequisite: EAS* K110.
Corequisite: EAS* K110 and ENG* K096
In this short term course students will explore, hike, and prospect for geologic evidence throughout Connecticut in order to understand the state's rich volcanic and glacial history. Students will collect many rock samples and prepare their own field guide after visits to impressive natural sites. This course offers experiential learning through extensive geology expeditions. EAS* K110 may be taken as a prerequisite or corequisite to this course.

**GLG* K112 - Geology of Connecticut °**

**3 CREDIT HOURS**

*Prerequisite: EAS* K110.
Corequisite: EAS* K110 and 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, students will explore, hike and prospect for geologic evidence throughout Connecticut in order to understand the state's rich volcanic and glacial history. Students will collect many rock samples and prepare their own field guide after visits to impressive natural sites. This course offers experiential learning through extensive geology expeditions. EAS* K110 may be taken as a prerequisite or corequisite to this course.

**Graphic Design**

**GRA* K131 - Digital Photography**

**3 CREDIT HOURS**

This course is an introduction to digital photography and iPhoto 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 camera techniques, handling, and creative approaches will be the focus. Students will read and report on famous photographers and photography literature. The minimum camera requirement is an advanced digital camera in which you can manually control the f-stop, focus, ISO, and exposure length.

**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 overview of applications used in the field of Graphic Design: Photoshop, Illustrator, InDesign and Acrobat Pro. Students also learn file managements and computer navigation basics including scanning software. Students study page design, typography, and image editing. Emphasis will be on the use of the computer for writing, editing, imaging and publication design. Students will read and report on graphic design topics.

**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; or permission of the instructor.
This computer 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.
This course covers 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* K257 - War and Society in World Civilization °**

**3 CREDIT HOURS**  
Prerequisite: ENG* K101 or ENG* K101S; any 100 or 200 level Social Science course or permission of the instructor.  
This course is a survey of war and the military institutions of World society from the beginning of civilizations to the advent of the nuclear age. Emphasis will be placed on the evolution of war and its apparatus in the context of political, social, economic, and technological change. Course fulfills International/Intercultural 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* K103 - Investigations in Health Careers °

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 in meeting the expectations of a health care curriculum and career. The students will become familiar with the rigors of higher education and the specific skills needed to maximize their opportunity for academic and clinical success. The course will include a comprehensive overview of the duties and responsibilities associated with clinical competency. Interdisciplinary learning strategies, correlating clinical and didactic education, life management skills, work ethics, and critical thinking skills necessary for all health providers will be emphasized.

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 Fitness and Training °

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 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* 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* 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 hand.

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.

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
Prerequisite: CSA* K105.
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
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 developmental course prepares students for college level courses. The course develops understanding of number systems, different representations of numbers, operations on numbers, including numbers expressed in scientific notation. The course introduces functions, their graphs, modeling relationships between quantities using functions. Topics also include solving equations and expressions with integer exponents, radicals, solving, analyzing and modeling linear equations, systems of linear equations, Pythagorean Theorem and geometrical formulas are used to solve real world problems.

MAT* K095I - Elementary Algebra Intensive College Readiness

6 CREDIT HOURS
This Elementary Algebra developmental course prepares students for college level courses. Designed to build understanding and skills in algebra, it also provides embedded pre-algebra support. The course develops understanding of number system, different representations of numbers, operations on numbers, including numbers expressed in scientific notation. The course introduces functions, their graphs, modeling relationship between quantities using functions. Topics also include solving equations and expressions with integer exponents, radicals, solving, analyzing and modeling linear equations, systems of linear equations. Pythagorean Theorem and geometrical formulas are used to solve real world problems.

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* 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. Please note: A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). This course cultivates understanding and different representations of functions. The course covers linear, quadratic, exponential, rational, radical functions, equations and expressions and operations on them with emphasis on modeling and solving real world problems.

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 developmental support. The course cultivates understanding and different representations of functions. The course covers linear, quadratic, exponential, rational, radical functions, equations and expressions and operations on them with emphasis on modeling and solving real world problems.

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
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.

A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). This course meets the mathematics requirement for liberal arts (non-science) transfer students. The topics covered are selected from set theory, counting and probability, and basic statistics, linear programming, game theory, Markov process, difference equations, and mathematical modeling.

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 proficiency with algebraic skills and the conceptual understanding needed to be successful in the Calculus sequence. The topics include: sets, polynomial, exponential, logarithmic and rational functions, rational exponents, conic sections, right triangle trigonometry, matrices, polynomial, exponential, logarithmic and radical equations, linear and quadratic inequalities, absolute value equations and inequalities, linear and nonlinear 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).
This course prepares students for the study of Calculus I. It is the study of functions, their graphs and applications. The topics include polynomial and rational functions and their graphs, operations on radical expressions, matrices, exponential and logarithmic functions, trigonometric functions and their graphs, trigonometric identities, trigonometric applications, and determinants.

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* K150 - Solid Modeling I

1 CREDIT HOUR
Corequisite: MEC* K151.
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, 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 functionality of drawing automation. One hour lecture/discussion and four hours of lab per week.

**MEC* K151 - Solid Modeling I Lab**

2 CREDIT HOUR  
*Corequisite: MEC* K150.*  
This lab in conjunction with the corresponding lecture 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, 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 functionality of drawing automation. One hour lecture/discussion and four hours of lab per week.

**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* K154 - Solid Modeling II °**

1 CREDIT HOUR
Prerequisite: MEC* K150 and MEC* K151.
Corequisite: MEC* K155.
This course in conjunction with the corresponding lab is designed to further enhance the students 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. One hour lecture.

MEC* K155 - Solid Modeling II Lab °

2 CREDIT HOURS
Prerequisite: MEC* K150 and MEC* K151.
Corequisite: MEC* K154.
This lab in conjunction with the corresponding lecture is designed to further enhance student's ability to combine and apply mechanical design principles using 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. Four hour lab.

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* K252 - Strength of Materials Lab**

1 CREDIT
Prerequisites: MEC* K114.
Corequisites: MEC* K250.
This laboratory is intended to reinforce the principles of Strength of Materials and Statics by a combination of different physical experiments whereby deflection of materials can be measured, as well as calculating appropriate reactions and determining the strength of materials utilizing a series of equipment as part of this laboratory exercise.

**MEC* K262 - Materials Science**

3 CREDIT HOURS
Prerequisites: MFG* K102/MFG* K103.
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/MFG* K103; 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.
Corequisite: MEC* K282.
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* K282 - Machine Design Lab °

2 CREDIT HOURS
Prerequisite: MEC* K250.
Corequisite: MEC* K281.
This course allows students to create actual designs in the laboratory, including the students' senior design project.

MEC* K286 - Welding Engineering Applications °

3 CREDIT HOURS
Prerequisites: MFG* K102/MFG* K103; 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/MFG* K103; 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* 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

3 CREDIT HOURS
Corequisite: MFG* K103.
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.
MFG* K103 - Manufacturing Processes Lab

1 CREDIT HOUR
Corequisites: MFG* K102 and TCN* K105.
This course provides laboratory emphasis on common metal cutting tools and lathe operations, as well as on associated precision measuring tools and instruments. The labs will involve set-ups and procedures for milling machines, lathes, grinders, drill presses, and some measuring instruments.

MFG* K118 - Computer Controlled Laser Materials Processing °

3 CREDIT HOURS
Prerequisites: TCN* K105; PHO* K101 or MEC* K262 or permission of instructor.
Corequisite: MFG* K119.
A study of the mechanics, components, characteristics and control of lasers used in the processing of engineering materials. The differences between laser material processing and conventional methods will be examined. The interactions between laser beams and materials on atomic and macro scales will be discussed. Specific processes such as a thermal processing, surface hardening, and cladding, joining, cutting, marking and welding will be introduced. Students will be exposed to computer numerical control (CNC) concepts and programming.

MFG* K119 - Computer Controlled Laser Materials Processing Lab °

1 CREDIT HOUR
Prerequisites: TCN* K105; PHO* K101 or MEC* K262; or permission of instructor.
Corequisite: MFG* K118.
The lab will provide hands-on experiences reinforcing and supplementing the course content. Labs will be conducted at a regional site.

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* 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
Corequisites: EET* K264 and EET* K265.
This interdisciplinary course 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 - Advanced Controls and Robotics.

MFG* K222 - Mechatronics Lab

1 CREDIT HOUR
Corequisites: EET* K264 and EET* K265.
This interdisciplinary lab course 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 developmental, controller hardware, as well as automated error detection and recovery. Student will work individually and in teams on hands-on experiences reinforcing and supplementing the course content.

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 spreadsheets 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.

MUS* K209 - Anthropology of Music °

3 CREDIT HOURS
This course is an introduction to the core concepts of ethnomusicology, an inter-disciplinary study that combines cultural anthropology and musicology to better understand how people give meaning to music as cultural expression. A significant amount of writing and a major research paper will be required. This course is equivalent to ANT* K206.

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* 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 plant 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* K112 - Medical Ethics °

3 CREDIT HOURS
Prerequisites: ENG* K101 or ENG* K101S placement or completion of ENG* K096 with a "C#” grade or better.
Medical, biological, and genetic technologies are advancing at an astounding rate. At the same time, the web of relationships that connect individuals, medical providers, and medical resources has grown more complex and increasingly embedded in wider social, political and global issues. Specific areas to be examined include, but are not limited to, the doctor-patient relationship, medical research on humans and animals, medical technology (genetic engineering; cloning; stem cells), reproductive rights, and access to medical resources.

PHL* K131 - Logic °

3 CREDIT HOURS
Prerequisite: ENG* K101 or ENG* K101S placement or completion of ENG* K096 with a "C#” grade or better; or MAT* K137 or MAT* K137S with a "C” grade or better.
Logic is the study of rules for sound reasoning. This course focuses on developing skill in evaluating argumentation in various forms. Topics covered in the course include argument recognition, fallacy identification, deductive and inductive reasoning, and basic symbolic logic.

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**

4 CREDIT HOURS

Corequisite: MAT* K095 OR MAT* K095I.

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 applications 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 PHY* K103 - Introduction to Light and Lasers. One 3 hour lecture; one 2 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* K140 - Optoelectronics °

4 CREDIT HOURS
Prerequisites: EET* K105/EET* K106 and PHO* K101.
This course introduces semiconductor technology and devices, with an emphasis on optoelectronic devices, including LEDs, laser diodes, and photodiodes. Analysis and design of circuits containing these devices will be covered, as will current applications. The course includes a lab component. This course is equivalent to EET* K134/EET* K135.

PHO* K230 - Laser Electronics °

4 CREDIT HOURS
Prerequisites: EET* K134/EET* K135 or PHO* K140; TCN* K105; or permission of instructor.
This course will focus on the design and analysis of electronic circuits and devices of particular interest to the field of photonics, including LEDs, LDs, and their driver circuitry; optical receivers, laser and flash lamp power supplies; displays; opt-isolators; optical sensors; solar cells; direct and external modulators. The lab portion of the course includes experiments and simulations to parallel the lecture.

PHO* K241 - Introduction to Laser Technology °

3 CREDIT HOURS
Prerequisites: PHO* K101.
Corequisite: PHO* K242.
This course provides an introduction to the physics of lasers, laser output characteristics, and types of lasers. Application of lasers will be explored through online and print journals and field trips to local companies that build, integrate or use lasers.

PHO* K242 - Introduction to Laser Technology Lab °

1 CREDIT HOURS
Prerequisites: PHO* K101 or permission of instructor.
Corequisites: PHO* K241 and TCN* K105.
This lab 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.

PHO* K251 - Fiber Optic Systems and Devices °

3 CREDIT HOURS
Prerequisites: PHO* K101.
Corequisites: PHO* K252.
This course will introduce parameters describing optical fibers, fiber optic system components, waveguide transmission as well
as non-telecommunications uses of fiber. Fiber coupling, splicing, and testing will also be covered. Concepts from optics and electronics will be used extensively to explain the operation of fiber systems and devices.

**PHO* K252 - Fiber Optic Systems and Devices Lab °**

1 CREDIT HOURS  
Prerequisites: PHO* K101.  
Corequisite: PHO* K251  
This laboratory course accompanies PHO* K251 and provides practical experience applying and testing fiber optic connectors and splices, fusion splicing, and using instrumentation such as optical loss test sets and the optical time domain reflectometer (OTDR). Students will measure fiber optic parameters and work active and passive devices commonly found in fiber optic systems.

**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* K100 - Essential Topics for Physics**

1 CREDIT HOUR  
This course covers basic physics topics essential for the success of students in engineering technology programs, including: scientific notation, measurement and the SI (metric) system, right angle trig, vector addition and the concepts of velocity, acceleration, force, work, energy and power. The course is designed for students who have never studied physics and do not have
PHO* K101 in their program of studies, or students who have received credit for PHO* K101 and need a refresher in these topics.

**PHY* K103 - Introduction to Light and Lasers**

4 CREDIT HOURS  
Corequisite: MAT* K095 OR MAT* K095I.
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 - Intro to Light and Lasers. 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* K116 - Modern Physics °

4 CREDIT HOURS

Prerequisites: MAT* K095 OR MAT* K095I and high school Physics or equivalent.

This course gives an introduction to the physics of the twentieth century. Topics include special relativity, quantum physics, atomic physics and nuclear physics, as well as an overview of electricity and magnetism. Many classic experiments of Modern Physics, such as Frank-Hertz and the photoelectric effect, will be performed. 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 subatomic 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 - Organizational Behavior °.

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 management, 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 - Sport and Leisure Management Practicum °

3 CREDIT HOURS
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 and 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* 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 movements 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* 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.

**SSC* K210 - 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 U.S. and other nations due to ever-increasing global interdependence. Topics vary from semester to semester depending on current concerns and interests. Topics often covered include: the impact of economic globalization on jobs and communities, the role of the U.S. military in the world, the international drug trade, changing immigration patterns, the globalization of hate groups, environmental destruction, population growth, global health issues, the survival of indigenous peoples, and women's rights as human rights. Attention is paid both to 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 UN. Course fulfills International/Intercultural Requirement.

**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 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 3D 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.

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 course introduces students to the historical and contemporary issues that have shaped and affected women's lives within the discipline of Women's Studies. It offers students the opportunity to learn about the feminist movements and women's contributions toward social change. Emphasis will be on family, health, work, education, religion, violence against women, and popular culture. Incorporates projects that promote social change and the empowerment of women. This course fulfills a liberal arts and sciences and/or humanities elective requirement. It does not fulfill a social sciences elective requirement.

Staff/Faculty

Administration and Staff

Office of the President

Mary Ellen Jukoski, President - B.A., cum laude; M.A, College of St. Rose, Albany, NY; M.S., State University of New York; Ed.D., University of Memphis in Memphis, TN

Meghan La Casse, Executive Assistant to the President - B.S., University of Connecticut

Institutional Advancement
Betty Baillargeon, Director of Institutional Advancement - A.S., Three Rivers Community College; B.A., Eastern Connecticut State University

Robie S. Grzyb, Assistant to the Director - B.A., University of Connecticut

**Public Relations**

Tracy Rosiene, Public Relations

**Institutional Research**

Laura Qin, Director of Institutional Advancement - B.A., Wellesley College; M.B.A., Babson College

**Academic Division**

Ann Z. Branchini, Academic Dean- B.S.N., University of Wisconsin-Milwaukee; M.S.N., Marquette University; Ph.D., University of Connecticut

Carole Lee, Administrative Assistant to the Academic Dean - A.S., Three Rivers Community- Technical College

Kacey McCarthy-Zaremba, Assistant to the Academic Dean - B.A., Eastern Connecticut State University

Ronda Charette, Office Assistant

Kayla Moreno, - Educational Assistant B.S.B.A., Western New England University

**Assessment of Prior Learning**

Karen Aubin, Assistant to the Academic Dean Emeritus, EA Coordinator of APL Program - A.S. Mohegan Community College; B.S., M.S. Eastern Connecticut State University

**Library**

Mildred H. Hodge, Director, Library Services - B.A., Eastern Connecticut State University; M.L.S., University of Rhode Island; 6th Year Certificate, Southern Connecticut State University

**Nursing & Allied Health**

Edie Ouellette, Director of Nursing & Allied Health - 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; MSN St. Joseph's College, Maine

**Engineering Technology**
Contact Dean Brachini for info @ 860-383-5204.

**College Career Pathways**

Erin Sullivan, Program Coordinator - B.A., Saint Joseph College; M.S.W., University of Connecticut.

Patricia A. Petrone, Educational Assistant - A.A., Nassau Community College

**Tutoring Center**

Matthew Burbine, Tutor - 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

Louis Forand, Custodian

Dale Hill, Skilled Maintainer

Darryl Hill, Custodian

Bruce Rossi, Lead Custodian

Roy Tookes, Lead Custodian

Kevin Watson, Maintainer -- B.S.G.S., Unity College

Sandra Dean, Facilities Scheduler- A.S., Three Rivers Community College

**Business Office**

Stephen H. Goetchius, Dean of Administration & I.T. - 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 Administration

Diane Jewett, Associate Fiscal Administrative Officer - A.S., Mohegan Community College


Valerie Smith, Fiscal Administrative Officer - A.S., Three Rivers Community College, B.S., Charter Oak State College, M.S., Baypath College

Sharon Pirt, Accountant - B.S., Business Admin, Slippery Rock University of Pennsylvania

Cashier

Phyllis Brown, Fiscal Administrative Assistant - A.S., Commonwealth College of Virginia, A.S. Three Rivers Community College

Erik Wright, Clerk - B.A., University of Connecticut

Purchasing

James M. Kelly, Fiscal Administrative Officer

Amy Main, Materials Storage Specialist

Human Resources/Payroll

Louise J. Summa, Director of Human Resources - B.A., M.B.A., Anna Maria College

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

Susan Senay, Assistant Human Resources - B.S., Nichols College

Information Technology Services

Stephen H. Goetchius, Dean of Information Technology - 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

Cathy D. Davenport, Director of Information Technology Support - A.S., Quinnipiak College; A.S., Thames Valley State Technical College; B.G.S., Eastern Connecticut State University

Larry Davenport, Assistant Director of Information Technology - B.S., Roger- Williams University
Steven E. Pudlo, Network Coordinator - A.S., Thames Valley State Technical College; A.S. (2 Degrees), Three Rivers Community-Technical College; B.S., Eastern Connecticut State University; M.B.A., Rensselaer Polytechnic University

Victoria Baker, Information Technology Technician 2 - A.S., Thames Valley State Technical College, B.G.S., M.A., University of Connecticut

Kem Barfield, Director of Distance Learning- B.S., Southern Illinois University; M.S., University of New Haven.

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

Deborah G. Civitello, Head Telecommunications Operator

Olan Angulo, Information Technology Technician 2- A.S., Three Rivers Community College

**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 Development & 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

Jacqueline Phillips, Director of Student Services - B.A., M.A., American International College; Ed. D., Nova Southeastern University

Christine Languth, Acting Director of Student Success - B.A., Marist College; M.P.S., New York Institute of Technology

Marie Hoffman, Administrative Assistant - A.S. Quinebaug Valley Community College

Sandra Farwell, Welcome Center

**Retention**

Meg Wichser, Transition & Retention Specialist - B.A., Hartwick College; M.A., Colgate University; Graduate Certificate, Hartford Seminary
Admissions/Testing Center

Margaret Hogan Stroup, Director of Admissions, - B.A., M.A., Ohio State University
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
Carolyn Prunier, Admissions and Welcome Center

Counseling & Student Development

Sharon Lincoln, Academic 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
John Rich, Counselor/Career Placement Services - B.A., Manhattan College; M.Ed., Ed.D., University of Massachusetts-Amherst
Deirdre Sebastian, Advisor/Counselor - BA, Lincoln University, Lincoln, Pennsylvania, Masters in Developmental Psychology, Teachers College, Columbia University; Masters, Developmental Psychology, Boston University.
Celeste Warner, Educational Assistant, Career Placement/Academic Advisor - A.S., Mohegan Community College; B.S., Eastern Connecticut State University; Certificate, Three Rivers Community College
Kathleen Gray, Counselor/Disabilities Counselor/Transfer Program Advisor - B.A., University of Connecticut; M.S., Southern Connecticut State University
Scott Carolan, Advisor/Testing Coordinator - A.S., Lackawanna College; B.A., Wilkes University; M.A., National University

Financial Aid

Hong-Yu Kovic, Financial Aid Counselor - B.S., Peking University; M.A., University of Texas; M.Div., Unification Theological Seminary; M.Ed., SUNY Colle
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

Pauline Goyette, Office Assistant - A.S., Quinebaug Valley Community-Technical College; B.A., Eastern Connecticut State University

**Student Programs**

Rhonda Spaziani, Acting Director of Student Programs - B.A., Quinnipiac College; M.S., Southern Connecticut State University

**Faculty Directory**

Judith Albright, Associate Professor in Nursing. B.S.N., M.S.N, University of Cincinnati; R.N.; CWOCN.

Larisa Alikhanova, Professor of Mathematics. B.S. University of Yerevan; M.S. Moscow State University.

Kevin Amenta, Full-time Lecturer of Communications and English. M.A. Interactive Communications, Quinnipiac University B.A., Television and Film Production, Hofstra University.

Allan A. Anderson, Associate Professor of Computer Science. M.S., Purdue University, West Lafayette, Indiana, B.S., Mankato State College, Mankato, MN.

Maria Celesté Arrietta, Full-time Lecturer of Foreign Language. M.A., University of Connecticut; J.D. & B.A., University of Mórón, Argentina.

Teri Ashton, Associate Professor in Nursing. B.S.N., Central Connecticut State University; M.S.N. University of Hartford, CNE.

Richard Bennett, Department Chair, Associate 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, Assistant Professor of English. M.A., Southern Connecticut State University; B.A., Eastern Connecticut State University.

Michael Carta, Full-time Lecturer of Chemistry. B.A., M.S., University of Dayton.

Pamela Carroll, Professor of Psychology. B.A., Merrimack College; M.Ed., Harvard University.

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. Johns University.

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, Department Chair & Professor of Natural Sciences. B.S., M.S., Tennessee State University.
Dan Courtney, Instructor of Electrical Engineering Technology. ASET, Springfield Technical Community College; MSEE, University of Massachusetts.

Jeffrey Crouch, Department Chair - Social Sciences, 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, Full-time Lecturer of Nursing. A.S.N., Norwich University; B.S.N., Sacred Heart University; M.S., University of Arizona.

Chotsani Dean, Full-time Lecturer of Ceramics and Art. M.F.A, Washington University; B.F.A, University of Hartford.

June Decker, Professor of Mathematics. A.B. Harvard College; M.S. University of Connecticut.

Jennifer DeFrance, Assistant 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, Professor of History. Ph.D., M.A., Clark University; B.A., Eastern Connecticut State University.

Judith F. Donnelly, Professor of Physics/Laser and Fiber Optics. B.S., Tufts University; M.S., University of Connecticut.

William Dopirak, Associate Professor of Natural Sciences. A.S., Mohegan Community College; B.S., Eastern Connecticut State University; M.A. Central Connecticut State University.

Peter Edmondson, Associate Professor of Hospitality Management. B.S., University of New Haven; M.S., University of Massachusetts.

Larry Flick, Associate Professor of Business. B.S., Oregon State University; M.B.A. California State University at Hayward.

Donald Gerwick, Full-time Lecturer of Civil Engineering Technology. B.S. University of Connecticut Civil Engineering; P.E., L.S., CFM.

Betti Gladue, Professor of Business. B.A., M.S. Eastern Connecticut State University.

Joan Graham, Associate 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. M.A., St. Cloud State University; B.S., Minnesota State University.

G. Kent Harding, Associate Professor of Business and Electrical Engineering Technology. B.S., M.S.E.E., University of Maryland; M.B.A., Harvard, Certified Cost Analyst.

Sandra Jeknavorian, Associate Professor of Art. M.F.A., University of Massachusetts; B.F.A., University of Hartford.

Joseph Johnson, Full-time Lecturer 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; PhD. Candidate, University of Connecticut.

Patrick Knowles, Professor of Mechanical/Manufacturing Engineering Technology. B.S., U.S. Coast Guard Academy; M.S.E., Mechanical Engineering, University of Michigan; M.S.E., Naval Architecture & Marine Engineering, University of Michigan; P.E., Virginia.

Dov Kugelmass, Assistant 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.

Ronald Leask, Assistant Professor of Computer Science Networking. B.S., University of Alaska; M.S./M.S., Networking Certificate, Renssalaer Polytechnic University.

Jennifer Long, Associate Professor. M.Ed., Millersville University; B.A., Northeastern 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.

Philip Mayer, Jr., Associate Professor of Economics and Political Science. B.S., Villanova University; M.A., Kansas State University; M.L.S., Fort Hays State University (in progress)

Ann McNamara, Professor of Science. B.S., M.S., University of Connecticut; Registered Dietician.

Kelly Molkenthin, Instructor of Mathematics. Ph.D., M.S., University of Rhode Island; B.S., Fairfield University.

Edwin Muenzner, Assistant Professor of Accounting. A.S., Three Rivers Community College; B.S., Eastern Connecticut State University; MSAT, University of Hartford; Certified Public Accountant.

Steven Neufeld, Associate 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.

William O'Hare, Associate Professor of Anthropology. M.A., University of Connecticut; B.A., Marist College.

D. David "Don" Pascal, Full-time Lecturer of Chemistry. M.A., Indiana State University; Ph.D., Ecology and Systematics.

Peter Patsouris, Department Chair - Humanities, Associate Professor of History and International Studies. B.A., Boston University; M.A., Providence College.

Lillian Rafeldt, Professor of Nursing. B.S., State University of New York; M.A. New York University; RN, 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.

Nancy Rymut, Professor of Nursing. B.S.N, University of Pittsburgh, M.S. University of Connecticut; CEN.

Leslie Samuelson, 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, Associate Professor of Nursing. B.S., Eastern Connecticut State University; M.S.N., University of Hartford.

Sarah Selke, Assistant Professor of Biology. B.S., Bates College, Ph.D., University of Florida.

Joseph Selvaggio, Instructor of English. M.A., Southern Connecticut State University; B.A. Rutgers 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., Catholic University of America; P.E., Maryland.

Wanda L. Short, Full-time Lecturer of Mechanical/Manufacturing Engineering Technology. B.S., Clemson University; M.S., North Carolina State University; M.S., Rensselaer Polytechnic Institute.

Shelia Skahan, Associate Professor of Early Childhood Education. B.S., Lesley University; M.S., Wheelock College.

Jean Skiba, Full-time Lecturer of Anatomy & Physiology. B.A., M.S., Eastern Connecticut State University.

Michael Stutz, Instructor of Communications. M.A., B.A., University of South Carolina.

Roxanne Tisch, Full-time Lecturer of Mathematics. B.S., Worcester Polytechnic Institute; M.S., M.A., A.B.D., University of Rhode Island.

Susan Topping, Professor of English. M.A., Rutgers SUNJ; B.A., Hunter College-City University of New York.

Suzanne Turner, Instructor of Nursing. B.S.N, University of Rhode Island; M.S.N, St. Joseph's College of Maine.

George Volkov, Jr., Associate Professor of Computer Science Technology. B.S., M.S. University of Connecticut; P.E., Connecticut.

Francine Wallett, Professor of Nursing. B.S.N., University of Rhode Island, M.S.N., Boston University.

Heidi Zenie, Acting Health and Wellness Coordinator and Full-time Lecturer of Health and Wellness. A.S. Mitchell College; B.S., Northeastern University; M.S., West Virginia University

Academic Calendar Fall 2015 - Summer 2016

- Fall 2015
- Winter 2015
- Spring 2016
- Summer 2016

<table>
<thead>
<tr>
<th>Aug 27</th>
<th>New Student Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 30</td>
<td>Registration Deadline and Last Day for Full Tuition Refund</td>
</tr>
<tr>
<td>Aug 31</td>
<td>Classes Begin</td>
</tr>
<tr>
<td></td>
<td>Add and Drop Periods Begin</td>
</tr>
<tr>
<td>Sep 7</td>
<td>Labor Day - College Closed</td>
</tr>
<tr>
<td></td>
<td>Last Day for Registered Students to Add a Class</td>
</tr>
<tr>
<td>Sep 14</td>
<td>Last Day to Drop a class and Partial Tuition Refund for 15 Week Session</td>
</tr>
<tr>
<td>Sep 17</td>
<td>Constitution Day - Classes In Session</td>
</tr>
<tr>
<td>Date</td>
<td>Event</td>
</tr>
<tr>
<td>-------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Sep 28</td>
<td>Last Day to Select Audit Option for 15 Week Session</td>
</tr>
<tr>
<td>Sep 30</td>
<td>Professional Day</td>
</tr>
<tr>
<td>Oct 12</td>
<td>Columbus Day Observed - No classes in session</td>
</tr>
<tr>
<td>Nov 2</td>
<td>Continuing Degree-Seeking Student Registration for Winter '15 Intersession and Spring '16 Semester</td>
</tr>
<tr>
<td>Nov 9</td>
<td>Last Day to Select Pass/Fail Option for 15 Week Session</td>
</tr>
<tr>
<td></td>
<td>Last Day to Submit Incomplete Work from Spring '15 Semester and Summer '15 Sessions</td>
</tr>
<tr>
<td>Nov 11</td>
<td>Veteran's Day Observed - College Open Classes In Session</td>
</tr>
<tr>
<td>Nov 16</td>
<td>New Student and Non Degree-Seeking Student Registration for Winter '15 Intersession and Spring '16 Semester</td>
</tr>
<tr>
<td></td>
<td>Last Day to apply for Spring Graduation (May '16)</td>
</tr>
<tr>
<td>Nov 25</td>
<td>Make-up/Supplemental day - Instructor Discretion</td>
</tr>
<tr>
<td>Nov 26-29</td>
<td>Thanksgiving Recess - No Classes in Session</td>
</tr>
<tr>
<td>Dec 8</td>
<td>Make-up/Supplemental day - Instructor Discretion/ Reading Day</td>
</tr>
<tr>
<td>Dec 14</td>
<td>Last Day to Withdraw from classes</td>
</tr>
<tr>
<td>Dec 21</td>
<td>Last Day of 15 Week Session</td>
</tr>
<tr>
<td>Dec 22-23</td>
<td>Make-up/Supplemental days - Instructor Discretion</td>
</tr>
<tr>
<td>Dec 25</td>
<td>Holiday - College Closed</td>
</tr>
<tr>
<td>Dec 28</td>
<td>Final Grades Due Registrar's Office</td>
</tr>
<tr>
<td>Dec 30</td>
<td>Grades available on web</td>
</tr>
</tbody>
</table>

**Fall 2015 Modular 5 Week Sessions**

**Five Week - Mod 1**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 27</td>
<td>New Student Orientation</td>
</tr>
<tr>
<td>Aug 30</td>
<td>Last Day to drop classes for a full tuition refund</td>
</tr>
<tr>
<td>Aug 31</td>
<td>First Day of Class for Monday &amp; Wednesday Classes</td>
</tr>
<tr>
<td>Date</td>
<td>Event Description</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>Sept 1</td>
<td>First Day of Class for Tuesday &amp; Thursday Classes</td>
</tr>
<tr>
<td>Sept 2</td>
<td>Instructor Signature Required to Add Classes</td>
</tr>
<tr>
<td>Sept 3</td>
<td>Last Day for a Partial Refund</td>
</tr>
<tr>
<td>Sept 7</td>
<td>Labor Day - College Closed</td>
</tr>
<tr>
<td>Sept 8</td>
<td>Last Day to Select Audit Option</td>
</tr>
<tr>
<td>Sept 18</td>
<td>Last Day to Select Pass/Fail Option</td>
</tr>
<tr>
<td>Sept 30</td>
<td>Last Day to Withdraw From Classes</td>
</tr>
<tr>
<td>Oct 1</td>
<td>Last Day of Class for Tuesday &amp; Thursday Classes</td>
</tr>
<tr>
<td>Oct 5</td>
<td>Last Day of Class for Monday &amp; Wednesday Classes</td>
</tr>
</tbody>
</table>

**Five Week - Mod 2**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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</thead>
<tbody>
<tr>
<td>Oct 5</td>
<td>Last Day to Drop Classes for a Full Tuition Refund</td>
</tr>
<tr>
<td>Oct 6</td>
<td>First Day of Class for Tuesday &amp; Thursday Classes</td>
</tr>
<tr>
<td>Oct 7</td>
<td>First Day of Class for Monday &amp; Wednesday Classes</td>
</tr>
<tr>
<td>Oct 8</td>
<td>Instructor Signature Required to Add Classes</td>
</tr>
<tr>
<td>Oct 9</td>
<td>Last Day for a Partial Refund</td>
</tr>
<tr>
<td>Oct 14</td>
<td>Last Day to Select Audit Option</td>
</tr>
<tr>
<td>Oct 26</td>
<td>Last Day to Select Pass/Fail Option</td>
</tr>
<tr>
<td>Nov 4</td>
<td>Last Day for Withdraw from Classes</td>
</tr>
<tr>
<td>Nov 5</td>
<td>Last Day of Class for Tuesday &amp; Thursday Classes</td>
</tr>
<tr>
<td>Nov 11</td>
<td>Last Day of Class for Monday &amp; Wednesday Classes</td>
</tr>
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</table>

**Five Week - Mod 3**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov 9</td>
<td>Last Day to Drop Classes for a Full Tuition Refund</td>
</tr>
<tr>
<td>Nov 10</td>
<td>First Day of Class for Tuesday &amp; Thursday Classes</td>
</tr>
<tr>
<td>Date</td>
<td>Event</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------------------------------------------</td>
</tr>
<tr>
<td>Nov 16</td>
<td>First Day of Class for Monday &amp; Wednesday Classes</td>
</tr>
<tr>
<td>Nov 17</td>
<td>Last Day for a Partial Refund</td>
</tr>
<tr>
<td></td>
<td>Last Day to Select Audit Option</td>
</tr>
<tr>
<td>Nov 30</td>
<td>Last Day to Select Pass/Fail Option</td>
</tr>
<tr>
<td>Dec 8</td>
<td>Make-up/Supplemental Day - Instructor Discretion</td>
</tr>
<tr>
<td>Dec 16</td>
<td>Last Day for Withdraw from Classes</td>
</tr>
<tr>
<td>Dec 17</td>
<td>Last Day of Class for Tuesday &amp; Thursday Classes</td>
</tr>
<tr>
<td>Dec 21</td>
<td>Last Day of Class for Monday &amp; Wednesday Classes</td>
</tr>
</tbody>
</table>

**Fall 2015 Late Start 12 Week Session**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>Sep 18</td>
<td>Last Day to Drop Classes for a Full Tuition Refund - in person</td>
</tr>
<tr>
<td>Sep 20</td>
<td>Last Day to Drop Classes for a Full Tuition Refund - online</td>
</tr>
<tr>
<td>Sep 21</td>
<td>12 week late start modular session begins</td>
</tr>
<tr>
<td>Oct 11</td>
<td>Last Day to Select Audit Option</td>
</tr>
<tr>
<td>Nov 16</td>
<td>Last Day to Select Pass/Fail Option</td>
</tr>
<tr>
<td>Dec 11</td>
<td>Last Day for Withdraw from Classes</td>
</tr>
<tr>
<td>Dec 18</td>
<td>12 week late start modular session ends</td>
</tr>
</tbody>
</table>

**Winter 2015 3 Week Session**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec 27</td>
<td>Last Day for Full Tuition Refund</td>
</tr>
<tr>
<td>Dec 28</td>
<td>Classes Begin</td>
</tr>
<tr>
<td>Dec 29</td>
<td>Instructor Signature Required to Add Classes</td>
</tr>
<tr>
<td>Jan 1</td>
<td>New Year's Day Observed - Classes Not in Session, College Closed</td>
</tr>
<tr>
<td>Jan 13</td>
<td>Last Day to Withdraw from classes</td>
</tr>
<tr>
<td>Date</td>
<td>Event Description</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Jan 15</td>
<td>Last Day of Classes</td>
</tr>
<tr>
<td>Jan 19-20</td>
<td>Class/lab, makeup/supplemental session</td>
</tr>
<tr>
<td>Jan 21</td>
<td>Final Grades Due</td>
</tr>
</tbody>
</table>

**Spring 2016 Standard 15 Week Session**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 18</td>
<td>Martin Luther King Day - College Closed</td>
</tr>
<tr>
<td>Jan 19</td>
<td>New Student Orientation</td>
</tr>
<tr>
<td>Jan 20</td>
<td>Registration deadline and Last Day for Full Tuition Refund</td>
</tr>
<tr>
<td>Jan 21</td>
<td>Classes Begin</td>
</tr>
<tr>
<td></td>
<td>Add and Drop Periods Begin</td>
</tr>
<tr>
<td>Jan 27</td>
<td>Last Day for Registered Students to Add a Class</td>
</tr>
<tr>
<td>Jan 29</td>
<td>Professional Day</td>
</tr>
<tr>
<td>Feb 3</td>
<td>Last Day to Drop a class and Partial Tuition Refund</td>
</tr>
<tr>
<td>Feb 12-15</td>
<td>Lincoln and Washington's Birthday Observed - College CLOSED, Classes NOT in Session</td>
</tr>
<tr>
<td>Feb 17</td>
<td>Last Day to Select Audit Option</td>
</tr>
<tr>
<td>Mar 15</td>
<td>Last Day to Apply for Summer (August '16) Graduation</td>
</tr>
<tr>
<td>Mar 19-27</td>
<td>Spring Break - Classes Not in Session</td>
</tr>
<tr>
<td>Mar 25-26</td>
<td>College Closed</td>
</tr>
<tr>
<td>Mar 31</td>
<td>Last Day to Select Pass/Fail Option - 15 Week Session</td>
</tr>
<tr>
<td></td>
<td>Last Day to Submit Incomplete Work from Fall '15 semester and Intersession '15 Sessions</td>
</tr>
<tr>
<td>Apr 1</td>
<td>Continuing Degree-Seeking Student Registration for Summer '16 Session and Fall '16 Semester</td>
</tr>
<tr>
<td>Apr 15</td>
<td>New Student and Non-Degree Seeking Student Registration for Summer '16 Session and Fall '16 Semester</td>
</tr>
<tr>
<td>May 5</td>
<td>Make-up/Supplemental Day - Instructor Discretion/ Reading Day</td>
</tr>
<tr>
<td>May 9</td>
<td>Last Day to Withdraw from Classes</td>
</tr>
<tr>
<td>Date</td>
<td>Event</td>
</tr>
<tr>
<td>---------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>May 16</td>
<td>Last Day of 15 Week Session</td>
</tr>
<tr>
<td>May 17-18</td>
<td>Make-up/Supplemental Day - Instructor Discretion</td>
</tr>
<tr>
<td>May 19</td>
<td>Commencement</td>
</tr>
<tr>
<td>May 20</td>
<td>Final Grades Due</td>
</tr>
<tr>
<td>May 25</td>
<td>Student Grades Available on Web</td>
</tr>
<tr>
<td>May 30</td>
<td>Memorial Day - College Closed</td>
</tr>
<tr>
<td>June 15</td>
<td>Last Day to Apply for Fall (December '16) Graduation</td>
</tr>
</tbody>
</table>

### Spring 2016 Modular 5 Week Sessions

**Five Week - Mod 1**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>Jan 20</td>
<td>Last Day to Drop Classes for a Full Tuition Refund</td>
</tr>
<tr>
<td>Jan 21</td>
<td>First Day of Class for Tuesday &amp; Thursday Classes</td>
</tr>
<tr>
<td>Jan 25</td>
<td>First Day of Class for Monday &amp; Wednesday Classes</td>
</tr>
<tr>
<td>Jan 26</td>
<td>Last Day for Partial Refund</td>
</tr>
<tr>
<td>Jan 28</td>
<td>Last Day to Select Audit Option</td>
</tr>
<tr>
<td>Feb 10</td>
<td>Last Day to Select Pass/Fail Option</td>
</tr>
<tr>
<td>Feb 22</td>
<td>Last Day to Withdraw from Classes</td>
</tr>
<tr>
<td>Feb 23</td>
<td>Last Day of Class for Tuesday &amp; Thursday Classes</td>
</tr>
<tr>
<td>Feb 29</td>
<td>Last Day of Class for Monday &amp; Wednesday Classes</td>
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</table>

**Five Week - Mod 2**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb 24</td>
<td>Last Day to Drop Classes for a Full Tuition Refund</td>
</tr>
<tr>
<td>Feb 25</td>
<td>First Day of Class for Tuesday &amp; Thursday Classes</td>
</tr>
<tr>
<td>Mar 2</td>
<td>First Day of Class for Monday &amp; Wednesday Classes</td>
</tr>
<tr>
<td>Mar 3</td>
<td>Last Day for Partial Refund</td>
</tr>
<tr>
<td>Date</td>
<td>Event</td>
</tr>
<tr>
<td>----------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Mar 16</td>
<td>Last Day to Select Audit Option</td>
</tr>
<tr>
<td>Apr 4</td>
<td>Last Day to Select Pass/Fail Option</td>
</tr>
<tr>
<td>Apr 5</td>
<td>Last Day to Withdraw from Classes</td>
</tr>
<tr>
<td>Apr 11</td>
<td>Last Day of Class for Tuesday &amp; Thursday Classes</td>
</tr>
<tr>
<td></td>
<td>Five Week - Mod 3</td>
</tr>
<tr>
<td>Apr 11</td>
<td>Last Day to Drop Classes for a Full Tuition Refund</td>
</tr>
<tr>
<td>Apr 12</td>
<td>First Day of Class for Tuesday &amp; Thursday Classes</td>
</tr>
<tr>
<td>Apr 13</td>
<td>First Day of Class for Monday &amp; Wednesday Classes</td>
</tr>
<tr>
<td>Apr 15</td>
<td>Last Day for Partial Refund</td>
</tr>
<tr>
<td>Apr 18</td>
<td>Last Day to Select Audit Option</td>
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<tr>
<td>May 2</td>
<td>Last Day to Select Pass/Fail Option</td>
</tr>
<tr>
<td>May 5</td>
<td>Make-up/Supplemental day - Instructor Discretion</td>
</tr>
<tr>
<td>May 13</td>
<td>Last Day to Withdraw from Classes</td>
</tr>
<tr>
<td>May 16</td>
<td>Last Day of Class for Monday &amp; Wednesday Classes</td>
</tr>
<tr>
<td>May 17</td>
<td>Last Day of Class for Tuesday &amp; Thursday Classes</td>
</tr>
</tbody>
</table>

**Spring 2016 Late Start 12 Week Session**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb 10</td>
<td>Last Day to Drop Classes for a Full Tuition Refund</td>
</tr>
<tr>
<td>Feb 11</td>
<td>12 wk late start modular session begins</td>
</tr>
<tr>
<td>Feb 22</td>
<td>Last Day for partial tuition refund</td>
</tr>
<tr>
<td>Mar 3</td>
<td>Last day to select audit option</td>
</tr>
<tr>
<td>Apr 7</td>
<td>Last day to select pass/fail option</td>
</tr>
<tr>
<td>May 9</td>
<td>Last day to withdraw from classes</td>
</tr>
</tbody>
</table>
## Summer 2016

### First - 7 Week Mod

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 22</td>
<td>Last Day to Drop Classes for a Full Tuition Refund</td>
</tr>
<tr>
<td>May 23</td>
<td>First Day of Class for Monday &amp; Wednesday Classes</td>
</tr>
<tr>
<td>May 24</td>
<td>First Day of Class for Tuesday &amp; Thursday Classes</td>
</tr>
<tr>
<td>May 30</td>
<td>Memorial Day Observed - College Closed</td>
</tr>
<tr>
<td>May 31</td>
<td>Last Day to Select Audit Option</td>
</tr>
<tr>
<td>Jun 10</td>
<td>Last Day to Select Pass/Fail Option</td>
</tr>
<tr>
<td>Jun 15</td>
<td>Last Day to Apply for Fall (December '16) Graduation</td>
</tr>
<tr>
<td>Jul 4</td>
<td>Independence Day Observed - College Closed</td>
</tr>
<tr>
<td>Jul 5</td>
<td>Last Day to Withdraw from Classes</td>
</tr>
<tr>
<td>Jul 7</td>
<td>Last Day of Class for Tuesday &amp; Thursday Classes</td>
</tr>
<tr>
<td>Jul 13</td>
<td>Last Day of Class for Monday &amp; Wednesday Classes</td>
</tr>
<tr>
<td>Jul 15</td>
<td>Final Grades Due</td>
</tr>
</tbody>
</table>

### Late Start - 6 Week Mod

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul 4</td>
<td>Independence Day Observed - College Closed</td>
</tr>
<tr>
<td>Jul 13</td>
<td>Last Day to Drop Classes for a Full Tuition Refund</td>
</tr>
<tr>
<td>Jul 14</td>
<td>First Day of Class for Tuesday &amp; Thursday Classes</td>
</tr>
<tr>
<td>Jul 18</td>
<td>First Day of Class for Monday &amp; Wednesday Classes</td>
</tr>
<tr>
<td>Jul 19</td>
<td>Last Day to Select Audit Option</td>
</tr>
<tr>
<td>Jul 29</td>
<td>Last Day to Select Pass/Fail Option</td>
</tr>
<tr>
<td>Aug 10</td>
<td>Last Day to Withdraw from Classes with Instructor's Signature</td>
</tr>
<tr>
<td>Aug 23</td>
<td>Last Day of Class for Tuesday and Thursday Classes</td>
</tr>
<tr>
<td>Aug 24</td>
<td>Last Day of Class for Monday and Wednesday Classes</td>
</tr>
<tr>
<td>Aug 26</td>
<td>Final Grades Due</td>
</tr>
</tbody>
</table>

### 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 2/23/2016

- Fall 2016
- Winter 2016
- Spring 2017
- Summer 2017

**FALL 2016 Standard 15 Week Session**

<p>| Aug 25 | New Student Orientation |</p>
<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 26</td>
<td>Professional Day</td>
</tr>
<tr>
<td>Aug 28</td>
<td>Registration deadline and last day to drop classes for full tuition refund - online (Aug 26 - in person)</td>
</tr>
<tr>
<td>Aug 29</td>
<td>Classes begin, Add and Drop Periods Begin</td>
</tr>
<tr>
<td>Aug 31</td>
<td>Convocation</td>
</tr>
<tr>
<td>Sep 5</td>
<td>Labor Day - college closed</td>
</tr>
<tr>
<td>Sep 6</td>
<td>Last day for registered students to add a class</td>
</tr>
<tr>
<td>Sep 12</td>
<td>Last day to drop classes and partial tuition refund</td>
</tr>
<tr>
<td>Sep 16</td>
<td>Constitution Day (observed) - classes in session</td>
</tr>
<tr>
<td>Sep 26</td>
<td>Last day to select audit option</td>
</tr>
<tr>
<td>Nov 1</td>
<td>Continuing Degree-Seeking Student Registration for Winter '16 Intersession and Spring '17 Semester</td>
</tr>
<tr>
<td>Nov 7</td>
<td>Last day to select pass/fail option, last day to submit incomplete work from Spring '16 and Summer '16</td>
</tr>
<tr>
<td>Nov 15</td>
<td>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)</td>
</tr>
<tr>
<td>Nov 23</td>
<td>Make-up/supplemental day - instructor discretion</td>
</tr>
<tr>
<td>Nov 24-27</td>
<td>Thanksgiving Recess - no classes in session</td>
</tr>
<tr>
<td>Dec 6 &amp; 9</td>
<td>Make-up/supplemental - instructor discretion/reading days</td>
</tr>
<tr>
<td>Dec 9</td>
<td>Last Day to withdraw from classes</td>
</tr>
<tr>
<td>Dec 16</td>
<td>Last Day of 15 Week Session</td>
</tr>
<tr>
<td>Dec 21-22</td>
<td>Make-up/supplemental days - instructor discretion</td>
</tr>
<tr>
<td>Dec 23</td>
<td>Final grades due to Registrar's Office</td>
</tr>
<tr>
<td>Dec 26</td>
<td>Holiday - college closed</td>
</tr>
<tr>
<td>Dec 28</td>
<td>Grades available on web</td>
</tr>
</tbody>
</table>

**FALL 2016 Modular 5 Week Sessions**

**FIVE WEEK - MOD 1**
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 28</td>
<td>Last day to drop classes for a full tuition refund - online (Aug 26 - in person)</td>
</tr>
<tr>
<td>Aug 29</td>
<td>First day of class for Mon/Wed classes</td>
</tr>
<tr>
<td>Aug 30</td>
<td>First day of class for Tues/Thurs classes</td>
</tr>
<tr>
<td>Sep 1</td>
<td>Last day to drop classes and partial tuition refund</td>
</tr>
<tr>
<td>Sep 5</td>
<td><strong>Labor Day - college closed</strong></td>
</tr>
<tr>
<td>Sep 6</td>
<td>Last day to select audit option</td>
</tr>
<tr>
<td>Sep 18</td>
<td>Last day to select pass/fail option</td>
</tr>
<tr>
<td>Sep 28</td>
<td>Last day to withdraw from classes</td>
</tr>
<tr>
<td>Sep 29</td>
<td>Last day of class for Tues/Thurs classes</td>
</tr>
<tr>
<td>Oct 3</td>
<td>Last day of class for Mon/Wed classes</td>
</tr>
</tbody>
</table>

**FIVE WEEK - MOD 2**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct 3</td>
<td>Last day to drop classes for a full tuition refund</td>
</tr>
<tr>
<td>Oct 4</td>
<td>First day of class for Tues/Thurs classes</td>
</tr>
<tr>
<td>Oct 5</td>
<td>First day of class for Mon/Wed classes</td>
</tr>
<tr>
<td>Oct 7</td>
<td>Last day to drop classes and partial tuition refund</td>
</tr>
<tr>
<td>Oct 12</td>
<td>Last day to select audit option</td>
</tr>
<tr>
<td>Oct 24</td>
<td>Last day to select pass/fail option</td>
</tr>
<tr>
<td>Nov 2</td>
<td>Last day to withdraw from classes</td>
</tr>
<tr>
<td>Nov 3</td>
<td>Last day of class for Tues/Thurs classes</td>
</tr>
<tr>
<td>Nov 9</td>
<td>Last day of class for Mon/Wed classes</td>
</tr>
</tbody>
</table>

**FIVE WEEK - MOD 3**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov 9</td>
<td>Last day to drop classes for a full tuition refund</td>
</tr>
<tr>
<td>Nov 10</td>
<td>First day of class for Tues/Thurs classes</td>
</tr>
<tr>
<td>Date</td>
<td>Event</td>
</tr>
<tr>
<td>----------</td>
<td>------------------------------------------------------------</td>
</tr>
<tr>
<td>Nov 14</td>
<td>First day of class for Mon/Wed classes</td>
</tr>
<tr>
<td>Nov 15</td>
<td>Last day to drop classes and partial tuition refund</td>
</tr>
<tr>
<td>Nov 18</td>
<td>Last day to select audit option</td>
</tr>
<tr>
<td>Nov 23</td>
<td>Make-up/supplemental day - instructor discretion</td>
</tr>
<tr>
<td>Nov 24-27</td>
<td>Thanksgiving Recess - no classes in session</td>
</tr>
<tr>
<td>Dec 1</td>
<td>Last day to select pass/fail option</td>
</tr>
<tr>
<td>Dec 6 &amp; 9</td>
<td>Make-up/supplemental day - Instructor Discretion</td>
</tr>
<tr>
<td>Dec 16</td>
<td>Last day to withdraw from classes</td>
</tr>
<tr>
<td>Dec 19</td>
<td>Last day of class for Mon/Wed classes</td>
</tr>
<tr>
<td>Dec 20</td>
<td>Last day of class for Tues/Thurs classes</td>
</tr>
</tbody>
</table>

**FALL 2016 Modular 12 Week Session**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sep 18</td>
<td>Last day to drop classes for a full tuition refund - online (Sep 16 in-person)</td>
</tr>
<tr>
<td>Sep 19</td>
<td>12 Wk Late Start Modular Session begins</td>
</tr>
<tr>
<td>Sep 29</td>
<td>Last day to drop classes and partial tuition refund</td>
</tr>
<tr>
<td>Oct 10</td>
<td>Last day to select audit option</td>
</tr>
<tr>
<td>Nov 14</td>
<td>Last day to select pass/fail option</td>
</tr>
<tr>
<td>Dec 12</td>
<td>Last day to withdraw from classes</td>
</tr>
<tr>
<td>Dec 15</td>
<td>12 Wk Late Start Modular session ends</td>
</tr>
</tbody>
</table>

**WINTER 2016 3 Week Session**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec 26</td>
<td>Last day to drop classes for a full tuition refund - online (Dec 23 in-person)</td>
</tr>
<tr>
<td>Dec 27</td>
<td>Classes begin</td>
</tr>
<tr>
<td>Jan 2, 2017</td>
<td>New Year’s Day observed - college closed - classes not in session</td>
</tr>
<tr>
<td>Jan 13</td>
<td>Last day to withdraw from classes</td>
</tr>
</tbody>
</table>
### SPRING 2017 Standard 15 Week Session

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 16</td>
<td>Martin Luther King Day - college closed</td>
</tr>
<tr>
<td>Jan 17</td>
<td>New student orientation</td>
</tr>
<tr>
<td>Jan 18</td>
<td>Professional Day, Registration deadline and last day to drop classes for full tuition refund</td>
</tr>
<tr>
<td>Jan 19</td>
<td>Classes begin, Add and drop periods begin</td>
</tr>
<tr>
<td>Jan 26</td>
<td>Last day for registered students to add a class</td>
</tr>
<tr>
<td>Feb 1</td>
<td>Last day to drop classes and partial tuition refund</td>
</tr>
<tr>
<td>Feb 16</td>
<td>Last day to select audit option</td>
</tr>
<tr>
<td>Feb 17</td>
<td>Lincoln's Birthday observed: college open, classes not in session</td>
</tr>
<tr>
<td>Feb 20</td>
<td>Washington's Birthday observed: college CLOSED, classes not in session</td>
</tr>
<tr>
<td>Mar 15</td>
<td>Last day to apply for summer (August '17) graduation</td>
</tr>
<tr>
<td>Mar 13-19</td>
<td>Spring Break - classes not in session</td>
</tr>
<tr>
<td>Mar 30</td>
<td>Last day to select pass/fail option, last day to submit incomplete work from Fall '16 and Intersession '16</td>
</tr>
<tr>
<td>Apr 3</td>
<td>Continuing Degree-Seeking Student Registration for Summer '17 Session and Fall '17 Semester</td>
</tr>
<tr>
<td>Apr 14</td>
<td>Good Friday - college closed</td>
</tr>
<tr>
<td>Apr 17</td>
<td>New Student and Non-Degree Seeking Student Registration for Summer ‘17 Session and Fall ’17 Semester</td>
</tr>
<tr>
<td>May 4</td>
<td>Make-up/supplemental day - instructor discretion/reading day</td>
</tr>
<tr>
<td>May 8</td>
<td>Last day to withdraw from classes</td>
</tr>
<tr>
<td>May 15</td>
<td>Last day of 15 week session</td>
</tr>
<tr>
<td>May 17-18</td>
<td>Make-up/supplemental days - instructor discretion</td>
</tr>
<tr>
<td>May 19</td>
<td>Commencement</td>
</tr>
<tr>
<td>May 22</td>
<td>Final grades due</td>
</tr>
</tbody>
</table>

### Important Dates
- **Jan 18**: Last day of classes
- **Jan 19**: Final grades due
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 24</td>
<td>Student grades available on web</td>
</tr>
<tr>
<td>May 29</td>
<td>Memorial Day - college closed</td>
</tr>
<tr>
<td>June 15</td>
<td>Last day to apply for fall (December '17) graduation</td>
</tr>
</tbody>
</table>

**SPRING 2017 Modular 5 Week Sessions**

**FIVE WEEK - MOD 1**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 18</td>
<td>Last day to drop classes for a full tuition refund</td>
</tr>
<tr>
<td>Jan 19</td>
<td>First day of class for Tues/Thurs classes</td>
</tr>
<tr>
<td>Jan 23</td>
<td>First day of class for Mon/Wed classes</td>
</tr>
<tr>
<td>Jan 24</td>
<td>Last day to drop classes and partial tuition refund</td>
</tr>
<tr>
<td>Jan 27</td>
<td>Last day to select audit option</td>
</tr>
<tr>
<td>Feb 8</td>
<td>Last day to select pass/fail option</td>
</tr>
<tr>
<td>Feb 17-20</td>
<td>Lincoln's and Washington's birthdays observed - classes not in session</td>
</tr>
<tr>
<td>Feb 20</td>
<td>Last day to withdraw from classes - online</td>
</tr>
<tr>
<td>Feb 21</td>
<td>Last day of class for Tues/Thurs classes</td>
</tr>
<tr>
<td>Feb 27</td>
<td>Last day of class for Mon/Wed classes</td>
</tr>
</tbody>
</table>

**FIVE WEEK - MOD 2**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb 27</td>
<td>Last day to drop classes for a full tuition refund</td>
</tr>
<tr>
<td>Feb 28</td>
<td>First day of class for Tues/Thurs classes</td>
</tr>
<tr>
<td>Mar 1</td>
<td>First day of class for Mon/Wed classes</td>
</tr>
<tr>
<td>Mar 3</td>
<td>Last day to drop classes and partial tuition refund</td>
</tr>
<tr>
<td>Mar 8</td>
<td>Last day to select audit option</td>
</tr>
<tr>
<td>Mar 13-19</td>
<td>Spring Break - classes not in session</td>
</tr>
<tr>
<td>Mar 21</td>
<td>Last day to select pass/fail option</td>
</tr>
<tr>
<td>Date</td>
<td>Event Description</td>
</tr>
<tr>
<td>--------</td>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>Apr 5</td>
<td>Last day to withdraw from classes</td>
</tr>
<tr>
<td>Apr 6</td>
<td>Last day of class for Tues/Thurs classes</td>
</tr>
<tr>
<td>Apr 10</td>
<td>Last day of class for Mon/Wed classes</td>
</tr>
<tr>
<td></td>
<td><strong>FIVE WEEK - MOD 3</strong></td>
</tr>
<tr>
<td>Apr 10</td>
<td>Last day to drop classes for a full tuition refund</td>
</tr>
<tr>
<td>Apr 11</td>
<td>First day of class for Tues/Thurs classes</td>
</tr>
<tr>
<td>Apr 12</td>
<td>First day of class for Mon/Wed classes</td>
</tr>
<tr>
<td>Apr 13</td>
<td>Last day to drop classes and partial tuition refund</td>
</tr>
<tr>
<td>Apr 14</td>
<td>Last day to select audit option</td>
</tr>
<tr>
<td>May 1</td>
<td>Last day to select pass/fail option</td>
</tr>
<tr>
<td>May 4</td>
<td>Make-up/supplemental day - Instructor Discretion/reading day</td>
</tr>
<tr>
<td>May 12</td>
<td>Last day to withdraw from classes</td>
</tr>
<tr>
<td>May 15</td>
<td>Last day of class for Mon/Wed classes</td>
</tr>
<tr>
<td>May 16</td>
<td>Last day of class for Tues/Thurs classes</td>
</tr>
<tr>
<td></td>
<td><strong>SPRING 2017 12 Week Session</strong></td>
</tr>
<tr>
<td>Feb 12</td>
<td>Last day to drop classes for a full tuition refund - online (Feb 10 in-person)</td>
</tr>
<tr>
<td>Feb 13</td>
<td>12 Week Late Start Modular Session begins</td>
</tr>
<tr>
<td>Feb 23</td>
<td>Last day to drop classes and partial tuition refund</td>
</tr>
<tr>
<td>Mar 6</td>
<td>Last day to select audit option</td>
</tr>
<tr>
<td>Apr 17</td>
<td>Last day to select pass/fail option</td>
</tr>
<tr>
<td>May 12</td>
<td>Last day to withdraw from classes</td>
</tr>
<tr>
<td>May 16</td>
<td>12 week late start modular session ends</td>
</tr>
<tr>
<td></td>
<td><strong>SUMMER 2017</strong></td>
</tr>
</tbody>
</table>
# FIRST - 7 WEEK Module

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 21</td>
<td>Last day to drop classes for full tuition refund - online (May 19 in-person)</td>
</tr>
<tr>
<td>May 22</td>
<td>First day of class for Mon/Wed classes</td>
</tr>
<tr>
<td>May 23</td>
<td>First day of class for Tues/Thurs classes</td>
</tr>
<tr>
<td>May 29</td>
<td>Memorial Day observed - college closed</td>
</tr>
<tr>
<td>Jun 2</td>
<td>Last day to select audit option</td>
</tr>
<tr>
<td>Jun 12</td>
<td>Last day to select pass/fail option</td>
</tr>
<tr>
<td>Jun 15</td>
<td>Last day to apply for fall (December '17) graduation</td>
</tr>
<tr>
<td>Jul 4</td>
<td>Independence Day Observed - college closed</td>
</tr>
<tr>
<td>Jul 9</td>
<td>Last day to withdraw from classes - online (Jul 7 in-person)</td>
</tr>
<tr>
<td>Jul 10</td>
<td>Last Day for Mon/Wed classes</td>
</tr>
<tr>
<td>Jul 11</td>
<td>Last day for Tues/Thurs classes</td>
</tr>
<tr>
<td>Jul 12</td>
<td>Final Grades Due</td>
</tr>
</tbody>
</table>

# LATE START - 6 WEEK Module

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul 11</td>
<td>Last day to drop classes for full tuition refund</td>
</tr>
<tr>
<td>Jul 12</td>
<td>First day of class for Mon/Wed classes</td>
</tr>
<tr>
<td>Jul 13</td>
<td>First day of class for Tues/Thurs classes</td>
</tr>
<tr>
<td>Jul 21</td>
<td>Last day to select audit option</td>
</tr>
<tr>
<td>Aug 1</td>
<td>Last day to select pass/fail option</td>
</tr>
<tr>
<td>Aug 18</td>
<td>Last day to withdraw from classes</td>
</tr>
<tr>
<td>Aug 21</td>
<td>Last day of class for Mon/Wed classes</td>
</tr>
<tr>
<td>Aug 22</td>
<td>Last day of class for Tues/Thurs classes</td>
</tr>
<tr>
<td>Aug 24</td>
<td>Final grades due</td>
</tr>
</tbody>
</table>
### 8 WEEK Module

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun 4</td>
<td>Last day to drop classes for full tuition refund - online (Jun 2 in-person)</td>
</tr>
<tr>
<td>Jun 5</td>
<td>First day of class for Mon/Wed classes</td>
</tr>
<tr>
<td>Jun 6</td>
<td>First day of class for Tues/Thurs classes</td>
</tr>
<tr>
<td>Jun 15</td>
<td>Last day to apply for fall (December '17) graduation</td>
</tr>
<tr>
<td>Jun 16</td>
<td>Last day to select audit option</td>
</tr>
<tr>
<td>Jul 4</td>
<td>Independence Day observed - college closed</td>
</tr>
<tr>
<td>Jul 10</td>
<td>Last day to select pass/fail option</td>
</tr>
<tr>
<td>Jul 25</td>
<td>Last day to withdraw from classes</td>
</tr>
<tr>
<td>Jul 26</td>
<td>Last day of class for Mon/Wed classes</td>
</tr>
<tr>
<td>Aug 1</td>
<td>Last day of class for Tues/Thurs classes</td>
</tr>
<tr>
<td>Aug 3</td>
<td>Final grades due</td>
</tr>
</tbody>
</table>

### Academic Calendar Fall 2014- Summer 2015

#### Fall 2014

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 21</td>
<td>New Student Orientation</td>
</tr>
</tbody>
</table>
| 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 |
<p>| Sep 1 | Labor Day - College Closed |</p>
<table>
<thead>
<tr>
<th>Date</th>
<th>Event Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sep 2</td>
<td>Instructor Signature Required to Add Classes</td>
</tr>
<tr>
<td>Sep 3</td>
<td>Convocation</td>
</tr>
<tr>
<td>Sep 8</td>
<td>Last Day of Add/Drop and Partial Tuition Refund for 15 Week Session</td>
</tr>
<tr>
<td>Sep 17</td>
<td>Constitution Day - Classes In Session</td>
</tr>
<tr>
<td>Sep 23</td>
<td>Last Day to Select Audit Option for 15 Week Session</td>
</tr>
<tr>
<td>Sep 25</td>
<td>Last Day of First 5 Week (Tuesday &amp; Thursday) Mod Session</td>
</tr>
<tr>
<td>Sep 30</td>
<td>First Day of Second 5 Week (Monday &amp; Wednesday) Mod Sessions</td>
</tr>
<tr>
<td>Oct 1</td>
<td>Last Day of First 5 Week (Monday &amp; Wednesday) Mod Sessions</td>
</tr>
<tr>
<td>Oct 2</td>
<td>First Day of Second 5 Week (Tuesday &amp; Thursday) Mod Session</td>
</tr>
<tr>
<td>Oct 6</td>
<td>First Day of Second 5 Week (Monday &amp; Wednesday) Mod Session</td>
</tr>
<tr>
<td>Oct 9</td>
<td>Last Day of First 7 Week (Monday &amp; Wednesday) Mod Session</td>
</tr>
<tr>
<td>Oct 13</td>
<td>Columbus Day Observed - Classes In Session</td>
</tr>
<tr>
<td>Oct 14</td>
<td>Last Day of First 7 Week (Tuesday &amp; Thursday) Mod Session</td>
</tr>
<tr>
<td>Oct 15</td>
<td>Last Day of First 7 Week (Monday &amp; Wednesday) Mod Session</td>
</tr>
<tr>
<td>Oct 16</td>
<td>First Day of Second 7 Week (Tuesday &amp; Thursday) Mod Session</td>
</tr>
<tr>
<td>Oct 20</td>
<td>First Day of Second 7 Week (Monday &amp; Wednesday) Mod Session</td>
</tr>
<tr>
<td>Oct 22</td>
<td>First Day of Second 7 Week (Monday &amp; Wednesday) Mod Session</td>
</tr>
<tr>
<td>Oct 30</td>
<td>Last Day of Second 5 Week (Tuesday &amp; Thursday) Mod Session</td>
</tr>
<tr>
<td>Nov 3</td>
<td>Continuing Degree-Seeking Student Registration for Winter Intersession and Spring Semester</td>
</tr>
<tr>
<td>Nov 4</td>
<td>Student Online Course Evaluations Open for completion</td>
</tr>
<tr>
<td>Nov 5</td>
<td>Last Day of Second 5 Week (Monday &amp; Wednesday) Mod Session</td>
</tr>
<tr>
<td>Nov 6</td>
<td>Last Day to Select Pass/Fail Option for 15 Week Session</td>
</tr>
<tr>
<td>Nov 7</td>
<td>Last Day to Submit Incomplete Work from Spring '14 and Summer '14 Semesters</td>
</tr>
<tr>
<td>Nov 6</td>
<td>First Day of Third 5 Week (Tuesday &amp; Thursday) Mod Session</td>
</tr>
<tr>
<td>Nov 10</td>
<td>First Day of Third 5 Week (Monday &amp; Wednesday) Mod Session</td>
</tr>
</tbody>
</table>
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)
Sept 3  Last Day to Select Audit Option

Sept 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

Sep 2 Last Day to Select Audit Option

Sep 15 Last Day to Select Pass/Fail Option

Sep 24 Last Day to Withdraw from classes

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

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

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

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 19</td>
<td>Martin Luther King Day - College Closed</td>
</tr>
<tr>
<td>Jan 20</td>
<td>New Student Orientation</td>
</tr>
<tr>
<td>Jan 21</td>
<td>Professional Day</td>
</tr>
<tr>
<td></td>
<td>Last Day for Full Tuition Refund</td>
</tr>
<tr>
<td>Jan 22</td>
<td>Classes Begin/Late Registration Begins</td>
</tr>
<tr>
<td></td>
<td>Add/Drop Period Begins</td>
</tr>
<tr>
<td></td>
<td>First Day of First 5 Week (Tuesday &amp; Thursday) Mod Session</td>
</tr>
<tr>
<td></td>
<td>First Day of First 7 Week (Tuesday &amp; Thursday) Mod Session</td>
</tr>
<tr>
<td>Jan 26</td>
<td>First Day of First 7 Week (Monday &amp; Wednesday) Mod Session</td>
</tr>
<tr>
<td>Feb 11</td>
<td>Instructor Signature Required to Add Classes</td>
</tr>
<tr>
<td>Feb 11</td>
<td>Last Day of Add/Drop and Partial Tuition Refund</td>
</tr>
<tr>
<td>Feb 5</td>
<td>All College Professional Day - Classes Not In Session</td>
</tr>
<tr>
<td>Feb 12</td>
<td>Lincoln's Birthday - Classes In Session</td>
</tr>
<tr>
<td>Feb 16</td>
<td>President's Day Observed - College Open Classes Not in Session</td>
</tr>
<tr>
<td>Feb 18</td>
<td>Last Day to Select Audit Option</td>
</tr>
<tr>
<td>Feb 26</td>
<td>Last Day First 5 Week (Tuesday &amp; Thursday) Mod Session</td>
</tr>
<tr>
<td>Mar 2</td>
<td>Last Day of First 5 Week (Monday &amp; Wednesday) Mod Session</td>
</tr>
<tr>
<td>Mar 3</td>
<td>First Day of Second 5 Week (Tuesday &amp; Thursday) Mod Session</td>
</tr>
<tr>
<td>Mar 4</td>
<td>First Day of Second 5 Week (Monday &amp; Wednesday) Mod Session</td>
</tr>
<tr>
<td>Mar 10</td>
<td>Last Day of First 7 Week (Tuesday &amp; Thursday) Mod Session</td>
</tr>
<tr>
<td>Mar 13</td>
<td>Last Day to apply for Summer 2015 graduation</td>
</tr>
<tr>
<td>Mar 15-22</td>
<td>Spring Break - Classes Not in Session</td>
</tr>
<tr>
<td>Mar 23</td>
<td>Last Day of First 7 Week (Monday &amp; Wednesday) Mod Session</td>
</tr>
<tr>
<td>Mar 30</td>
<td>First Day of Second 7 Week (Monday &amp; Wednesday) Mod Session</td>
</tr>
<tr>
<td>Mar 31</td>
<td>First Day of Second 7 Week (Tuesday &amp; Thursday) Mod Session</td>
</tr>
</tbody>
</table>
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 10  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
**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