# 2001-2002 Catalog















#### **MCC Facts**

Founded in 1963. Lowe Building dedicated in 1984; Learning Resource Center dedicated October 2000, Phase II under construction.

#### Students

- MCC serves approximately 10,000 students a year.
- 59.5% percent of the credit students come from the primary service area of Andover, Bolton, Columbia, Coventry, East Hartford, Glastonbury, Hebron, Manchester, Mansfield (including Storrs), Marlborough, South Windsor, Tolland, Union, Vernon (including Rockville), and Willington.
- Spring 2001: 4,980 students (credit only); 2,550 (full-time equivalent).
- Fall 2000: 5,135 students (credit only); 2,729 (full-time equivalent).
- · Average age: 29; 58 percent women; 30 percent full-time.
- MCC serves "returning students" with associate's, bachelor's, master's, and doctoral degrees.
- Approximately 29 percent of the credit students are minorities.
- Approximately 6,000 students are enrolled in credit-free programs each year.

#### Faculty

- · Approximately 306 teaching faculty; 31 percent are full-time.
- · Faculty earned degrees from over 100 institutions, including MCC.

#### Degrees And Certificates

- 17,890 degrees awarded since 1965.
- Associate Degree programs: accounting, business administration, computer information systems, computer science, computer engineering technology, computer network technology, computer programming technology, computer technology, criminal justice, disabilities specialist, drug/alcohol rehabilitation counselor, early childhood education, educational associate, engineering science, foodservice management, general studies, graphic design, hotel-tourism management, industrial technology, liberal arts and sciences (fine arts and music options), management information science, manufacturing engineering science, marketing, communication (journalism option), medical laboratory technician, multimedia, occupational therapy assistant, business office technology (three options: legal, medical, and office administrative assistant), paralegal, physical therapist assistant, office microcomputer, respiratory care, social service, sport and exercise studies, surgical technology, therapeutic recreation, and visual fine arts.
- Certificate Programs: accounting, computer-aided design, computer information systems, computer
  maintenance technology, computer network technology, computer operating system, computer
  programming technology, criminal justice (law enforcement, pre-service correction), culinary arts,
  desktop publishing, disabilities specialist, educational associate, gerontology, management of
  substance abuse treatment facilities, marketing, media technology, micro-computer processing,
  business office technology (clerk/typist, medical insurance specialist, medical transcription, office
  skills update, receptionist, records management, word processing), paralegal, personal financial
  planning, public relations, real estate, social service, taxation, and therapeutic recreation.

#### Budget

- Annual budget: \$23 million.
- Tuition and fees: \$943 for full-time, in-state student per semester.

#### Facilities, Special Events, and Community Activities

- · A public library, bookstore, cafeteria, College Learning Center, Child Development Center,
- Tech-Prep programs, Cooperative Education, Alumni Association, College Foundation, Adults in Transition, intercollegiate athletic programs for women and men, Business and Industry customized training, Excursions in Learning youth programs, Credit-Free courses, Older Adult Association, Women's Center, Speakers' Bureau, art gallery, theatre, fitness center, Program Center, bandshell, Center for Student Development, and 27 student clubs and societies.
- MCC hosts the Global Issues Conference, College Transfer Fair, World Travel Expeditions, various seminars, workshops, exhibitions, and guest speakers each year.



## Message from the President ...



To All Our Students:

I am very pleased that you have chosen Manchester Community College. Our business is to help you succeed by helping you develop your skills and your self-confidence, as well as broadening your perspectives. We are very proud of the fact that we have students on our campus from 56 countries, speaking 49 languages. We are dedicated to providing you with the opportunity for lifelong learning.

Manchester Community College has always tried to help people solve problems. We will continue to try to assist you in clarifying your options, enlarging your horizons, and building on your strengths. Our highly qualified faculty and staff remain deeply committed to helping all individuals—regardless of race, religion, sex, cultural or ethnic differences, or physical abilities—achieve their potential. We hope you enjoy using our new building, especially the library. Above all, we take pride in the learning that takes place inside our buildings.

We believe that high motivation is a precious commodity. We urge you to be active in setting and achieving your goals. Use all of our facilities; seek extra help from your professors; talk to counselors and other staff members. Do everything you can to make your stay at MCC as productive and worthwhile as it can be. We, for our part, are here to serve you.

Jonathan M. Daube

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#### Academic Calendar 2001-2002

#### SUMMER SESSION 2001 (MCC Continuing Education)

Monday	May 21	3-Week Morning Session begins, May 21-June 8
Monday	May 21	6-Week Intensive Session I begins, May 21-June 28
Monday	May 28	Memorial Day (no classes; College offices closed)
Thursday	May 31	Commencement, Class 2001 (no evening classes)
Monday	June 4	8-Week Evening Session begins, June 4-July 26
Monday	June 18	6-Week Day & Evening Sessions begin, June 18-July 26
Monday	July 2	6-Week Intensive Session II begins, July 2-August 9
Wednesday	July 4	Independence Day (no classes; College offices closed)

#### **FALL SEMESTER 2001**

Friday August 24 Fall semester begins

Tuesday August 28 New Student Orientation and Convocation

Wednesday August 29 Classes begin

Monday September 3 Labor Day (no classes; College offices closed)

Friday September 7 Continuing Education classes begin
Friday September 21 System Professional Day (no day classes)

Monday October 29 Last day to make up incompletes

Tuesday November 6 Election Day (no classes; College offices open) Wednesday November 7 Last day to drop classes without penalty

Wednesday November 21 Thanksgiving recess begins

(no classes; College offices open Wednesday and Friday)

Monday November 26 Classes resume

Tuesday December 11 Last day of classes
Wednesday December 12 Final exams begin

WednesdayDecember 12Final exams beginTuesdayDecember 18Final exams end

Wednesday December 26 Continuing Education Winter Intersession courses begin

Monday December 31 Fall semester ends

#### **SPRING SEMESTER 2002**

Friday January 4 Continuing Education Weekend College courses begin

Friday January 18 Spring semester begins Monday January 21 Martin Luther King Day

(no classes; College offices closed)

Tuesday January 22 New Student Orientation

Thursday January 24 Classes begin

Monday March 25 Spring recess begins (no classes; College offices open)

Monday April 1 Classes resume

Monday April 1 Last day to make-up incompletes
Wednesday April 10 Last day to drop classes without penalty

Wednesday May 8 Last day of classes
Thursday May 9 Final exams begin
Wednesday May 15 Final exams end

Thursday May 30 Commencement, Class of 2002

Friday June 7 Spring semester ends

## **Important Telephone Numbers**

MCC Information Line (recorded general information)	860-645-9330
Emergency	860-647-6111
Academic Advising Center	860-647-6062
Admissions	860-647-6141 860-647-6355 860-647-6146
Adults in Transition/Women's Center	860-647-6056
Athletics & Fitness Center	860-647-6060
Bookstore	860-645-3140
Career Services/Placement	860-647-6067
Cashiers	860-647-6033
College Learning Center Placement Testing	860-647-6160
Continuing Education	860-647-6088
Cooperative Education	860-647-6077
Counseling Center	860-647-6062
Division Offices Business & Technology Health Careers Liberal Arts Math, Science Social Sciences & Hospitality	860-647-6236 860-647-6272 860-647-6223
Financial Aid Office	860-647-6071
Library	860-647-6167
Registrar's Office	860-647-6241 860-647-6352
Student Activities	860-647-6046
Student Affairs	
	860-647-6155 860-647-6156



## **MCC Web Site**

MCC Web Site Address ...... www.mcc.commnet.edu















## Manchester Community College Mission Statement

Manchester Community College is a learner-centered institution committed to access, excellence and relevance.

MCC enriches the academic, economic and cultural life of the community it serves by providing comprehensive, innovative and affordable life-long learning opportunities to diverse populations.

To achieve this distinctive mission, Manchester Community College -

- · ensures access to any who desire a college experience;
- · maintains instruction of the highest quality;
- welcomes people of every ethnicity, national origin, religion, political belief, sexual orientation, age, or disability;
- encourages mutual respect and understanding for people in all their diversity;
- offers support and guidance to those who lack the essential skills and resources that promote learning;
- offers programs and services designed to overcome academic, financial and social barriers:
- provides a foundation in general education through a full range of liberal arts and science offerings, as well as an array of courses for those who wish to develop or upgrade career skills;
- provides a wide range of extracurricular activities for students and the community, including conferences and seminars on academic, political, religious and social issues;
- provides a venue for athletic, artistic, recreational and social events;
- offers on- and off-campus programs tailored to the needs of the business community and other educational institutions.

## **Admissions**

#### **Matriculation of Students**

All applicants must complete and submit an official admissions application to the College; pay a one-time, non-refundable \$20 application fee; and include an official copy of a completed high school transcript. FULL-TIME students carry at least 12 semester hours of credit and PART-TIME students carry fewer than 12 semester hours of credit.

#### **Requirements for Admission**

An applicant must be a graduate of an approved secondary school or hold a secondary equivalency diploma. Students are required to be in-state legal residents for a period of one full year from the date of the first class of the semester to receive benefits of the in-state tuition rate. Proof of residency may be required by the Admissions Office.

Students are admitted to the College for courses which begin in the fall semester (September) and in the spring semester (January). Persons wishing to study at MCC are urged to apply for admission as early as possible before the semester in which they expect to begin. New students are encouraged to apply for new student advising and registration, prior to late June for the fall semester and prior to mid December for the spring semester. Dates will be published in the semester schedule. New students that apply after these dates can still register during walk-in registration. However, there is no guarantee that the courses students would like to register for will be available at that time. The College admits students on an "open admissions" basis for the majority of its programs.

#### **Health Careers Applications:**

Students interested in pursuing a health career must fill out a separate Health Career application in addition to the MCC new student application. Health Career applications are available in the Admissions Office. Applications for the Medical Laboratory Technician, Occupational Therapy Assistant, Respiratory Care, Surgical Technology Programs and Physical Therapist Assistant Program are accepted all year long. Completed applications should be returned to the Admissions Office, L-156.

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#### Admissions continued

Applications for the Pharmacy Technician Program, an articulation with Gateway Community College, are available May 1-Feb. 15 from the Mathematics, Science and Health Careers Division office and must be submitted by March 1 to Gateway Community College. No special application is required for the Therapeutic Recreation Program and Sport and Exercise Studies.

#### Foreign Student Application:

Foreign students interested in applying to MCC should do so before June 1 for the fall and October 30 for the spring. Students should contact the Admissions Office for an application and information.

**Financial Aid and Deferment of Tuition and Fees:** Tuition and fees may be deferred at the time of registration only for students who are Pell-eligible and have all the necessary documents on file in the MCC Financial Aid Office by May 15 for the fall semester and October 1 for the spring semester (refer to the Financial Aid section for details).

#### **Transcript Evaluation**

Students wishing to transfer course work completed at another college or university, or by CLEP (College Level Examination Program) or other standardized examination, must request that an official transcript of previous college work be sent to the Admissions Office at MCC. Transcripts will be evaluated on a rolling basis. Transfer credit will not be awarded until the matriculation requirements listed above are met. Academic advisement will be available in the selection of courses. For further information, see *Transfer Policies and Credit by Exam* on pages 15-16.

It is recommended that students planning to enroll in a college transfer program of study speak with a transfer counselor. It is especially important for students to be informed fully about the requirements of the transfer college or university because of differences in program requirements among institutions.

Application forms and other information about applying for admission can be obtained from the Admissions Office either by a personal visit to the office in the Lowe Building, or by request mailed to the Admissions Office, Manchester Community College, Great Path, P.O. Box 1046, Manchester, CT 06045-1046. Applications must be accompanied by an official high school transcript and an application fee of \$20.00.

The Admissions Office staff is available to assist anyone needing further information. For dates of open house or information sessions, please call 860-647-6140.

#### **Placement Tests**

English and math placement tests are required for all degree and certificate candidates after they have been accepted for admission. Tests must be taken prior to registration. Transfer students having mathematics and English credits will be exempted from taking placement tests in those subjects. For partial testing, the approved exemption form must be presented to the test administrator before testing. Those whose English or math placement test results indicate any serious deficiencies will be required to take one or more developmental courses. The results of the placement tests will be used to determine the individual's level of achievement in math and/or English and will determine appropriate class placement. For more information about placement testing, call 860-647-6160 or visit the College Learning Center website at mcc.commnet.edu/clc/.

**Students accepted into Allied Health Programs** are required to meet with the specific Allied Health Program Coordinator to obtain test results and for planning course selection.

Business Careers Students: Placement examinations for beginning shorthand or keyboarding will be administered upon request to students who have successfully completed one or more years of shorthand or keyboarding in high school, or who have demonstrated considerable skills in these areas. Students who pass these placement examinations need not take introductory courses. For further information, speak with the Director of the Center for Business and Technologies and the Director of the Social Science and Hospitality Division.



#### **Advanced Placement Program**

Advanced placement may be granted to entering students on the basis of scores on the College Entrance Examination Board Advanced Placement Examination as follows: Scores of 3, 4 and 5 are granted degree credit for equivalent courses as determined by the academic divisions. All paperwork should be submitted to the Admissions Office. For questions referring to specific courses, please call the appropriate academic division.

#### Re-Enrollment

Students who have been accepted and enrolled in a degree or certificate program of study at MCC should submit a re-enrollment form by Nov. 1 for the spring semester and April 1 for the fall semester if progress towards completion of their program has been interrupted by an absence from the College for one or more semesters. (Please note: students applying for re-enrollment into Allied Health programs will be placed in the General Studies Allied Health pool pending reapplication and acceptance to the specific Allied Health program.) It is not necessary to submit a new set of credentials or another \$20 admissions application fee with the re-enrollment form. However, students who attend another college during an absence from MCC, must submit an official transcript of those studies to the Admissions Office in order to receive credit at MCC.

#### **Cross-Registration Privilege**

A cross-registration privilege exists for students who register for General Fund courses at multiple colleges within the state system of higher education. A student who has paid the maximum full-time tuition at their "home" institution is exempt from further charges at a state university, the University of Connecticut, or another community college. A student who has paid the tuition and fees of a part-time student at their "home" institution and registers for additional courses at another college shall not exceed the amount charged for a full-time student, if the student's combined registration at both institutions would classify them as a full-time student. If you are a financial aid recipient and you are attending another higher education institution at the same time, please see the Financial Aid Officer. This exchange privilege is offered on a space-available basis only. All students interested in this special cross-registration plan should contact the Registrar's Office or the Assistant to the Dean of Student Affairs.

#### **Measles and Rubella Immunization**

Any student enrolled full-time or in a program, who was born after Dec. 31, 1956, must provide proof of adequate immunization against measles and rubella before enrollment in classes in state institutions of higher education. Allied Health students may be required to have additional immunization. Further information is available in the Registrar's Office.

#### **New England Regional Student Program**

Manchester Community College is a member of the New England Regional Student Program. The program provides an opportunity for students to earn an undergraduate degree in certain programs not offered at a college near their

home or in their home state. Under this program, an out-of-state student will be charged the regular resident tuition plus a 50 percent surcharge. Ask the Admissions Office for further information about this program.

#### **High School Partnership Program**

This program, developed by the Board of Trustees of Community-Technical Colleges, provides the opportunity for a high school junior or senior with a "B" average to enroll in college credit courses (8 maximum) at MCC at no cost. For students to participate, their high school must have a partnership contract signed with the college. Students must also have the written recommendation of the high school principal or counselor. Students are responsible for their books and transportation. Call the MCC Admissions Office for further information.

#### **Tech Prep Program**

The Tech Prep program is a combined secondary and post secondary educational program that allows students in high school to obtain advanced standing by earning college credits in certain business, occupational and technology courses at MCC. This is a formal articulation program between MCC and a consortium of area high schools. High school students must follow guidelines for admission to the Tech Prep program as established by their high school and MCC. Students will take the Tech Prep courses at their high schools in the 11th and 12th grades. Upon successfully completing the high school portion of the program and graduating from high school, the student then completes the program at the college.

The student has the opportunity to earn up to 14 college credits by the end of his/her senior year of high school. The student must meet the same college level standards that are expected of students attending MCC. Please contact the Admissions Office for application information.

#### **Veterans**

Veterans are served by the staff in the Financial Aid Office. The staff will assist eligible veterans in applying for monthly benefits, tuition waivers, and other educational benefits.

All veterans seeking monthly benefits must be matriculated into a degree or certificate program. Only courses that are directly applicable to their degree program will count towards eligibility for monthly benefits. The Department of Veterans Affairs does not pay benefits to students taking dual degrees with the exception of Foodservice Management/Hotel-Tourism Management. Veterans that are transfer students must request an official transcript to be sent to our Admissions Office for evaluation of prior credit.

The College may award credit for certain courses completed in the service (including MOS proficiency). Veterans may submit course completion documents or other appropriate evidence of military training and/or qualifications to the Admissions Office for evaluation. Veterans are reminded that credit can also be earned through the College Level Examination Program (CLEP). Information about CLEP exams can be obtained from the Admissions Office.

Veterans who are eligible to receive educational benefits must submit their DD 214. If a member of the CT National Guard, the student must request through his/her unit education officer a Notice of Basic Eligibility (NOBE) and a certificate of eligibility prior to the start of classes in order to receive benefits.

Veterans are eligible for a full tuition waiver for general fund courses if they were:

- a. honorably released from the service;
- b. in active duty (at least 90 days) during specific periods of conflict, on active duty while engaged in combat, or a combat support role during peace-keeping missions. Please see the Veterans Affairs advisor in the Veterans Affairs Office to see if you qualify. (The Office of the State Attorney General has recently ruled that active duty, in this context, does not include active duty for training, purposes, i.e., attending basic and related training, annual training, and attendance at military schools. Therefore, while waivers for national guardspersons

are otherwise covered by express statutory provisions, service in time of war for reservists requires actual mobilization for service in the military other than for training purposes, i.e., to perform a military job or function.)

Fees are not included, and summer session and winter intersession courses are not covered.

In order to assure the uninterrupted flow of monthly VA benefits, Veterans must certify their on-going class attendance by logging in once a month in Room L-131g in the Lowe Building. Failure to do so requires the College to promptly notify the Veterans Administration of non-attendance. This action will result in a termination of a student's benefits. Veterans are responsible for satisfactory pursuit of the courses in which they register and for notifying the Veterans Affairs Office of any withdrawals from courses. For more information, please contact the Veterans Affairs Office at 860-647-6334.

#### MCC Graduate Transfers

Manchester Community College students are able to transfer to many colleges and universities. Because requirements of baccalaureate institutions vary greatly, students should select a transfer institution early and consult with a counselor or program coordinator as to the transferability of their course selections.

Some of the colleges and universities that have accepted MCC credits include the following:

American International College
Amherst College
Antioch College
Art Institute of Boston
Assumption College
Babson College
Bentley College
Boston University
Bryant College
California Polytechnic

State University
Central Connecticut State
University

Charter Oak College Columbia University Connecticut College Cornell University Eastern Connecticut State

University
Emerson College

Fairfield University
Fashion Institute of Technology

Florida International University George Mason University Goddard College Howard University

Johnson and Wales Lesley College Marietta College

Massachusetts College of Art Mount Holyoke College

New York University
Northeastern University
Oregon State University

Parsons School of Design Quinnipiac College

Rhode Island School of Design Roger Williams College Sacred Heart University Saint Joseph College

Saint Joseph College Saint Leo College Smith College

Southern Connecticut State

University Springfield College

State University of New York

at Albany

State University of New York

at Stony Brook

State University of New York

at Binghamton Syracuse University Thomas Edison College Teikyo Post University

Trinity College
University of Arizona
University of Bridgeport
University of Chicago
University of Colorado
University of Connecticut
University of Florida
University of Hartford
University of Hawaii
University of Houston

University of Maine University of Massachusetts

University of Illinois

University of Nevada

University of New Hampshire University of New Haven University of North Carolina University of Rhode Island University of Virginia

Wesleyan University Western Connecticut State

University

Western New England College Westfield State College West Virginia Wesleyan Williams College

Worcester Polytechnic Institute

Yale University

## **Expenses and Financial Aid**

#### Tuition and fees are subject to change.

#### **Tuition and Fees**

Tuition and fees are payable in advance in accordance with deadline dates announced each semester.

The schedules below represent the tuition and fees students can expect to pay at MCC. A complete schedule of tuition and fees, prepared by the Board of Trustees of Community-Technical Colleges, appears on the last page 161 of this document.

#### In-State Students

FULL-TIME		
Tuition, Fees	, per semester	\$840.00
1.		
2.		10.00**
	total	\$944.00
PART-TIME		
Tuition,	, per semester hour	\$70.00
Fees (r	non-refundable)	
1.	College service fee:	
	fewer than 5 semester hours	\$38.00*
	5-12 semester hours, per	
	semester hour	
2.	Student activities fee	\$5.00**
Examples		
-	ester hour course, total	\$253.00
9-sem	ester hours, total	\$708.00
Out-of-Stat	e Students***	
FULL-TIME (ir	ncludes foreign students)	
Tuition,	, per semester	\$2,616.00
Fees		
	College service fee	
2.	Student activities fee	<u>10.00</u> *
	total	\$2,908.00
PART-TIME		
Tuition,	, per semester hour	\$218.00
Fees		
1.	College service fee	
	fewer than 5 semester hours	\$114.00*
	5-12 semester hours, per	
	semester hour	
2.	Student activities fee	\$5.00**
Examples		
	emester hour course, total	\$773.00
	emester hours, total	

#### New England Regional Student Program:

Each New England state has agreed to admit out-of-state New England residents for study at its public, degree-granting colleges, universities and institu-

- \* Includes library and laboratory fees and accident insurance
- \*\* Supports co-curricular student activities
- \*\*\* As of July 1, 1991, residency for in-state tuition purposes: an emancipated person must have resided in this state for a period of not less than one year.

tions. At MCC, the tuition for these students is \$1,260 per semester for full-time students and \$105.00 per semester hour for part-time students. The College Service Fee for full-time is \$141.00 and \$57.00 for fewer than 5 semester hours. College Service Fees are \$10.50 per semester hour for students registered for 5-12 semester hours.

#### **Special Fees**

1.	Application fee for all students (full and part-time) \$20.00
2.	Graduation fee: payable at registration for the semester at the end of which a student expects to graduate - not refundable if the student fails to graduate\$31.50
3.	Academic evaluation fee for Non-traditional Learning Program (NLP)\$15.00
4.	Transcript Fee\$3.00
5.	Installment Payment Plan Fee\$15.00
6.	Late Tuition/Fee Payment\$15.00
7.	Return Check Fee\$25.00

#### **Installment Payment Plan**

An Installment Payment Plan is available to students who are registered for a minimum of eight (8) semester hours. Students may apply for an installment payment plan at the time of registration. There is a \$15 non-refundable fee for participation in the plan.

#### **Waiver of Tuition**

FOR THE ELDERLY, QUALIFIED VETERANS AND THE CHILDREN OF CERTAIN VETERANS. (General Fund Classes Only)

Students age 62 or older may register with a tuition and fee waiver on the last day of Walk-In Registration. Proof of age must be submitted to the Business Office to complete the eligibility requirements for this waiver.

Qualified veterans who are residents of Connecticut when accepted for admission to Manchester Community College may be exempt from payment of tuition. Persons who believe they may qualify for this waiver of tuition should speak with the representative of Veterans' Affairs in the Financial Aid Office for further information about eligibility requirements.

The dependent children of veterans who have been declared missing in action or prisoners of war are eligible for a full or partial waiver of the tuition.

#### Registration and Non-Refundable Fee Deposit

Full-time and part-time students registering prior to six weeks before the first day of classes must pay a non-refundable deposit of all fees. The total tuition is payable in one installment and is due six weeks before the first day of classes. Failure to have made all payments not later than six weeks before the first day of classes will result in the cancellation of the student's registration. Failure to make payments in accordance with a deferred payment schedule shall also result in the withdrawal of the student's registration, following a fifteen day grace period.

Students presenting bad checks must replace them, or receive approval for a deferred payment schedule, within seven days (one week) of the College's receipt of such notification or the student's registration shall be immediately withdrawn.

#### **Refunds of Tuition Only**

(Refunds of tuition paid by charge card will be processed directly through the student's charge card account.)

Requests for the refund of General Fund (state supported) tuition must be made in person or in writing. Requests made by telephone will not be accepted. Fees will not be refunded (see single exception on Connecticut Community College System of Fees page 161). First time students on financial aid should refer to the following page for refund procedures.

#### **General Fund Courses:**

Students who wish to withdraw from the College shall direct their requests in writing for refunds to the Registrar. Refunds are made according to the conditions and in the amount set forth as follows.

If notice of complete withdrawal from the College is received prior to the first day of classes of the semester, 100 percent of the tuition only for all courses in which one has registered will be refunded. If notice of withdrawal is received within the first 14 calendar days of the semester, a 50 percent refund of tuition only will be made.

If notice of a reduction in course load is received during the first 14 calendar days of the semester, a refund of 50 percent of the difference in tuition only between the original and revised schedules will be made.

No refunds will be granted beyond the 14th calendar day of the semester, except that a 100 percent refund of tuition and fees will be granted to students who enter the armed services before earning degree credit in any semester, provided that they shall have submitted in writing a notice of withdrawal and a certified copy of enlistment papers.

Any exception must be submitted to the Dean of Students in writing with a detailed description of the circumstances. Circumstances that will **NOT** be considered are: changes to work hours, commuting difficulties or dissatisfaction with course content. Regardless of circumstances, refund request cannot be considered after the 14th calendar day of the semester.

#### **Refund Policy for Continuing Education Courses**

(Refunds of tuition paid by charge card will be processed directly through the student's charge card account.)

#### Cancellations:

If the College cancels a Continuing Education course, students will receive a full refund of all tuition and service fees. This does not include the \$20 one-time application fee for new credit students which is non-refundable.

#### Withdrawal From a Continuing Education Credit Course:

A student who withdraws from a <u>credit</u> course prior to its first scheduled meeting will receive a full refund of **tuition only**, provided that a written request for refund is received by the office of the Associate Dean of Continuing Education no later than 4 p.m. on the day before the first scheduled class meeting. (Requests must be made by 4 p.m. Friday for a course starting Saturday-Monday.) When a student withdraws from a credit course, the College Service Fee, Student Activity Fee, and the one-time application fee for new students are non-refundable. Ordinarily, no refunds will be made once a class has met.

#### **Exceptions:**

Exceptions that will be considered by the Associate Dean of Continuing Education are: severe illness of the student or an immediate family member as verified by a physician, or administrative error. Any exception must be submitted to the Associate Dean of Continuing Education in writing with a detailed description of the circumstances. Circumstances that will NOT be considered are: changes in work hours, commuting difficulties or dissatisfaction with course content. Regardless of circumstances, refund requests cannot be considered after the second class meeting.

#### Withdrawal From a Continuing Education Credit-Free Course:

Students withdrawing from <u>credit-free</u> courses before the first class will receive a full refund of all fees paid. Refunds take approximately four weeks to process. Refunds are issued only for credit-free courses that MCC cancels, or if you withdraw in writing no later than 4 p.m. on the day before the scheduled first class meeting. (Requests must be made by 4 p.m. Friday for a course starting Saturday-Monday.) Ordinarily, no refunds will be made once a class has met.

#### **Financial Aid**

The Financial Aid Program at Manchester Community College is designed to provide access for as many eligible students as current funding will allow. The prime objective of our Financial Aid Program is to meet the basic expenses of tuition, fees and books. (At the time of registration, all students are required to pay their fees.) In addition, many recipients qualify for stipend checks that repay their initial expenses for supplies and transportation costs. Also, many other students add to their grant aid work study earnings and student loans to more fully meet their expenses for room, board, transportation, personal, health and child care costs.

#### Estimated Budgets for 2001-2002 Award Year

#### **Budget 1: Living with Parents**

Enrollment Status	Full-Time	
Tuition & Fees	\$1,888.00	(Tuition & Fees are subject to change)
Books & Supplies	800.00	•
Transportation	1,480.00	
Room & Board	1,756.00	
Personal Misc.	<u>1,596.00</u>	
Total	\$7,520.00	

#### **Budget 2: Not Living with Parents**

Enrollment Status	<u>Full-Time</u>	
Tuition & Fees	\$1,888.00	(Tuition & Fees are subject to change)
Books & Supplies	800.00	•
Transportation	1,480.00	
Room & Board	5,572.00	
Personal Misc.	3,032.00	
Total	\$12,772.00	

#### **Basic Eligibility Criteria:**

To be eligible for financial aid a student must:

- Be a citizen or eligible non-citizen of the United States;
- Be enrolled in an eligible degree or certificate program (audited courses do not count towards enrollment status);
- Have a high school diploma or GED on file at the Admissions Office;
- · Be registered with Selective Service, if male; and
- Be in academic good standing and maintaining satisfactory progress according to federal regulations.

#### How to Apply:

- Complete the Free Application for Federal Student Aid (FAFSA) and mail
  it to the processor as soon as possible or apply through the internet (FAFSA
  on the web at http://www.fafsa.ed.gov/). In order for us to receive your
  application information from the processor, you must include MCC as one
  of the colleges you plan to attend. Our Title IV code is 001392.
- 2) Submit an in-house MCC Financial Aid Application to the Financial Aid Office.
- 3) Enroll in an eligible degree program through the Admissions Office.
- 4) Have a high school diploma or GED on file at the Admissions Office.
- Submit tax returns, corrections and any other required documentation to the Financial Aid Office in a timely manner.

#### Deadlines

- Priority is given to early, accurate, financial aid applicants.
- To ensure timely consideration, you should have your paperwork on file in the Financial Aid Office by May 15 for the fall semester and Oct. 1 for the spring semester.
- After these dates, applications will be processed on a rolling basis throughout the year.

#### **Expenses and Financial Aid** continued

## AT THE TIME OF REGISTRATION, ALL STUDENTS ARE REQUIRED TO PAY THEIR FEES.

#### **Deferment of Tuition**

Students who are financial aid Pell eligible and have met all the necessary requirements (*steps 1 through 5 above*) by May 15 for the fall semester and October 1 for the spring semester will be entitled to a deferment of their tuition.

A student who is entitled to a deferment of their tuition will not be required to pay by the tuition due date. Instead, both the student and the Business Office will be notified just before the tuition due date that the student is eligible for financial aid and that any tuition due the college can be deducted from their financial aid award.

# Also, you should be aware that under certain conditions, you may have to pay the amount due at a later date. These conditions include, but are not limited to:

- failure to respond in a timely manner to our requests for missing information;
- withdrawal from any or all of your courses;
- · unsatisfactory academic standing;
- a final review of your application which results in your not being eligible for aid.

#### **Student Loans**

- Students are advised to wait for a complete review of their eligibility for other forms of financial aid before submitting loan applications.
- Students who are applying for a loan must also complete the above application process.
- Student Loan Applications are available in the MCC Financial Aid Office. This
  application must be completed and submitted to the Financial Aid Office.
- The deadline for submission of loan applications is November 1 for the fall and March 15 for the spring.

#### **Book Purchases**

At the time of registration, all students are required to pay their fees. There is no financial aid book charge at MCC. Students are responsible for paying for their books at the start of each semester. Students are advised to have "start up" money set aside for fees, books, supplies, and initial transportation costs.

#### Disbursement

Financial aid refunds are processed after students have accepted their award. This process cannot begin until the registration and course adjustment periods are over. The amount of the refund would equal a student's financial aid award (excluding College Work Study and student loans), minus anything owed the College such as tuition, or Child Development Center expenses.

Sometime between the middle and the end of the semester, checks will be available to students who are entitled to financial aid.

#### Title IV Federal Financial Aid: Policy for Return of Title IV Funds

- 1. Any student who is attending MCC and is receiving student financial assistance under the federal Title IV Programs may be entitled to a refund if they completely withdraw from their program. The percentage of the period that the student remains enrolled is derived by dividing the number of days the student attended by the number of days in the period. Calendar days are used, but breaks of at least 5 days are excluded from both the numerator and denominator. The refund shall be less an administrative fee which is not to exceed the lesser of five percent (5%) of the tuition, fees and other charges assessed the student, or one hundred dollars (\$100).
- During the first 60 percent of the period, a student "earns" Title IV funds in direct proportion to the length of time he or she remains enrolled. That is, the percentage of time during the period that the student remains enrolled is the percentage of disburseable aid for that period that the student earned.

- A student who remains enrolled beyond the 60 percent point earns all aid for the period.
- 3. In addition, students who withdraw from a program are subject to a calculation which determines the amount of cash disbursement (i.e., the disbursement made to the student to meet necessary educational expenses beyond the payment of tuition and fees) that a student may be required to pay back to the College or the federal government. This calculation will be in accordance with formula and guidelines established by prevailing federal regulations, and funds will be allocated in the following order (not to exceed the original allotment from each source): FFELP (unsubsidized and subsidized), Federal Direct, Federal Pell Grant, FSEOG, and other funds.

#### **Verification Procedures**

Your Student Aid Report (SAR) may be selected by the Department of Education for a process called verification, in which case you will be required to submit certain documentation in order for processing to continue on your financial aid application. Students will be notified of the documentation required and deadline dates when the information is received electronically by the Financial Aid Office.

Failure to submit completed verification documents to the Financial Aid Office can result in:

- Loss of financial aid for the semester or academic year;
- · Loans not being approved; and
- Future applications for financial aid not being processed.

#### **Helpful Hints for Applicants**

- Apply early.
- Read instructions at the front of the booklet carefully before filling out the application. It is also helpful to have a copy of your previous year's tax return before starting the FAFSA.
- Have start-up money when beginning classes. There is no book charge available since the refund process cannot begin until the course adjustment period is over for the semester.
- 4) Keep us informed of any changes in enrollment status. Remember that audited courses cannot be covered by federal aid programs and could put you in a repayment situation.
- Keep your mailing address current with the Financial Aid and Registrar Offices.
- 6) Sign your award letter and return it to the Financial Aid Office promptly so that we can clear your account with the Business Office.

#### **Financial Aid Programs**

Financial Aid programs include grants, loans, and part-time jobs. Some of the major programs are: State of Connecticut Grants, Federal Family Education Loans (subsidized, unsubsidized, and PLUS), Federal Perkins Loans, Federal Pell Grants, FSEOG, and Federal Work Study. In addition, SFA funds are available for Study Abroad programs as well as Distance Learning courses.

#### **Additional Information**

Additional information about all federal programs and federal regulations is provided in the Financial Aid Office web page as well as in the annually updated Federal Student Aid Guide. This guide is available in the Financial Aid Office.

#### MCC Foundation Scholarships

The MCC Foundation provides scholarships for both full- and part-time students. This past year, the Foundation distributed 70 scholarships and over \$54,000 to MCC students. Basic criteria includes financial need, community service and a grade point average of 3.0 or better/or an indication of steady academic progress. Application deadlines are April 12 for the fall semester and October 1 for the spring semester. For information on the MCC Foundation Scholarships, contact the Office of Institutional Development at 860-647-6396.

#### **Academic Policies**

#### **Academic Honors**

To encourage and recognize academic excellence, Manchester Community College has established a President's List and a Dean's List.

#### **Full-Time President's List**

The President's List recognizes the exceptional scholarship of students who earn a 4.0 or "A" Grade Point Average in their courses. Full-time students who have completed at least 12 credits for the semester with no "W" or "I" grades are eligible for this honor.

#### Full-Time Dean's List

The following policy governs the selection of Dean's List students for any particular semester beginning fall 1986. Full-time students who have taken 12 or more credit hours and who have earned a GPA of 3.3 or higher with a minimum of "C" in any course in a given semester are eligible for the Dean's List. No "W's" will be allowed for that 12-hour unit. Students receiving an "I" grade will have their GPA calculated (for Dean's List purposes) after they complete the "I." Should they then qualify for the Dean's List, the award will be made retroactive to the preceding semester.

#### Part-Time President's List and Dean's List

After a part-time student has accumulated 12 credits in residence, that student may be considered for the Part-Time President's List or the Part-Time Dean's List. Part-time students who have earned a 4.0 GPA with no "W" or "I" grades in that semester are eligible for the Part-Time President's List. Part-time students who have earned a 3.3 GPA or higher with a minimum of "C" in any course with no "W" grades in that semester are eligible for the Part-Time Dean's List. Students receiving an "I" grade will have their GPA calculated (for Dean's List purposes) after they complete the "I". Should they then qualify for the Dean's List, the award will be made retroactive to the preceding semester.

#### Valedictorian and Salutatorian

Graduating students who have completed at least 30 credits at Manchester Community College are eligible for consideration as valedictorian or salutatorian. Among the eligible students, the student with the highest cumulative GPA will be designated the valedictorian and the student with the second highest cumulative GPA will be named the salutatorian. In the case of identical averages, the student with the larger number of credits will be the valedictorian. If the GPA's and the number of credits taken at MCC are the same for two students, the pair will be named co-valedictorians.

#### Phi Theta Kappa

Students who have established a GPA of 3.75 or above and have earned 12 credit hours at MCC are extended an invitation to join Phi Theta Kappa. Phi Theta Kappa is the only internationally acclaimed honor society for two-year colleges offering associate degree programs. Membership in Phi Theta Kappa offers students opportunities for leadership, fellowship, scholarship, and community service, as well as providing an intellectual climate for continued academic excellence. Phi Theta Kappa in good standing may wear the organization's gold tassel and stole during graduation.

#### **Gold Cord**

Graduating students who have completed at least 30 credits at MCC and earned a grade point average of 3.96 with no more than one "W" for every 20 credits earned are eligible for wearing the gold cord at graduation.

#### The Board of Trustees Medallion

The Board of Trustees Medallion is awarded at each of the twelve community colleges to graduating students who have earned perfect 4.0's and who have completed at least half of their requirements at the college where the degree is being awarded. Certificate programs are not included for this award.



#### **Academic Standing**

#### **Good Academic Standing**

In order to be considered in good standing, a student must attain an overall GPA minimum as indicated below.

- 1.5 after 12 attempted hours\*
- 1.6 after 30 attempted hours\*
- 1.8 after 45 attempted hours\*

## 2.0 QPA is necessary for graduation in degree programs and for certificates.

 Attempted hours include any course that is graded with other than an audit grade.

This standard will be applied for students who are registered for courses past the add/drop period in any semester. It will be applied when the student first attempts 12 or more credits, and <u>each</u> semester thereafter in which he/she is registered including summer and winter intersession.

Grades included in the calculation of academic standing are A, A-, B+, B, B-, C+, C, C-, D+, D, D-, F, W, I.

Academic standing will be recomputed upon completion of any course in which an "I" incomplete grade is received. Students will be notified in writing of any change in academic standing at this time.

#### **Probation**

Students who do not achieve the necessary overall GPA to remain in good standing will be placed on academic probation. They will be notified in writing by the Dean of Student Affairs. Please note that Allied Health programs have additional academic standing requirements.

Students placed on probation will not be allowed to register for more than 10 credits for the next semester and cannot qualify for financial aid.

Students have the option to appeal their probation status within 20 days of their notification if they believe there are "special circumstances." "Special circumstances," to be considered on an individual basis, may include but are not limited to: obligations of employment, military duty, or medical problems.

#### Suspension

Students who are on academic probation and who fail to achieve the minimums outlined in *Academic Good Standing* at the close of the semester in which the student is registered will be placed on academic suspension. Students may re-

#### Academic Policies continued

quest to be reinstated. A request in writing must be submitted to the Dean of Student Affairs. When reinstated, students are restricted to a maximum of 10 credits until the overall GPA is raised to the minimum. Any special circumstances must be directed in writing to the Dean of Student Affairs.

#### **Fresh Start Option**

Students who are re-admitted to MCC after an absence of three (3) or more years, and who have an accumulative grade point average of less than 2.0 are eligible to elect the Fresh Start Option. Application must be made within one year of being readmitted to the College. A student applying for this option will be given the equivalent of transfer credits for all courses taken at MCC with a grade of C- or higher including "P" (Pass). The student applying for this option may obtain forms from the office of the Dean of Student Affairs. The earlier grades and Grade Point Average will remain on the transcript, but all future calculations of GPA will only include courses taken after re-admission under the option. The Fresh Start Option may be used only once by the student and is subject to the existing residency requirement of 15 credits.

#### **Enrollment and Withdrawal**

#### Changes in Schedule, Program, Status

<u>Change of Schedule</u>: Students are permitted to add and drop courses during scheduled course adjustment periods in the Registrars' Office.

<u>Change of Program</u>: Students who want to change their programs of study should consult a member of the academic advising staff for the correct procedure. Prospective students who want to change their programs before registration should consult the Admissions Office.

<u>Change of Status</u>: Credit-free students may become degree students by applying for a change of status at the Admissions Office. An official application, a \$20 application fee and a high school transcript reflecting date of graduation are required. In addition, official transcripts from college(s) attended should be sent directly to the Admissions Office. A copy of a secondary equivalency certificate or general education diploma should be submitted if an individual has one of these instead of a high school diploma.

#### Withdrawal from the College

A student who withdraws from the College must complete a withdrawal form at the Registrar's Office. Failure to officially withdraw from the College may result in failing grades for uncompleted courses. See page 13 for procedures and deadline dates for withdrawing from a course.

#### **Advanced Placement Program**

Advanced placement may be granted to entering students on the basis of scores on the College Entrance Examination Board Advanced Placement Examination as follows: Scores of 3, 4 and 5 are granted degree credit for equivalent courses as determined by the academic divisions. All paperwork should be submitted to the Admissions Office. For questions referring to specific courses, please call the appropriate academic division.

#### **Grades**

#### **Unit of Credit**

A credit hour is the unit of credit students earn at MCC. One credit hour usually corresponds to one 50 minute class meeting each week for 15 weeks. A course worth three hours of credit, therefore, usually requires three 50 minute class meetings plus additional work outside the class each week.

#### **Grades and Grade Points**

Letter grades are assigned to inform students how well they have learned the material in their course(s). For each letter grade there is a corresponding number called grade points. These are used to get a numerical expression of a student's work. The table below shows the grades and their grade point equivalents.

A A-B+B C+C-D+	outstanding outstanding above average above average above average average average average below average	= 4.0 grade points = 3.7 grade points = 3.3 grade points = 3.0 grade points = 2.7 grade points = 2.3 grade points = 2.0 grade points = 1.7 grade points = 1.3 grade points
D-	below average below average	= 1.0 grade points = 0.7 grade points
F	failure	= 0.0 grade points
W	withdrawn	= 0.0 grade points
I	incomplete	= grade to be computed upon completion of course
N	audit	= no credit

The Grade Point Average (GPA) is computed by multiplying the point value of each grade <u>earned</u> by the number of semester hours of the course for which the grade is received and then dividing by the total number of hours of work attempted.

<u>Grades</u>		Grade point value		Attempted hours		Grade point hours
C+	=	2.3	Х	3	=	6.9
D	=	1.0	Х	3	=	3.0
Α	=	4.0	Х	4	=	16.0
F	=	0.0	Х	3	=	0.0
B-	=	2.7	Х	<u>3</u>	=	<u>8.1</u>
Total				16		34.0

34.0 grade points ÷ 16 attempted hours = 2.125 GPA.

Reports of grades are issued at the end of the semester. Only those grades which are issued at the end of the semester are recorded on the student's permanent record.

#### Repeating a Course

A student is permitted to enroll in a course only three times unless a waiver is granted by the instructor of the course section in which the student wishes to enroll. An appeal of the faculty member's decision may be directed to the academic dean or his/her designee.

When a course is repeated, the last letter grade (A-F) earned will replace the previously earned grade(s) and count in the grade point average, even if the last grade is lower than the grades earned in the previous attempts at the course. A grade of W or I will not replace an earned letter grade. College transcripts will record all attempts at classes and the grades earned in each attempt. Students should note, that while MCC will not use repeated grades in calculating GPA, colleges to which they are applying for transfer may use a different method to make such a calculation.

ALERT! THE INFORMATION ON INCOMPLETE GRADES IS OBSOLETE. See Addendum on Incomplete Grades at http://www.mcc.commnet.edu/pr/cat/01-02/0102catadd.pdf

#### **Incomplete Grades**

"Incomplete" is appropriate when the student has completed most of the course requirements, and has contracted to make up the missing work. The grade of "incomplete" is given only at the discretion of the instructor if, in the instructor's judgement, the student has furnished satisfactory evidence that the work cannot be completed because of illness or other extenuating circumstances.

When a faculty member decides that "I" is appropriate, the following will be put in writing, signed by the faculty member and, whenever it is physically possible, by the student, and left on file in the Division Office, within two weeks after semester grades are due:

- the grade for completion of work to date.
- 2. the weight this grade counts toward the final grade.
- 3. a brief description of the work to be completed.
- 4. the date by which the instructor requires its completion.

The instructor may require the work to be completed in fewer than 60 days into the next semester. A grade of "incomplete" that is not changed within a period of 60 days, beginning with the first day of the next semester, will remain on a student's record.

#### Audit

An audit permits a student to attend and experience the course without earning a letter grade and without earning college credit. The audit grade is given at the discretion of the instructor in consultation with the student. Financial aid does **NOT** COVER AUDITED CLASSES.

#### **Transcripts**

Requests for official college transcripts must be made either by personally completing transcript request forms in the Registrar's Office or in writing to the Registrar. No telephone requests will be accepted. A charge of \$3 is required for each transcript issued.

#### **Grade Transactions**

#### Withdrawal from Courses

- Before two-thirds of the semester: A student who withdraws from any
  course(s) must obtain a withdrawal form from the Registrar's Office, obtain the
  signature of the course instructor, and return the completed form to the
  Registrar. Grades for courses from which a student withdraws during the first
  two-thirds of the semester will be recorded as "W" at the end of the semester.
- After two-thirds of the semester: Instructors may record a "W" or an "F" in accordance with their written course outlines for students who:
  - a. present a withdrawal form for signature before the last day of class, or
  - b. discontinue regular class attendance, or
  - c. register for the course but do not attend.

The "W" or "F" will be recorded by the instructor at the end of the semester.

#### **Graduation Requirements**

#### Degree Program and Certificate Students: Graduation is not automatic.

The Board of Trustees of Community-Technical Colleges, through Manchester Community College, is authorized by the Connecticut General Assembly to confer associate in arts and associate in science degrees to candidates who have met all requirements. The College also awards certificates upon successful completion of planned programs of study. Degrees and certificates are awarded to candidates who have met all requirements. See *General Education Requirement* on pages 27-28 as well as individual program requirements.

It is the student's responsibility to follow through <u>EARLY</u> and to meet all requirements listed below. If you have any questions, meet with your program coordinator or a counselor.

- follow the same catalog used when you enrolled.
- notify registrar if you are completing requirements at another college.



- submit official transcripts from other colleges to the Admissions Office for transfer of credit by application fee deadline date to insure participation. Exceptions for participation is subject to the approval of a review process outlined in *Late Applicants*.
- matriculation (enrollment in credit-bearing courses applicable to the requirements of a degree or certificate program).
- satisfactory completion of the total credits required in major (degree—minimum of 60 credits; certificate—15 credits).
- completion of course requirements with a minimum QPA of 2.0 or better. (The College reserves the right not to recommend transfer students with a QPA lower than 2.5.)
- satisfaction of all financial obligations (library, parking fines).
- completion of residency requirement for 25 percent of course work.
- submit an application and a non-refundable \$30 graduation fee for each degree or certificate by deadline date.
- filing of grades for all incompletes and approved course variances with the Registrar's office.

#### Application for Graduation (Degrees and Certificates):

GRADUATION IS NOT AUTOMATIC. Each student who expects to graduate must submit a separate application and \$30 graduation fee for each degree or certificate earned, even if you do not plan on participating in commencement. The graduation application is available in campus literature racks, or from the Registrar, Counseling, Career, and Assistant to the Dean of Students offices. Students who will complete all academic work by December must complete a graduation application for a degree and/or certificate by Monday, Oct. 1, 2001. Students who will complete academic work by May must complete the application by March 4, 2002. Each student's application will be reviewed and the student's program of study will be checked and verified by the graduate auditor. If you applied but did not meet the requirements by the established deadline, your name will automatically be placed on the following year's potential graduation list. You do not need to reapply. There will be only one commencement ceremony in the spring of each year. Regardless of graduation completion dates, all graduates are invited to attend Spring Commencement.

#### **Academic Policies** continued

Students who wish to earn a <u>SECOND DEGREE</u> from Manchester Community College will be required to: complete a minimum of 15 credits beyond the number required for the initial degree, fulfill all requirements of the second degree, and pay a second graduation fee of \$30 if degrees are not received simultaneously. The Registrar's Office will notify students in writing of the results of the evaluation/audit.

#### Late Applicants:

- If you missed the March 2002 graduation deadline or are short four (or fewer) credits to graduate, you may request special permission to participate in the ceremony. However, your name may not be printed in the program and your certificate/degree will not be ordered until the next cycle after all requirements have been met.
  - If approved, students may be permitted to take part in the graduation exercises, provided they are within a maximum of four (4) credits of completion of their degree requirements; these credits must be completed during the summer of that same year.
- Students who file a Graduation Application after the March deadline will be considered on a case-by-case basis after submitting an appeal form with a detailed explanation and appearing before a review panel appointed by the Dean of Students, consisting of one faculty member, one staff member and the Dean of Students.

#### **Student Responsibilities**

#### **Attendance Policy**

The faculty of Manchester Community College believe that regular and prompt attendance at classes is necessary for a student to benefit from the learning experience. Specific attendance requirements will be set by each individual instructor.

#### **Academic Integrity**

An academically honest student submits for evaluation only such work, including test performance, papers, reports, and other communication, ideas, or expression, that has been written, performed or formulated solely by that student. On those occasions when the stated rules of a course permit collaborative effort, the contributions of other individuals and sources should be appropriately acknowledged.

It is, at all times, the responsibility of the student to maintain conduct consistent with the concept and definition of academic integrity, including not only avoidance of plagiarism, but other actions further outlined under *College Policies* in the *MCC Student Handbook*.

**Plagiarism:** Webster's New Universal Unabridged Dictionary defines plagiarism as the act of taking someone else's idea, writing, or work, and passing it off as your own. If you fail to give credit to the source of the material, whether directly quoted or put in your own words, such a lack of credit constitutes plagiarism.

Plagiarism: 1) is a serious violation of academic standards and has serious academic consequences for the student, 2) may result in failure of the submitted work or failure for the course, at the discretion of the instructor, and 3) as an act of academic dishonesty, may result in additional disciplinary action by the College, as indicated in the *MCC Student Handbook, College Policies*, under the heading "Student Discipline," section 2, number 9: Academic Dishonesty.



#### **Students Rights**

#### **Review of Academic Decisions**

Students are evaluated and awarded credit based upon academic performance and without regard to personality, race, gender, religion, personal beliefs or on the basis of a previous complaint/grievance.

A student may request review of a grade or other decisions affecting academic status in accordance with the Board of Trustees' policies. (Complete texts of these policies are available in the office of the Dean of Student Affairs.) The informal procedure which follows is suggested as the way a student would begin.

A student who has an academic grievance may discuss it first with the instructor or staff person involved, with a counselor, or with an administrator (for example: division director, dean.) If this discussion does not resolve the matter, the student should discuss the complaint with the supervisor of the person towards whom it is directed.

Within 15 calendar days of the student's awareness of the academic decision, if a satisfactory resolution still has not been achieved, the student should proceed in accordance with the grievance procedure in the *Student Handbook* titled "Student Rights," Section 3: Review of Academic Standing. (A copy of the official text of *"Review of Academic Standing"* can be obtained from the office of the Dean of Student Affairs.)

#### Release of Personally Identifiable Student Records

The student's permission is required for the release of any information other than "directory information": name and address, major field of study, dates of attendance, full- vs. part-time student status, and date of graduation. For the purposes of access by military recruiters only, telephone listings and, if known, age, level of education and major, are also designated as directory information. Students may request in writing that directory information concerning them not be released. (The only exception: information can be released to parents without student permission if the student is listed as a dependent on the parent's tax return.) A complete statement about this subject is available for inspection in the office of the Dean of Student Affairs.

#### **Sexual Harassment Board Policy**

Sexual harassment is a form of sex discrimination which is illegal under state and federal law and is also prohibited by the Board of Trustees' Nondiscrimination Policy. This policy is available in the following offices: Dean of Students, Academic Affairs, Library, Personnel, and Center for Student Development.

#### Transfer Policies and Credit by Exam

#### **Credit by Transfer**

(Policy Statement from the Board of Trustees for Connecticut Community-Technical Colleges)

#### Transfer into a Connecticut Community College:

At all regional community colleges, degree credit shall be granted for credit courses completed at all institutions within the Connecticut State System of Higher Education and at all other accredited collegiate institutions in accordance with the following:

- 1. Degree credit shall be granted for all credit courses which are applicable to the objectives of, or equivalent to the course requirements of, the curriculum in which the transferring student enrolls. Credit work which is not applicable or equivalent to curriculum requirements shall be accepted for credit at the discretion of the college. Degree credit shall also be granted on the basis of performance on examinations in accordance with standards and limits approved by the board of trustees.
- Credit courses completed with a grade of "Pass" (P) shall be accepted only for degree credit; the "Pass" grade assigned by other institutions shall not be included in computation of grade point averages.
- Degree credit shall be granted for credit courses completed with a passing letter grade of "C" or better. 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.
- 4. At the option of a transfer student, degree credit shall be granted for credit courses completed at other institutions with a grade of "D," subject to the following conditions:
  - a. If the student's grade point average from the transferring institution at the time of transfer is at least 2.0, the student shall be considered in good academic standing, and letter grades assigned by other institutions to courses for which credit is granted by the community college shall not be recorded nor included in computations of the student's grade point average at the community college.
  - b. If the student's grade point average at the time of transfer is less than 2.0, then the letter grade of "D" assigned by another institution to each course for which credit is granted by the Community College shall be recorded on the student's transcript and included in computations of the student's grade point average, and the student's academic standing at the community college shall be determined accordingly.
- 5. Notwithstanding the number of degree credits which shall be granted in accordance with the foregoing, the student must complete at least 25 percent of the minimum credit requirements for the degree through coursework at the college awarding the degree.
- 6. When a student seeks transfer credit for technical specialty courses into an American Bureau of Engineering Technology-accredited program, such technical specialty credits should be from ABET-accredited programs. In the case of a request for transfer credit for technical specialty courses from a non-ABET-accredited program, the college shall provide appropriate means for the validation of the student's competency in the technical specialty course areas.

#### Transfer from a Connecticut Community College:

It is the policy of the Board of Trustees for the Connecticut State University that graduates of the regional community colleges in Connecticut shall be accepted for admission to the state universities, provided they have received either the associate in arts degree or the associate in science degree in transfer programs,

and further provided they are recommended for admission by the President of the regional community college granting the degree. Community college graduates who meet these conditions will be given credit for two years of college work and will be treated exactly like students who have completed the sophomore year at a state university and are advanced to junior standing.

#### Transfer Opportunity: CSU Guaranteed Admissions Agreement

Transfer from a Connecticut Community College: It is the policy of the Boards of Trustees for the Community-Technical Colleges and the Boards of Trustees for the Connecticut State University that graduates of the regional community colleges in Connecticut shall be guaranteed admission to the state university of their choice and shall be treated without disadvantage, vis-a-vis native CSU students, with respect to admission to specific majors, registration for courses, applicability of grades of different levels, assignment to Junior status, and degree program requirements.

In the case of majors for which articulation agreements have been adopted, 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.

Where there is no articulation agreement, students are guaranteed junior status and a minimum of 60 transfer credits applied toward a baccalaureate degree at the Connecticut State University, provided that they meet the following conditions:

- Graduate from the Community College with an associate's degree
- · Maintain a GPA of 2.0 or higher
- Enroll in a comparable university degree program, with no subsequent change of major
- · Meet course or grade requirements, as specified for some majors.

Students are encouraged to follow the General Education Transfer Pattern specified by the CSU to maximize credit transfer (see the Community College system web page: http://www.commnet.edu/co/academic/acamodel/csu.htm).

#### Transfer Compact with Eastern Connecticut State University

The Transfer Compact between Manchester Community College (MCC) and Eastern Connecticut State University (ECSU) is designed to provide special opportunities for students who transfer from MCC to ECSU. Specifically, the Compact is for students who will complete an associate degree in a program designed for transfer to ECSU. Participation in the Transfer Compact allows for:

- 1. Early identification of students interested in pursuing bachelor degrees;
- Joint admission with Eastern upon successful completion of Eastern's admission requirements;
- 3. Smooth transition between institutions;
- The acceptance of 60 credits minimum in transfer with an earned associate degree as stated in Connecticut State University/Connecticut Community College formal articulation agreement;
- Personalized academic advisement by both MCC and ECSU advisors to ensure maximum transfer of credit to satisfy bachelor degree requirements.

Whether or not students enroll in the Transfer Compact, they are encouraged to plan their studies with eventual transfer in mind. However, the Admissions and Academic Advisement staff at both institutions will work closely with the Transfer Compact students to assist in a smooth, immediate transition from the Community College to the University. Students involved in the Compact will have ongoing contact with academic advisors from both institutions to ensure that appropriate coursework is completed and accepted upon transfer.

#### **Academic Policies** continued

#### Joint Admission as a Benefit of Compact:

As a part of the Transfer Compact between MCC and ECSU, students enrolled at MCC in a designated transfer program are eligible to participate in the Transfer Compact program. At the beginning of their academic careers, students formally register at the Community College by completing a Transfer Compact Participation Form expressing interest in participating in the Compact and authorizing MCC and ECSU to share admissions information. Students participating in the Compact must submit the completed Participation Form and two fees: a \$20 application fee for admission payable to MCC, and a \$40 admission fee payable to ECSU. Note that the admission fees are subject to change.

After applying to participate in the Compact at MCC, students will receive conditional acceptance to ECSU. The conditional acceptance stipulates that participants will complete an associate degree at MCC and will matriculate to ECSU within one semester of completion of the associate degree. Students participating in the Compact who wish to be considered for admission to ECSU prior to earning an associate degree at MCC must meet ECSU's requirements for admission to enroll at the University.

#### Awarding Transfer credit:

Students enrolling at ECSU as part of the Transfer Compact with an earned associate degree from MCC will receive no less than 60 credits in transfer. Students enrolling at ECSU prior to completing the associate degree will have their transcripts evaluated by ECSU personnel on a course-by-course basis in accordance with existing transfer credit guidelines.

#### **Transfer Opportunity: University of Connecticut**

(College of Liberal Arts and Sciences)

The Community Colleges of Connecticut (CCC) and the University of Connecticut (UConn) have entered into a Transfer Agreement in order to facilitate transfer between the two systems.

Under the agreement, students with a grade point average (GPA) of 2.5 who complete the requirements for the Liberals Arts and Sciences associate's degree described on pages 72-81, will be admitted to the College of Liberal Arts and Sciences of the University of Connecticut. Graduates with a grade point average less than 2.5 average may apply for special consideration. With few exceptions, all course work listed in the Liberal Arts and Sciences degree will be accepted and applied to the bachelor's degree at UConn. This agreement also applies to the liberal arts and sciences pattern on pages 72-81, with the exception of computer science. It is important for students to consult with a counselor or an academic advisor when choosing electives in order to ensure transfer of all credits.

Students interested in majoring in one of the fields offered by the UConn College of Liberal Arts and Sciences are encouraged to consider the opportunities offered by this agreement. MCC and UConn also have transfer agreements in Business and Early Childhood Education. Complete copies of all transfer agreements are available in the Counseling and the Dean of Student Affairs offices.

#### Credit by Examination

A student who has already studied the subject of a course offered by Manchester Community College may earn credit for the course by passing an examination which covers the material taught in the course.

Students wishing to gain credit for which a CLEP exam does not exist may take an exam, when available, which has been prepared by the MCC division offering the course (\$15 fee). Credit By Examination forms may be obtained from the Admissions Office or an academic division office.

#### **Academic Information**

#### **Computer Facilities**

Manchester Community College students have access to personal computers throughout the campus, including: open computer laboratories with Windows and Macintosh micro computers, in the Library, in the College Learning Center, and in teaching labs.

Campus computers are connected to a Campus LAN (Local Area Network) and the Community College System WAN (Wide Area Network), which gives them access to the World Wide Web.

## Cooperative Education and Work Experience Opportunities (860-647-6077)

At Manchester Community College, students have the opportunity to earn credit, pay and work experience through the Cooperative Education Program. Academic credit is awarded for cooperative education and work experiences under the supervision of departmental faculty. Cooperative education and work experience opportunities allow students to bridge the gap between classroom theory and on-the-job training in an actual work environment.

Cooperative Education is available to students in the following programs of study:

- Accounting
- · Administrative Assistant, Legal
- · Administrative Assistant, Medical
- Administrative Assistant, Office
- · Business Administration
- Child Development Associate
- Communication
- Computer Information Systems
- · Criminal Justice
- Disabilities Specialist
- · Early Childhood Education
- Foodservice Management
- · General Studies
- Gerontology
- · Graphic Design/Multimedia
- · Hospitality Management
- Marketing
- Occupational Therapy
- Paralegal
- Social Service
- Sport and Exercise
- Therapeutic Recreation

In some programs of study, Cooperative Education/Work Experience is a required course within the curriculum.

#### **Enrollment Requirements:**

Students must have a GPA (grade point average) of 2.0 or better, completed 12-15 credit hours towards a program of study, and received permission from the program coordinator and cooperative education director. *Prior to registering for the course, students must:* attend a Pre-Placement Workshop and complete a "Statement of Understanding" form available at the Cooperative Education Office. During the semester students are required to attend a weekly, one-hour seminar in which work-related issues are addressed.

#### Placement:

For paid placements, students must complete 300 hours of employment during one semester. This includes 15-20 hours of work per week for 15-16 weeks. Positions that provide monetary compensation are paid by the Cooperative Education employer. There is no guarantee from the Cooperative Education Office that each student will receive a placement. Unpaid internships are for fewer hours and vary by program.

The Cooperative Education Office is located in the Lowe Building. For more information and workshop dates, contact the Cooperative Education Office at 860-647-6077.

#### **Educational Technology Center (860-647-6301)**

The Educational Technology Center provides comprehensive media services to students and faculty of the College. Students are encouraged to use the facilities of the Educational Technology Center to prepare for projects, reports or presentations. Also, the Center has viewing areas where students may see videos or DVD's that were missed in class.

The Educational Technology Center is equipped and staffed to produce multimedia instructional materials, slides, videotapes, overhead transparencies, audio tapes, and other types of teaching materials. In addition, the Center distrib-



utes audiovisual equipment and materials throughout the campus, provides a consulting service to students and faculty, houses a full-color television studio with post production editing facilities, and is equipped to receive live video programming and teleconferences via satellite.

#### English as a Second Language at MCC (860-647-6260)

Manchester Community College offers the non-English speaker a variety of courses and levels of English classes to improve language proficiency in listening, speaking, reading, and writing. For more information on ESL classes at Manchester Community College, call Diana Hossain at 860-647-6260.

#### Honors Program (860-647-6263)

The Honors Program helps students demonstrate high levels of motivation and performance to prospective employers or transfer institutions. Students have a chance to investigate topics of interest, conduct research, work on special projects, and actively share in the learning process with other classmates and their teacher. Recognition of honors work will be designated on transcripts.

Honors options are listed beside the classes or sections where they are available. Students enroll for and meet all the requirements for a regular section of a class, but then meet with the instructor and develop an additional project which they complete for honors credit. Students have two weeks from the start of a class to decide if they will select the honors option.



#### Eligibility:

To qualify for the Honors Program, students must have completed 12 semester credit hours with a cumulative GPA (grade point average) of 3.3 or they may obtain a written faculty recommendation and permission of the course instructor. For more information, call Professor Patrick Sullivan at 860-647-6263.

#### International Studies (860-647-6318)

As part of their formal course work, students may elect to study abroad. A student may earn college credit in as short a period of time as three weeks. A full semester or a year abroad are also options for earning college credit. College credit may also be earned through independent study as a participant in selected MCC International Trips. MCC is a member of the College Consortium for International Studies. Contact Dr. Levy at 860-647-6318.

#### Library (860-647-6167)

The library is located in the newly designed Learning Resource Center. It holds over 40,000 volumes, has a strong reference collection, subscribes to approximately 500 periodicals, has substantial backfiles of periodicals in microform and on-line access to a wide range of databases and the Internet. An on-line catalog provides easy access to all library materials. The collection is directed toward supporting College programs of study and providing students with information and enrichment outside of course work.

Equipment for using audio-visual materials is available, as are computer workstations, coin-operated copy machines, and magnification devices to provide access to print materials.

The library houses an automated system which connects, on-line, to over 30 public and academic libraries in the Greater Hartford area and 24 multi-library systems throughout the United States. It is a member of the New England Library Network, with access to the books and periodicals owned by the major public and private academic libraries in the country through the On-line Computer Library Center (OCLC), a database of more than 12 million titles. Delivery of materials borrowed from other libraries in the state is made weekly.

Students are given both formal and informal instruction in library use. The library has printed and audiovisual materials to assist students in using its resources.

In addition, there are four study group rooms, as well as individual study carrels for student use.

Any state resident of high school age or older is welcome to register as a borrower at MCC's library.

#### **Activities and Services**

#### **Accident Insurance (860-647-6154)**

Enrolled students are carried automatically by group accident insurance while they are attending classes, or participating in and while traveling directly to or from an activity sponsored by the college. Students may purchase a 24-hour accident and sickness insurance through this policy. Students who wish to inquire about health insurance should contact the Health Services Office, Lowe Building, room L-101.

#### **Alumni Association (860-647-6137)**

The Alumni Association exists to promote and maintain an active interest in the College, to support its educational purposes, and to promote and maintain communications among alumni. A Board of Directors made up of alumni oversee fundraising and spending for the Association which is a (501)c(3) non-profit organization. Members do not have to be graduates to join. The College and the Alumni Association publish *Alumni News*. The Alumni Association annually funds scholarships and programs at MCC.

#### Art

Professional and student art exhibits are held in the Newspace Art Gallery in the Lowe Building and in the gallery area in the Art Building. Exhibits are also held in the Womenspace Art Gallery in the Women's Center in the Lowe Building.

#### Athletics (860-647-6060)

MCC began its organized intercollegiate athletics program in 1963. Today, the Athletic Department provides intercollegiate athletic programs for men in baseball, basketball, and soccer; and for women in basketball, soccer and softball. MCC student athletes have the opportunity to compete in an educational environment where intrinsic values such as sportsmanship, discipline, cooperation, and leadership are emphasized.

The College's athletic facilities include a fully equipped Fitness Center, a base-ball field, softball field, soccer field, and the use of the gymnasiums at East Catholic High School and the Manchester Armory.

The MCC Fitness Center is run by the Athletic Department and offers seminars, fitness testing and personal exercise program planning. The Center is equipped with a stairmaster, treadmill, rowing machine, upper body exerciser, exercise bikes, universal machine stations and free weights.

Manchester Community College is a Division III (non-scholarship) member of Region XXI in the National Junior College Athletic Association (NJCAA).

#### Campus Safety and Security (860-647-6016)

In accordance with Connecticut Public Act 90-259, *An Act Concerning Campus Safety*, Manchester Community College's Uniform Campus Crime Report (UCCR) is available, upon request, in the library and the campus police department.

#### Career Services (860-647-6067)

The Career Services Office provides comprehensive programs, activities and services that are designed to assist students at all levels of their education. Acquiring effective job search skills is a valuable part of the educational experience and students are encouraged to visit the Career Services Office to seek advice, support and information.

Services include regularly scheduled workshops on résumé and cover letter writing, job search skills and interviewing. Additionally, students can sharpen their job search skills by viewing the office's comprehensive video library. The office offers a 24-hour Job Line (860-647-9024) listing full- and part-time positions. Other services include information on summer employment/internship information, alumni career panels, and on-campus recruiting, and job fairs. Check the office's website at www.mcc.commnet.edu/career/.



#### **Center for Student Development**

The Center for Student Development provides comprehensive, group and individualized services that foster intellectual and personal development.

The Center for Student Development is comprised of:

- Academic Advising Center
- · Adults in Transition
- · Center for Minority Student Programs
- · College Learning Center
- Counseling Center
- Services for Students with Disabilities
- Women's Center

#### Academic Advising Center (860-647-6062)

The College offers comprehensive academic advising services for all new, returning and transfer students. Students have the opportunity to discuss their specific academic goals, placement test results, planned programs of study and degree/certificate program requirements with trained academic advisors/counselors. In addition to assisting students in establishing a solid academic foundation, the Academic Advising Center offers students early access to academic division directors, program coordinators, and faculty to provide appropriate academic mentorship. All students are encouraged to connect with advising services each semester of their college experience. Students may schedule appointments through the Advising Center or by contacting their faculty advisor.

New students are scheduled for placement testing and academic advising appointments prior to their first registration experience. Further, the Advising Center assists new students with their registration/course selection process, and conducts information sessions during New Student Orientation.

For more information on how the Academic Advising Center can benefit your academic and career plans, call 860-647-6062.

#### Adults in Transition (860-647-6056)

Adults in Transition (AIT) is a one semester program that provides support for women and men who are resuming their education after a long absence. The program's one-credit study skills class and two-credit Transition Development course help students develop the skills and knowledge necessary to be successful college students. Adults planning to start their first semester at MCC should call 860-647-6126 for an appointment. For further information on the AIT program see page 24.

#### Office of Minority Student Programs (860-647-6333)

The Office of Minority Student Programs plans, promotes and implements programs designed to address issues and concerns of multi-culturalism. It provides a comfortable environment for students of color by assisting them with academic and personal concerns, through programs, workshops and individual sessions. The Office of Minority Student Programs is committed to retention by providing educational and cultural programs to address this area. The office also provides faculty and staff with information and activities related to diversity issues. Its goal is to empower students to take pride in themselves, their heritage and to achieve academic excellence.

Students are encouraged to visit, participate in programs, and to assist with the planning of programs designed to produce a more culturally diverse environment.

#### College Learning Center (860-647-6160)

The College Learning Center (CLC) offers many opportunities for academic support to students of all ability levels. Individual or small group tutoring, subject-related review sessions, college survival skills workshops, and videos on strategies for succeeding in college are some of the services offered to students to enhance their understanding of classroom material. A variety of computers and basic training in Windows; Microsoft Word, Excel, PowerPoint, Access; and an Introduction to the Internet are available.

The Center provides students with strategies to improve learning and study skills, and encourages students to become actively involved in the learning process. An intensive Academic Support Program (ASP), which is an early academic intervention program, is offered to help students succeed in the college environment.

The Center also offers an intensive six-week summer bridge program for incoming students called STARS (Summer Training and Academic Training Service). Students must apply for the program during the spring and be eligible to receive financial aid. There is no cost for the program and students receive 3 credits for successfully completing the program. For more information, call 860-647-6160.

CLC staff is available to collaborate with instructors on specific activities to complement or supplement classroom instruction.

#### **Tutorial Assistance:**

Students may make day and/or evening appointments for coursework tutoring in the CLC (Lowe Building, room L-120) or by calling 860-647-6160. Information about all of the services offered by the College Learning Center is available at the CLC website: mcc.commnet.edu/clc/.

#### Counseling (860-647-6062)

A staff of professional counselors provide a comprehensive developmental counseling program designed to assist students with academic, vocational and personal issues. Counselors are available by simply calling the Counseling secretary (860-647-6062) to schedule an appointment. Limited walk-in services are also available.

Group sessions and workshops are provided throughout the year on a wide range of topics and issues related to goal setting, motivation, self-assurance, stress management, career planning and transfer. Counselors also offer credit courses dealing with career life planning and creating your college success.

Any student planning to transfer and continue their studies at another college is advised to schedule an appointment with a counselor by the end of their first year (or 30 credits) regarding transfer opportunities, admissions requirements and targeted course planning.

#### Services for Students with Disabilities (860-647-6062)

Support services at MCC are designed to provide access and to "even the playing field" for people with disabilities. Towards this end, we provide academic accom-

modations such as readers and scribes, testing accommodations, sign language interpreters, a mentoring program, priority registration, adaptive equipment and assistance in locating and acquiring services from community agencies.

Two support groups exist for students with disabilities: AWARE (Advocates Working for Access, Rights and Education), and the Self-Advocacy Group for Students with Learning Disabilities. These groups provide the opportunity to meet other students and staff, share common interests and concerns, and gain support for goal achievement.

Individual services are consistent with Section 504 of the Rehabilitation Act of 1973 and The Americans With Disabilities Act. For more information, call 860-647-6062 or, for the Learning Disabilities Specialist, call 860-647-6160.

#### Women's Center (860-647-6126)

The Women's Center is located in the Lowe Building, and provides a friendly, open atmosphere for women of all ages to meet, talk and study, as well as to exchange ideas and offer mutual support to one another. The Center's library has books, reference materials, periodicals and newsletters on a wide variety of subjects. The Women's Center offers information and referrals on many topics including health, sexual assault, battering, sexual harassment, legal issues, sexual orientation, and careers, as well as information on workshops and cultural events in the area.

A variety of workshops and programs are offered for students, faculty, staff, and the community on topics such as divorce, international issues, health, careers, violence against women, women and disabilities, lesbians, current events and other issues of sex equity. Events are publicized throughout the College.

#### Child Development Center (860-647-6075)

The Child Development Center is open 7:45 a.m.-4 p.m., Monday through Thursday and 7:45 a.m.-12 noon on Friday throughout the fall and spring semesters and operates on the same schedule as the College. The experienced, professional staff provides a nationally accredited preschool program in a warm, safe, supportive atmosphere. Some students in MCC's Early Childhood Education, Developmental Disabilities, and Human Services Programs serve their internships in the Center with the guidance and support of the staff.

Children two years and nine months in September through five years of age are eligible to attend, with priority given to children of MCC students. Community residents may register children when space is available. Children may be registered for two, three or five half or full days to accommodate parents' school or work schedules. Parents should enroll their children as early as possible in the office of the director, since space is limited. Registration for spring is in December; for the fall in April and May. A limited amount of financial assistance is available to eligible MCC students.

The pre-school program is designed to stimulate and challenge the curious, creative preschooler. The environment is carefully prepared with a wide variety of activities, both group and individual. These include art, music, cooking, natural science, creative movement, outdoor play, story-telling, and the development of specific learning skills.

#### Convocation/New Student Orientation (860-647-6156)

When students participate in orientation programs, research supports that they increase their chances of academic success. Therefore, all new students, transfer students, and students who are returning to college after a long absence are expected to attend convocation and new student orientation. Most first year students find college life and class expectations complex, very confusing, and uncertain. Consequently, the program is designed to help ease your transition into the college, to give you basic information on how to be successful during your first year, to familiarize you with your classes, campus facilities, resources, and

#### **Activities and Services** continued



policies, and to equip you for the beginning of a very exciting, productive and positive experience. Parents, spouses, and families are also invited. Entering students will have ample opportunity to meet and interact with other students from different backgrounds and cultures, as well as faculty/staff and administrators who are as excited as you are about your educational goals. Orientation encompasses convocation, academic advising, skill building workshops, and a guided campus tour. Program Coordinators, faculty and staff will be available to answer your questions. Orientation pro-

grams are held at the beginning of each semester. For more information regarding the date, time, and location of the next orientation program, please contact the Office of the Assistant to the Dean of Student Affairs, Lowe Building, room L-251.

#### Cultural Events (860-647-6047)

Throughout the year, the MCC Cultural Programs Committee, composed of students, faculty and staff, sponsors a wide variety of cultural programs. Musicians, authors, speakers, poets and actors appear on campus to present examples of the diversity and richness within our culture. Programs include dinner theatres, poetry readings, and professional dance performances.

#### Health Services (860-647-6154)

The Health Services Office is open to all members of the College community for emergency care, treatment of minor illness, referrals, medical excuses, accident reports, student insurance, and counseling about health-related matters. Health Services also sponsors clinics and seminars for students, staff members and residents of the community. Hours during which the College nurse is on duty are posted outside the Health Office, room L-101 in the Lowe Building.

#### Housing

Manchester Community College is a non-residential college. Students are responsible for their own housing arrangements.

#### Institute of Local History (860-647-6103)

The Institute of Local History stimulates interest in and spearheads projects related to the history of the region the College serves. It performs as a service and resource center for local historical studies. Among its on-going projects are an oral history project for the town of Manchester, annual walking tour of the Cheney Brothers National Historic Landmark District, several non-credit courses and workshops, and a permanent exhibition of historic photographs. The Institute provides guest lecturers upon request. It also has cooperated in the publication of two books about the history of Manchester.

## Institute on Disability & Community Inclusion (860-647-6313)

Established in 1992, the MCC/Communitas Institute on Disability and Community Inclusion is a cooperative institute that works to eliminate negative attitudes toward children and adults with disabilities. The Institute conducts conferences, seminars and think tank sessions, and augments the book, journal, video and computer holdings of the MCC library. Visiting scholar programs, focused re-

search projects, and visits by international leaders help to present new stories and research that will reduce fear and misunderstanding concerning the inclusion of children and adults with disabilities into everyday community life.

#### Music (860-647-6078)

The MCC Vocal and Instrumental Ensembles give students the opportunity to develop their musical skills and to join others in presenting concerts on campus and in the community.

#### Student Activities Committee (860-647-6217)

The Student Activities Committee is responsible for the coordination, planning and implementation of diverse programs at Manchester Community College. The committee, composed entirely of students, is funded by the Student Senate through the activities fee. Any student may become a member of this committee, which sponsors dances, concerts, speakers, coffee hours, special events, and travel programs each semester.

Membership on the Student Activities Committee provides a unique opportunity for the development of many leadership skills necessary for a fulfilling education. Through involvement, students develop practical leadership skills while providing a diverse co-curricular activities program in response to student needs. The Student Activities Committee is located in the Lowe Building, room L-124.

#### **Student Newspaper (860-647-6057)**

Students are encouraged to contribute to the newspaper. Published six to eight times each semester, *The Live Wire* is a student newspaper focusing on MCC news and events. The staff welcomes volunteers who can write, edit, proofread, take photographs or help with layout and ad design. Stop in the Live Wire office, located in the Lowe Building, room L-253.

#### **Student Organizations and Clubs**

Manchester Community College sponsors many clubs and organizations of an academic, social and professional nature (some are affiliated with their area and national counterparts): Afrocentric Student Organization, Alpha Mu Gamma, Arts Collective, Asian American Club, Association on Disability and Community Inclusion, Business Students Association, Criminal Justice Association, Cultural Programs Committee, Dance Club, Film Guild Association, Gay/Lesbian/Bisexual Alliance, Hispanic Cultural Club, Le Circle Français, The Live Wire (student newspaper), Mock Trial Club, Multicultural Club, Occupational Therapy Assistant Club, Organization of Substance Abuse Counselors, Paralegal Association, Parents Club (Child Development Center), Phi Theta Kappa Honor Society, Photography Club, Professional Secretaries International Association, Science and Engineering Club, Spanish Club, Student Activities Committee, Student Senate, Supported Education Club, Upper Room Christian Fellowship Club, and the VOX Choral Club.

#### Student Senate (860-647-6054)

The Student Senate is a governing body of elected and nonelected students who represent the entire student body. Funds collected via the student activity fee are used by the Senate to sponsor various clubs, organizations, activities and services. As the official voice of the student body, the Senate has the power to regulate the activity fund, member organizations and to make decisions that affect all students. Anyone may attend monthly meetings of the Senate. However, one needs a GPA of 2.5 and to have earned at least three credits at MCC to become an executive officer. The office of the Student Senate is located in the Lowe Building, room L-124.

#### Theatre (860-647-6182)

Students, staff members, and people from the community participate in the active Theatre Wing program which includes experimental and traveling shows.

## **Continuing Education**

The College's Continuing Education Division provides programs relevant to changing community needs and promotes the College as a focus of life-long learning. Each year more than 8,000 area residents become involved in credit and credit-free courses, seminars and workshops, as well as the many cultural activities and special educational services offered through this division. The Continuing Education Division Offices are located in the Learning Resource Center.

#### **Business and Industry Services (860-647-6243)**

As part of a collaborative effort of the state's 12 community colleges, the division provides businesses with training and educational services. It works closely with business and industry, as well as agencies and school districts, to provide both credit and credit-free, on-site instructional programs for employees. The College's Director of Business and Industry Services serves as a liaison to the business community. Popular training areas include technical skills, desktop publishing, presentation skills, basic skills, English as a second language, management and supervisory skills and total quality improvement.

#### **Credit Courses (860-647-6088)**

#### **Special Sessions:**

The Continuing Education Division administers the Summer Session and Winter Intersession. The Summer Session includes three-week, six-week, and eightweek day/evening courses that are offered from mid-May through July. Winter Intersession courses meet for a three-week period immediately after Christmas.

#### Weekend College:

The Weekend College offers a schedule of classes on Friday evenings, and/or Saturday mornings, and/or afternoons. Students may also earn an Office Microcomputer Certificate through the Weekend College. New classes begin every six weeks, for a total of seven sessions per year. Courses offered through the Weekend College are open to all students who meet prerequisite requirements.

#### Credit-Free Certificates (860-647-6088)

Credit-free certificate programs have been developed by faculty and area professionals to provide a strong foundation of practical and up-to-date information that can assist students in developing skills for their current jobs or for new careers. These programs are hands-on with a small student/teacher ratio and are taught by professionals in the field.

Current certificate programs include Travel Careers, Copy Editing, Bartending, Applied Foodservice Sanitation, PC Computer, Certified Nurse-Aide, Emergency Medical Technician, and Multi-Skilled Health Care Professional for those seeking to develop marketable job skills in those fields.

#### **Credit-Free Courses (860-647-6088)**

In addition to credit courses, the Continuing Education Division administers an extensive credit-free program. Each semester more than 300 credit-free courses are offered for career and personal development, cultural enrichment, and contemporary living. Most courses meet one or two evenings per week. A transcript can be issued upon written request and payment of a \$3 fee.

#### Excursions in Learning (860-647-6204)

Excursions in Learning is an enrichment program for children ages 4-14. Creative, high achieving students can explore the sciences, math, history, the arts, language arts, foreign languages and computers through hands-on, experiential learning. Special Saturday programs are offered in the fall and spring semesters. A two-week summer program will be offered July 30-August 10. For further information, call Lynn Hoffman, program director, at 860-647-6204.



#### **Grant and Training Funds**

The Director of Business and Industry works with area companies to seek funding for custom training. In addition, through the Office of Institutional Development, grant funds are sought to support special projects, expand services to specific groups in the communities, and to allow the development of new curricula to meet changing technologies.

#### Off-Campus Sites (860-647-6088)

Off-campus courses are currently offered at South Windsor High School and the East Hartford Community Cultural Center. The course offerings are designed to meet the specific needs of the employees and residents of the area. The Division continually seeks to establish new off-campus sites to respond to business and community needs.

#### Older Adult Association (860-647-6088)

The MCC Older Adult Association (MCCOAA) is composed of adults 50 years of age or older who share common interests in educational and cultural opportunities. Short courses designed specifically for this age group are offered through the Continuing Education Division, and special social and cultural events are scheduled throughout the school year. While some Association members are students of the College, it is not a requirement for membership.

#### **Publications (860-647-6088)**

Brochures are published periodically by the Continuing Education Division to provide schedules of educational offerings and registration information. These are available at the Continuing Education Center, in the Learning Resource Center, room LRC B-147.

#### Registration (860-647-6147)

Registration for courses offered through the Continuing Education Division may be done in person, by fax or by mail. Registration by telephone is also available for credit-free courses only on a limited basis. Call 860-647-6088. Credit-free courses are open to everyone, regardless of educational background, on a "first-come, first-served" basis. Courses may be taken individually or as part of a planned program of study.

#### World Travel Expeditions (860-647-6318)

The goal of World Travel Expeditions is to foster cultural awareness and help students experience global connections by offering an expanding array of travel opportunities at an exceptional value. Most of the tours are fully-escorted by professional guides, as well as college faculty and/or staff. Short courses that explore history, art, architecture, language, politics and culture specific to trip destinations are routinely offered. Call Dr. William Levy, Travel Advisor, 860-647-6318 or toll-free (888) 647-6384, for more information and complete itineraries.

#### **Online/Distance Education Courses**

Our Distance Education program at Manchester Community College (MCC) offers an excellent opportunity for people in Connecticut and throughout the world to stay knowledgeable and competitive in today's global environment. Because MCC recognizes the importance of flexibility in a person's day to day life, we offer online courses that provide flexibility in time and geographic location.

The faculty at MCC are experienced educators and are especially known for providing individual guidance. They provide a relaxed electronic environment that encourages student-to-student interaction. Whether it is through discussions, chat, or role playing the MCC faculty will be able to provide you with a rich and rewarding experience.

Blackboard offers students of MCC a robust set of tools, functions, and features for learning online. While you are enrolled and taking an online course you will need to have access to an Internet connection, a web browser (Netscape 4.0 or higher or Internet Explorer 4.0 or higher), associated programs recommended by your instructor (ex. Word, Excel), and be familiar with sending and receiving e-mail. The recommended minimum system configuration is a computer running either Windows (95 or higher) or Mac OS with at least 16 MB of RAM, a CD-ROM drive, and a color monitor. Actual system and software requirements for a course may vary - please see the instructor's requirements listed in the class schedule.

#### **How the Online Learning Environment Works**

The online learning environment at MCC is an electronic community consisting of electronic classrooms, information resources (libraries), counseling centers, bookstores, and a variety of opportunities to communicate and dialogue with MCC professionals in an academic setting. Here, you will engage in discussions with professors, classmates and colleagues, collaborate on course work, and socialize in common cyber forums.

During the course, you will be doing a fair amount of reading, typing and reflecting on what others have written. In an on-campus classroom most communication involves talking and listening, with some reading and writing. In an online course, communication mostly occurs through reading and writing.

You will be communicating directly with fellow students and the instructor through email, discussion forums, and virtual chat. Class discussions will occur primarily through synchronous discussion board messaging. You will read what your instructor and other class members have posted, write responses to readings or questions, and participate in text-based class discussions about the course material. While you can expect deadlines for assignments, in general you have flexibility about when you actually do your class work, with the exception in some classes of virtual chats, which are scheduled events that occur at a particular time. You may be required to attend an informational orientation for your on-line course depending on your instructors' preferences.



On average, you can expect to spend 3 or more hours a week on your course including completing and submitting assignments, reading supplementary texts on coursework, accessing lectures and participating in class discussions.

#### For Information On:

- Blackboard's Classroom environment and general questions, call Cathy Miller at (860) 533-5253.
- A particular course, please contact the individual instructor.
- Federal Financial Aid, contact (860) 647-6071.

We are developing new courses each semester; please check out the spring catalog for new on-line classes forming. The following are courses to be offered during the fall semester of 2001-02:

#### MCC Online Courses for Fall 2001

BUS 214	Managerial Communications	3
CIS 111	Introduction to Computers	3
ENG 111	College Reading and Writing	3
ENG 120	Introduction to Literature	3
ENG 252	Western World Literature II	3
HIST 201	United States History I	3
LEGL 270	Cooperative Education/Work Experience	3
PHT 101	Introduction to Pharmacy Procedures	4
SOC 271	Ethnic and Racial Minorities	3

## **Pre-Program Preparation**

Pre-Program Preparation is designed for students who need special assistance in entering a regular program of study or who must complete specific courses or prerequisites. Students receive careful advice on course selection to ensure a smooth transition to a certificate or degree program. No degree or certificate is awarded for completion of pre-program preparation courses since the work is preparatory for entry into a regular degree or certificate granting program.

#### Pre-Allied Health Preparation (860-647-6236)

The Pre-Allied Health series of courses is designed to help students identify a specific allied health career choice as well as to academically prepare students for their choice. Students who have taken the college placement tests in math and English may select courses suited to level of ability from the list below. All developmental course work must be completed prior to enrolling in a specific allied health program. Other courses listed will help students with study skills.



#### **Pre-Allied Health Preparation**

AH 090	Allied Health Study Skills	0
AH 101	Introduction to Allied Health	1
BIO 112	Human Biology	4
CHEM 110	Elements of Chemistry	4
ENG 096*	Preparatory College Reading and Writing II	3
ENG 098*	Preparatory College Reading and Writing III	0
ENG 103	Reading Dynamics and Study Skills	3
MATH 098**	Mathematical Modeling I:	
	Number Sense & Geometry	0
MATH 101**	Mathematical Modeling II: Algebraic Concepts	3
PSYC 120	Understanding Self and Others	3
SD 100	Creating Your Own College Success	1

Candidates are encouraged to seek counseling before selecting courses. Students may contact the allied health counselor at 860-647-6062 or the coordinator of the desired health career program directly. For admission information and application to a specific health career program, including the admission selection criteria for that program, contact the Admissions Office at 860-647-6140 or the Health Careers Office at 860-647-6236.



#### **Pre-Technical Education Preparation (860-647-6212)**

Pre-Technical Education is designed to prepare students to meet requirements for acceptance into an engineering or technology program of study. Through successful completion of one or more of the following suggested courses, the candidate may be able to meet basic admission criteria (see specific engineering and technology programs). All candidates should select Technical Education 101 to gain a better understanding of the program requirements and the duties and responsibilities necessary in each career before making a definite career choice. Students may be required to select courses from among the following list:

#### **Pre-Technical Education Preparation**

CHEM 110	Elements of Chemistry	4
CIS 098	Exploring the Computer	0
CIS 111	Introduction to Computers	3
CS 110	Introduction to Computer Science	3
ENG 096*	Preparatory College Reading and Writing II	3
ENG 098*	Preparatory College Reading and Writing III	0
ENG 103	Reading Dynamics and Study Skills	3
MATH 098**	Basic Mathematics	0
MATH 101**	Basic Algebra	3
MATH 102	Intermediate Algebra	3
MATH 110	Quantitative Literacy	3
MATH 150	Precalculus	4
PHYS 110	Elements of Physics	4
TECH ED 101	Introduction to Engineering & Technology	1

Candidates are encouraged to seek counseling before selecting courses. For more information contact the Technical Education Office at 860-647-6212.

<sup>\*</sup> Based upon English placement test.

<sup>\*\*</sup> For students who qualify, MATH 100 may be taken to satisfy the requirements for both MATH 098 and MATH 101 in a single semester.

<sup>\*</sup> Based upon English placement test.

<sup>\*\*</sup> For students who qualify, MATH 100 may be taken to satisfy the requirements for both MATH 098 and MATH 101 in a single semester.





## **Adults in Transition**

#### AIT (860-647-6056)

Adults in Transition (AIT) is a one semester program that provides support for women and men who are returning to school seeking a career change, because they have been laid off, or because their pursuit of further education was interrupted. The program was created to help students cope with the stress and changes involved in returning to school after a long absence.

AIT is open to students who plan to start their first semester at MCC (including students who are returning to MCC after a long absence). Students who enroll in MCC through AIT are provided with special services which include:

- an individualized interview to determine personal needs
- · personalized academic advising and registration services
- · a required one-credit study skills class which meets before the semester begins
- a required two-credit transition development course that introduces all aspects
  of the college and provides assistance in career and curriculum planning
- · staff and peer support

Students will take one or more courses in their degree or certificate program or field of interest along with the AIT courses. The AIT program is offered in the daytime and evening.

Call 860-647-6056 for further information or to schedule an appointment for a personal interview.

## **Student Affairs**

The primary goal of the Student Affairs Division is to assist students in developing their potential, both personally and intellectually. Ideally, such development includes an enhanced ability towards: intellectual capacity and achievements; emotional, spiritual, and physical wellness; social interaction; vocational aptitudes and skills; moral values; global perspectives; economic resources; effective citizenship and esthetic response. While providing essential services in partnership with the academic mission of the institution, Student Affairs contributes significantly, directly and collaboratively, to the student's total education and development.

#### **Learning Outcomes**

Upon graduation from Manchester Community College, learners will:

- Demonstrate an enhanced self-understanding and ability to function independently and responsibly.
  - · decision making
  - · goal/values clarification
  - · abstract thinking
  - accountability (ethics)
- Demonstrate an enhanced ability to function in socially and culturally diverse communities.
- Demonstrate an enhanced ability to function in a team environment, respecting the individuality and collective responsibilities of the group.
- Demonstrate an enhanced understanding of the significance and interconnections of physical, spiritual and emotional wellness.

## **Programs of Study**

## Related Programs

ACCOUNTING		GENERAL STUDIES, AS
Accounting, AS and Certificate	29-30	HEALTH CAREERS
Accounting and Business Administration Transfer, AS	31	Gerontology, Certificate
Taxation, Certificate		Medical Laboratory Technicis
		-
BUSINESS		Occupational Therapy Assist
Accounting and Business Administration Transfer, AS		Pharmacy Technician, AS ar
Business Administration Career, AS	36	Physical Therapist Assistant
Marketing, AS and Certificate	84-85	Respiratory Care, AS
Paralegal, AS and Certificate	95-96	Sport and Exercise Studies,
Personal Financial Planning, Certificate	97	Surgical Technology, AS
Real Estate Management, Certificate	101	Therapeutic Recreation, AS
BUSINESS OFFICE TECHNOLOGY		HOSPITALITY MANAGEMENT
Business Office Technology, AS		Culinary Arts, Certificate
Administrative Assistant, Legal		Professional Bakers, Cert
Administrative Assistant, Medical		Professional Cooks, Certif
Administrative Assistant, Office	34	Foodservice Management, A
Clerk/Typist, Certificate	37	Hotel-Tourism Management,
Medical Insurance Specialist, Certificate	37	
Medical Transcription, Certificate	38	HUMAN SERVICES
Office Skills Update, Certificate	38	Criminal Justice, AS
Receptionist, Certificate		Law Enforcement, Certifica
Records Management, Certificate		Pre-Service Correction, Ce
Word Processing, Certificate		Disabilities Specialist, AS and
Troid i roccosing, continuato i		Drug and Alcohol Rehabilitati
COMPUTER INFORMATION SYSTEMS		Management of Substance
Accounting and Business Administration, AS		Certificate
Management Information Systems Transfer Option		Early Childhood Education, A
Computer Information Systems, AS and Certificate		Child Development Associ
Microcomputer Option		Social Service, AS and Certif
Microcomputer Processing, Certificate	89	
Office Microcomputer, Certificate	94	HUMANITIES
COMPUTER SCIENCE AND TECHNOLOGY		Communication, AS Journalism Option
	44	
Computer-Aided Design (CAD), Certificate Computer Engineering Technology, AS		Desktop Publishing, Certifica
Computer Maintenance Technology, Certificate		Graphic Design, AS
Computer Network Technology, AS and Certificate		Multimedia Option
Computer Operating Systems Technology, Certificate		Media Technology, Certificat
Computer Programming Technology, AS and Certificate		Multimedia Studies, AA
Computer Science, AS		Public Relations, Certificate
Computer Technology, AS	52	Visual Fine Arts, AA
EDUCATION (see General Studies)	65	LIBERAL ARTS AND SCIENCE
ENGINEERING SCIENCE & INDUSTRIAL TECHNOLOGY		Liberal Arts and Science, AA
Engineering Science, AS	63	African/American Studies S
Industrial Technology, AS		Biology Suggested Course
Electronics Technology Option		Chemistry Suggested Coul
Industrial Engineering Technology Option		Environmental Science Su
Machine Tool Service Technology Option		Mathematics Suggested Course
Quality Assurance Technology Option		Physics Suggested Course Pre-Med/Pre-Professional
Tool, Die and Gage Maker Technology Option		Women's Studies Suggest
Manufacturing Engineering Science, AS	83	Biotechnology Option
PATHWAY PROGRAMS - COLLEGE OF TECHNOLOGY		
Engineering Science, AS	26	Music Option
Tophnological Studies AS		

GEN	NERAL STUDIES, AS	65
HEA	ALTH CAREERS	
	Gerontology, Certificate	66
	Medical Laboratory Technician, AS	87
	Occupational Therapy Assistant, AS	93
	Pharmacy Technician, AS and Certificate	98
	Physical Therapist Assistant, AS	99
	Respiratory Care, AS	
	Sport and Exercise Studies, AS	
	Surgical Technology, AS	
	Therapeutic Recreation, AS and Certificate	
HOS	SPITALITY MANAGEMENT	
	Culinary Arts, Certificate	5
	Professional Bakers, Certificate	
	Professional Cooks, Certificate	
	Foodservice Management, AS	64
	Hotel-Tourism Management, AS	
HUN	MAN SERVICES	
	Criminal Justice, AS	5
	Law Enforcement, Certificate	
	Pre-Service Correction, Certificate	
	Disabilities Specialist, AS and Certificate	58
	Drug and Alcohol Rehabilitation Counselor, AS	59
	Management of Substance Abuse Treatment Facilities,	
	Certificate	60
	Early Childhood Education, AS	6′
	Child Development Associate, Certificate	62
	Social Service, AS and Certificate	)3-104
HUN	MANITIES	
	Communication, AS	40
	Journalism Option	71
	Desktop Publishing, Certificate	57
	Graphic Design, AS	67
	Multimedia Option	
	Media Technology, Certificate	86
	Multimedia Studies, AA	91
	Public Relations, Certificate	
	Visual Fine Arts, AA	
IIRF	ERAL ARTS AND SCIENCE	
_,	Liberal Arts and Science, AA and AS	72-81
	African/American Studies Suggested Course Sequence	
	Biology Suggested Course Sequence	
	Chemistry Suggested Course Sequence	
	Environmental Science Suggested Course Sequence	
	Mathematics Suggested Course Sequence	
	Physics Suggested Course Sequence Pre-Med/Pre-Professional Preparation	
	Women's Studies Suggested Course Sequence	
	•	
	Biotechnology Option	
	Music Option	92

ASSOCIATE DEGREE PROGRAMS are intended primarily for students planning to transfer, in advanced standing, to colleges or universities where studies will be continued toward a bachelor's degree. Associate degree programs lead to an associate in science degree upon graduation. An exception is the Liberal Arts and Sciences Program that also offers, for a student who completes the foreign language requirement, an associate in arts degree. Because MCC is accredited by the New England Association of Schools and Colleges, credits earned in our courses can be transferred to colleges and universities all over the country. All associate degree programs are transfer programs.

COLLEGE OF TECHNOLOGY: PATHWAY TRANSFER PROGRAMS. Associate of science degree programs in engineering science, manufacturing engineering science, and industrial technology provide the pathways within the Connecticut College of Technology transfer programs into the University of Connecticut and the State University System Schools of Engineering and Engineering Technology.

Students may enter university engineering and technology programs through the MCC associate of science degree programs in engineering and technology, and upon successful completion of the programs, continue on at the University of Connecticut or the Connecticut State University System as third-year students with a full two years of credit towards a baccalaureate degree in engineering, engineering technology or industrial technology. MCC also provides the opportunity for students who complete the engineering and technology programs to transfer full credit to baccalaureate degree programs at other colleges and universities with which the College has transfer agreements. For more information, call Robert Fortier at 647-6200.

**CERTIFICATE PROGRAMS** are specialized curricula designed to equip students with the skills and educational background needed to get a job after graduation. Although certificate programs include course work that can be transferred, those programs are not intended specifically for the purpose of transfer. Each certificate career program represents a briefer, concentrated period of study in a specific discipline. A student who successfully completes the program receives a certificate of completion for the work.

**PART-TIME STUDIES.** Almost all programs can be pursued part-time. The College has no minimum requirement for the number of courses for which a student must register. Courses are scheduled from 8 a.m. to 10 p.m. each day in order to provide students with a wide range of scheduling options. Many students complete our degree requirements in three or four years.

**DOUBLE-DEGREE PROGRAM.** An alternative to the customary single-degree program is the double-degree program which allows a student to combine two degrees at graduation. Application for the second degree is normally made after a student has completed 30 credits in the first program of study. A minimum of 15 additional credits is necessary for the second degree. Students wishing more information should speak with a counselor.

**ELECTIVES** are credit courses selected by a student to supplement the required courses in a program of study. When selecting electives, a student should seek the advice of a counselor or faculty member. The courses from which electives may be selected are limited by the kind of elective specified in a program of study.

- Liberal Arts and Science Electives: A liberal arts and science elective
  may be selected from subjects listed below under humanities, natural
  science and social science.
  - Humanities Electives: English, fine arts, foreign language, history, humanities, music, philosophy, speech, theatre.
  - Natural Science Electives: astronomy, biology, chemistry, computer science, earth science, environmental science, geology, mathematics (except MATH 098, 101, 115 and 116), meteorology, oceanography, physical science, physics.
  - Social Science Electives: anthropology, economics, geography, history, political science, psychology, sociology, social science.
- 2. Undesignated Electives: may be chosen from any area.

## **Course Distribution Checklist for General Education Component**

The general education component for associate degree programs shall include a balanced distribution of required courses or restricted electives in the humanities, arts, natural and physical sciences, mathematics, and social sciences, comprising at least one third of the minimum requirements for the degree.

Arts 3 credits
English Composition 3 credits
Humanities 3 credits
Mathematics 3-5 credits
Natural & Physical Science 3-4 credits
Social Sciences 3 credits
Additional courses in the above 3 credits
Total21-24 credits

Students can use the easy-to-read listing to keep track of their Gen Ed requirement.

#### Arts

Students must earn a minimum of 3 credits from the following list to meet the general education requirement for associate degree programs.

#### **Arts Learning Outcomes**

By studying arts, students will

- Demonstrate analytical and problem solving skills by engaging in the creative process that is unique to music, theater and the visual arts.
- Communicate and cultivate contextual understanding of art's relationship to society, history, and culture.
- Demonstrate the ability to communicate one's understanding and knowledge with clarity and persuasively—orally, visually, and/or in writing.

COMM 251: Computer Animation
FA 101: History of Art I
FA 102: History of Art II
FA 105: History of 20th Century Art
FA 106: Women in the Visual and
Performing Arts
FA 115: Introduction to Studio Art
FA 121: Drawing I
FA 125: Two Dimensional Design

☐ FA 126: Three Dimensional Design

□ FA 127: Figure Drawing□ FA 131: Painting

☐ FA 137: Water Color ☐ FA 141: Printmaking

☐ FA 141. FIIIIIIIIANII

☐ FA 171: Film Study and Appreciation

□ FA 176: Video/Filmmaking□ FA 201: Illustration I

☐ FA 205: Graphic Design I

☐ FA 210: Computer Graphics

■ MUS 111: History and Appreciation of Music I

MUS 112: History and Appreciation of Music II

☐ MUS 113: Today's Music: Jazz, Blues, Gospel, Country, Rock

☐ MUS 121: Chorus (2 credits)

■ MUS 127: Vocal Ensemble: Madrigal (1 credit)

☐ MUS 131: Private Music Lessons (1 or 2 credits)

MUS 215: Beginning Piano

MUS 251: Music History I: The Classical Period

PHOT 191: Photography I
PHOT 210: Digital Photography

☐ THEA 111: Introduction to Theater

☐ THEA 115: Modern Dance I

THEA 181: Acting

#### **English Composition**

Students must take ENG 111 and earn 3 credits to meet the English Composition general education requirement for associate degree programs.

#### **English Composition Learning Outcome**

ENG 111: College Reading and Writing introduces students to the kinds of reading and writing that they will encounter in the academic world. The main thrust of this course is to enable students to write effective essays that sustain a clear focus and that effectively integrate material from outside readings.

By studying English composition, students will

- Recognize that a successful essay contains a main idea, supporting information (both anecdotal and factual), a logical pattern of development, and the effective attribution of material from outside sources.
- Write non-narrative essays that have a clear focus and adequate support drawn from a group of thematically linked readings.
- 3. Arrange the supporting details in a clear, logical pattern.
- 4. Formulate sentences in an essay that demonstrate variety in length and emphasis.
- 5. Obey the standard conventions of grammar and sentence structure.
- ☐ ENG 111: College Reading and Writing

#### Humanities

Students must earn a minimum of 3 credits from the following list in order to meet the general education requirement for associate degree programs.

#### **Humanities Learning Outcomes**

The humanities are an expression of what humankind over the centuries has felt, thought, and created in the

search for answers to questions about personal identity, origin, and the meaning of life. The humanities prepare students for a lifetime of inquiry, thereby enriching their own life experience now, and in the future.

By studying humanities, students will:

- Engage effectively in creative or interpretive skills and processes.
- Demonstrate the ability to discover larger patterns or relationships, discriminate among multiple views, and make connections to other times and peoples, their works, beliefs, and cultures.
- 3. Demonstrate the ability to communicate one's understanding and knowledge with clarity and persuasiveness—orally, visually, and/or in writing.

	COMM	171:	Film	Study	and	Appreciation	١
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COMM 213: Effective Speaking

ENG 112: Reading and Writing for Academic Research

ENG 120: Introduction to Literature

ENG 220: Introduction to Contemporary Women Poets

ENG 221: Creative Writing: Fiction

☐ ENG 222: Creative Writing: Poetry☐ FREN 101: Elementary French I

☐ FREN 102: Elementary French II

☐ FREN 108: Elementary French I and II

☐ FREN 110: French Conversation

FREN 125: French Culture and Civilization

☐ FREN 130: France Today

FREN 201: Intermediate French I

FREN 202: Intermediate French II

FREN 251: Advanced French I

☐ FREN 252: Advanced French II

☐ HUMN 101: Introduction to the Humanities

HUMN 201: Harlem Renaissance

JPNS 101: Elementary Japanese I

JPNS 102: Elementary Japanese II

JPNS 201: Intermediate Japanese I

JPNS 202: Intermediate Japanese II

☐ PHIL 201: Introduction to Philosophy

PHIL 203: Ethics

PHIL 205: Logic

PHIL 207: Religions of the World

PHIL 211: Chinese Philosophy

PHIL 227: Buddhist Philosophy

SPAN 101: Elementary Spanish I

SPAN 102: Elementary Spanish II

SPAN 108: Elementary Spanish I and II

SPAN 125: Spanish Culture

SPAN 130: Hispanic Culture

SPAN 135: Mexican Culture

☐ SPAN 201 Intermediate Spanish I

☐ SPAN 202: Intermediate Spanish II

☐ SPAN 208: Intermediate Spanish I & II

☐ SPAN 251: Advanced Spanish I

☐ SPAN 252: Advanced Spanish II

## Gen Ed Course Distribution Checklist (continued)

#### **Mathematics**

Students must earn a minimum of 3 credits from the following list of courses in order to meet the general education requirement for associate degree programs.

#### Mathematics Learning Outcomes

Mathematics is a continuously evolving discipline that offers students an increased potential for understanding the world. Issues in diverse areas including medicine, business, science and the arts raise questions that require individuals to have a fundamental knowledge of mathematics. Mathematics enables the individual to make connections, use appropriate technology, formulate mathematical models to analyze real data, and to read and interpret quantitative information in order to make meaningful and appropriate decisions. In an ever-changing and increasingly global community, the mathematically literate citizen will possess the problem-solving, reasoning and communication skills that will enable him/her to grow and meet its demands

By studying mathematics, students will

- 1. analyze and solve problems numerically, graphically, and symbolically.
- use mathematical tools and technology, including calculators and computers, to create mathematical models of real-world situations.

MATH 102: Mathematical Modeling III
MATH 105: Trigonometry
MATH 106: Elements of Modern Mathematics
MATH 109: Geometry
MATH 110: Quantitative Literacy
MATH 111: Elementary Statistics with Com-
puter Applications
MATH 113: Structure of Mathematics I: Num-
ber Systems
MATH 115: Technical Mathematics I
MATH 116: Technical Mathematics II
MATH 120: Topics in Modern Mathematics I
MATH 121: Topics in Modern Mathematics II
MATH 135: Elementary Mathematical Models
MATH 150: Precalculus
MATH 188: Problems, Readings & Applica-
tions in Calculus
MATH 189 : Problems, Readings & Applica-
tions in Calculus
MATH 190: Analytic Geometry & Calculus I
MATH 192: Analytic Geometry & Calculus II
MATH 201: Differential Equations
MATH 208: Statistics II
MATH 220: Introduction to Linear Algebra
MATH 250: Set Theory & Foundations

MATH 293: Analytic Geometry & Calculus III

#### **Natural and Physical Sciences:**

Students must earn a minimum of 3 credits from the following list of courses in order to meet the general education requirement for associate degree programs.

## Natural and Physical Sciences Learning Outcomes

Natural and Physical Sciences include the study of all living and non-living matter and energy encountered upon and within the earth, planets and stars. Studying the natural and physical sciences improves students' understanding of biological, chemical and physical principles, and the methods of scientific inquiry. As a basis for life-long learning, students should understand the vocabulary of science and realize that while a set of principles has been developed through the work of previous scientists, ongoing scientific inquiry and new knowledge will bring changes in the ways scientists view the world.

By studying the natural and physical sciences, students will

- 1. Formulate approaches to problem solving that are based on the scientific method.
- 2. Apply scientific principles in demonstrating their understanding of natural phenomena.

understanding of natural phenomena.
ASTR 110: Introduction to Astronomy
ASTR 110L: Astronomy Lab
BIO 100: Principles of Biological Science
BIO 101: General Biology I
BIO 102: General Biology II
BIO 112: Human Biology
BIO 121: General Zoology
BIO 141: Microbiology
BIO 152: Human Anatomy & Physiology I
BIO 153: Human Anatomy & Physiology II
BIO 260: Genetics

- □ CHEM 110: Elements of Chemistry
   □ CHEM 111: College Chemistry I
   □ CHEM 112: College Chemistry II
- ☐ CHEM 201: Principles of Organic Chemistry
- ☐ CHEM 211: Organic Chemistry I☐ CHEM 212: Organic Chemistry II
- ERSC 110: Introduction to Earth Science
- EVSC 100: Introduction to Environmental Science
- □ GEOL 110: Introduction to Physical Geology□ MTEO 110: Introduction to Meteorology
- OCEN 110: Introduction to OceanographyPHSC 100: Principles of Physical Science
- ☐ PHYS 110: Elements of Physics
- PHYS 111: Physics & the Human Body
- □ PHYS 121: General Physics I□ PHYS 122: General Physics II
- □ PHYS 131: University Physics I
- ☐ PHYS 132: University Physics II

#### **Social Sciences**

Students must earn a minimum of 3 credits from the following list of courses in order to meet the general education requirement for associate degree programs.

#### Social Sciences Learning Outcomes

The social sciences are those academic disciplines that deal with aspects of human society. Although different in their approaches, paradigms, and perspectives, the social sciences share a concern for the study of human individuals and their thoughts, emotions and behavior. Adhering to the principles of the scientific method, they seek to describe, analyze and interpret individual and collective behavior.

By studying the social sciences, students will

- 1. Demonstrate an awareness of diversity.
- 2. Demonstrate an understanding of individual and group behavior in various settings.
- 3. Examine the impact of social structure in individual and collective behavior.
- 4. Demonstrate an understanding for world events.
- 5. Demonstrate an understanding of the fundamentals of research.

	ANTH 101: Introduction to Anthropology
	ANTH 150: Cross Cultural Issues
	ECON 101: Macroeconomics
	ECON 102: Microeconomics
	GEOG 101: Introduction to Geography
	GEOG 202: A Geography of the United States
	and Canada
	GEOG 111: World Regional Geography
	HIST 101: Western Civilization I
	HIST 102: Western Civilization II
	HIST 201: United States History I
	HIST 202: United States History II
	HIST 121: World Civilization I
	HIST 122: World Civilization II
	PLSC 101: Introduction to Political Science
	PLSC 102: International Relations
	PLSC 111: State and Local Government
	PLSC 112: American National Government
	PSYC 111: General Psychology
	PSYC 112: Advanced General Psychology
	PSYC 240: Organizational Behavior
	SOC 101: Introduction to Sociology

## Accounting, A.S. Degree

#### Program Design

The Accounting associate degree program prepares students for employment as junior accountants or management trainees. Graduates will be able to maintain complete sets of accounting records and prepare financial statements and individual tax returns. Students have the opportunity to participate in MCC's Volunteer Income Tax Assistance (VITA) program, in which they gain practical experience in the preparation of tax returns. Students interested in transferring to earn a bachelor's degree should enroll in the Accounting and Business Administration Transfer, A.S. Degree Program.

#### Curriculum

Students may enroll full- or part-time. Since some courses are not offered in both the fall and spring semesters, see an advisor about your schedule. Students must achieve at least a C- or better in an accounting course to continue on to the next level. Note: To take a business course numbered 100 or higher, students must be eligible for ENG 111. To take an accounting course numbered 100 or higher, students must be eligible for ENG 111 and MATH 101 or higher.

#### **Accounting Requirements**

3		
ACCT 101	Financial Accounting	4
BUS 101	Business Law I	3
BUS 111	Business Environment	3
Gen Ed	ENG 111: College Reading and Writing	3
QM 110	Quantitative Methods for Business Careers	3
	Subtot	al: 16
ACCT 102	Managerial Accounting	4
BUS 102	Business Law II	3
CIS 106	Windows	2
ACCT 105	Accounting & Business Applications Software	3
Gen Ed	ECON 102: Microeconomics	3
Elective	Humanities	3
	Subtot	al: 18
ACCT 201*	Intermediate Accounting I	4
ACCT 223	Federal Taxes	3
BUS 214 ACCT 270**	Managerial Communications <u>or</u> Cooperative Education/Work Experience	3
Gen Ed	COMM 213/SPCH 213: Effective Speaking	3
Gen Ed	MATH 110: Quantitative Literacy	3
	Subtot	al: 16
ACCT 202	Intermediate Accounting II	4
ACCT 213	Cost Accounting	3
FNCE 241	Corporation Finance	3
Gen Ed	Fine Arts	3
Gen Ed	Natural Science	3-4

Subtotal: 17-18

Total Credits Required: 67-68

#### Learning Outcomes

Upon successful completion of all Accounting degree program requirements, graduates will

- Demonstrate mastery of generally accepted accounting principles and their manual and computerized spreadsheet applications to all phases of the accounting cycle.
- Complete relatively complex accounting problems and be familiar with current financial accounting standards and practices.
- Prepare complete financial statements for sole proprietorships, partnerships and corporations in compliance with current accounting standards and practices.
- Prepare the 1040 tax return and supporting schedules under simulated conditions.
- Explain how budgeting, activity-based costing and strategic cost management foster the effective use of resources and help an organization accomplish its goals.
- Demonstrate computer competencies for maximum efficiency including the use of accounting, spreadsheet and presentation software. Use the Internet for business purposes, including research, marketing, and stock market analysis.
- Understand and discuss financial issues dealing with the environment of managerial finance; including working capital management, short-term financing, capital markets, and the theory of the value of the firm (risk, leverage, cost of capital).
- Generally understand our legal system and be able to apply principles of contract law, sales law under Article II of the Uniform Commercial Code, and the law of agency to business situations.
- 9. Successfully enter the marketplace in the field of accounting.
- Demonstrate proficiencies in reading, writing, listening, presentation and analytical skills.
- 11. Work with others, including culturally and intellectually diverse peoples; think critically; and gain an appreciation for life-long learning.
- Rationalize and present solutions to problems using accounting knowledge and knowledge from social sciences, arts, literature, mathematics and science.
- 13. Develop sound ethical, philosophical and moral professional characteristics.
- Demonstrate a responsible attitude in relationships with employers, peers and toward the working environment.
- Demonstrate an understanding of how the United States economic system is organized, how it functions and how it impacts the global economy.
- Demonstrate an understanding of the interrelationships between accounting and all other areas within a business including working with other departments to achieve overall strategic goals.
- Students must take CIS 106, and ACCT 105 before they can enroll in ACCT 201.
- \*\* ACCT 270 is offered as an option for students who have a GPA of at least 2.0 and 15 credits completed towards their degrees, including ACCT 101, 102 and 201. Permission of Cooperative Education Director is required.

#### Accounting, Certificate

#### Program Design

The Accounting certificate program is designed for individuals who already have a bachelor's degree and would like to change careers. This program also serves individuals currently employed who are not seeking a degree or career change but would like formal training or professional development.

#### Curriculum

Students may enroll full- or part-time. Students must achieve at least a C- or better in an accounting course to continue on to the next level. *To take an accounting course numbered 100 or higher, students must be eligible for ENG 111 and MATH 101 or higher.* 

#### **Required Courses**

•		
ACCT 101	Financial Accounting	4
ACCT 102	Managerial Accounting	4
ACCT 105	Accounting & Business Applications Software	3
ACCT 201*	Intermediate Accounting I	4
ACCT 202	Intermediate Accounting II	4
ACCT 213	Cost Accounting	3
ACCT 223	Federal Taxes	3
BUS 101	Business Law I	3
CIS 106	Windows	2

Total Credits Required: 30

#### **Learning Outcomes**

Upon successful completion of all Accounting certificate program requirements, graduates will

- Demonstrate mastery of generally accepted accounting principles and their manual and computerized spreadsheet applications to all phases of the accounting cycle.
- Complete relatively complex accounting problems and be familiar with current financial accounting standards and practices.
- Prepare complete financial statements for sole proprietorships, partnerships and corporations in compliance with current accounting standards and practices.
- Prepare the 1040 tax return and supporting schedules under simulated conditions.
- Explain how budgeting, activity-based costing and strategic cost management foster the effective use of resources and help an organization accomplish its goals.
- Possess computer competencies for maximum efficiency including the use of accounting, spreadsheet and presentation software. Use the Internet for business purposes, including research, marketing, and stock market analysis.
- Work with others, including culturally and intellectually diverse peoples; think critically; and gain an appreciation for life-long learning.
- Demonstrate a responsible attitude in relationships with employers, peers and toward the working environment.
- Understand the interrelationships between accounting and all other areas within a business including working with other departments to achieve overall strategic goals.
- 10. Develop sound ethical and moral professional characteristics.
- 11. Successfully enter the market place in the field of accounting.
- \* Students must take CIS 106, and ACCT 105 before they can enroll in ACCT 201.

# **Accounting and Business Administration Transfer**, A.S. Degree

#### **Program Design**

The Accounting and Business Administration Transfer associate degree program is designed for students who plan to earn a bachelor's degree in accounting, business administration or marketing. This program provides a broad liberal arts background consisting mostly of courses normally taken in the first two years at a baccalaureate college or university. In addition, students will take courses in accounting and business administration. Advanced courses should be taken at the institution to which you transfer.

Students should be familiar with the requirements of the institutions to which they will transfer. Therefore, we encourage selection of transfer institutions as early as possible. Students should see an advisor before choosing elective courses because each transfer institution may have specific requirements.

#### Curriculum

We recommend that students have a sound foundation in mathematics before entering this program. Take the assessment test early to determine your level of mathematical ability. Note: To take a business course numbered 100 or higher, students must be eligible for ENG 111. To take an accounting course numbered 100 or higher, students must be eligible for ENG 111 and MATH 101 or higher.

Accounting	& Business Administration Requiremen	ts
ACCT 101	Financial Accounting	4
BUS 101	Business Law I	3
Gen Ed	ENG 111: College Reading and Writing	3
Gen Ed	PSYC 111: General Psychology	3
Gen Ed	Natural Science	3-4
	Subtotal	l: 16-17
ACCT 102	Managerial Accounting	4
ECON 101	Macroeconomics	3
Gen Ed	ENG 120: Introduction to Literature	3
Gen Ed	MATH 111: Elementary Statistics with Computer Applications	4
BUS 214*	Managerial Communications or	
PSYC 112	Advanced General Psychology	3
	Subte	otal: 17
BUS 121	Principles and Methods of Marketing I	3
Gen Ed	ECON 102: Microeconomics	3
CIS 111*	Introduction to Computers or	
Elective	Social Science	3
MATH 120	Topics in Modern Mathematics I:	
	Functions, Graphs, Matrices	3
Gen Ed	COMM 213/SPCH 213: Effective Speaking	3

Subtotal: 15

BUS 201	Business Management	3
FNCE 241	Corporation Finance	4
MATH 121	Topics of Modern Mathematics II: Applied Calculus	3
Elective	Social Science	3
Gen Ed	Fine Arts	3

Subtotal: 16

**Total Credits Required: 64-65** 

#### Learning Outcomes

Upon successful completion of all Accounting and Business Administration Transfer degree program requirements, graduates will

- Transfer to a four-year college or university and obtain junior status in the school of business.
- Prepare and interpret financial statements and utilize accounting for managerial decisions.
- Understand and discuss financial issues dealing with the environment of managerial finance, including working capital management, short-term financing, capital markets, and the theory of the value of the firm (risk, leverage, cost of capital).
- Explain how budgeting, activity-based costing and strategic cost management foster the effective use of resources and help an organization accomplish its goals.
- Generally understand our legal system and be able to apply principles of contract law, sales law under Article II of the Uniform Commercial Code, and the law of agency to business situations.
- Analyze principles, techniques, and the major functions (planning, organizing, lending and controlling) of business enterprise management.
- Demonstrate an understanding of marketing methods and institutions, including analysis and interrelationship of the marketing mix.
- 8. Apply basic marketing and management strategic planning methods and performance computations related to marketing efficiency.
- Demonstrate mathematical skills in topics including functions, graphs, matrices, applied calculus, and statistics with computer applications.
- Demonstrate computer skills appropriate to his/her focus area including word processing, electronic spreadsheets, Internet browser, database management, general ledger accounting systems, and presentation software.
- Use the Internet for business purposes, including research, marketing, and stock market analyses.
- Work with others, including culturally and intellectually diverse peoples; think critically; and gain an appreciation for life-long learning.
- 13. Demonstrate a responsible attitude in relationships with others.
- Demonstrate an understanding of how the United States economic system is organized, how it functions and how it impacts the global economy.

<sup>\*</sup> Students planning to attend UConn should take PSYC 112 and another social science elective.

## Administrative Assistant, Legal— Business Office Technology, A.S. Degree

#### Program Design

The Administrative Assistant, Legal—Business Office Technology associate degree provides students with a broad understanding of the court systems and the many fields of law. Students become proficient in keyboarding, word processing, legal terminology and legal transcription, office communication skills, integrated office systems, and office procedures. Students are encouraged to develop individual areas of interest through elective courses and through part-time and summer employment.

Legal administrative assistants use technology to originate, access, manage and manipulate information. In addition they may function independently in initiating office communications, accessing and tracking records and information, and problem solving the various details of the day-to-day office operations. They participate in the representation of and communication with clients and in the preparation of court papers, legal documents and correspondence.

#### Curriculum

Students may enroll in this program full- or part-time.

<b>Business Office Tec</b>	nnology F	Requirements
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business Of	nce rechnology Requirements	
BOT 103	Office Writing Procedures	3
BOT 107	Beginning Keyboarding	3
CIS 106	Windows	2
Gen Ed	ENG 111: College Reading and Writing	3
Gen Ed	PSYC 240: Organizational Behavior	3
Gen Ed	MATH 110: Quantitative Literacy	3
	Sub	total: 17
BOT 108	Advanced Keyboarding	3
BOT 117*	Skill Building	1
BOT 124	Microsoft Word for Windows	3
BOT 224	Office Accounting or	
ACCT 101	Financial Accounting	3-4
BOT 233	Legal Terminology: Forms & Documents	3
Gen Ed	ENG 112: Advanced Composition	3
	Subtota	al: 16-17
BOT 118*	Skill Building	1
BOT 130	Microsoft Office Suite	3
BOT 222	Office Procedures	3
BOT 234	Legal Terminology & Transcription	3
BOT 261	Document Production	
Gen Ed	Fine Arts	3

Subtotal: 16

BOT 109	Machine Transcription	3
BOT 262	Advanced Word Processing	3
ENG 114 ENG 203/BOT 203	Technical Writing <u>or</u> Proofreading & Editing	3
Gen Ed	Humanities	3
Gen Ed	Natural Science	3-4

Subtotal: 15-16

**Total Credits Required: 64-66** 

#### **Learning Outcomes**

Upon successful completion of all Administrative Assistant—Legal, BOT degree program requirements, graduates will

- Read, understand and prepare standard types of business communications
- 2. Demonstrate appropriate interpersonal, human relations skills.
- 3. Use appropriate business office procedures.
- 4. Understand and perform office accounting tasks.
- Demonstrate the use of legal terminology in preparing forms, documents, and transcribed material.
- Possess appropriate skills in the following software: operating system, word processing, electronic spreadsheet, database management, integrating office applications, and presentation graphics.
- 7. Demonstrate speed and accuracy in keyboarding skills.
- 8. Understand the importance of confidentiality in dealing with legal matters.
- May not be required based on proficiency.

Note: Students may elect to substitute BOT 270 Cooperative Education/Work Experience for any equivalent BOT credit course with prior departmental approval.

## Administrative Assistant, Medical— Business Office Technology, A.S. Degree

#### **Program Design**

The Administrative Assistant, Medical—Business Office Technology associate degree provides students with the skills necessary to excel in the medical office environment. Students become proficient in keyboarding, word processing, medical terminology and medical transcription, office communication skills, integrated office systems, and medical office billing procedures and record keeping. Sociology, psychology and biology courses are also included in this program.

#### Curriculum

Students may enroll in this program full- or part-time.

Business Office	e Technology Requirements	
BOT 103	Office Writing Procedures	3
BOT 107	Beginning Keyboarding	3
BOT 241	Medical Terminology	3
CIS 106	Windows	2
Gen Ed	ENG 111: College Reading and Writing	3
Gen Ed	MATH 110: Quantitative Literacy	3
	Subtota	al: 17
BOT 108	Advanced Keyboarding	3
BOT 124	Microsoft Word for Windows	3
BOT 210	Medical Machine Transcription	3
BOT 224	Office Accounting or	
ACCT 101	Financial Accounting	3-4
Gen Ed	ENG 112: Advanced Composition or COMM 213/SPCH 213: Effective Speaking	3
	Subtotal:	15_16
	Subtotal.	13-10
BOT 130	Microsoft Office Suite Applications	3
BOT 130 BOT 140		
	Microsoft Office Suite Applications	3
BOT 140	Microsoft Office Suite Applications  Medical Coding I	3
BOT 140 BOT 222	Microsoft Office Suite Applications  Medical Coding I  Office Procedures	3 3 3
BOT 140 BOT 222 BOT 117*	Microsoft Office Suite Applications  Medical Coding I  Office Procedures  Skill Building	3 3 3 1
BOT 140 BOT 222 BOT 117* Gen Ed	Microsoft Office Suite Applications  Medical Coding I  Office Procedures  Skill Building  BIO 112: Human Biology	3 3 3 1 4 3
BOT 140 BOT 222 BOT 117* Gen Ed	Microsoft Office Suite Applications  Medical Coding I  Office Procedures  Skill Building  BIO 112: Human Biology  SOC 101: Introduction to Sociology	3 3 3 1 4 3
BOT 140 BOT 222 BOT 117* Gen Ed Gen Ed	Microsoft Office Suite Applications  Medical Coding I  Office Procedures  Skill Building  BIO 112: Human Biology  SOC 101: Introduction to Sociology	3 3 3 1 4 3 al: 17
BOT 140 BOT 222 BOT 117* Gen Ed Gen Ed BOT 141	Microsoft Office Suite Applications  Medical Coding I  Office Procedures  Skill Building  BIO 112: Human Biology  SOC 101: Introduction to Sociology  Subtota	3 3 3 1 4 3 al: 17
BOT 140 BOT 222 BOT 117* Gen Ed Gen Ed  BOT 141 BOT 142 BOT 143 ENG 114	Microsoft Office Suite Applications  Medical Coding I  Office Procedures  Skill Building  BIO 112: Human Biology  SOC 101: Introduction to Sociology  Subtota  Medical Coding II  Foundations/Management of Medical Insurance	3 3 3 1 4 3 al: 17
BOT 140 BOT 222 BOT 117* Gen Ed Gen Ed  BOT 141 BOT 142 BOT 143	Microsoft Office Suite Applications  Medical Coding I  Office Procedures  Skill Building  BIO 112: Human Biology  SOC 101: Introduction to Sociology  Subtota  Medical Coding II  Foundations/Management of Medical Insurance  Computer Applications in the Medical Office	3 3 3 1 4 3 3 3 3 3
BOT 140 BOT 222 BOT 117* Gen Ed Gen Ed  BOT 141 BOT 142 BOT 143 ENG 114	Microsoft Office Suite Applications  Medical Coding I  Office Procedures  Skill Building  BIO 112: Human Biology  SOC 101: Introduction to Sociology  Subtota  Medical Coding II  Foundations/Management of Medical Insurance  Computer Applications in the Medical Office  Technical Writing or	3 3 3 1 4 3 3 1 1 3 3 3 3 3 3 3 3 3 3 3

Subtotal: 18

Total Credits Required: 66-67

#### **Learning Outcomes**

Upon successful completion of all Administrative Assistant—Medical, BOT Degree program requirements, graduates will

- Read, understand, and prepare standard types of business communications.
- 2. Demonstrate appropriate interpersonal, human relations skills.
- 3. Use appropriate business office procedures.
- 4. Understand and perform office accounting tasks.
- 5. Demonstrate the use of medical terminology.
- 6. Demonstrate correct billing and medical coding procedures.
- Possess appropriate skills in the following software: operating system, word processing, electronic spreadsheet, database management, integrating office applications, and presentation graphics.
- 8. Demonstrate speed and accuracy in keyboarding skills.
- May not be required based on proficiency.

Note: Students may elect to substitute BOT 270: Cooperative Education/Work Experience for any equivalent BOT credit course with prior departmental approval.

## Administrative Assistant, Office— Business Office Technology, A.S. Degree

#### Program Design

The Administrative Assistant, Office—Business Office Technology associate degree provides students with the skills necessary to excel in the office environment. Students become proficient in keyboarding, word processing, office communications skills, integrated office systems, and office procedures. Students are encouraged to develop individual areas of interest through elective courses and through part-time and summer employment.

Administrative assistants use technology to originate, access and manage and manipulate information. In addition they function independently in initiating office communications, accessing and tracking records and information, and problem solving the various details of the day-to-day office operations. As members of management teams, they are able to assume responsibility and work independently to exercise initiative and judgment and to adapt to new concepts and products.

#### Curriculum

Students may enroll in this program full- or part-time.

Business Office Technology Requ	irements
BOT 103 Office Writing Procedur	res 3
BOT 107 Beginning Keyboarding	3
CIS 106 Windows	2
Gen Ed ENG 111: College Rea	ding and Writing 3
Gen Ed PSYC 240: Organization	nal Behavior 3
Gen Ed MATH 110: Quantitative	e Literacy 3
	Subtotal: 17
BOT 108 Advanced Keyboarding	3
BOT 124 Microsoft Word for Win	dows 3
BOT 224 Office Accounting or	
ACCT 101 Financial Accounting	3-4
BOT 109 Machine Transcription	3
BOT 117* Skill Building	1
Gen Ed ENG 112: Advanced C	omposition <u>or</u>
COMM 213/SPCH 213	Effective Speaking 3
	Subtotal: 16-17
BOT 118* Skill Building	1
BOT 130 Microsoft Office Suite	3
BOT 222 Administrative Office P	rocedures 3
BOT 261 Document Production	3

Geography and Tourism

Natural Science

Subtotal: 16-17

3-4

BUS 101	Business Law I or	
BUS 214	Managerial Communications	3
ENG 114 ENG/BOT 203	Technical Writing <u>or</u> Proofreading and Editing	3
BOT 262	Advanced Word Processing	3
Gen Ed	Fine Arts	3
Gen Ed	Humanities	3

Subtotal: 15

**Total Credits Required: 64-66** 

#### **Learning Outcomes**

Upon successful completion of all Administrative Assistant, Office—BOT degree program requirements, graduates will

- Read, understand, and prepare standard types of business communications.
- 2. Demonstrate appropriate interpersonal, human relations skills.
- 3. Use appropriate business office procedures.
- 4. Understand and perform office accounting tasks.
- Possess appropriate skills in the following software: operating system, word processing, electronic spreadsheet, database management, integrating office applications, and presentation graphics.
- 6. Demonstrate speed and accuracy in keyboarding skills.
- \* May not be required based on proficiency.

Note: Students may elect to substitute BOT 270 Cooperative Education/Work Experience for any equivalent BOT credit course with prior departmental approval.

**GEOG 204** 

Gen Ed

# **Biotechnology Option**

# Environmental Science, A.S. Degree

## Program Design

The Biotechnology Option leads to an A.S. degree in Environmental Science. The program is designed to prepare students to join the growing biotechnology sector at the level of technician. Biotechnology is the manipulation of living organisms and/or biological processes to provide useful products. Students who complete this option may wish to further their education or seek employment as technicians in the pharmaceutical, agricultural or environmental industries. Students should not confuse this program with the Liberal Arts and Science, A.S. Degree Suggested Course Sequence.

The program is offered through a collaborative arrangement between Middlesex Community College and Manchester Community College. The A.S. degree is awarded by Middlesex Community College. The two year program will normally begin in the fall semester and will include a minimum of 62 credits in science, mathematics, social sciences and humanities. The applied courses in biotechnology techniques will be conducted at Middlesex Community College on transfer to that college. There is also the opportunity to carry out an internship with biotechnology companies located in the state.

Due to the agreement between Middlesex Community College and Manchester Community College, all designated courses taken at Manchester will transfer to Middlesex, provided a grade of "C" has been obtained.

For further information on this option please contact the Biotechnology Coordinator at Middlesex Community College, Jon Morris 860-343-5880 or Philip Jones at Manchester Community College 860-647-6198.

Program Rec	quirements	
BIO 101	General Biology I	4
CHEM 111	College Chemistry I	4
ENG 111	College Reading and Writing	3
MATH 102	Mathematical Modeling III	3
CIS 111 BOT 130	Introduction to Computers or Microsoft Office Suite Applications	3
	Subto	tal: 17
BIO 141	Microbiology	4
CHEM 104*	Introduction to Biochemistry	4
CHEM 112	College Chemistry II	4
ENG 114	Technical Writing or	
COMM 213	Effective Speaking	3
	Subto	tal: 15
BIO 203*	Topics in Genetics	3
BIO 206*	Molecular Biology	4
MATH 111	Elementary Statistics with Computer Applicati	ons 4
Elective	Social Science	3
Elective		3

Subtotal: 17

BIO 299*	Biotechnology Internship	3
CHEM 270L*	Topics in Chemical Instrumentation	4
Elective		3
Elective		3

Subtotal: 13

Total Credits Required: 62

## Learning Outcomes

Successful graduates will have gained the following skills and knowledge, which will provide them with the flexibility to quickly adapt to a variety of employment or educational options in biotechnology and science.

Upon successful completion of all program requirements, graduates will

- Students will know how to conduct themselves, as lab technicians in a biotechnology laboratory with the basic skills and knowledge required to function effectively in a research setting.
- Demonstrate proficiencies in both basic and advanced principles of chemistry and biology that are required by a person working as a lab technician or planning to enter into a four-year college science program.
- Write clear precise technical reports that document and analyses their work in a laboratory setting.
- Demonstrate the basics of Good Laboratory Practices (GLP). 4.
- 5. Describe the culture found within the scientific community and what is expected of persons employed in a research laboratory.
- 6. Keep a proper notebook required in a research setting.
- now the basic principle of genetics, molecular biology, cell biology, chemistry, biochemistry, and microbiology.
- Employ sterile technique in the handling of bacterial cultures with knowledge of what is safe and what is hazardous.
- Understand and have skills in making solutions used in the laboratory as well as how to make accurate measurements using precision instruments such as balances and micropipettors.
- Students will have gained skills in the use of recombinant DNA techniques, PCR, DNA sequence analysis, HPLC, gas chromatography, mass spectroscopy, IR spectroscopy, UV/VIS spectroscopy, as well as the use of the computer to collect and analyze experimental data.
- 11. Use computers to generate written reports, analyze data, collect information from databases, and use the Internet.
- 12. Have an appreciation for the ethical issues that are relevant to the newly emerging field of biotechnology.
- These courses are available only at Middlesex Community College. Students are encouraged to consult their advisor in planning their course of studies.

# **Business Administration Career,**

# A.S. Degree

## Program Design

The Business Administration Career program prepares graduates for employment as management trainees and for entry level positions in banks, insurance companies and governmental agencies. It is a general business program requiring students to take courses in accounting, business law, economics, management and corporation finance.

Although many courses in this program may be transferred, it is possible that they will transfer only as electives. Students planning to earn a bachelor's degree should register in the Accounting and Business Administration Transfer Program.

This program is of considerable benefit to employed students looking for professional development or students who hold degrees in unrelated areas and are looking for a career specialty or career change.

#### Curriculum

Students may attend full- or part-time. *Note: To take a business course numbered 100 or higher, students must be eligible for ENG 111. To take an accounting course numbered 100 or higher, students must be eligible for ENG 111 and MATH 101 or higher.* 

## **Business Administration Career Requirements**

Business Ad	dministration Career Requirements	
ACCT 101	Financial Accounting	4
BUS 101	Business Law I	3
BUS 111	Business Environment	3
Gen Ed	ENG 111: College Reading and Writing	3 3
QM 110	Quantitative Methods for Business	3
	Subtot	al: 16
ACCT 102	Managerial Accounting	4
BUS 102	Business Law II	3
CIS 106	Windows	2
Gen Ed	COMM/SPCH 213: Effective Speaking	3
ACCT 105	Accounting & Business Applications Software	
Gen Ed	MATH 110: Quantitative Literacy	3
	Subtot	al: 18
BUS 121	Principles and Methods of Marketing I	3
Gen Ed	ECON 102: Microeconomics	3
Elective	Business	3
Gen Ed	Natural Science	3-4
Gen Ed	Social Science	3
	Subtotal:	15-16
BUS 201	Business Management	3
BUS 214	Managerial Communications	3
FNCE 241	Corporation Finance	4
Gen Ed	Humanities	3
Gen Ed	Fine Arts	3

Subtotal: 16

#### Learning Outcomes

Upon successful completion of all Business Administration Career degree program requirements, graduates will

- Prepare and interpret financial statements and use accounting for managerial decisions.
- Understand and discuss financial issues dealing with the environment of managerial finance; including working capital management, short-term financing, capital markets, and the theory of the value of the firm (risk, leverage, cost of capital).
- Generally understand the U.S. legal system and be able to apply principles of contract law, sales law under Article II of the Uniform Commercial Code, and the law of agency to business situations.
- Discuss partnership and corporation law, property, wills and estates, commercial paper, the bank collection process, secured transactions and creditors' rights, and government regulation of business.
- Analyze principles, techniques, and major functions (planning, organizing, lending and controlling) of business enterprise management.
- Understand marketing methods and institutions, including analysis and interrelationship of the marketing mix.
- Demonstrate computer skills appropriate to his/her focus area including word processing, electronic spreadsheet, database management, general ledger accounting system, and presentation software.
- 8. Use the Internet for business purposes, including research, marketing, and stock market analysis.
- Demonstrate an understanding of how the United States economic system is organized, how it functions and how it impacts the global economy.
- 10. Successfully enter the marketplace in the field of business.
- Demonstrate proficiencies in reading, writing, listening, presentation and analytical skills.
- Work with others, including culturally and intellectually diverse peoples; think critically; and gain an appreciation for life-long learning.
- Rationalize and present solutions to problems using business knowledge and knowledge from social sciences, arts, literature, mathematics and science.
- 14. Develop sound ethical, philosophical and moral professional characteristics.
- 15. Demonstrate a responsible attitude in relationships with employers, peers and toward the working environment.

**Total Credits Required: 65-66** 

# **Business Office Technology,**

# Certificates

## **Program Design**

Business Office Technology certificates programs allow students to specialize in areas of interest and obtain entry-level office positions. Course credit may be applied toward an associate degree. Advanced placement in keyboarding is available for students with prior training. Students can modify their programs depending upon experience.

#### Curriculum

These certificate programs may be taken on a full- or part-time basis. They are designed for high school graduates, persons desiring to reenter the office, and college graduates seeking employment.

# Clerk/Typist, Certificate

Today's automated office requires the ability to prepare documents from handwritten and recorded material. Graduates find employment opportunities in business organizations, government agencies, and professional offices.

# Required Courses

Required Co	ourses	
BOT 224	Office Accounting	3
BOT 103	Office Writing Procedures	3
BOT 107	Beginning Keyboarding	3
BOT 109	Machine Transcription	3
CIS 106	Windows	2
		Subtotal: 14
BOT 108	Advanced Keyboarding	3
BOT 115	Records Management	3
BOT 124	Microsoft Word for Windows	3
BOT 130	Microsoft Office Suite Applications	3
BOT 222	Administrative Office Procedures	3
		Subtotal: 15

Total Credits Required: 29

#### **Learning Outcomes**

Upon successful completion of all Clerk/Typist certificate program requirements, graduates will

- Read, understand and prepare standard types of business communications.
- 2. Demonstrate appropriate interpersonal, human relations skills.
- Use appropriate business office procedures.
- 4. Understand and perform accounting tasks.
- Possess appropriate skills in the following software: operating system, word processing, electronic spreadsheet, database management, integrating office applications, and presentation graphics.
- 6. Demonstrate speed and accuracy in keyboarding skills.

# Medical Insurance Specialist, Certificate

With the numerous changes in the healthcare industry, the Medical Insurance Specialist certificate program is designed to prepare students to handle and code insurance claims in doctor's offices, hospitals, HMOs and other healthcare facilities. There is a great need for employees with coding knowledge.

# **Required Courses**

BOT 107	Beginning Keyboarding	3
BIO 110	Human Biology	3
BOT 140	Medical Coding I	3
BOT 241	Medical Terminology	3
	subtotal	l: 12
BOT 141	Medical Coding II	3
BOT 142	Foundation/Management of Medical Insurance	3
BOT 143	Computer Applications in the Medical Office	3

Subtotal: 9

# **Total Credits Required: 21**

## Learning Outcomes

Upon successful completion of all Medical Insurance Specialist certificate program requirements, graduates will

- 1. Read, understand and prepare standard types of business communications.
- 2. Demonstrate appropriate interpersonal, human relations skills.
- Demonstrate proficiency in the use of ICD-9 and CPT coding in entering and/or processing medical insurance claims.
- Possess appropriate skills in the following software: operating system, and computer applications in the medical office.
- Understand the importance of confidentiality in dealing with medical insurance issues.

# **Business Office Technology,**

# continued

# **Medical Transcription**, Certificate

A medical transcriptionist translates from oral to written form highly technical information summarizing medical histories, diagnoses and treatments for patients and can find employment in a variety of health care settings: doctors' offices, health maintenance organizations, medical transcription services, clinics, insurance companies, and various other medical related agencies and organizations.

# **Required Courses**

		Subtotal: 12
BOT 211	Medical Machine Transcription II	3
BOT 103 BOT 203/ENG 203	Office Writing Procedures or Advanced Editing and Proofreading	3
BOT 108	Advanced Keyboarding	3
BIO 201	Pharmacology	3
		Subtotal: 12
BOT 241	Medical Terminology	3
BOT 210	Medical Machine Transcription I	3
BOT 124	Microsoft Word for Windows	3
BIO 210	Human Pathology	3

Total Credits Required: 27

3

#### **Learning Outcomes**

**BOT 270** 

Upon successful completion of all Medical Transcription certificate program requirements, graduates will

Cooperative Education/Work Experience

- Read, understand and prepare standard types of business communications.
- 2. Demonstrate appropriate interpersonal, human relations skills.
- 3. Use appropriate business office procedures.
- Use correct medical terminology in transcribing various documents.
- Possess appropriate skills in the following software: operating system, word processing.
- 6. Demonstrate speed and accuracy in keyboarding skills.
- 7. Understand the importance of confidentiality in dealing with medical issues.

# Office Skills Update, Certificate

This certificate is designed for individuals who wish to enhance and upgrade previously acquired office skills.

## **Required Courses**

CIS 106	Windows	2
BOT 108	Advanced Keyboarding	3
BOT 124	Microsoft Word for Windows	3
BOT 130	Microsoft Office Suite Applications	3
BOT 222	Administrative Office Procedures	3
Elective	Select <u>one</u> of the following: BOT 103 Office Writing Procedures BOT 109 Machine Transcription BOT 224 Office Accounting	3

**Total Credits Required: 17** 

## Learning Outcomes

Upon successful completion of all Office Skills Update certificate program requirements, graduates will

- Read, understand and prepare standard types of business communications.
- 2. Demonstrate appropriate interpersonal, human relations skills.
- 3. Use appropriate business office procedures.
- Demonstrate a high level of skill in the use of word processing software in the production of business documents.
- Possess appropriate skills in the following software: operating system, word processing, spreadsheet, database, and presentation graphics.
- 6. Demonstrate speed and accuracy in keyboarding skills.
- 7. Demonstrate competency in machine transcription.

# Receptionist, Certificate

Receptionists enjoy contact with the public in many settings. Students who complete this program find employment opportunities in professional offices, business organizations, and government agencies.

## **Required Courses**

BOT 103	Office Writing Procedures	3
BOT 107	Beginning Keyboarding	3
BOT 224	Office Accounting	3
COMM 213/SPCH 213	Effective Speaking	3
		Subtotal: 12

Subtotal: 12

BOT 108	Advanced Keyboarding	3
BOT 124	Microsoft Word for Windows	3
BOT 130	Microsoft Office Suite Applications	3
BOT 222	Administrative Office Procedures	3

Subtotal: 12

# **Business Office Technology,**

# continued

## Learning Outcomes

Upon successful completion of all Receptionist certificate program requirements, graduates will

- 1. Demonstrate speed and accuracy in keyboarding skills.
- 2. Greet office visitors in a professional manner.
- 3. Demonstrate professional telephone techniques.
- 4. Use word processing software effectively in the preparation of documents.

# **Records Management, Certificate**

The management and retention of records is an important office function. Graduates of this program work in centralized filing departments of business organizations, professional offices and government agencies.

# **Required Courses**

BOT 103	Office Writing Procedures	3
BOT 107	Beginning Keyboarding	3
BOT 224	Office Accounting	3
CIS 106	Windows	2

#### Subtotal: 11

BOT 108	Advanced Keyboarding	3
BOT 115	Records Management	3
BOT 124	Microsoft Word for Windows	3
BOT 130	Microsoft Office Suite Applications	3
BOT 222	Administrative Office Procedures	3

Subtotal: 15

## **Total Credits Required: 26**

#### **Learning Outcomes**

Upon successful completion of all Records Management certificate program requirements, graduates will

- Read, understand and prepare standard types of business communications.
- 2. Demonstrate appropriate interpersonal, human relations skills.
- 3. Use appropriate business office procedures.
- 4. Demonstrate a high level of skill in records management.
- Possess appropriate skills in the following software: operating system, word processing.

# Word Processing, Certificate

The accurate entry and retrieval of data is essential in today's business environment. Graduates of this program are trained for positions as data entry operators or as word processors. Many kinds of business organizations recruit employees with this training.

# **Required Courses**

BOT 103	Office Writing Procedures	3
BOT 107	Beginning Keyboarding	3
BOT 222	Administrative Office Procedures	3
CIS 106	Windows	2
		Subtotal: 11
BOT 108	Advanced Keyboarding	3
BOT 109	Machine Transcription	3
BOT 124	Microsoft Word for Windows	3
BOT 130	Microsoft Office Suite Applications	3
		Subtotal: 12

#### **Total Credits Required: 23**

# Learning Outcomes

Upon successful completion of all Word Processing certificate program requirements, graduates will

- Understand the flow of information in an office environment and the part played by a word processing employee in using and maintaining that information flow.
- 2. Use a computer effectively in an office environment.
- Demonstrate a high level of skill in the use of word processing software to produce business documents.
- Integrate the use of word processing software and electronic spreadsheet software.
- 5. Demonstrate skill in presentation software and database software.
- 6. Demonstrate speed and accuracy in keyboarding skills.
- 7. Utilize appropriate business office procedures.
- 8. Demonstrate proficiency in machine transcription.
- Possess appropriate skills in the following software: spreadsheet, database, presentation graphics.

# Communication, A.S. Degree

## **Program Design**

The Communication associate degree program prepares students for employment in television as reporters, production assistants, camera operators and videotape editors; in radio as on-air personnel and copywriters; in journalism as reporters, photographers and feature writers; and in public relations as entry-level employees or trainees.

Students have the opportunity to participate in up to two semesters of media work experience with placement at area media outlets. Students are encouraged to take up to six credits of Cooperative Education/Work Experience. Any Cooperative Education/Work Experience beyond six credits will not be applied towards a degree.

Students who are interested in specializing in TV production should inquire about the articulation agreement between Manchester and Middlesex Community Colleges. Students are able to take courses at both colleges and receive an associate's degree in broadcast communications from Middlesex Community College.

#### Curriculum

Students may enroll in this program on a full- or part-time basis and attend classes during the day or evening. Note that to enter COMM 281 and continue the program you must receive a grade of at least B in ENG 111 or have permission from the instructor.

# **Communication Requirements**

ENG 111	College Reading and Writing	3
COMM 176/FA 176	Video/Film Making or	3
COMM 210	Broadcast/TV Production	4
Gen Ed	PSYC 111: General Psychology	3
Gen Ed	COMM 213/SPCH 213: Effective Speaking	3
Gen Ed	MATH 110: Quantitative Literacy	3

#### Subtotal: 15-16

COMM 150	Issues in Print, Broadcast and Photojournalism	3	
COMM 281	Basic Newswriting		
ENG 120	Introduction to Literature	3	
HIST 102	Western Civilization or		
HIST 202	United States History or		
HIST 215	America since 1945	3	
PLSC 111	American National Government or		
PLSC 112	State and Local Government	3	
	Subtotal: 15	5-16	

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COMM 206	Broadcast Announcing or	
COMM 285	Television News Reporting	3
COMM 218	TV Writing	3
COMM 270	Cooperative Education/Work Experience	3
COMM 290	Desktop Publishing	3
Gen Ed	COMM 171/FA 171: Film Study & Appreciation	3

Subtotal: 15

COMM 201	Public Relations or	3
COMM 282	Feature and Magazine Writing	
COMM 208	Mass Communications	3
PSYC 131	Social Psychology or	
PSYC 240	Organizational Behavior	3
COMM 271	Cooperative Education/Work Experience or	
Elective	Undesignated	3
Gen Ed	Natural Science	3-4

Subtotal: 15-16

Total Credits Required: 60-63

# **Learning Outcomes**

Upon successful completion of all Communication degree program requirements, graduates will

- 1. Write copy for radio and television.
- 2. Research and write newspaper and feature stories.
- 3. Operate still and video cameras.
- 4. Edit videotape.
- 5. Conduct interviews for news stories and television programs.
- 6. Write scripts for radio and television programs.
- 7. Develop and deliver effective oral presentations.
- 8. Appreciate the role and effect of mass media upon society.

# Computer-Aided Design (CAD),

# Certificate

# Program Design

The Computer-Aided Design (CAD) Certificate program will provide students with career-based training in mechanical design utilizing computer-aided drafting/design technology. To provide the necessary technical education base, the program also includes education and training in applied technical mathematics, and engineering drawing and geometric dimensioning and tolerancing skills. Basic training in computer technology is included to prepare students for the 2-dimensional, 3-dimensional and solid-modeling computer-aided design technology in the program. CAD technology in the core of the certificate program is AutoCAD integrated with Pro/ENGINEER solid-modeling and rendering technology, both being predominant technology leaders in CAD/solid-modeling.

All technical manufacturing and engineering design in today's high-technology business and industry utilizes computer-based, computer-aided design technologies which integrate the design, engineering and manufacturing design analysis, and manufacturing of complex products and product parts, sub-assemblies, and assemblies into a single, technically coherent process.

#### Curriculum

Students may enroll in this program full or part-time. Courses are offered during daytime or evening hours. Students who complete the Computer-Aided Design (CAD) Certificate program and decide to pursue an associates of science degree may apply all of their credits (25 credits) towards the Industrial Technology A.S. Degree program or the Connecticut College of Technology Technological Studies A.S. Degree Pathways program, both of which are articulated technology programs within the Central Connecticut State University's School of Engineering and Industrial Technology. Students should consult with an engineering/technology faculty advisor to plan their program and schedule of classes, and to discuss required course prerequisites.

## **Required Courses**

MATH 115	Technical Mathematics I	3
MATH 116	Technical Mathematics II	3
CIS 111	Introduction to Computers	3
ENGR 101	Engineering Drawing Interpretation	3
ENGR 102	Geometric Dimensioning and Tolerancing	3
CAD 101	Computer-Aided Design (CAD) I (AutoCAD)	3
CAD 102	Computer-Aided Design (CAD) II (AutoCAD)	3
CAD 105	Parametric – Pro/ENGINEER	3

**Total Credits Required: 24** 

## **Learning Outcomes**

- Interpret complex engineering drawings including geometric dimensioning and tolerancing.
- Perform competently in solving technical manufacturing and engineering mathematics problems.
- Exhibit competency in two-dimensional, three-dimensional and solidmodeling skills as applied to complex computer-aided design technology.
- Demonstrate an understanding of the role and function of computers and effectively use the computer to solve complex technical problems.

# **Computer Engineering Technology,**

# A.S. Degree

## Program Design

The Computer Engineering Technology A.S. Degree program provides students with a broad background in the underlying disciplines of computer engineering and computer electronics technology including: the fundamentals of computer electronics including basic AC/DC linear circuit analysis, analog and digital electronics, and microprocessor electronics to enable students to perform component and board level computer electronics analysis and troubleshooting; broad experience in problem solving with computers; the basics of computer architecture and organization; an understanding of the basics of computer operating systems and the integration of computer hardware and software; and an understanding of basic computer networking concepts and technologies including the fundamentals of network design, installation, and maintenance.

Students will also acquire a comprehensive educational background in mathematics, physics, and general education, in addition to acquired skills and knowledge in the field of computer engineering technology, designed to develop and enhance their critical thinking and problem analysis and resolution skills.

The Computer Engineering Technology A.S. Degree program prepares students for transfer to baccalaureate institutions with bachelor degree programs in computer science or other related computer science/technology programs, or for entry into computer-based industry positions and further industry-based training. Students planning to transfer to baccalaureate institutions should consult with an advisor regarding the requirements of these institutions and transferability of courses.

The experience and training in the Computer Engineering Technology A.S. Degree program will also prepare students for the national CompTIA Computer Technicians A+ Certification Examination.

#### Curriculum

Students may enroll in this program full or part-time. Courses are offered during daytime or evening hours. For students not prepared for the required mathematics or computer technology courses in the program, MCC offers a wide range of preparatory courses. Please consult with a computer science/technology faculty advisor.

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Compator	ing mooning roomfology requirements	
Gen Ed	ENG 111: College Reading and Writing	3
Gen Ed	MATH 115: Technical Mathematics I	3
ELC 120	AC/DC Circuit Analysis	4
CST 110	Introduction to Computer Technology	3
CS 125	Programming Logic and Design with C	3
	Subtotal	: 16
ENG 114	Technical Writing	3
MATH 116	Technical Mathematics II	3
ELC 122	Electronics	4
CST 130	Fundamentals of Computer Operating Systems	4
Gen Ed	COMM 213/SPCH 213: Effective Speaking	3

Subtotal: 17

Gen Ed	PHYS 121: General Physics I	4
CST 191	Computer Hardware I	3
ELC 220	Digital Electronics	4
Gen Ed	Fine Arts	3
Gen Ed	Social Science	3
		Subtotal: 17
PHYS 122	General Physics II	4
ELT 215	Microprocessors	4
CS 215	Microprocessor Assembly language	4
CST 171	Network Essentials I	3
Gen Ed	PSYC 240: Organizational Behavior	3

Subtotal: 18

**Total Credits Required: 68** 

## **Learning Outcomes**

- 1. Perform competently in solving technical mathematics problems.
- 2. Express ideas effectively through written and oral communication.
- Demonstrate an understanding of the role and function of computers and effectively use the computer to solve problems.
- Understand the basic fundamentals of computer electronics from basic circuit analysis through analog and digital electronics and microprocessor electronic analysis.
- 5. Perform component and board level electronic diagnostics.
- Describe the various aspects of computer operating systems and their design and implementation.
- 7. Describe the theory involved in computer networks.
- Describe the basic technologies used in Local and Wide Area Networks including logical and physical technologies as well as hardware and software associated with networks.
- Demonstrate a working knowledge of the internal structure of digital computers and the programming of the microcomputer.
- Demonstrate sufficient knowledge in computer network theory, technology, and administration to secure career placement in the field.
- Demonstrate an appreciation for the liberal arts through literature and the humanities.
- Demonstrate an appreciation for the social sciences.

# **Computer Information Systems**,

# A.S. Degree

# Program Design

The Computer Information Systems associate degree program prepares graduates for employment as entry-level programmers. Students learn the principles of structured programming with a strong emphasis on COBOL. Other areas of study include systems analysis and design, business application software, and microcomputer languages.

In addition to the program's varied software component, students interact with an IBM mainframe computer and IBM compatible microcomputers. Graduates will be able to program business applications using structured design methodology. An optional work experience course is also available.

Students interested in earning a bachelor's degree in management information systems should enroll in our Management Information Systems Transfer Program.

#### Curriculum

**CIS 106** 

CS 202

**CS 223** 

Gen Ed

Gen Ed

The curriculum may be completed on a full- or part-time basis. Students, especially those attending part-time, should work closely with a faculty member or advisor to insure they select courses most appropriate to their goals.

Students with no keyboarding experience should take BOT 100A Keyboarding, concurrently with their first CIS course.

Compute	Information Systems Requirements
CIS 106	Windows

CIS 107	Advanced Windows		
CST 110	Introduction to Computer Technology		
CS 125	Programming Logic and Design with ANSI C		
Gen Ed	ENG 111: College Reading & Writing	3	
Gen Ed	COMM 213/SPCH 213: Effective Speaking	3	
Elective*	Applications Elective	3	
	Subtota	al: 18	
ACCT 101	Financial Accounting	4	
ENG 114	Technical Writing or		
BUS 214	Managerial Communication	3	
CS 213	Computer Programming in COBOL I		
CS 201	Visual Basic I <u>or</u>		
CS 222	Programming in C	3	
Gen Ed	ECON 102: Microeconomics	3	
	Subtot	al: 17	
CIS 159	Database Management: Access	3	
CS 214	Computer Programming in COBOL II 4		

Visual Basic II or

Fine Arts

Programming in C++

**Computer Applications** 

MATH 111: Elementary Statistics with

Subtotal: 17

3

4 3

2

CST 171	Network Essentials I	3
Elective**	Programming Elective	3
CS 225	Systems Design	4
Gen Ed	Natural Science	3
Gen Ed	Social Science	3

Subtotal: 16

Total Credits Required: 68

## Learning Outcomes

Upon successful completion of all Computer Information Systems degree program requirements, graduates will

- Demonstrate an understanding of business applications.
- Demonstrate the ability to define a problem and develop a logically structured solution.
- Demonstrate knowledge of the major concepts and language requirements to write, compile, and execute programs in a high-level programming language.
- Demonstrate the skills to troubleshoot and debug programming problems and to follow through with effective solutions.
- 5. Demonstrate an understanding of operating systems for the microcomputer, the mainframe, and local area networks.
- 6. Demonstrate the ability to understand relational database concepts and to use Microsoft Access for business applications.
- Demonstrate an understanding of basic networking concepts, including network topologies, hardware and software components, protocols, and the factors involved in making network decisions.
- Demonstrate the ability to integrate knowledge gained through the curriculum in order to analyze a business problem and design the appropriate hardware and software solutions.
- Express ideas effectively through written and oral communication.
- 10. Acquire the level of math skills appropriate for the student's program of study.
- 11. Develop an appreciation for the need to remain current and aware of emerging and evolving technologies.
- 12. Demonstrate an appreciation for the liberal arts and sciences through broadened interest and knowledge in several non-technical subjects.

## \*Applications Elective — Choose 3 credits from the following:

BOT 125: Introductory Microsoft Word	1
BOT 126: Intermediate Microsoft Word	1
CIS 118: PowerPoint	1
CIS 166: Excel	3

#### \*\* Programming Elective — Choose one from the following:

CS 201: Visual Basic I	3
CS 202: Visual Basic II	3
CS 226: MVS Operating Systems/JCL	3
CS 259: Database Management -	
Advanced Access with VBA	3
CS 222: Programming in C	3
CS 223: Programming in C++	3
CS 224: Programming in Java	3

Note: Students may elect to substitute CIS 270: Cooperative Education/Work Experience for any equivalent CIS credit course with prior departmental approval.

# Computer Information Systems,

# Certificate

# Program Design

The Computer Information Systems certificate program is designed for students with a bachelor's degree who are looking for a career change. This program is also of value to persons employed in the area of computer information systems who want formal training for job advancement.

Students will interact with the IBM mainframe computer and IBM compatible microcomputers.

#### Curriculum

The Computer Information Systems certificate program may be completed by enrolling full- or part-time. During designated periods, computer labs are open to students for practice and homework projects.

# **Required Courses**

CIS 106*	Windows	2
CST 110	Introduction to Computer Technology	3
CS 125	Programming Logic and Design with ANSI C	3
CS 201	Visual Basic I	3
CS 202	Visual Basic II	3
CS 213	Computer Programming: COBOL I	4
CS 214	Computer Programming: COBOL II	4
CS 226	MVS Operating Systems/JCL	3
CIS 107, 118, 159, 166, CST 114, 115, 130, CST 171, 191, CS 222, 225, 259	Computer Information Systems Elective — Choose any <u>4</u> credit combination from the following courses.	4

**Total Credits Required: 29** 

## **Learning Outcomes**

Upon successful completion of all Computer Information Systems certificate program requirements, graduates will

- Demonstrate an understanding of a computer's operating system and its mandatory functions with regard to application software, file management, basic system maintenance, system resources, and the custom computing environment.
- Demonstrate the ability to effectively use a computer as a tool at home, on the job, or in the classroom.
- Demonstrate knowledge of computer applications including word processing, spreadsheets, and other software.
- Demonstrate a basic understanding of internal functions of a computer system, ie. I/O, memory and processing.
- Demonstrate an understanding of operating systems for the microcomputer and the mainframe.
- Demonstrate the ability to define a problem and develop a logically structured solution.
- Demonstrate the ability to use a high-level programming language for large-scale program development.
- Students with no keyboarding experience should take BOT 100A Keyboarding concurrently.

# Computer Maintenance Technology, Certificate

## **Program Design**

The Computer Maintenance Technology Certificate program is for students seeking specific skills in the installation, configuration, and maintenance of computers and basic to complex computer networks. Students will acquire background and skills to enable them to understand and work with digital machines from microprocessors to microcomputers to mainframe systems configured in Local Area or Wide Area Networks. Students will learn to: install, configure, maintain and upgrade stand-alone computers or computers within networks; troubleshoot basic hardware and software problems on computer and within computer networks; understand the fundamentals of computer operating systems; describe and understand the basic technologies used in Local and Wide Area Networks, including logical and physical technologies as well as hardware and software associated with computer networks; and demonstrate sufficient knowledge in computer and computer networking technology to secure career placement in the field. Classroom discussion is supplemented with "hands-on" computer network laboratory experience and projects.

The experience and training in the Computer Maintenance Technology Certificate program will also prepare students for the core and elective computer industry network certification examinations such as the national CompTIA Computer Technicians A+ Certification Examination.

#### Curriculum

Students may enroll in this program full or part-time. Courses are offered during daytime or evening hours. Students who complete the Computer Maintenance Technology Certificate program and decide to pursue an associates of science degree may apply all of their credits (24 credits) towards the Computer Network Technology A.S. Degree program (65 credits). Students should consult with a computer science/technology faculty advisor to plan their program and schedule of classes, and to discuss required course prerequisites.

# **Required Courses**

CST 110	Introduction to Computer Technology	3
CST 130	Fundamentals of Computer Operating Systems	4
CST 171	Network Essentials I	3
CST 191	Computer Hardware I	3
CST 192	Computer Hardware II	3
CST 231	Computer Operating Systems- Windows Workstation	4
CST 232	Computer Operating Systems- Windows Server	4

**Total Credits Required: 24** 

## **Learning Outcomes**

- Demonstrate an understanding of the role and function of computers and effectively use the computer to solve problems.
- Describe the various aspects of computer operating systems and their design and implementation.
- Describe the basic technologies used in Local and Wide Area Networks including logical and physical technologies as well as hardware and software associated with networks.
- Demonstrate skills in installation, configuration, maintenance, troubleshooting, and upgrade of computers and computer-related equipment and computer network hardware and software.
- Demonstrate a working knowledge of computer networks by describing design and technologies used in computer networks including: transmission media, topologies, protocols, interface performance analysis, bridges, gateways, data integrity, and computer security.
- Demonstrate sufficient knowledge in computer network theory, technology, and administration to secure career placement in the field.

# Computer Network Technology,

# A.S. Degree

## Program Design

The Computer Network Technology A.S. Degree program provides students with a broad background in the underlying disciplines of computer networking technology including: the fundamentals of and specific skills in computer programming; broad experience in solving problems with computers; the basics of computer architecture and organization; an understanding of the basics of computer operating systems and experience with the predominant computer industry operating systems; and an understanding of computer networking concepts and technologies including the fundamentals of network design, installation, configuration, maintenance, and network administration.

Students will also acquire a comprehensive educational background in mathematics, physics, and general education, in addition to acquired skills and knowledge in the field of computer engineering technology, designed to develop and enhance their critical thinking and problem analysis and resolution skills.

The Computer Network Technology A.S. Degree program prepares students for transfer to baccalaureate institutions with bachelor degree programs in computer science or other related computer science/technology programs, or for entry into computer-based industry positions and further industry-based training. Students planning to transfer to baccalaureate institutions should consult with an advisor regarding the requirements of these institutions and transferability of courses.

The experience and training in the Computer Network Technology Certificate program will also prepare students for the core and elective computer industry network certification examinations such as the Microsoft MCP (Microsoft Certified Professional) and MCSE (Microsoft Certified Systems Engineer) certifications.

#### Curriculum

Students may enroll in this program full or part-time. Courses are offered during daytime or evening hours. For students not prepared for the required mathematics or computer technology courses in the program, MCC offers a wide range of preparatory courses. Please consult with a computer science/technology faculty advisor.

# Computer Network Technology Requirements

	3, 11	
Gen Ed	ENG 111: College Reading and Writing	3
Gen Ed	MATH 115: Technical Mathematics I	3
CST 110	Introduction to Computer Technology 3	
CS 125	Programming Logic and Design with C	3
Gen Ed	PSYC 240: Organizational Behavior	3
	Subtotal	: 15
ENG 114	Technical Writing	3
MATH 116	Technical Mathematics II	3
CST 130	Fundamentals of Computer Operating Systems	4
CST 171	Network Essentials I	3
Elective*	Technical Electives (See list)	3
	Subtotal	: 16
CST 172	Network Essentials II	3
CST 191	Computer Hardware I	3
CST 231	Computer Operating Systems- Windows Workstation	4

Gen Ed	COMM 213/SPCH 213: Effective Speaking	3
Gen Ed	PHYS 110: Elements of Physics	4
	Subtotal	: 17
MATH 111	Elementary Statistics with Computer Applications	4
CST 232	Computer Operating Systems-Windows Server	4
CST 233	Computer Network Management	3
Elective*	Technical Electives (See list)	3
Gen Ed	Fine Arts	3

Subtotal: 17

#### Total Credits Required: 65

*Too	hnica	l Flectives	I ict.
" i ec	mmca	i ciectives	LIST:

CST 115: Building Web Pages	3
CST 192: Computer Hardware II	3
CS 201: Visual Basic I	3
CS 202: Visual Basic II	3
CS 222: Programming in C	3
CS 223: Programming in C++	3
CS 224: Programming in Java	3
CS 230: Database Concepts & Applications with Oracle	3

## **Learning Outcomes**

- 1. Perform competently in solving technical mathematics problems.
- 2. Express ideas effectively through written and oral communication.
- Demonstrate an understanding of the role and function of computers, and effectively use the computer to solve problems.
- Demonstrate a working knowledge of the internal structure of digital computers and the programming of the microcomputer.
- Describe the various aspects of computer operating systems and their design and implementation.
- 6. Describe the theory involved in computer networks.
- Describe the basic technologies used in Local and Wide Area Networks including logical and physical technologies as well as hardware and software associated with networks.
- Demonstrate a working knowledge of computer networks by describing design and technologies used in computer networks including: transmission media, topologies, protocols, interface performance analysis, bridges, gateways, data integrity, and computer security.
- Demonstrate sufficient knowledge in computer network theory, technology, and administration to secure career placement in the field.
- Demonstrate an appreciation for the liberal arts through literature and the humanities.
- 11. Demonstrate an appreciation for the social sciences.

# Computer Network Technology, Certificate

## **Program Design**

The Computer Network Technology Certificate program is for students seeking a broad and in-depth knowledge of the theory, design, installation, configuration, maintenance and administration of basic to complex computer networks. Students will acquire background and skills to enable them to understand and work with digital machines from microprocessors to microcomputers to mainframe systems configured in Local Area Network or Wide Area Network configurations. Students will learn to: describe and understand the various aspects of computer operating systems and their design and implementation; describe and understand the theory involved in computer networks; describe and understand the basic technologies used in Local and Wide Area Networks, including logical and physical technologies as well as hardware and software associated with computer networks; demonstrate a working knowledge of computer networks by describing design and technologies used in computer networks including: transmission media, topologies, protocols, interface performance analysis, bridges, gateways, data integrity, and network security; and demonstrate sufficient knowledge in computer network theory, technology, and administration to secure career placement in the field. Classroom discussion is supplemented with "hands-on" computer network laboratory experience and projects.

The experience and training in the Computer Network Technology Certificate program will also prepare students for the core and elective computer industry network certification examinations such as the Microsoft MCP (Microsoft Certified Professional) and MCSE (Microsoft Certified Systems Engineer) certifications.

#### Curriculum

Students may enroll in this program full or part-time. Courses are offered during daytime or evening hours. Students who complete the Computer Network Technology Certificate program and decide to pursue an associates of science degree may apply all of their credits (27 credits) towards the Computer Network Technology A.S. Degree program (65 credits). Students should consult with a computer science/technology faculty advisor to plan their program and schedule of classes, and to discuss required course prerequisites.

## **Required Courses**

CST 110	Introduction to Computer Technology	3
CST 130	Fundamentals of Computer Operating Systems	4
CST 171	Network Essentials I	3
CST 172	Network Essentials II	3
CST 191	Computer Hardware I	3
CST 231	Computer Operating Systems- Windows Workstation	4
CST 232	Computer Operating Systems- Windows Server	4
CST 233	Computer Network Management	3

**Total Credits Required: 27** 

## **Learning Outcomes**

- Demonstrate an understanding of the role and function of computers and effectively use the computer to solve problems.
- Describe the various aspects of computer operating systems and their design and implementation.
- 3. Describe the theory involved in computer networks.
- Describe the basic technologies used in Local and Wide Area Networks including logical and physical technologies as well as hardware and software associated with networks.
- Demonstrate a working knowledge of the internal structure of digital computers and the programming of the microcomputer.
- Demonstrate a working knowledge of computer networks by describing design and technologies used in computer networks including: transmission media, topologies, protocols, interface performance analysis, bridges, gateways, data integrity, and computer security.
- Demonstrate sufficient knowledge in computer network theory, technology, and administration to secure career placement in the field.

# **Computer Operating Systems Technology**, Certificate

## **Program Design**

The Computer Operating Systems Technology Certificate program is designed to provide students with computer technology skills and training in the installation, configuration, maintenance, troubleshooting and upgrading of computer operating systems at both the server and client workstation level. The training will prepare students for careers as computer and network operating systems technicians and system maintenance technicians. The program courses include: fundamentals of computer technology and generic computer operating system theory; introductory computer programming theory; computer equipment upgrade and repair; database concepts and applications; computer network fundamentals; and specific training in Microsoft Windows Workstation and Server operating system technology. Classroom discussion is supplemented with "hands-on" computer network laboratory experience and projects.

The experience and training in the Computer Network Technology Certificate program will also prepare students for the core and elective computer industry network certification examinations such as the Microsoft MCP (Microsoft Certified Professional) and MCSE (Microsoft Certified Systems Engineer) certifications.

#### Curriculum

Students may enroll in this program full or part-time. Courses are offered during daytime or evening hours. Students who complete the Computer Operating Systems Technology Certificate program and decide to pursue an associates of science degree may apply all of their credits (27 credits) towards the Computer Network Technology A.S. Degree program (65 credits). Students should consult with a computer science/technology faculty advisor to plan their program and schedule of classes, and to discuss required course prerequisites.

## Required Courses

CST 110	Introduction to Computer Technology	3
CS 125	Programming Logic and Design with C	3
CS 230	Database Concepts & Applications with Oracle	3
CST 130	Fundamentals of Computer Operating Systems	4
CST 171	Network Essentials I	3
CST 191	Computer Hardware I	3
CST 231	Computer Operating Systems-	
	Windows Workstation	4
CST 232	Computer Operating Systems-	
	Windows Server	4

**Total Credits Required: 27** 

## **Learning Outcomes**

- Demonstrate an understanding of the role and function of computers and effectively use the computer to solve problems.
- Demonstrate a working knowledge of efficient programming design, both traditional and object-oriented.
- Describe the various aspects of computer operating systems and their design and implementation.
- Describe the basic technologies used in Local and Wide Area Networks including logical and physical technologies as well as hardware and software associated with networks.
- Demonstrate skills in installation, configuration, maintenance, troubleshooting, and upgrade of computer operating systems at both the workstation and server levels.
- Demonstrate a working knowledge of computer networks by describing design and technologies used in computer networks including: transmission media, topologies, protocols, interface performance analysis, bridges, gateways, data integrity, and computer security.
- Demonstrate an understanding of good database design by designing, developing forms and reports, and writing the code to prepare a working database.
- Demonstrate sufficient knowledge in computer network theory, technology, and administration to secure career placement in the field.

# **Computer Programming Technology,** A.S. Degree

## Program Design

The Computer Programming Technology A.S. Degree program provides students with a broad background and specific skills in the disciplines of computer programming technology including: the fundamentals of and specific skills in computer programming; the structured logic and design of computer programs; the fundamentals of algorithm design and analysis of data structures; broad experience in problem solving using computers; the basics of computer organization and architecture; an understanding of the basics of computer operating systems; an understanding of basic computer networking technology; and an emphasis on current, state-of-the-art, object-oriented computer programming languages.

Students will also acquire a comprehensive educational background in mathematics, physics, and general education, in addition to acquired skills and knowledge in the field of computer programming technology, designed to develop and enhance their critical thinking and problem analysis and resolution skills.

The Computer Programming Technology A.S. Degree program prepares students for transfer to baccalaureate institutions with bachelor degree programs in computer science or other related computer science/technology programs, or for entry into computer-based industry positions and further industry-based training. Students planning to transfer to baccalaureate institutions should consult with an advisor regarding the requirements of these institutions and transferability of courses.

#### Curriculum

Elective\*

Gen Ed

Gen Ed

Students may enroll in this program full or part-time. Courses are offered during daytime or evening hours. For students not prepared for the required mathematics or computer technology courses in the program, MCC offers a wide range of preparatory courses. Please consult with a computer science/technology faculty advisor.

# **Computer Programming Technology Requirements**

Gen Ed	ENG 111: College Reading and Writing	3
Gen Ed	MATH 115: Technical Mathematics I	3
CST 110	Introduction to Computer Technology	3
CS 125	Programming Logic and Design with C	3
Gen Ed	PSYC 240: Organizational Behavior	3
Gen Ed	Fine Arts	3
	Subtotal	l: 18
ENG 114	Technical Writing	3
MATH 116	Technical Mathematics II	3
CST 130	Fundamentals of Computer Operating Systems	4
CS 222	Programming in C	3
CS 201	Visual Basic I	3
	Subtotal	l: 16
CS 202	Visual Basic II	3
CS 223	Programming in C++	3

Technical Elective (See list)

PHYS 110: Elements of Physics

COMM 213/SPCH 213: Effective Speaking

Subtotal: 16

3

3

4

MATH 111	Elementary Statistics with Computer	
	Applications	4
CS 224	Programming in Java	3
CS 230	Database Concepts & Applications with Oracle	3
Elective*	Technical Electives —Choose 2 (See list)	6

Subtotal: 16

## **Total Credits Required: 66-67**

#### \*Technical Electives List:

CS 215: Microprocessor Assembly Language	4
CS 216: Computer Organization & Architecture	3
CS 240: Data Structures	3
CST 115: Building Web Pages	3
CST 171: Network Essentials I	3
CST 191: Computer Hardware I	3

## **Learning Outcomes**

- Demonstrate a working knowledge of efficient programming design, both traditional and object-oriented.
- Demonstrate an understanding of the role and function of computers, and effectively use the computer to solve problems.
- 3. Perform competently in solving technical mathematics problems.
- 4. Express ideas effectively through written and oral communication.
- Describe the various aspects of computer operating systems design, implementation and configuration.
- 6. Design, code, run, and debug programs in C, C++, Visual Basic, and Java.
- Demonstrate an understanding of good database design by designing, developing forms and reports, and writing the code to prepare a database.
- Demonstrate an appreciation for the liberal arts through literature and the humanities.
- 9. Demonstrate an appreciation for the social sciences.

# **Computer Programming Technology,** Certificate

## Program Design

The Computer Programming Technology Certificate program will provide students with broad and in-depth knowledge of the theory, design and applications of digital computers and information processing technologies with a particular emphasis on programming skills. Students will acquire the background and skills to enable them to work with digital machines from microprocessors to microcomputers to mainframe systems configured in Local Area Network of Wide Area Network configurations. Students will learn: the concepts of efficient programming design, both traditional and object-oriented; to understand the role and function of computers and learn to effectively use the computer to solve complex problems; to describe and understand the various aspects of computer operating systems; to design, code, run, and debug computer programs in the predominant computer industry and Internet programming languages: C, C++, Visual Basic, Java; to understand good computer database design by designing, developing forms and reports, and writing the code to prepare working databases; and to apply critical thinking and analytical skills to the computer programming solution of complex problems. Classroom discussion is supplemented with "hands-on" computer laboratory programming experience and problem solving programming projects.

# Curriculum

Students may enroll in this program full or part-time. Courses are offered during daytime or evening hours. Students who complete the Computer Programming Technology Certificate program and decide to pursue an associates of science degree may apply all of their credits (24 credits) towards the Computer Programming Technology A.S. Degree program (66 credits). Students should consult with a computer science/technology faculty advisor to plan their program and schedule of classes, and to discuss required course prerequisites.

# **Required Courses**

CST 110	Introduction to Computer Technology	3
CS 125	Programming Logic and Design with C	3
CS 201	Visual Basic I	3
CS 202	Visual Basic II	3
CS 222	Programming in C	3
CS 223	Programming in C++	3
CS 224	Programming in Java	3
CS 230	Database Concepts & Applications with Oracle	3

**Total Credits Required: 24** 

## **Learning Outcomes**

- Demonstrate a working knowledge of efficient programming design, both traditional and object-oriented.
- Demonstrate an understanding of the role and function of computers, and effectively use the computer to solve problems.
- Describe the various aspects of computer operating systems design, implementation and configuration.
- 4. Design, code, run, and debug programs in C, C++, Visual Basic, and Java.
- Demonstrate an understanding of good database design by designing, developing forms and reports, and writing the code to prepare a database.

# Computer Science, A.S. Degree

## Program Design

The Computer Science A.S. Degree program provides students with a broad background in the underlying disciplines of computer science including: the fundamentals of computer programming; the fundamentals of algorithm design and analysis of data structures; broad experience in problem solving with computers; the basics of computer architecture, organization and assembly language; an understanding of the basics of computer operating systems; and an understanding of computer networking concepts and technologies including the fundamentals of network design, installation, maintenance and administration.

Students will also acquire a comprehensive educational background in mathematics, physics, and general education, in addition to acquired skills and knowledge in the field of computer science, designed to develop and enhance their critical thinking and problem analysis and resolution skills.

The Computer Science A.S. Degree program prepares students for transfer to baccalaureate institutions with bachelor degree programs in computer science or other related computer science/technology programs, or for entry into computer-based industry positions and further industry-based training. Students planning to transfer to baccalaureate institutions should consult with an advisor regarding the requirements of these institutions and transferability of courses.

#### Curriculum

Students may enroll in this program full or part-time. Courses are offered during daytime or evening hours. For students not prepared for the required mathematics and computer science courses in the program, MCC offers a wide range of preparatory courses. Please consult with a computer science/technology faculty advisor.

# **Computer Science Requirements**

Computer S	cience Requirements	
Gen Ed	ENG 111: College Reading and Writing	3
Gen Ed	MATH 190: Analytic Geometry and Calculus I	5
CST 110	Introduction to Computer Technology	3
CS 125	Programming Logic and Design with C	3
Gen Ed	PHYS 131: University Physics I	4
	Subtota	l: 18
Gen Ed	ENG 120: Introduction to Literature	3
MATH 192	Analytic Geometry and Calculus II	4
PHYS 132	University Physics II	4
CST 130	Fundamentals of Computer Operating Systems	4
CS 129	Algorithm Design and Analysis	3
	Subtota	l: 18
MATH 220	Introduction to Linear Algebra	3
CST 171	Network Essentials I	3
CS 222	Programming in C	3
CS 215	Microprocessor Assembly Language	4
Gen Ed	Social Science	3

Subtotal: 16

Programming in C++	3
Computer Organization and Architecture	3
Data Structures	3
Fine Arts	3
Social Science	3
	Computer Organization and Architecture Data Structures Fine Arts

Subtotal: 15

**Total Credits Required: 67** 

## **Learning Outcomes**

Upon successful completion of all requirements of the Computer Science A.S. Degree program, graduates will be able to:

- 1. Perform competently in mathematics through calculus and linear algebra.
- 2. Express ideas effectively through written communication.
- 3. Perform competently in calculus-based engineering Physics.
- 4. Design, code, run, and debug complex computer programs.
- Describe the various aspects of computer operating systems and their design and implementation.
- Demonstrate an understanding of the relationships between efficient algorithms and data structures and how efficiencies can be measured.
- Utilize knowledge of algorithm design and data structures for the solution of problems, including efficient sorting, searching, and graph manipulation.
- Demonstrate a working knowledge of the internal structure of digital computers and the programming of the microcomputer.
- Demonstrate a working knowledge of computer networks by describing design and technologies used in computer networks including: transmission media, topologies, protocols, interface performance analysis, bridges, gateways, data integrity, and computer security.
- Demonstrate an appreciation for the liberal arts through literature and the humanities.
- 11. Demonstrate an appreciation of the social sciences.

# Computer Technology, A.S. Degree

## Program Design

The Computer Technology A.S. Degree program provides students with a broad background in the differently focused fields of computer technology and the opportunity to obtain both broad and in-depth knowledge of the theory, design, installation, maintenance, management, and application of modern computer hardware and software including: computer programming skills; Internet and Web page design skills; fundamentals of computer operating systems; basic computer architecture; computer hardware and software installation, upgrading, configuration and maintenance; fundamentals of computer networks; and computer database concepts and applications.

Students will also acquire a comprehensive educational background in mathematics, physics, and general education, in addition to acquired skills and knowledge in the field of computer technology, designed to develop and enhance their critical thinking and problem analysis and resolution skills.

The Computer Technology A.S. Degree program prepares students for transfer to baccalaureate institutions with bachelor degree programs in computer science or other related computer science/technology programs, or for entry into computer-based industry positions and further industry-based training. Students planning to transfer to baccalaureate institutions should consult with an advisor regarding the requirements of these institutions and transferability of courses.

The experience and training in the Computer Technology A.S. Degree program will also prepare students for the national CompTIA Computer Technicians A+Certification Examination.

#### Curriculum

Gen Ed

Gen Ed

Students may enroll in this program full or part-time. Courses are offered during daytime or evening hours. For students not prepared for the required mathematics or computer technology courses in the program, MCC offers a wide range of preparatory courses. Please consult with a computer science/technology faculty advisor.

ENG 111: College Reading and Writing

MATH 115: Technical Mathematics I

# **Computer Technology Requirements**

		•
Gen Ed	PSYC 240: Organizational Behavior	3
CST 110	Introduction to Computer Technology	3
CS 125	Programming Logic and Design with C	3
	Subtotal	: 15
ENG 114	Technical Writing	3
MATH 116	Technical Mathematics II	3
CST 130	Fundamentals of Computer Operating Systems	4
CST 171	Network Essentials I	3
CST 114	Exploring the Internet	2
Gen Ed	COMM 213/SPCH 213: Effective Speaking	3
	Subtotal	: 18

Programming in C

Applications

Computer Hardware I

Technical Elective (See list)

**Elementary Statistics with Computer** 

PHYS 110: Elements of Physics

Subtotal: 17

3

3

4

3

3

CST 192	Computer Hardware II	3
CS 230	Database Concepts & Applications with Oracle	3
CST 115	Building Web Pages	3
Elective*	Technical Elective—Choose 2 (See list)	6
Gen Ed	Fine Arts	3

Subtotal: 18

## **Total Credits Required: 68**

## \*Technical Electives List — Choose 3

CST 172: Network Essentials II	3
CS 201: Visual Basic I	3
CS 202: Visual Basic II	3
CS 223: Programming in C++	3
CS 224: Programming in Java	3
CST 231: Operating Systems-Windows Workstation	4
CST 232: Operating Systems-Windows Server	4

## Learning Outcomes

- Perform competently in solving technical mathematics problems.
- Express ideas effectively through written and oral communication.
- Demonstrate an understanding of the role and function of computers and effectively use the computer to solve problems.
- Demonstrate a working knowledge of the internal structure of digital computers and the programming of the microcomputer.
- 5. Design, code, run, and debug programs in C.
- Describe the various aspects of computer operating systems and their design and implementation.
- Describe the basic technologies used in Local and Wide Area Networks including logical and physical technologies as well as hardware and software associated with networks.
- Demonstrate a working knowledge of Internet technology by the efficient use of search techniques, by describing various Internet protocols, and by understanding basic methods of developing a presence on the Web.
- Demonstrate an understanding of the basics of installing, repairing, servicing, and upgrading computers and computer peripheral equipment by performing these tasks.
- Demonstrate an appreciation for the liberal arts through literature and the humanities.
- 11. Demonstrate an appreciation for the social sciences.

For further information, please call the Center for Business and Technologies at 860-647-6212 or visit the Center for Business and Technologies Web Site at www.mcc.commnet.edu/cbt/

CS 222

**CST 191** 

Elective\*

Gen Ed

**MATH 111** 

# Criminal Justice, A.S. Degree

## Program Design

This program offers the opportunity to prepare for work within the various fields of criminal justice in both the public forum and private agencies. The curriculum consists of a strong liberal arts academic base supported by social science electives and criminal justice core courses. The latter are enhanced by electives in criminal justice, corrections and security services. The prescribed program also provides for free electives that may benefit the student's educational awareness and career choice. Courses are available during the day and evening.

The program has strong relationships with many local and state agencies, colleges and universities. Students have been successful in transferring all program courses. A strong element of the program is a cadre of local professionals who supplement the regular faculty, serving as guest lecturers, adjunct faculty and intern sponsors.

Credit for criminal justice core courses and electives may be obtained by students who submit police and criminal justice-related training and work experience for evaluation.

# Criminal Justice Requirements

Oriminal Gas	dioc requirements	
CJ 111	Introduction to Criminal Justice	3
Gen Ed	ENG 111: College Reading and Writing	3
Gen Ed	PLSC 111: American National Government of PLSC 112: State and Local Government	<u>r</u> 3
Gen Ed	Humanities	3
Gen Ed	*MATH 110: Quantitative Literacy	3
	Subte	otal: 15
CJ 112	Police Patrol Procedures or	
CJ 114	Introduction to Corrections	3
CJ 122	Police Administration or	
CJ 203	Corrections Administration	3
ENG 112	Advanced Composition	3
HIST 101	Western Civilization I or	
HIST 102	Western Civilization II	3
Gen Ed	Natural Science	3
	Subte	otal: 15
CJ 211	Criminal Law I	3
CJ 221	Criminal Investigation	3
SOSC 270	Cooperative Education/Work Experience or	
COMM 220	Interpersonal Communication	3
Elective	Social Science	3
Gen Ed	Social Science	3

Subtotal: 15

CJ 222	Evidence and Court Procedure	3
PLSC 212	Constitutional Law and Civil Rights	3
CJ 212	Criminal Law II	3
Elective	criminal justice	3
Gen Ed	Fine Arts	3
CIS 102	Getting Acquainted with the IBM	1

Subtotal: 16

**Total Credits Required: 61** 

## Learning Outcomes

Upon successful completion of all Criminal Justice degree program requirements, graduates will

- Demonstrate knowledge of the language, terms, and concepts of criminal justice and police administration.
- Define and describe each component of the present criminal justice system.
- Identify, describe, and clarify problems existing in the present criminal justice system and propose ways of continued improvement of the system.
- Identify the nature, origins, structure, purpose, and constitutional limits of criminal law.
- 5. Identify the doctrines of complicity and inchoate crimes.
- Identify the defenses of justification and excuse to an individual's criminal liability.
- 7. Describe the roots of early common law and how it relates to statutory law.
- 8. Demonstrate an understanding of the fundamentals of criminal investigations.
- 9. Demonstrate an understanding of new and innovative investigation methods and techniques.
- Demonstrate an understanding of laws of evidence as it relates to the criminal justice field.
- 11. Identify courtroom procedures.
- \* Students planning to transfer should take MATH 111.

# Criminal Justice, continued

# Law Enforcement, Certificate

## Program Design

This certificate offers those employed in law enforcement a way to improve career opportunities through academic study.

## Required Courses

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CJ 111	Introduction to Criminal Justice	3
CJ 211	Criminal Law	3
CJ 221	Criminal Investigation	3
PLSC 111	American National Government	3
SOC 101	Introduction to Sociology	3
		Subtotal: 15
CJ 112	Police Patrol Procedures	3
CJ 122	Police Administration	3
CJ 222	Evidence and Court Procedure	3
PLSC 212	Constitutional Law and Civil Rights	3
SOC 221	Criminology	3
		0.14.4.1.45

Subtotal: 15

## **Total Credits Required: 30**

# **Learning Outcomes**

With the addition of experience in the field of law enforcement and upon successful completion of all Law Enforcement certificate program requirements, graduates will

- Demonstrate knowledge of the language, terms, and concepts of criminal justice and police administration.
- Define and describe each component of the present criminal justice system.
- Identify, describe, and clarify problems existing in the present criminal justice system and propose ways of continued improvement of the system.
- Identify the nature, origins, structure, purpose, and constitutional limits of criminal law.
- 5. Identify the doctrines of complicity and inchoate crimes.
- Identify the defenses of justification and excuse to an individual's criminal liability.
- 7. Describe the roots of early common law and how it relates to statutory law.
- $8. \quad \text{Demonstrate an understanding of the fundamentals of criminal investigations}.$
- Demonstrate an understanding of new and innovative investigation methods and techniques.
- Demonstrate an understanding of laws of evidence as it relates to the criminal justice field.
- 11. Identify courtroom procedures.

# Pre-Service Correction, Certificate

## Program Design

The program helps prepare students for entry into the State of Connecticut's Department of Correction as a Correctional Trainee. The curriculum requires 15 semester hours of college study, leading to a certificate. The Department of Administrative Services affords program graduates a waiver for the Correction Department's written entrance examination. Upon successful completion, the Department of Correction will require candidates to pass the remaining series of screening tests in order to be employed.

# **Required Courses**

COMM 213/SPCH 213	Effective Speaking	3
CJ 102	Criminal Justice Field Experience	3
CJ 114	Introduction to Corrections	3
ENG 114	Technical Writing	3
SOC 202	Contemporary Social Problems	3

**Total Credits Required: 15** 

# **Learning Outcomes**

The student who successfully completes this certificate will

- Explain the history and development of the system of corrections in American.
- 2. Explain the structure of the Connecticut Department of Correction.
- Explain contemporary correctional issues, including prisoner's rights, overcrowding, prison building, early release programs, the costs of corrections, privatizing, and the changing emphasis in correctional theory.
- 4. Provide examples of ways in which social forces affect our everyday lives.
- 5. Explain how deviance is interpreted as a product of society.
- 6. Evaluate the various explanations of deviance.
- 7. Present oral reports before a group.
- Demonstrate work skills relevant to the Connecticut Department of Correction.
- Process forms and other paperwork that would be handled by a Correction Officer.
- Integrate the theoretical and practical applications of the Pre-Service Correction Certificate.

# **Culinary Arts**, Certificate

## Program Design

The Culinary Arts certificate program is designed for both full- and part-time students pursuing a career in commercial food preparation. Academic credits from this program may be transferred to MCC's associate degree programs in Foodservice Management or Hotel-Tourism Management. Our students have also earned advanced placement status in the Culinary Arts Program at Johnson & Wales University.

Classroom, laboratory and volume food experience are combined in one of the largest and most comprehensively equipped foodservice laboratory facilities in Connecticut, including two commercial production kitchens and three dining rooms. The students participate in a 300-hour externship in a cooperative education environment that combines classroom theory with practical onthe-job training.

A physician's examination is required before enrolling in food courses. Students are also required to purchase their own official kitchen and tableservice uniforms.

The Culinary Arts course of study is the only program in the state to be granted accreditation by the American Culinary Federation Educational Institute Accrediting Commission.

Graduates from this program may apply to the American Culinary Federation to become a "certified cook," a nationally recognized certification.

Note: Students applying for American Culinary Federation certification must take HOSP 120.

# Required Courses

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HOSP 101*	Basic Foods Preparation	3
HOSP 102	Regional American Cuisine	4
HOSP 112**	Sanitation and Safety	3
HOSP 115	Basic Baking and Pastry Arts	3
		Subtotal: 13
HOSP 270	Cooperative Education/Work Experier	nce 3
		Subtotal: 3
BIO 104**	Applied Nutrition	3
HOSP 210	Buffet Catering and Garde Manger	4
HOSP 215	Advanced Baking and Pastry Arts	3
HOSP 217	International Foods	4

Subtotal: 14

Total Credits Required: 30

- \* Students taking HOSP 101 and 115 must be eligible for MATH 101 or be taking MATH 098 concurrently.
- \*\* Students taking HOSP 112 and BIO 104 must be eligible for ENG 111.

## Learning Outcomes

Upon successful completion of all Culinary Arts certificate program requirements, graduates will

- Analyze theory and techniques of food preparation and presentation.
- 2. Analyze theory and techniques of baking and pastry arts.
- 3. Prepare menus incorporating costs, acquisition, and inventory controls.
- 4. Summarize basic principles and concepts of the hospitality industry.
- 5. Create and cater events.
- 6. Prepare basic foods in quantity, including various regional foods.
- 7. Prepare ethnic cuisine in quantity.
- Evaluate the establishment and maintenance of a safe and sanitary foodservice operation including Hazard Analysis Critical Control Point and State of Connecticut law.
- 9. Set-up and operate the "front of the house."
- Summarize managerial techniques and human resource management practice.
- Demonstrate appropriate problem-solving techniques in addressing management problems.

# Culinary Arts, continued

# Professional Bakers, Certificate

## Program Design

The Professional Bakers certificate program is designed to further education and training for those already in the field, as well as accommodate people entering careers in the Culinary Arts. The certificate programs outlined below may be completed in one semester. It may be possible to use your present position as a CO-OP site. Course work in both 15-week Professional Bakers and Professional Cooks certificate programs transfer to the MCC Culinary Arts Certificate Program, enabling the student to become an American Culinary Federation Certified Cook.

# **Required Courses**

-		
HOSP 100	Food Safety Certification	1
HOSP 105	Cake Decorating	2
HOSP 115	Basic Baking and Pastry Arts	3
HOSP 215	Advanced Baking and Pastry Arts	3
HOSP 270	Cooperative Education/Work Experience	3

**Total Credits Required: 12** 

## **Learning Outcomes**

Upon successful completion of all Professional Bakers certificate program requirements, graduates will

- 1. Analyze theory and techniques of baking and pastry arts.
- Evaluate the establishment and maintenance of a safe and sanitary foodservice operation including HACCP and State of Connecticut law.
- 3. Decorate layer cakes with molded and sculpted decorations.
- 4. Transfer acquired knowledge to the world of work.

# Professional Cooks, Certificate

## Program Design

The Professional Cooks certificate program is designed to further education and training for those already in the field, as well as accommodate people entering careers in the Culinary Arts. The certificate program outlined below may be completed in one semester. It may be possible to use your present position as a CO-OP site. Course work in both 15-week Professional Bakers and Professional Cooks certificate programs transfer to the MCC Culinary Arts Certificate program, enabling the student to become an American Culinary Federation Certified Cook.

# **Required Courses**

HOSP 100	Food Safety Certification	1
HOSP 101	Basic Foods Preparation	3
HOSP 102	Regional American Cuisine	4
HOSP 115	Basic Baking and Pastry Arts	3
HOSP 270	Cooperative Education/Work Experience	3

**Total Credits Required: 14** 

#### Learning Outcomes

Upon successful completion of all Professional Cooks certificate program requirements, graduates will

- 1. Analyze theory and techniques of food preparation and presentation.
- 2. Analyze theory and techniques of baking and pastry arts.
- 3. Prepare basic foods in quantity, including various regional foods.
- Evaluate the establishment and maintenance of a safe and sanitary foodservice operation including HACCP and State of Connecticut law.
- 5. Transfer acquired knowledge to the world of work.

# **Desktop Publishing, Certificate**

## Program Design

The Desktop Publishing certificate program develops students' competency in computer-assisted design and production of brochures, fliers, newsletters and related materials. Students will attain the skills needed to perform desktop publishing duties in a variety of business and public relations settings. This program is ideal for those who work in public relations and advertising communications and wish to achieve computer fluency.

Desktop publishing students will take six credit hours on the Apple Macintosh, using software programs such as Adobe PageMaker, Adobe Illustrator and QuarkXPress to complete sophisticated projects. Students who wish to enter the program should have an interest in communications and/or graphics. Keyboard competency is necessary.

#### Curriculum

The certificate program can be completed in two or more semesters by enrolling full- or part-time.

# Required Courses

COMM 281	Basic Newswriting	3
COMM 290 FA 210	Introduction to Desktop Publishing <u>or</u> Computer Graphics I	3
COMM 291	Advanced Desktop Publishing or	
FA 211	Advanced Computer Graphics	3
ENG 111	College Reading and Writing	3
ENG 114	Technical Writing	3
FA 205	Graphic Design I	3

**Total Credits Required: 18** 

# **Learning Outcomes**

Upon successful completion of all Desktop Publishing certificate program requirements, graduates will

- Develop, write and design brochures, newsletters and related print material.
- Demonstrate the writing conventions associated with technical reports and other institutional publications.
- 3. Write articles in an acceptable journalistic style.
- 4. Understand the principles of graphic design and apply design techniques to a variety of documents.
- 5. Effectively use the Macintosh computer and design-related software.

# Disabilities Specialist, A.S. Degree

## Program Design

The Disabilities Specialist associate degree program prepares students to work in a wide range of positions in private and public educational and human service agencies. Through individual consultation, each student will pursue a course of study with an emphasis upon the unique vocational goals he or she wishes to achieve. Every effort will be made to provide specific skill instruction; however, the focus of the curriculum is on building a strong knowledge base coupled with a positive value base which will prepare each student to assist children and adults with disabilities toward the goals of full community inclusion and participation and the attainment of their potential.

This program builds upon the Americans with Disabilities Act (ADA) of 1990, a landmark piece of legislation that provides basic civil rights to millions of people with disabilities in America. Students will become an important part of this dynamic movement and will recognize and enhance the dignity, respect and contribution of every child and adult with a disability.

Since most work settings are in the schools, workplaces, community associations, apartments and homes in the community, an understanding of "community-building" and "individual capacity-building" techniques and procedures is stressed. Creativity, sensitivity, and a capacity to concentrate on the abilities of the whole person, are essential characteristics of a disabilities specialist.

#### Curriculum

Because of the flexible nature of this program, students may select a full- or part-time plan of study for an associate degree or a certificate option. Each student is encouraged to seek field work in a variety of settings. These experiences assist in developing the student's work competencies.

# **Disabilities Specialist Requirements**

Disabilities	opecialist Requirements	
Gen Ed	ENG 111: College Reading and Writing	3
HS 101	Introduction to Human Services	3
Gen Ed	PSYC 111: General Psychology	3
Gen Ed	SOC 101: Introduction to Sociology	3
PSYC 163	Children with Disabilities and Their Families	3
	Subtot	al: 15
Gen Ed	ENG 112: Reading & Writing for	
	Academic Research	3
HS 152	Work with Individuals and Families	3
PSYC 124	Developmental Psychology	3
PSYC 173	Adults with Disabilities	3
Gen Ed	BIO 112: Human Biology	4
	Subtot	al: 16
ENG 120	Introduction to Literature	3
HS 201	Work with Groups	3
HS 291	Human Services Field Experience I	3
PSYC 183	The Learning Process & Disabilities	3
Gen Ed	Fine Arts	3
	Subtot	al: 15
HS 252	Work with Agencies and Communities	3
HS 292 SOSC 270	Human Services Field Experience II <u>or</u> Cooperative Education/Work Experience	3
PLSC 111	American National Government or	
PLSC 112	State and Local Government	3

PSYC 193	Issues and Trends in Disability	3
Gen Ed	*MATH 110: Quantitative Literacy	3

Subtotal: 15

**Total Credits Required: 61** 

## **Learning Outcomes**

Upon successful completion of all Disabilities Specialist degree program requirements, graduates will

- Define and discuss basic definitions, causes, psychological characteristics, and educational approaches relevant to children with disabilities.
- Recognize children and adults with disabilities as people with abilities, capacities, and gifts more than people with limitations.
- Identify current trends, issues, and current national and state laws and policies affecting people with disabilities and their families.
- Compare various learning theories and their application to children and adults with disabilities.
- 5. Demonstrate an understanding of ethical standards including confidentiality.
- \* Students planning to transfer should take MATH 111.

# Disabilities Specialist, Certificate

This provides a concentration in on-the-job training in direct-care situations, as well as specialized courses that relate to developmental disabilities.

# **Required Courses**

HS 101	Introduction to Human Services	3
HS 201	Work with Groups	3
PSYC 111	General Psychology	3
PSYC 163	Children with Disabilities and Their Families	3
PSYC 183	The Learning Process & Disabilities	3
	Subto	tal: 15
HS 152	Work with Individuals and Families	3
HS 252	Work with Agencies and Communities	3
PSYC 124	Developmental Psychology	3
PSYC 173	Adults with Disabilities	3
PSYC 193	Issues and Trends in Disability	3
	Subto	tal: 15

Subtotal. 13

Total Credits Required: 30

#### Learning Outcomes

With the addition of experience in the field of disability and upon successful completion of all Disabilities Specialist certificate program requirements, graduates will

- Define and discuss basic definitions, causes, psychological characteristics, and educational approaches relevant to children with disabilities.
- Recognize children and adults with disabilities as people with abilities, capacities, and gifts more than people with limitations.
- Identify current trends, issues, and current national and state laws and policies affecting people with disabilities and their families.
- Compare various learning theories and their application to children and adults with disabilities.
- 5. Demonstrate an understanding of ethical standards including confidentiality.

# **Drug and Alcohol Rehabilitation Counselor**, A.S. Degree

## Program Design

The Drug and Alcohol Rehabilitation Counselor (DARC) Associate Degree Program provides education and training for persons seeking employment or job advancement. Others transfer to upper level colleges to complete bachelor or graduate degrees in the field of substance abuse counseling or other transfer opportunities. Students receive education and training in the professional techniques of counseling with a disciplined background in the environmental and psychological causes and effects of alcohol and other drug abuse, and dependence.

#### **Admissions Process**

Formal admission to the DARC degree program is limited and selective through an application and screening process. Enrollment in DARC 101 and 111 is required before initiating an application to the degree program. Prospective applicants must seek advisement from the DARC program coordinator. Applications must be filed between Oct. 1 and Jan. 15 of the year prior to the September of the year in which you wish to enter the second year of the program.

#### Curriculum

The program consists of 24 semester hours of speciality courses and 36 semester hours of general education credits.

Students may enroll full- or part-time.

Drug & Alas	hal Bahahilitatian Caunaalar Baguira	monto
Drug & Alco	hol Rehabilitation Counselor Require	ments
DARC 101	Alcohol and Drug Abuse	3
DARC 111	Introduction to Counseling	3
Gen Ed	ENG 111: College Reading and Writing	3
PSYC 111	General Psychology	3
Gen Ed	Natural Science	3
	Su	ıbtotal: 15
DARC 112	Group Therapy and Technique	3
DARC 158	Alcohol and Drug Abuse	3
Gen Ed	Humanities	3
Gen Ed	Psychology	3
Gen Ed	Social Science	3
	Sı	ıbtotal: 15
DARC 251*	Counseling Internship I	6
PSYC 210	Abnormal Psychology	3
Gen Ed	Fine Arts	3
Elective	Social Science	3
-	0	latatala 45

Subtotal: 15

DARC 252*	Counseling Internship II	6
Elective	Humanities	3
Gen Ed	Mathematics	3
Elective	Undesignated or	
AH 270	Cooperative Education/Work Experience	3

Subtotal 15

**Total Credits Required: 60** 

Courses open only to students formally accepted into this program.

## **Learning Outcomes**

Upon successful completion of all Drug and Alcohol Rehabilitation Counselor degree program requirements, graduates will

- Define the causes and characteristics of dependency and addiction relevant to various populations and cultures.
- Demonstrate behaviors that are appropriate for the counselor as a person and as a professional.
- Define and apply therapies including Alderian, Existential, Person-Centered, Gestalt, Reality, Behavior, and Cognitive Behavior.
- Define and demonstrate the Integrative Approach to therapy and Family Systems therapy.
- 5. Define and debate issues regarding the ethical behavior of counselors.
- Demonstrate working knowledge and skills as they pertain to drug and alcohol rehabilitation counseling in a group setting, including the facilitation of climate setting, process feedback and consolidate learning for clients.
- 7. Demonstrate knowledge and skills related to relapse prevention.
- 8. Define and relate skills necessary to deal with dual disorders.
- Define and describe the important terminology and concepts relating to the biology of drug and alcohol abuse.
- Co-facilitate group counseling sessions and develop the skills outlined in the instructional units.
- Accurately describe the overall operation of the internship placement and understand the role of the counselor as a member of the care-giving team.
- 12. Practice the 12 core functions of a substance abuse counselor.
- 13. Develop and demonstrate individual and group counseling skills.

# **Drug and Alcohol Rehabilitation Counselor**, *continued*

# Management of Substance Abuse Treatment Facilities, Certificate

# Program Design

The Management of Substance Abuse Treatment Facilities certificate program is a 15 semester hour program that provides further education and training to professionals already working in the field of substance abuse and treatment.

# **Required Courses**

CIS	3 credit hours of microcomputers	3
DARC 101	Issues in Alcohol/Drug Abuse	3
DARC 158	Biology of Alcohol/Drug Abuse	3
DARC 230	Management of Human Service Facilities	3
PSYC 240	Organizational Behavior	3

Total Credits Required: 15

## **Learning Outcomes**

Upon successful completion of all Management of Substance Abuse Treatment Facilities certificate program requirements, graduates will

- Define the causes and characteristics of dependency and addiction relevant to various populations and cultures.
- 2. Define and describe the important terminology and concepts relating to the biology of drug and alcohol abuse.
- Demonstrate an understanding of managed care and the relationship to substance abuse treatment.
- List funding sources for the successful operation of substance abuse treatment facilities.
- Demonstrate an understanding of the psychological factors which affect the individual in the work setting.
- Develop staff training approaches to meet the unique needs of substance abuse counselors.
- 7. Apply for state certification as a substance abuse supervisor.

# Early Childhood Education, A.S. Degree

# Program Design

The Early Childhood Education program is designed to prepare qualified students to become teachers of young children.

## Curriculum

The Early Childhood Program curriculum focuses on the developmental needs of young children from birth to five years of age, and emphasizes a practical approach to supporting and enhancing growth and development. Course work in theory and methods is enhanced by participation in the field experience segment of the program.

The program is available to the student full- or part-time.

Larry Cillium	ood Education Requirements	
ED 111	Introduction to Early Childhood Education	3
Gen Ed	ENG 111: College Reading and Writing	3
Gen Ed	MATH 113: Structure of Mathematics I <u>or</u> MATH 110: Quantitative Literacy	3
Gen Ed	PSYC 111: General Psychology	3
Gen Ed	GEOG 111: World Regional Geography or ANTH 150: Cross Cultural Issues	3
	Subtot	al: 15
Gen Ed	Fine Arts	3
ED 211	Early Childhood Curriculum	3
ED 123	Language and Literacy	3
PSYC 234	Child Development	3
COMM 220	Interpersonal Communication	3
	Subtot	al: 15
ED 212	Creative Activities in Early Childhood Education	n 3
PSYC 163	Children With Disabilities & Their Families	3
Elective	Computer Information Systems	3
ED 237	Science, Nature and the Environment	3
ED 117	Observation & Assessment of the Early Childhood Program	4
	Subtot	al: 16
ED 217	Advanced Early Childhood Curriculum	3
Gen Ed	Humanities	3
Gen Ed	Natural Science	3-4
Elective*	Undesignated	3
ED 200	Field Experience in Early Childhood Ed	3

Subtotal: 15-16

Total Credits 61-62

\* ED 210 strongly recommended.

## Learning Outcomes

Upon successful completion of all Early Childhood Education degree program requirements, graduates will

- Identify, document, and assess elements that determine quality in early childhood programs.
- Design a learning environment and use teaching strategies that are based upon child development theory.
- Plan, implement, and evaluate a developmentally appropriate curriculum that fosters children's social, emotional, physical, & cognitive development.
- Examine program philosophy and goals, classroom design, teacher/child interaction, planning and implementation of curriculum, observation and assessment of the young child, and family involvement in a variety of early childhood settings.
- 5. Demonstrate good early childhood practice in an early childhood setting.

# Early Childhood Education, continued

# Child Development Associate, Certificate

## Program Design

The Child Development Associate (CDA) credential training program is a two semester, 12 credit program for child care teachers who want to enhance their professional skills and learn more about the development of young children. The program emphasizes practical information that can be used in working with young children. Students learn how to observe children and plan developmentally appropriate activities to design safe, healthy learning environments. They learn to work effectively with families, and to support and encourage children's social, emotional, physical and cognitive development.

## Curriculum

Students must meet the following eligibility requirements to take the CDA certificate program: They must be 18 years of age; hold a high school diploma or GED; be currently employed or regularly volunteer in a state licensed child care program; meet state immunization requirements; and successfully complete an interview with the CDA program coordinator.

# **Required Courses**

ED 211	Early Childhood Curriculum	3
ED 212	Creative Activities for the Early Childhood Program	m 3
ED 200	Field Experience I	3
ED 200c	Field Experience II	3

**Total Credits 12** 

## **Learning Outcomes**

Upon successful completion of all Child Development certificate program requirements, graduates will

- Identify, document, and assess elements that determine quality in early childhood programs.
- Design a learning environment and use teaching strategies that are based upon child development theory.
- Plan, implement, and evaluate a developmentally appropriate curriculum that fosters children's social, emotional, physical, and cognitive development.
- Examine program philosophy and goals, classroom design, teacher/child interaction, planning and implementation of curriculum, observation and assessment of the young child, and family involvement in a variety of early childhood settings.
- 5. Demonstrate good early childhood practice in an early childhood setting.

# Engineering Science, A.S. Degree

## Program Design

The Engineering Science program prepares students for transfer to baccalaureate college and university programs in mechanical engineering, electrical engineering, civil engineering, chemical engineering, industrial engineering and engineering physics, as well as for immediate employment in engineering sciences and high technology fields. The program also offers students currently employed in technical positions in high technology industries the opportunity to retrain and upgrade their technical skills.

# College of Technology - Engineering Pathway Program

The Engineering Science Program, through the Connecticut College of Technology Pathways Program, provides for direct entry into baccalaureate engineering programs at the University of Connecticut. Students may enter UConn engineering programs through the Engineering Science A.S. Degree program at MCC and, upon successful completion of the program, continue on to UConn as third-year engineering students with a full two years of credit towards a baccalaureate degree in engineering. For more information, call Robert Fortier at 647-6212.

#### Curriculum

Students may enroll in this program full- or part-time. Courses are offered during daytime or evening hours. Preparation for the Engineering Science Program includes a high school diploma or equivalent with one year of physics and three years of mathematics including Algebra I and Algebra II followed by advanced algebra or precalculus mathematics. For students not prepared for the required mathematics and English courses, MCC offers a wide range of developmental and preparatory courses. (See Pre-Technical Education, page 23.)

# **Engineering Science Requirements**

Gen Ed	ENG 111: College Reading and Writing	3
ENGR 111	Introduction to Engineering	3
Gen Ed	MATH 190: Analytic Geometry and Calculus I	5
Gen Ed	PHYS 131: University Physics I	4
Gen Ed	HIST 101: Western Civilization	
	Through the Reformation	3
	Subto	tal: 18
Gen Ed	ENG 120: Introduction to Literature	3
MATH 192	Analytic Geometry/Calculus II	4
Gen Ed	Fine Arts	3
PHYS 132*	University Physics II	4
CS 222	Programming in C	3
	Subto	tal: 17
CHEM 111	College Chemistry I	4
ENGR 221	Introduction to Electrical Circuit Analysis	4
ENGR 211	Engineering Statics	3
Gen Ed	PHIL 203: Ethics	3
MATH 293	Analytic Geometry and Calculus III	4
	Subto	tal: 18

Subtotal: 18

ENGR 212*	Engineering Dynamics	3
Gen Ed	Social Science	3
MATH 201*	Differential Equations	4
CHEM 112	College Chemistry II	4

Subtotal: 14

**Total Credits Required: 67** 

## **Learning Outcomes**

Upon successful completion of all Engineering Science degree program requirements, graduates will

- Transfer into a Bachelor of Science Degree Program as a continuing student in the Engineering Pathway program. Provided the transferring schools' credit requirements are met, MCC students will transfer as juniors.
- 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.
- 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.

\* These courses must be included in the 25 percent minimum course requirements for the degree through course work at the College. (See page 15.)

# Foodservice Management, A.S. Degree

## Program Design

This program provides an education and training in hospitality area subjects from food production to food protection, marketing and management. Students will also take general education courses to improve employability, job performance, and transferability to another college or university.

The Foodservice Management program is accredited by the American Culinary Educational Institute. In addition to classroom and laboratory study, students will participate in an individually planned 300-hour cooperative work experience program. Students earn credit toward graduation while employed at a work site.

Graduates have transferred and earned bachelor's degrees at such colleges and universities as Central Connecticut State University, Cornell University, University of New Haven, University of Massachusetts, University of Nevada (Las Vegas), and the University of New Hampshire.

A physician's examination is required before enrolling in food courses. Students are also required to purchase their own official kitchen and table service uniforms.

In addition to this degree, students may earn a second associate's degree in hotel-tourism management by taking an additional 15 credit hours. Candidates interested in earning double degrees should see a hospitality management faculty member.

## Curriculum

Students may enroll in this program full- or part-time. This program has an active student club that provides a variety of activities to supplement the formal curriculum. Note: Students taking HOSP 101 must be eligible for MATH 101 or take MATH 098 concurrently. Students taking HOSP 111, BIO 104 and HOSP 112 must be eligible for ENG 111.

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anagement requirements	
Sanitation and Safety	3
Basic Foods Preparation	3
Introduction to the Hospitality Industry	3
ENG 111: College Reading and Writing	<del>g</del> 3
*MATH 110: Quantitative Literacy	3
	Subtotal: 15
Regional American Cuisine	4
BIO 104: Applied Nutrition	3
Cooperative Education/Work Experience	ce 3
Humanities	3
Financial Accounting	4
	Subtotal: 17
Food Controls and Purchasing	3
International Foods	4
Consumer Research and Marketing	3
Introduction to Beverage Management	3
Fine Arts	3
	Subtotal: 16
	Sanitation and Safety  Basic Foods Preparation  Introduction to the Hospitality Industry ENG 111: College Reading and Writing *MATH 110: Quantitative Literacy  Regional American Cuisine BIO 104: Applied Nutrition  Cooperative Education/Work Experient Humanities Financial Accounting  Food Controls and Purchasing International Foods  Consumer Research and Marketing Introduction to Beverage Management

HOSP 214	Hospitality Human Resource Management	3
HOSP 210	Buffet Catering and Garde Manger	4
HOSP 130 HOSP 212	Choose 1 course from below: Customer Service in Hospitality Industry <u>or</u> Equipment Design and Layout	3
Gen Ed	Choose 2 courses from below: PSYC 111: General Psychology or ECON 102: Microeconomics or GEOG 111: World Regional Geography	6

Subtotal: 16

#### **Total Credits Required: 64**

Students planning to transfer for a bachelor's degree should take MATH 102 or higher.

## **Learning Outcomes**

Upon successful completion of all Foodservice Management degree program requirements, graduates will

- 1. Analyze theory and techniques of food preparation and presentation.
- 2. Prepare menus incorporating costs, acquisition, and inventory controls.
- 3. Summarize basic principles and concepts of the hospitality industry.
- 4. Create and cater events.
- 5. Prepare basic foods in quantity, including various regional foods.
- 6. Prepare ethnic cuisine in quantity.
- Evaluate the establishment and maintenance of a safe and sanitary foodservice operation including Hazard Analysis Critical Control Point and State of Connecticut law.
- 8. Setup and operate the "front of the house."
- Summarize managerial techniques and human resources management practice.
- Demonstrate appropriate problem-solving techniques in addressing management problems.
- 11. Evaluate equipment design and layout for a foodservice facility.
- 12. Apply knowledge of computers to the hospitality industry.
- Differentiate styles of marketing, sales analysis and planning for the hospitality industry.

# General Studies, A.S. Degree

# Program Design

The General Studies Program leads to an associate in science degree. This program provides the broadest range of electives of any at the College; students can tailor a degree program to meet their individual needs.

#### Curriculum

Students may enroll in this program full- or part-time. For those students who are not prepared for the mathematics and English courses required in the program, the College offers a wide range of developmental classes.

A minimum of 60 semester hours of credit is required in this program as follows:

# **General Education Requirements**

ENG 111	College Reading and Writing	3
Gen Ed	Humanities	3
Gen Ed	Fine Arts	3
Gen Ed	Mathematics	3
Gen Ed	Natural Science	3-4
Gen Ed	Social Science	3
Gen Ed	additional course in the above areas	3

Subtotal: 21-22

# **General Studies Requirements**

Humanities — Choo English, fine arts, for humanities, music, p photography, speed	reign languages,	6
•••	choose from any nemistry, physics or other ich includes a laboratory	4
Social Sciences — ( anthropology, econo history, political scie social science and s	omics, geography, nce, psychology,	6
Electives		23

Subtotal: 39

# Total Credits Required: 60-61

Please Note: COMM 270: Cooperative Education/Work Experience, or another cooperative education course, is available as an elective to General Studies students. Please see page 16 or contact the Cooperative Education Office for more information.

## Education

If considering a career in education, students need to select a transfer institution early and consult with a counselor, and elect HIST 201 and HIST 202. Students should plan to take the PRAXIS I Examination.

# **Learning Outcomes**

Upon successful completion of all General Studies degree program requirements, graduates will

- Demonstrate a clear connection among elective choices and their personal, occupational or academic ambitions.
- Work with others, including culturally and intellectually diverse peoples; think critically; and gain an appreciation for life-long learning.

# Gerontology, Certificate

## Program Design

The Gerontology Certificate Program is designed for persons who seek short-term academic and in-service professional development, and for those with experience working with senior citizens or who have an academic degree in a related area. Students working toward a certificate in gerontology should consult with an advisor or counselor before planning the total program.

#### Curriculum

Students may enroll in the certificate program full- or part-time.

# Required Courses

HS 101	Introduction to Human Services	3
HS 152	Work with Individuals and Families	3
PSYC 117	Death, Grief, and Loss	3
GERN 161	Aging in America	3
SOSC 270	Cooperative Education/Field Experience	3
PSYC 111	General Psychology	3
THRC 230 SOSC 110	Leisure and Aging <u>or</u> Introduction to Wellness	3
SOSC 101	Introduction to Sociology	3
GERN 141	Dealing with Alzheimer's Disease	1
GERN 142	Health and Nutrition for the Elderly	1
GERN 143	Legal Issues for Seniors	1
GERN 144	Aging and Mental Health	1
GERN 145	Work and Leisure Opportunities for the Elderly	1
GERN 146	Caring for the Elderly at Home	1

**Total Credits Required: 30** 

# **Learning Outcomes**

Upon successful completion of all Gerontology certificate program requirements, graduates will

- Comprehend the physiological, psychological and socio-economic factors relating to the aging process.
- 2. Demonstrate the ability to comprehend the needs of an elderly person and identify sources of assistance to meet those needs.
- Demonstrate the ability to identify the need for advocacy for the elderly and sources of assistance.
- 4. Identify factors necessary for successful aging.
- 5. Demonstrate interpersonal and communication skills necessary to work in a healthcare or community-based setting serving an elderly population.

# Graphic Design, A.S. Degree

## Program Design

The purpose of the Graphic Design associate degree program is:

- to provide a graphic design transfer program in the area of design, fine arts, art education, computer graphics, and advertising;
- to offer a degree program for those considering an entry level position in related commercial art fields; and
- to provide greater technical knowledge and awareness of the creative visual arts to the community.

The program is structured to equip students with a sound foundation in technical skills, graphic design concepts, aesthetics, terminology and vocabulary, and to provide an awareness of the application of acquired technical knowledge. Computer use will be an integral part of the program.

## Curriculum

Students may enroll in art and graphic design courses full- or part-time. There are no requirements or prerequisites for students wishing to take courses part-time or as electives for other programs.

Graphic design/fine arts faculty members are available for consultation with students who wish to enroll in the program and, thereafter, for course selection and transfer information.

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Grapino Bos	sign requirements	
ENG 111	College Reading and Writing	3
Gen Ed	FA 105: History of 20th Century Art	3
FA 121	Drawing	3
FA 201	Illustration I	3
Gen Ed	Social Science	3
		Subtotal: 15
Gen Ed	ENG 120: Introduction to Literature	3
FA 131 FA 137	Painting <u>or</u> Water Color	3
FA 202	Illustration II	3
HIST 101	Western Civilization	3
Gen Ed	Natural Science	3
Elective	Studio	3
		Subtotal: 18
FA 101 FA 102	History of Art I <u>or</u> History of Art II	3
FA 205	Graphic Design I	3
FA 210	Computer Graphics	3 3
Gen Ed	Humanities	3
Elective	Studio	3

Cubtatal.	45
Subtotal:	- 13

FA 206	Graphic Design II	3
FA 211 COMM 291	Computer Graphics II <u>or</u> Advanced Desktop Publishing	3
Elective	Liberal Arts and Science	3
Gen Ed	MATH 110: Quantitative Literacy	3
Elective FA 270	Studio <u>or</u> Cooperative Education/Work Experience	3

Subtotal: 15

**Total Credits Required: 63** 

# **Learning Outcomes**

Upon successful completion of all Graphic Design degree program requirements, graduates will

- Demonstrate an understanding and appreciation of graphic design as a form of communication and art.
- Demonstrate an ability to use design processes and principles to create visual products that convey a specific message to a targeted audience.
- Demonstrate creative thinking skills and strategies and use problemsolving techniques across a wide range of media.
- Demonstrate an understanding of how creative processes and skills are integrated with printing and other reproduction processes found in the graphic design field.
- Demonstrate knowledge of new technologies such as computer graphics that continue to evolve into important production tools.
- Demonstrate an awareness of the varied career paths within the graphics industry including but not limited to art direction, illustration, project design, production art, graphic design and media direction.

# Hotel-Tourism Management, A.S. Degree

## **Program Design**

The Hotel-Tourism program provides education and training for students who would like to work full-time after graduation. Students also may decide to continue their studies at another institution to earn a bachelor's degree.

In the first year, students study such areas as introduction to the hospitality industry, quantity foods production, and food protection. In the second year students focus on hotel management procedures, food, beverage, and labor cost controls, and geography and tourism development. Students must participate in an individually planned 300-hour cooperative work experience program; students earn credit toward graduation while employed at the work site.

Students have matriculated to Central Connecticut State University with Junior status in their Hospitality and Tourism Studies Program. Graduates have also transferred and earned bachelors degree's from other colleges and universities such as: Cornell University, University of Massachusetts, University of New Haven, and the University of New Hampshire.

Students must submit to a doctor's physical examination prior to enrolling in MCC food courses. Students must purchase official kitchen and table service uniforms.

In addition to this degree, students may earn a second associate's degree in foodservice management by taking an additional 15 credit hours. Students interested in earning a dual degree in Foodservice should see a counselor or a hospitality management faculty advisor.

#### Curriculum

Students may attend full- or part-time. This program has an active student club that provides a variety of activities to supplement the formal curriculum. *Note:* Students taking HOSP 101 must be eligible for MATH 101 or take MATH 098 concurrently. Students taking HOSP 111, BIO 104, HOSP 112 and ACCT 101 must be eligible for ENG 111.

# **Hotel-Tourism Management Requirements**

HOSP 101	Basic Foods Preparation	3
HOSP 111	Introduction to the Hospitality Industry	3
HOSP 112	Sanitation and Safety	3
Gen Ed	ENG 111: College Reading and Writing	3
Gen Ed	*MATH 110: Quantitative Literacy	3
	Subto	otal: 15
HOSP 102	Regional American Cuisine	4
ACCT 101	Financial Accounting	4
Gen Ed	BIO 104: Applied Nutrition	3
HOSP 270	Cooperative Education/Work Experience	3
BUS 260	Relationship Marketing	3

Subtotal: 17

HOSP 203	Food Controls and Purchasing	3
Gen Ed	PSYC 111: General Psychology or	
	ECON 102: Microeconomics	3
HOSP 231	Consumer Research and Marketing	3
Gen Ed	Humanities	3
Gen Ed	GEOG 101: Introduction to Geography or	
	GEOG 111: World Regional Geography	3
	Subto	tal: 15
BUS 214	Managerial Communications	3
HOSP 214	Hospitality Human Resource Management	3
HOSP 241	Hotel Management Procedures	3
Gen Ed	Fine Arts	3
GEOG 204	Geography and Tourism Development	3

Subtotal: 15

**Total Credits Required: 62** 

\* Students planning to transfer for a bachelor's degree should take MATH 102 or higher.

## **Learning Outcomes**

Upon successful completion of all Hotel-Tourism Management degree program requirements, graduates will

- 1. Analyze theory and techniques of food preparation and presentation.
- 2. Prepare menus incorporating costs, acquisition, and inventory controls.
- 3. Summarize basic principles and concepts of the hospitality industry.
- 4. Prepare basic foods in quantity, including various regional foods.
- Evaluate the establishment and maintenance of a safe and sanitary foodservice operation including Hazard Analysis Critical Control Point and State of Connecticut law.
- 6. Setup and operate the "front of the house."
- Summarize managerial techniques and human resources management practice.
- Demonstrate appropriate problem-solving techniques in addressing management problems.
- 9. Evaluate equipment design and layout for a foodservice facility.
- 10. Apply knowledge of computers to the hospitality industry.
- Differentiate styles of marketing, sales analysis and planning for the hospitality industry.
- Demonstrate the practical approach to the various aspects of food and beverage cost control and purchasing.
- 13. Outline the legal responsibilities and rights of guests and employees.
- Interpret hospitality sales practices and market analysis from sales to actual activity.
- Apply office procedures and forms necessary to room guests and cash control.

# Industrial Technology, A.S. Degree

## Program Design

The Industrial Technology program has five technical options designed to prepare students for technical careers in manufacturing or engineering technology. The program is designed to respond to the increasing demand by industry for operational, supervisory and management personnel who have a combination of technical and general education backgrounds. The program provides a basic knowledge of industrial processes and processing equipment, the operation and maintenance of manufacturing equipment, the planning for and the assurance of the quality of industrial manufacturing and provides students with opportunities to develop skills in tool, material and instrumentation usage in addition to a background in general studies. The program provides graduates with training and experiences that make them flexible and adaptable to many different types of industrial environments and organizations with a reasonable amount of inservice or job-specific training.

# College of Technology - Technology Pathway Program

The Industrial Technology Program, through the Connecticut College of Technology Pathways Program, provides for direct entry into baccalaureate industrial and engineering technology programs at Central Connecticut State University. Students may enter CCSU technology programs through the Industrial Technology A.S. degree program at MCC and, upon successful completion of the program, continue on to CCSU with a full two years of credit towards a baccalaureate degree in industrial technology. For more information, call Robert Fortier at 647-6212.

#### Curriculum

Students interested in the Industrial Technology Program may attend Manchester Community College full- or part-time. Part-time study permits a student to keep a full-time job and enroll in either day or evening classes. Full-time students may complete one of the six options of the program in two years.

# **Electronics Technology Option Requirements**

Gen Ed	MATH 150: Precalculus Mathematics	4
MATH 190	Analytic Geometry and Calculus I	5
Gen Ed	PHYS 121: General Physics I	4
PHYS 122	General Physics II	4
Gen Ed	CHEM 111: College Chemistry I	4
ELT 111	Circuit Analysis I	4
ELT 112	Circuit Analysis II	4
ELT 113	Electrical Power Systems	3
ELT 201	Electronics I	4
ELT 202	Electronics II	4
ELT 213	Control Electronics	4
ELT 215	Microprocessors	4

Subtotal: 48

Industrial Engineering Technology Option Requirements		
MATH 111	Elementary Statistics with Computer Applications	4
Gen Ed	MATH 115: Technical Mathematics I	3
MATH 116	Technical Mathematics II	3
Gen Ed	CHEM 111: College Chemistry I	4
ENGR 101	Engineering Drawing Interpretation	3
Gen Ed	PHYS 110: Elements of Physics	4
MFG 111	Manufacturing Materials and Processes I	3
MFG 112	Manufacturing Materials and Processes II	3
MFG 113	Production Control	3
MFG 114	Plant Layout	3
MFG 119	Productivity Improvement	3
CAD 101	Computer-Aided Design I	3
CAM 101	Computer-Aided Manufacturing	3
QA 100	Statistical Process Control	3

Subtotal: 45

Machine Tool Se	rvice Technology Option Requirement	S
MATH 111	Elementary Statistics with Computer Applications	4
Gen Ed	MATH 115: Technical Mathematics I	3
MATH 116	Technical Mathematics II	3
Gen Ed	CHEM 111: College Chemistry I	4
ENGR 101	Engineering Drawing Interpretation	3
ENGR 121	Mechanics	4
ENGR 122	Electricity/Electronics I	4
ENGR 123	Electricity/Electronics II	4
MFG 111	Manufacturing Materials and Processes I	3
MFG 112	Manufacturing Materials and Processes II	3
MFG 116	Hydraulics I	3
MFG 117	Hydraulics II	3
MFG 118	Pneumatics and Vacuum Systems	3
QA 100	Statistical Process Control	3

Subtotal: 47

Continued on next page.

# Industrial Technology, continued

# **Quality Assurance Technology Option Requirements**

MATH 111	Elementary Statistics with Computer	
	Applications	4
Gen Ed	MATH 115: Technical Mathematics I	3
MATH 116	Technical Mathematics II	3
Gen Ed	CHEM 111: College Chemistry I	4
Gen Ed	PHYS 110: Elements of Physics	4
ENGR 101	Engineering Drawing Interpretation	3
ENGR 102	Geometric Tolerancing/Dimensioning	3
MFG 111	Manufacturing Materials and Processes I	3
MFG 112	Manufacturing Materials and Processes II	3
QA 100	Statistical Process Control	3
QA 110	Measurement and Measurement Systems	3
QA 120	Inspection and Gaging	3
QA 140	Layout Inspection	4
QA 150	Statistical Methods of Quality Improvement	3

Subtotal: 46

# Tool, Die & Gage Maker Technology Option Requirements

Applications  Gen Ed MATH 115: Technical Mathematics I  MATH 116 Technical Mathematics II  MATH 117 Technical Mathematics III  Gen Ed CHEM 111: College Chemistry I  Gen Ed PHYS 110: Elements of Physics  ENGR 101 Engineering Drawing Interpretation  MFG 111 Manufacturing Materials and Processes I  MFG 112 Manufacturing Materials and Processes II  MFG 115 Fundamentals of Tool Design  CAD 101 Computer-Aided Design II  CAD 102 Computer-Aided Manufacturing  OA 100 Statistical Process Control	MATH 111	Elementary Statistics with Computer	
MATH 116  MATH 117  Technical Mathematics III  Gen Ed  CHEM 111: College Chemistry I  Gen Ed  PHYS 110: Elements of Physics  ENGR 101  Engineering Drawing Interpretation  MFG 111  Manufacturing Materials and Processes I  MFG 112  Manufacturing Materials and Processes II  MFG 115  Fundamentals of Tool Design  CAD 101  Computer-Aided Design I  CAM 101  Computer-Aided Manufacturing		Applications	4
MATH 117 Technical Mathematics III  Gen Ed CHEM 111: College Chemistry I  Gen Ed PHYS 110: Elements of Physics  ENGR 101 Engineering Drawing Interpretation  MFG 111 Manufacturing Materials and Processes I  MFG 112 Manufacturing Materials and Processes II  MFG 115 Fundamentals of Tool Design  CAD 101 Computer-Aided Design I  CAD 102 Computer-Aided Manufacturing  CAM 101 Computer-Aided Manufacturing	Gen Ed	MATH 115: Technical Mathematics I	3
Gen Ed CHEM 111: College Chemistry I Gen Ed PHYS 110: Elements of Physics ENGR 101 Engineering Drawing Interpretation MFG 111 Manufacturing Materials and Processes I MFG 112 Manufacturing Materials and Processes II MFG 115 Fundamentals of Tool Design CAD 101 Computer-Aided Design I CAD 102 Computer-Aided Manufacturing  CAM 101 Computer-Aided Manufacturing	MATH 116	Technical Mathematics II	3
Gen Ed PHYS 110: Elements of Physics  ENGR 101 Engineering Drawing Interpretation  MFG 111 Manufacturing Materials and Processes I  MFG 112 Manufacturing Materials and Processes II  MFG 115 Fundamentals of Tool Design  CAD 101 Computer-Aided Design I  CAD 102 Computer-Aided Manufacturing  CAM 101 Computer-Aided Manufacturing	MATH 117	Technical Mathematics III	3
ENGR 101 Engineering Drawing Interpretation MFG 111 Manufacturing Materials and Processes I MFG 112 Manufacturing Materials and Processes II MFG 115 Fundamentals of Tool Design CAD 101 Computer-Aided Design I CAD 102 Computer-Aided Design II CAM 101 Computer-Aided Manufacturing	Gen Ed	CHEM 111: College Chemistry I	4
MFG 111 Manufacturing Materials and Processes I MFG 112 Manufacturing Materials and Processes II MFG 115 Fundamentals of Tool Design CAD 101 Computer-Aided Design I CAD 102 Computer-Aided Design II CAM 101 Computer-Aided Manufacturing	Gen Ed	PHYS 110: Elements of Physics	4
MFG 112 Manufacturing Materials and Processes II MFG 115 Fundamentals of Tool Design CAD 101 Computer-Aided Design I CAD 102 Computer-Aided Design II CAM 101 Computer-Aided Manufacturing	ENGR 101	Engineering Drawing Interpretation	3
MFG 115 Fundamentals of Tool Design  CAD 101 Computer-Aided Design I  CAD 102 Computer-Aided Design II  CAM 101 Computer-Aided Manufacturing	MFG 111	Manufacturing Materials and Processes I	3
CAD 101 Computer-Aided Design I CAD 102 Computer-Aided Design II CAM 101 Computer-Aided Manufacturing	MFG 112	Manufacturing Materials and Processes II	3
CAD 102 Computer-Aided Design II CAM 101 Computer-Aided Manufacturing	MFG 115	Fundamentals of Tool Design	4
CAM 101 Computer-Aided Manufacturing	CAD 101	Computer-Aided Design I	3
	CAD 102	Computer-Aided Design II	3
OA 100 Statistical Process Control	CAM 101	Computer-Aided Manufacturing	3
Citationion i 100000 Control	QA 100	Statistical Process Control	3

Subtotal: 46

# The following are required courses and electives in addition to the above core components:

Gen Ed	ENG 111: College Reading and Writing	3
CIS 111	Introduction to Computers	3
Gen Ed	COMM 213/SPCH 213: Effective Speaking	3
Gen Ed	SOC 101: Introduction to Sociology	3
Gen Ed	PSYC 240: Organizational Behavior	3
Gen Ed	Fine Arts	3
Elective	Social Sciences	3

Subtotal: 21

## **Learning Outcomes**

Upon successful completion of all Industrial Technology degree program requirements, graduates will

- Demonstrate team-oriented skills that permit effective participation in multicultural work and social environments.
- Apply appropriate mathematical and scientific principles to industrial technology applications.
- 3. Perform competently in mathematics through statistics, technical mathematics, and pre-calculus as appropriate.
- 4. Express ideas effectively through written communications.
- Demonstrate proficiency in technical fundamentals to analyze industrial technology problems and make appropriate decisions.
- 6. Assist in the technical process to meet effective production objectives.
- Possess knowledge of manufacturing processes and be able to demonstrate competency in their selection and use as appropriate.
- Possess knowledge of measurement and inspection concepts and devices and be able to demonstrate competency in their utilization as appropriate.
- Possess knowledge of electricity, electronics, and circuit analysis concepts and devices, as well as hydraulic and pneumatic concepts and devices, and be able to demonstrate competency in their use as appropriate.
- Apply knowledge and skills to develop, interpret, and select appropriate manufacturing processes.
- Maintain a practical knowledge of state-of-the-art hardware and software in support of manufacturing systems.
- Be aware of and utilize available information and data sources in support of the manufacturing systems.
- Apply skills and knowledge to effectively and efficiently plan, organize, implement, measure, and control manufacturing processes.
- 14. 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.
- 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.
- Demonstrate a thorough understanding of 2-dimensional (2-D) and 3dimensional (3-D) CAD concepts, procedures, and applications as pertained to tool design.
- Apply knowledge of computer applications in integrating computer-aided manufacturing (CAM), computer numerical control (CNC), CAD, spreadsheets, graphs, and word processing for manufacturing processes documentation and support purposes.

# Journalism Option,

# Communication, A.S. Degree

## Program Design

SOC 102

Gen Ed

Gen Ed

The Journalism Option is designed for students interested in pursuing careers in print journalism as correspondents, reporters or feature writers. Students will be expected to build strong writing and communication skills, as well as a broad understanding of history, government, economics, social science and ethics, all areas critical to the practicing journalist. Cooperative Education/Work Experience is required.

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Journalism	Option	Reduireme	nts

-	•	
ENG 111	College Reading and Writing	3
ECON 101	Macroeconomics or	
ECON 102	Microeconomics	3
Gen Ed	PSYC 111: General Psychology	3
COMM 213/SPCH 213	Effective Speaking	3
Gen Ed	Humanities	3
	Subto	otal: 15
COMM 150	Issues in Print, Broadcast, Photojournalism	3
COMM 281	Basic Newswriting	3
Gen Ed	ENG 120: Introduction to Literature	3
HIST 102	Western Civilization or	
HIST 202	United States History or	^
HIST 215	America Since 1945	3
PLSC 111 PLSC 112	American National Government or State and Local Government	3
	Subto	tal: 15
ENG 112	Reading & Writing for Academic Research	3
COMM 218	TV Writing	3
COMM 201	Public Relations	3
Gen Ed	MATH 110 : Quantitative Literacy	3
COMM 270	Cooperative Education/Work Experience	3
	Subto	otal: 15
COMM 282	Magazine and Feature Writing	3
COMM 208	Mass Communication	3

Contemporary Social Problems

Fine Arts

Natural Science

Subtotal: 15-16

3

3-4

Total Credits Required: 60-61

## **Learning Outcomes**

Upon successful completion of all Journalism Option, Communication degree program requirements, graduates will

- Report and write basic news stories including obituaries, accident/fire/ disaster stories, news conferences and town meetings, using standard news style and applying the concepts of fairness and accuracy.
- 2. Identify, report and write feature stories.
- 3. Report and write for television news programming.
- Operate under the SPJ Code of Ethics and understand the ethics involved in making journalistic and editorial choices.
- Choose appropriate sources, conduct interviews, and use quotation and attribution correctly.
- Define and assess the role of the news media within the context of history, government, and society.

## Program Design

The Liberal Arts and Science Program offers either an associate in arts degree or an associate in science degree. In the associate in arts degree program, a broad liberal arts and science background is provided; students can choose from a wide range of humanities and science courses to meet their individual needs and interests.

The Liberal Arts and Science program prepares students for two alternatives—either transferring to a bachelor's degree program at another college or university, or moving directly into the work force.

#### Curriculum

Students may enroll in this program full- or part-time. For any student who is not prepared for the required mathematics and English courses, MCC offers a wide range of developmental classes.

At least 62 semester hours of credit are required in this program.

## General Education Requirements

ENG 111	College Reading and Writing	3
ENG 112	Reading and Writing for Academic Research	3
Gen Ed	Fine Arts	3
Gen Ed	Mathematics — Choose MATH 190 <u>or</u> one of the following: MATH 106 or MATH 135; MATH 208; MATH 108 or MATH 111	3-5
Gen Ed	Natural Science — Choose 1 of the following p BIO 101 and BIO 102, or CHEM 111 and CHEM 112, or PHYS 121 and PHYS 122, or PHYS 131 and PHYS 132, or CHEM 110 and PHYS 110 or PHYS 111	
Gen Ed	Social Science — Choose 1 ANTH 101, PSYC 111, or SOC 101	3

Subtotal: 23-25

# Liberal Arts and Science Requirements

ENG 120	Introduction to Literature	3
Choose one:	ENG 245, ENG 246, ENG 251,	
	ENG 252, or ENG 271	3
Choose:	Japanese, French or Spanish	6-8
PHIL 201	Introduction to Philosophy	3
HIST 101	Western Civilization I	3
HIST 102	Western Civilization II	3
Choose one:	ECON 101, GEOG 101 or PLSC 111	3

subtotal: 24-26

## **Electives**

Liberal Arts and Science — Choose 5 or	
Liberal Arts and Science — Choose 4 and 1 undesignated elective	15
	Liberal Arts and Science — Choose 4 and

**Total Credits Required: 62-66** 

## **Learning Outcomes**

Upon successful completion of all program requirements, graduates will

- Read, write and communicate analytically in forms that involve and document outside sources.
- Understand the major literary, artistic and philosophical features of western and non-western cultures.
- 3. Define the concept and function of culture.
- 4. Demonstrate knowledge of the major developments in western civilization.
- Understand world events in terms of social scientific theories and paradigms.
- 6. Demonstrate the ability to conduct meaningful research.
- 7. Use mathematical tools and technology to create mathematical models.
- Analyze and solve problems numerically, graphically and symbolically.
- 9. Use appropriate techniques to gather and analyze data.
- 10. Apply the scientific method to solving problems.
- 11. Understand and apply scientific principles.
- Work with others, including culturally and intellectually diverse peoples; think critically; and gain an appreciation for life-long learning.
- 13. Demonstrate proficiency in a foreign language at the intermediate level.

▲ NOTE: The completion of three years of study in a single foreign language at the high school level fulfills the foreign language requirement for the Liberal Arts & Science, A.A. Degree. Some colleges (such as the University of Connecticut) have as a graduation requirement four semesters of study in a single language. It is possible to complete those four semesters of language study at MCC. (Check specific transfer requirements for other colleges and universities).

## Program Design

The Liberal Arts and Science program offers either an associate in science degree or an associate in arts degree. In the associate in science degree program, a broad liberal arts and science background is provided; students can choose from a wide range of science and humanities courses to meet their individual needs and interests. The Liberal Arts and Science program prepares students for two alternatives—either transferring to a baccalaureate institution or moving directly into the work force.

#### Curriculum

Students may enroll in this program full- or part-time. For any student who is not prepared for the required mathematics and English courses, MCC offers a wide range of developmental classes.

At least 62 semester hours of credit are required in this program as follows:

## **General Education Requirements**

	•	
ENG 111	College Reading and Writing	3
ENG 112	Reading and Writing for Academic Research	3
Gen Ed	Fine Arts	3
Gen Ed	Mathematics: Choose MATH 190 and MATH 1  or two of the following:  MATH 106 or MATH 135;  MATH 200 or MATH 1444	-
Gen Ed	MATH 108 or MATH 111  Natural Science — Choose 1 pair  BIO 101 and BIO 102, or  CHEM 111 and CHEM 112, or  PHYS 121 and PHYS 122, or  PHYS 131 and PHYS 132	6-9
Gen Ed	Social Science — Choose 1 ANTH 101, PSYC 111, or SOC 101	3
Gen Ed	choose 1 additional course in above areas	3

Subtotal: 29-32

#### **Liberal Arts and Science Requirements**

	·	
ENG 120	Introduction to Literature	3
Choose one	ENG 245, ENG 246, ENG 251,	
	ENG 252, or ENG 271	3
PHIL 201:	Introduction to Philosophy	3
HIST 101	Western Civilization I	3
HIST 102	Western Civilization II	3
Choose one	ECON 101, GEOG 101 or PLSC 111	3

Subtotal: 18

#### **Electives**

Elective	Liberal Arts and Science — Choose 5 <u>or</u> Liberal Arts and Science — Choose 4 <u>and</u> 1 undesignated elective	15

Total Credits Required: 62-65

## Foreign Language Requirements

Although the Associate in Science program does not require the study of a language, the college or university into which a student wishes to transfer may require two or four semesters of a foreign language. These requirements may be met at MCC.

## **Learning Outcomes**

Upon successful completion of all program requirements, graduates will

- Read, write and communicate analytically in forms that involve and document outside sources.
- Understand the major literary, artistic and philosophical features of western and non-western cultures.
- 3. Define the concept and function of culture.
- 4. Demonstrate knowledge of the major developments in western civilization.
- 5. Understand world events in terms of social scientific theories and paradigms.
- 6. Demonstrate the ability to conduct meaningful research.
- 7. Use mathematical tools and technology to create mathematical models.
- Analyze and solve problems numerically, graphically and symbolically.
- 9. Use appropriate techniques to gather and analyze data.
- 10. Apply the scientific method to solving problems.
- 11. Understand and apply scientific principles.
- 12. Work with others, including culturally and intellectually diverse peoples; think critically; and gain an appreciation for life-long learning.

# African/American Studies Suggested Course Sequence

## **General Education Requirements**

ENG 111	College Reading and Writing	3
ENG 112	Reading & Writing for Academic Research	3
Gen Ed	Fine Arts	3
Gen Ed	MATH 106, 108, 111, <u>or</u> 190	3-5
Gen Ed	Natural Science — Choose 1 pair BIO 101 and BIO 102, <u>or</u> CHEM 111 and CHEM 112, <u>or</u> PHYS 121 and PHYS 122, <u>or</u> PHYS 131 and PHYS 132, <u>or</u> CHEM 110 and PHYS 110	8
Gen Ed	Social Science — Choose 1 ANTH 101, SOC 101, <u>or</u> PSYC 111	3

Subtotal: 23-25

## **Liberal Arts & Science Requirements**

ENG 120	Introduction to Literature	3
Elective	Foreign Language — Choose 2	6-8
PHIL 201	Introduction to Philosophy	3
HIST 101	Western Civilization Through the Reformation	3
HIST 102	Western Civilization Since the Reformation	3
Elective ANTH 150	Liberal Arts and Science <u>or</u> Cross Cultural Issues	3
Elective	Social Science Elective — Choose 1 ECON 101, GEOG 101 or PLSC 101	3
Elective	Undesignated	3

Subtotal: 27-29

## **African/American Studies Requirements**

ENG 299	African/American Literature	3
MUS 113	Today's Music	3
SOSC 201	Introduction to African/American Studies	3
SOC 271 HIST 220	Sociology of Ethnic and Racial Minorities <u>or</u> Racial and Ethnic History of the United States	3

Subtotal: 12

Total Credits Required: 62-66

## Learning Outcomes

Upon successful completion of all African/American Studies suggested course sequence, Liberal Arts and Science, A.A. degree program requirements, graduates will

- Discuss the socio-cultural, economic, political, philosophical and historical experiences of the African/American from the Africentric perspective.
- Gain an appreciation of the African origins and the African Diaspora, the African holocaust and the institution of slavery as elements of the experience of African/Americans.
- Assess the impact of interest groups, occupational distribution and dependency, affirmative action and discrimination.
- Critique the social and political implications of prejudice, race, class, gender, the civil rights movement and collective resistance and action.
- 5. Analyze selected philosophical writing of African philosophers.
- Identify and discuss contributions of Africans toward human development, intellectualism, culture and aesthetics.
- Develop an understanding of the view of life and historical experiences of African/Americans from the Africentric perspective.

## **Biology Suggested Course Sequence**

## Course of Study Plan

The Biology suggested course sequence prepares students to enter various biology and biology-related programs of study leading to a bachelor's degree. Such programs include professional studies leading to graduate level programs, ecology, human biology, biotechnology, secondary education, as well as premedical, pre-dental and pre-veterinary studies. In addition, students may use the biology emphasis in order to access various medical-technology programs at the baccalaureate level. Baccalaureate programs vary widely in their requirements for entry and placement. Students should consult with institutions to which they may transfer as early as possible.

## **Biology Requirements**

Ged Ed	BIO 101: General Biology I	4
Ged Ed	ENG 111: College Reading and Writing	3
Ged Ed	HIST 101: Western Civilization Through the Reformation	3
Ged Ed	Fine Arts — Choose 1 FA 101, FA 102, or FA 105; MUS 111 or MUS 112; or THEA 111	3
CHEM 111	College Chemistry I	4
	Subto	tal: 17
Gen Ed	Social Science — Choose 1 PSYC 111, SOC 101, or ANTH 101	3
BIO 102	General Biology II	4
CHEM 112	College Chemistry II	4
ENG 112	Reading & Writing for Academic Research	3
HIST 102	Western Civilization Since the Reformation	3
	Subto	tal: 17
Gen Ed	Mathematics: choose MATH 190 and 192 or MATH 106 and either MATH 108 or MATH 111	3-5
BIO 152	Human Anatomy and Physiology I	4
ENG 120	Introduction to Literature	3
Gen Ed	PHIL 201: Introduction to Philosophy	3
Elective	Social Science — Choose 1 PLSC 101, GEOG 101 or ECON 101	3
	Subtotal:	16-18
BIO 153	Human Anatomy and Physiology II	4
ENG 114	Technical Writing	3
Elective	Mathematics choose MATH 190 and 192 <u>or</u> MATH 106 <u>and</u> either MATH 108 or MATH 111	3-5
Elective	English — Choose 1 ENG 232, 245, 246, 251, 252, 261, or 271	3

Total Credits Required: 63-66

## **Learning Outcomes**

Upon successful completion of all Biology suggested course sequence, Liberal Arts and Science, A.S. degree program requirements, graduates will

- 1. Apply the scientific method to problem solving in biology.
- Work in biology and chemistry laboratory situations in compliance with safety regulations.
- 3. Collect, analyze, and present scientific data.
- 4. Utilize of a wide array of biological principles in both laboratory and lecture settings.
- 5. Employ chemical principles as they apply to biology.
- Use appropriate information sources, including the Internet, to gather relevant biological data.
- 7. Communicate effectively in both oral and written form.

## **Chemistry Suggested Course Sequence**

## Course of Study Plan

The Chemistry suggested course sequence prepares students for transfer into bachelor degree programs leading to vocations in fields such as industrial chemistry, chemical and pharmaceutical sales and service, dentistry and medicine.

## Chemistry Requirements

Chemistry K	equirements				
Gen Ed	CHEM 111: College Chemistry I				
Gen Ed	ENG 111: College Reading and Writing				
Gen Ed	MATH 190: Analytic Geometry and Calculus I	5			
PHYS 131	University Physics I	4			
	Subtot	al: 16			
CHEM 112	College Chemistry II	4			
ENG 112	Reading & Writing for Academic Research	3			
Gen Ed	HIST 101: Western Civilization				
	Through the Reformation	3			
MATH 192	Analytic Geometry and Calculus II	4			
PHYS 132	University Physics II	4			
	Subtot	al: 18			
CHEM 211	Organic Chemistry I	4			
Gen Ed	ENG 120: Introduction to Literature	3			
Gen Ed	Social Science — Choose 1 PSYC 111, SOC 101 or ANTH 101	3			
HIST 102	Western Civilization Since the Reformation	3			
PHIL 201	Introduction to Philosophy	3			
	Subtot	al: 16			
CHEM 212	Organic Chemistry II	4			
MATH 201	Differential Equations	4			
Gen Ed	Fine Arts — Choose 1 FA 101, 102, or 105; MUS 111 or 112	3			
Elective	Social Science — Choose 1 PLSC 111, GEOG 101 or ECON 101	3			
Elective	English — Choose 1 ENG 232, 245, 246, 251, 252, 261 or 271	3			

Subtotal: 17

## **Total Credits Required: 67**

#### Additional courses recommended for Chemistry Transfer Students:

MATH 108 MATH 111	Elementary Statistics <u>or</u> Elementary Statistics with Computer Applications	3
MATH 293	Analytic Geometry and Calculus III	4

## **Learning Outcomes**

Upon successful completion of all Chemistry suggested course sequence, Liberal Arts and Science, A.S. degree program requirements, graduates will

- Apply the scientific method to inquiries in chemistry and related scientific fields
- Employ chemical and physical principles in formulating and solving problems.
- Solve mathematical chemistry problems, appropriately displaying the collection and analysis of measurements and other relevant information.
- Solve organic chemistry problems related to the synthesis and analysis
  of organic substances.
- Perform higher mathematics that will be the foundation of subsequent chemistry courses in a baccalaureate program.
- Use computer technology in data collection and analysis.
- 7. Perform chemical analyses using modern instrumental methods.
- 8. Perform laboratory work in accordance with correct procedures and safety principles and regulations.
- Research appropriate information sources, involving both print literature and electronic methods.
- Communicate chemical knowledge in written, oral and appropriate mathematical form and language.
- 11. Transfer the knowledge of chemistry to the study of other scientific areas and their contemporary problems.

# **Environmental Science Suggested Course Sequence**

Environmenta	al Science Requirements					
CHEM 111 College Chemistry I						
Gen Ed	BIO 101: General Biology I					
Gen Ed	ENG 111: College Reading and Writing					
Gen Ed	Social Science — Choose 1 PSYC 111, SOC 101 or ANTH 101					
Gen Ed	PHIL 201: Introduction to Philosophy	3				
	Subtota	ıl: 17				
BIO 102	General Biology II	4				
CHEM 112	College Chemistry II	4				
EVSC 100	Introduction to Environmental Science	3				
Gen Ed	MATH 190: Analytic Geometry and Calculus I	5				
	Subtota	ıl: 16				
Elective	English — Choose 1 ENG 245, 246, 251, 252, or 271	3				
ENG 112	Reading & Writing for Academic Research	3				
GEOL 110	Introduction to Physical Geology	4				
HIST 101	Western Civilization Through the Reformation	3				
MATH 192	Analytic Geometry and Calculus II	4				
	Subtota	ıl: 17				
Gen Ed	Fine Arts — Choose 1 FA 101, 102, or 105; MUS 111 or 112; THEA 111	3				
Elective	Social Science — Choose 1 PLSC 111, GEOG 101 or ECON 101	3				
Gen Ed	ENG 120: Introduction to Literature	3				
HIST 102	Western Civilization Since the Reformation	3				
PHYS 131	University Physics I	4				
	Subtota	ıl: 16				

#### **Total Credits Required: 66**

Additional courses recommended for Environmental Science Transfer Students:

GEOG 246	Introduction to Geographic Information Systems	3
PHYS 132	University Physics II	4
MATH 111	Elementary Statistics with Computer Applications	4

## **Learning Outcomes**

Upon successful completion of all Environmental Science suggested course sequence, Liberal Arts and Science, A.S. degree program requirements, graduates will

- Apply the scientific method to problem solving in biology, chemistry, geology, physics and related environmental sciences.
- 2. Use computer technology in data collection and analysis.
- 3. Collect, analyze, and present scientific data.
- Communicate knowledge of environmental sciences in written, oral, and appropriate mathematical form and language.
- Research appropriate information sources, involving both print literature and electronic methods.
- Apply a wide array of principles in environmental sciences in laboratory, field and lecture settings.

## **Mathematics Suggested Course Sequence**

## Course of Study Plan

The Mathematics suggested course sequence prepares students for transfer as juniors into bachelor's degree programs with majors in mathematics, computer science, information services or related fields. Graduates are prepared for positions in the areas of actuarial science, operations research, computer programming, systems analysis and teaching.

## Mathematics Requirements

Mathematics	s requirements				
Gen Ed	ENG 111: College Reading and Writing	3			
Gen Ed	MATH 190: Analytic Geometry and Calculus I				
Gen Ed	PHIL 201: Introduction to Philosophy	3			
Gen Ed	PHYS 131: University Physics I	4			
Gen Ed	Social Science — Choose 1 PSYC 111, SOC 101 or ANTH 101	3			
	Subtota	ıl: 18			
CS 110	Introduction to Computer Science	3			
ENG 112	Reading & Writing for Academic Research	3			
MATH 192	Analytic Geometry and Calculus II	4			
PHYS 121 PHYS 132	General Physics I <u>or</u> University Physics II	4			
Elective	Social Science — Choose 1 PLSC 101, GEOG 101 or ECON 101	3			
	Subtota	ıl: 17			
Elective	English — Choose 1 ENG 245, 246, 251, 252, 261, 262, or 271	3			
Gen Ed	ENG 120: Introduction to Literature	3			
HIST 101	Western Civilization Through the Reformation	3			
MATH 220	Introduction to Linear Algebra	3			
MATH 293	Analytic Geometry and Calculus III	4			
PHYS 122	General Physics II				
	Subtota	ıl: 16			
CS 121	Programming in PASCAL	3			
HIST 102	Western Civilization Since the Reformation	3			
MATH 201	Differential Equations	4			
MATH 250	Set Theory and Foundations	3			
Elective	Fine Arts — Choose 1 FA 101, 102, or 105; MUS 111 or 112	3			
	0.14.4				

Subtotal: 16

**Total Credits Required: 67** 

## **Learning Outcomes**

Upon successful completion of all Mathematics suggested course sequence, Liberal Arts and Science, A.S. degree program requirements, graduates will

- 1. Apply mathematical principles to formulate mathematical models using real data, to solve problems and to determine validity of their solutions.
- 2. Demonstrate mathematical thinking by communicating mathematically through written work and oral presentations.
- 3. Work successfully in cooperative/collaborative environments.
- Demonstrate a proficiency with appropriate applications of technology (e.g. TI graphing Calculator, Derive, Minitab, etc.).

## **Physics Suggested Course Sequence**

## Course of Study Plan

The Physics suggested course sequence prepares students to enter the junior year of bachelor's degree programs with majors in physics, engineering physics, physical science or other related fields in the physical sciences and earth sciences. Graduates are prepared to pursue a wide variety of employment opportunities in industry or the public sector, ranging from basic research and development to technical sales and services.

## Physics Requirements

i ilysios itoq	allellielle				
Gen Ed	CHEM 111: College Chemistry I				
Gen Ed	ENG 111: College Reading and Writing				
Gen Ed	MATH 190: Analytic Geometry and Calculus I				
Gen Ed	Social Science — Choose 1 PSYC 111, SOC 101 or ANTH 101				
PHYS 131	University Physics I	4			
	Subtota	l: 19			
CHEM 112	College Chemistry II	4			
ENG 112	Reading & Writing for Academic Research	3			
MATH 192	Analytic Geometry and Calculus II	4			
PHYS 132	University Physics II	4			
	Subtota	l: 15			
Gen Ed	ENG 120: Introduction to Literature	3			
Gen Ed	PHIL 201: Introduction to Philosophy	3			
HIST 101	Western Civilization Through the Reformation	3			
MATH 293	Analytic Geometry and Calculus III	4			
PHYS 133	University Physics III	4			
	Subtota	l: 17			
Elective	English — Choose 1 ENG 245, 246, 251, 252, 261, 262, or 271	3			
Elective	Social Science — Choose 1 PLSC 101, GEOG 101 or ECON 101	3			
Elective Gen Ed		3			
	PLSC 101, GEOG 101 or ECON 101 Fine Arts — Choose 1				

Subtotal: 16

**Total Credits Required: 67** 

## Learning Outcomes

Upon successful completion of all Physics suggested course sequence, Liberal Arts and Science, A.S. degree program requirements, graduates will

- Demonstrate an understanding of the function and relevance of physics as an area of human knowledge including its relationship to other scientific disciplines – chemistry, biology, earth and environmental science, as well as engineering and technology.
- Demonstrate an appreciation of the power inherent in the empiricallogical method of inquiry through which physical concepts, theory and principles evolve.
- Demonstrate growth in both awareness and respect for the content validity and methods of inquiry in other areas of human knowledge such as philosophy, mathematics, social science and fine arts.
- Demonstrate a working knowledge of the major concepts, theories, and principles of classical physics – force, motion, thermodynamics, electricity, magnetism, and wave phenomena—through the solution of relevant quantitative and qualitative problems.
- Demonstrate an awareness of the significance of conservation principles with special emphasis on the fundamental importance of energy and its transformations.
- Demonstrate developmentally appropriate understanding of relativistic and quantum concepts including the ability to solve both quantitative and qualitative problems.
- Demonstrate a working knowledge of mathematics at the level of multivariable calculus, vector analysis, and ordinary differential equations.
- Demonstrate an understanding of the power of mathematics to model the physical world and skill at manipulating its formalism to extract quantitative information and to reveal physical relationships.
- Demonstrate a working knowledge, understanding, and aptitude in a variety of laboratory related activities including, but not limited to: safety, the operation and handling of equipment, experimental design, data collection, order of magnitude calculation of results, and the analysis of error.
- Demonstrate growth in the recognition and cultivation of attitudes or traits
  that have been identified with the successful practice of science—traits
  such as curiosity, open-mindedness, objectivity, honesty, and criticalmindedness in both observation and analysis.
- Demonstrate an aptitude in utilizing computer technology including, but not limited to: acquisition of information, preparation of reports, performing mathematical analysis, as well as collection and processing of experimental data.
- 12. Demonstrate maturity and responsibility as an independent learner.

# Pre-Med/Pre-Professional Preparation (Medical, Dental, Veterinary and Optometry)

## Course of Study Plan

Students may prepare for admission to medical school by majoring in any area but they must complete courses that meet the minimum requirements for entrance to most medical schools. The following courses meet these minimal requirements. Note that many of these courses are required by the MCC Liberal Arts and Science degree program.

## **Pre-Med/Pre-Professional Preparation Requirements**

BIO 101-102	O 101-102 General Biology I, II			
CHEM 111-112	College Chemistry I, II	8		
CHEM 211-212	Organic Chemistry I, II	8		
PHYS 121-122 PHYS 131-132	General Physics I, II <u>or</u> University Physics I, II	8		
ENG 111	College Reading and Writing	3		
ENG 112	Reading & Writing for Academic Research	3		
MATH 150	Precalculus Mathematics	4		
MATH 190	Analytic Geometry and Calculus I	5		

Subtotal: 47

In addition, students must meet general education distribution requirements, and the requirements for the Liberal Arts and Science A.S. degree on page 73.

It should also be noted that medical schools may vary in other additional requirements and it is strongly recommended that the student meet with the Pre-Med/Pre-Professional advisor. For more information call 647-6198.

## **Learning Outcomes**

Upon successful completion of all Pre-Med/Pre-Professional Preparation (Medical, Dental, Veterinary and Optometry), Liberal Arts and Science, A.S. degree program requirements, graduates will

- Apply the scientific method to problem solving in biology, chemistry and physics.
- 2. Using appropriate technology, collect and analyze scientific data.
- Communicate knowledge using written, oral and appropriate mathematical form and language.

## **Women's Studies Suggested Course Sequence**

## Course of Study Plan

The Women's Studies suggested course sequence prepares students to transfer to bachelor's degree programs with majors or minors in Women's Studies or to move directly into the workforce. Women's Studies programs are offered at the University of Connecticut, the University of Hartford, Southern Connecticut State University, Trinity College and Wesleyan University. Because the requirements of these institutions vary greatly, students should consult with an advisor in Women's Studies regarding transfer of courses. Graduates from these institutions have found employment both in nonprofit organizations and in the corporate sector. Women's Studies classes are offered primarily at night.

Women's Studies electives are indicated where appropriate in the Liberal Arts curriculum.

## Women's Studies Electives

The LAS degree requires a minimum of five LAS electives, or four LAS electives plus one free elective, for a total of 62-64 credits. If you are considering transferring as a women's studies major, please talk with an advisor before choosing your electives.

## **General Education Requirements**

ENG 111	College Reading and Writing	3
ENG 112	Reading & Writing for Academic Research	3
Gen Ed	Fine Arts	3
Gen Ed	MATH 106, 108, 111, <u>or</u> 190	3-5
Gen Ed	Natural Science — Choose 1 pair BIO 101 and BIO 102, <u>or</u> CHEM 111 and CHEM 112, <u>or</u> PHYS 121 and PHYS 122, <u>or</u> PHYS 131 and PHYS 132, <u>or</u> CHEM 110 and PHYS 110	8
Gen Ed	Social Science — Choose 1 ANTH 101, SOC 101, or PSYC 111	3

Subtotal: 23-25

## **Liberal Arts & Science Requirements**

ENG 120	20 Introduction to Literature				
Elective	Foreign Language — Choose 2	6-8			
PHIL 201	Introduction to Philosophy	3			
HIST 101	Western Civilization Through the Reformation	3			
HIST 102	Western Civilization Since the Reformation	3			
Elective ANTH 150	Liberal Arts and Science or Cross Cultural Issues	3			
Elective	Social Science Elective — Choose 1 ECON 101, GEOG 101 or PLSC 101	3			

Subtotal: 24-26

## **Women's Studies Requirements**

SOC 261*	Survey of Women's Issues	3
SOC 262	Women and Violence	3
BIO 155	Women's Health	3
COMM/SPCH 222	Gender and Communication	3
ENG 220	Introduction to Contemporary Women Poets	3
HIST 251	History of Women in the U.S.A.	3

Subtotal: 18

Total Credits Required: 65-69

## **Learning Outcomes**

Upon successful completion of all Women's Studies suggested course sequence, Liberal Arts and Science, A.A. degree program requirements, graduates will

- Develop a conceptual framework for critically assessing current theories of women's issues.
- Compare and evaluate current social policies and programs that deal with these issues.
- 3. Relate events in their own lives to at least one theory.
- Critically examine the role of gender and opportunity, power, and resources in today's society.

In Addition, the graduate will complete the comprehensive learning outcomes for the associate in arts degree on page 72.

 Strongly recommend for those who intend to take other women's studies courses.

# Management Information Systems Transfer Option, Accounting and Business Administration, A.S. Degree

## Program Design

The Management Information Systems program is offered as an option to our Accounting and Business Administration Transfer Program for students who would like to continue their studies at another college or university to earn a bachelor's degree. This program requires four courses in computer information systems, as well as liberal arts and science courses that students would normally take the first two years at a baccalaureate institution. Students planning to transfer should consult a counselor or faculty advisor about their choice of electives before selecting specific courses.

You should be familiar with the requirements of the institution to which you will transfer credits. We encourage you to select your transfer college or university as early as possible. Also, you should see an advisor before choosing elective courses in this associate degree program because each institution may have specific degree requirements.

#### Curriculum

Students may enroll in this program full- or part-time. Students should have a sound foundation in mathematics, problem solving and communication skills.

Management In	formation Systems Requirements	ł
ACCT 101*	Financial Accounting	4
CIS 111*	Introduction to Computers	3
ENG 111	College Reading and Writing	3
Gen Ed	Fine Arts	3
Gen Ed	Natural Science	3-4
	Subt	otal: 16-17
ACCT 102	Managerial Accounting	4
ENG 120	Introduction to Literature	3
Gen Ed	MATH 111: Elementary Statistics with Computer Applications	4
Elective**	CIS/CS Elective	3
Elective	Social Science	3
	Su	ubtotal: 17
CS 213***	Computer Programming: COBOL I	4
MATH 120	Topics in Modern Mathematics I: Functions, Graphs and Matrices	3
Gen Ed	PSYC 111: General Psychology	3
COMM/SPCH 213	Effective Speaking	3
Elective** CIS 270	CIS/CS Elective <u>or</u> Cooperative Education/Work Experience	3

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Computer Programming: COBOL II	4
Systems Design	4
Topics in Modern Mathematics II: Applied Calculus	3
Humanities	3
Social Science	3
	Systems Design Topics in Modern Mathematics II: Applied Calculus Humanities

Subtotal: 17

Total Credits Required: 66-67

## **Learning Outcomes**

Upon successful completion of all Management Information Systems Transfer Option degree program requirements, graduates will

- Demonstrate desirable attitudes and work habits: creative thinking, the ability to solve problems, cooperation, good judgment, responsibility, and self-reliance.
- 2. Express ideas effectively through written and oral communication.
- Demonstrate sufficient understanding of information technology for entry into an MIS program at a baccalaureate school.
- Demonstrate effective use of selected computer applications such as word processing, spreadsheets, presentation software, or database management software.
- Write, compile, execute, and debug effective business applications in a high-level programming language.
- 6. Demonstrate proficiency in mathematics through calculus.
- Demonstrate the use of the concepts and techniques of generally accepted accounting principles in the recording and reporting of financial information.
- 8. Describe accounting system procedures and techniques.
- Demonstrate an appreciation for a broad education in the liberal arts, sciences, and behavioral sciences.
- 10. Demonstrate the ability to integrate knowledge gained through the curriculum in order to analyze a business problem and design the appropriate hardware and software solutions.
- Develop an appreciation for the need to remain current and aware of emerging and evolving technologies.
- Eligibility for MATH 101 or higher and ENG 111.
  - Electives: Choose for a total of 3 credits:
    CIS 106, CST 114 (2 credits each)
    CIS 107, CIS 118 (1 credit each)
    CIS 159, CST 115, (3 credits each)
    CST 171, CST 191, (3 credits each)
    CS 201, CS 202, CS 222 (3 credits each)
    CIS 270: Cooperative Education/Work Experience (3 credits)
- \*\*\* Students must take CS 125 as a prerequisite for this course.

# **Manufacturing Engineering Science**, A.S. Degree

## Program Design

The Manufacturing Engineering Science program is designed to be a broad-based engineering science transfer program that provides a foundation of mathematics and basic science, integrated with program components focusing on introductory manufacturing technology and general education. The program emphasizes the application of mathematics and principles of engineering science to technical manufacturing in order to prepare students for transfer to baccalaureate programs in engineering and engineering sciences with a manufacturing engineering focus. The program also prepares students for employment opportunities in entry and second-level positions in manufacturing and industrial technology fields requiring a combination of technical preparation and a strong general education background.

## College of Technology - Technology Pathway Program

The Manufacturing Engineering Science program, through the Connecticut College of Technology Pathways Program, provides for direct entry into baccalaureate industrial and engineering technology programs at Central Connecticut State University. Students may enter CCSU engineering technology programs through the Manufacturing Engineering Science A.S. degree program at MCC and, upon successful completion of the program, continue on to CCSU with a full two years of credit towards a baccalaureate degree in industrial technology or engineering technology. For more information, call Robert Fortier at 647-6212.

#### Curriculum

Students may enroll in this program full- or part-time. Courses are offered during day and evening hours. Preparation for the Manufacturing Engineering Science program includes a high school diploma or equivalent with one year of physics and two years of mathematics including Algebra I and Algebra II. For students not prepared for the required mathematics and English courses, MCC offers a wide range of developmental and preparatory courses. (See Pre-Technical Education Preparation, page 23.)

## Manufacturing Engineering Science Requirements

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MATH 111	Elementary Statistics	4
Gen Ed	MATH 116: Technical Mathematics	3
Gen Ed	CHEM 111: College Chemistry I	4
ENGR 101	Engineering Drawing Interpretation	3
Gen Ed	ENG 111: College Reading and Writing	3
	Subto	otal: 17
MATH 150	Precalculus Mathematics	4
PHYS 121	General Physics I	4
CIS 111	Introduction to Computers	
QA 100	Statistical Process Control	3
Gen Ed	COMM/SPCH 213: Effective Speaking	3
	Subto	otal: 17
MATH 190*	Analytic Geometry and Calculus I	5
PHYS 122*	General Physics II	4
MFG 111	Manufacturing Materials and Processes I	
Gen Ed	SOC 101: Introduction to Sociology	
Elective	Fine Arts	3

Subtotal: 18

ENGR 211	Statics	3
ENGR 112*	Electricity/Electronics	4
MFG 112	Manufacturing Materials and Processes II	3
CAD 101	Computer-Aided Design	3
PSYC 240	Organizational Behavior	3

Subtotal: 16

**Total Credits Required: 68** 

## **Learning Outcomes**

Upon successful completion of all Manufacturing Engineering Science degree program requirements, graduates will

- Demonstrate team-oriented human skills that permit effective participation in multicultural work and social environments.
- Apply appropriate mathematical and scientific principles to manufacturing applications.
- Demonstrate proficiency in engineering fundamentals to analyze manufacturing engineering problems and make appropriate decisions.
- 4. Assist in the design process to meet effective production objectives.
- Possess knowledge of engineering materials and be able to demonstrate competency in their selection and utilization.
- Apply knowledge and skills to develop, interpret, and select appropriate manufacturing processes.
- Maintain a practical knowledge of state-of-the-art hardware and software in support of manufacturing systems.
- Be aware of and use available information and data sources in support of the manufacturing systems.
- Apply skills and knowledge to effectively and efficiently plan, organize, implement, measure, and control manufacturing processes.
- 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 (GD&T) basics.
- 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.
- 12. Demonstrate a thorough understanding of 2-dimensional (2-D) and isometric CAD concepts, procedures, and applications.
- Apply knowledge of computer applications in integrating computer-aided manufacturing (CAM), computer numerical control (CNC), CAD, spreadsheets, graphs, and word processing for manufacturing engineering and technology documentation and support purposes.
- These courses must be included in the 25 percent minimum course requirements for the degree through course work at the College. (See page 15.)

# Marketing, A.S. Degree

## Program Design

The Marketing associate degree program is for students who wish to enter managerial or proprietary positions in marketing. To complete this program, you will take courses in marketing, business, accounting, and general education.

Students interested in transferring to earn a bachelor's degree should register in the Accounting and Business Administration Transfer Program.

#### Curriculum

Students may enroll in this program full- or part-time. *Note: To take a business course numbered 100 or higher, students must be eligible for ENG 111. To take an accounting course numbered 100 or higher, students must be eligible for ENG 111 and MATH 101 or higher.* 

## Marketing Requirements

marketing it	5quirements	
ACCT 101	Financial Accounting	4
BUS 101	Business Law I	3
BUS 111	Business Environment	3
Gen Ed	ENG 111: College Reading and Writing	3
QM 110	Quantitative Methods for Business	3
	Subto	al: 16
ACCT 102	Managerial Accounting	4
BUS 102	Business Law II	3
BUS 214	Managerial Communications	3
Gen Ed	ECON 102: Microeconomics	3
Gen Ed	MATH 110: Quantitative Literacy	3
	Subto	al: 16
ACCT 105	Accounting & Business Applications Software	3
BUS 121	Principles/Methods of Marketing I	3
BUS 221	Sales and Techniques of Selling	3
CIS 106	Windows	2
Gen Ed	PSYC 111: General Psychology	3
Gen Ed	Natural Science	3-4
	Subtotal:	17-18
BUS 122	Principles/Methods of Marketing II	3
BUS 231	Basic Advertising Principles	3
BUS 252	Retailing	3
Gen Ed	COMM 213/SPCH 213: Effective Speaking	3
Gen Ed	Fine Arts	3

Subtotal: 15

Total Credits Required: 64-65

## **Learning Outcomes**

Upon successful completion of all Marketing degree program requirements, graduates will

- Prepare and interpret financial statements and utilize accounting for managerial decisions.
- Understand and discuss financial issues dealing with the environment of managerial finance; including working capital management, short-term financing, capital markets, and the theory of the value of the firm (risk, leverage, cost of capital).
- Generally understand our legal system and be able to apply principles of contract law, sales law under Article II of the Uniform Commercial Code, and the law of agency to business situations.
- Discuss partnership and corporation law, property, wills and estates, commercial paper, the bank collection process, secured transactions and creditors' rights, and government regulation of business.
- Analyze principles, techniques, and major functions (planning, organizing lending and controlling) of business enterprise management.
- Understand marketing methods and institutions, including analysis and interrelationship of the marketing mix.
- Demonstrate computer skills appropriate to his/her focus area including word processing, electronic spreadsheet, database management, general ledger accounting system, and presentation software.
- Use the Internet for business purposes, including research, marketing, and stock market analysis.
- Demonstrate an understanding of how the United States economic system is organized, how it functions and how it impacts the global economy.
- 10. Successfully enter the business world in the field of marketing.
- 11. Demonstrate proficiencies in reading, writing, listening, presentation and analytical skills.
- Work with others, including culturally and intellectually diverse peoples; think critically; and gain an appreciation for life-long learning.
- Rationalize and present solutions to problems using marketing knowledge and knowledge from social sciences, arts, literature, mathematics and science.
- 14. Develop sound ethical, philosophical and moral professional characteristics.
- Demonstrate a responsible attitude in relationships with employers, peers and toward the working environment.
- Understand market theory and its applications to product planning, price determination, government regulation, and distribution cost analysis.
- Demonstrate advertising strategy, tactics and techniques, including media selection, ad preparation, market research methods, and program evaluation.
- Apply and demonstrate the principles, methods and techniques of selling and retailing.
- Demonstrate an understanding of the interrelationships between marketing and all other areas within a business including working with other departments to achieve overall strategic goals.

# Marketing, Certificate

## Program Design

The Marketing certificate program is designed for students who are interested in a career change or who already have a degree and are looking for a career specialty.

#### Curriculum

Students must be eligible for ENG 111: College Reading and Writing in order to take business courses numbered 100 or higher.

# **Required Courses**

BUS 111	Business Environment	3
BUS 121	Principles/Methods of Marketing I	3
BUS 122	Principles/Methods of Marketing II	3
BUS 221	Sales and Techniques of Selling	3
BUS 231	Basic Advertising Principles	3
COMM 213/SPCH 213	Effective Speaking	3
PSYC 111	General Psychology	3

**Total Credits Required: 21** 

## **Learning Outcomes**

Upon successful completion of all Marketing certificate program requirements, graduates will

- Understand marketing methods and institutions, including analysis and interrelationship of the marketing mix.
- Possess computer skills appropriate to the marketing area including word processing, electronic spreadsheet, Internet browser, database management, and presentation software.
- Use the Internet for business purposes, including research, marketing, and stock market analysis.
- Understand market theory and its application to product planning, price determination, government regulation, and distribution cost analysis.
- Demonstrate advertising strategy, tactics and techniques, including media selection, ad preparation, market research methods, and program evaluation.
- Apply and demonstrate the principles, methods and techniques of selling and retailing.
- Understand the interrelationships between marketing and all other areas within a business including working with other departments to achieve overall strategic goals.
- 8. Work with others, including culturally and intellectually diverse peoples; think critically; and gain an appreciation for life-long learning.
- 9. Develop sound ethical and moral professional characteristics.
- Demonstrate a responsible attitude in relationships with employers, peers and toward the working environment.
- 11. Successfully enter the business world in the field of marketing.

# Media Technology, Certificate

## Program Design

The Media Technology certificate program provides an intensive exposure to a range of current communication technologies. It is intended for students who are technically oriented and wish to work in technical positions in the fields of radio, television, photography, desktop publishing and cable television. It concentrates on teaching skills that are necessary for working behind-the-scenes in media and communications. Classes are highly practical and provide significant hands-on opportunity, allowing the student to apply classroom theory to real-life projects. In developing this certificate program, extensive effort was made to provide skills that are currently in high demand in the Connecticut labor market.

## Curriculum

The program can be completed in two semesters of rigorous, full-time study, but will take longer for the student attending part-time.

## **Required Courses**

COMM 150	Issues in Print, Broadcast, Photojournalism	3
COMM 176/FA 176	Video/Filmmaking	3
COMM 290	Introduction to Desktop Publishing	3
COMM 206	Broadcast Announcing or	3
COMM 210	Broadcast/TV Production	4
COMM 211*	Advanced Broadcast/TV Production	4
COMM 270	Cooperative Education/Work Experience	3
COMM 291	Advanced Desktop Publishing or	
COMM 218	Television Writing or	
COMM 285	Television News Reporting	3

**Total Credits Required: 22-23** 

## Learning Outcomes

Upon successful completion of all Media Technology certificate program requirements, graduates will

- Write copy for radio and television.
- 2. Effectively use the Macintosh computer and design-related software.
- Understand and apply the basic principles of graphic arts and design techniques.
- 4. Operate still and video cameras and edit videotape.
- 5. Conduct interviews for newspaper stories and television programs.
- 6. Write scripts for radio and television programs.
- \* Students may enroll in COMM 211 even if they have not taken COMM 210

# Medical Laboratory Technician,

# A.S. Degree

## Program Design

The Medical Laboratory Technician associate degree program provides training for medical laboratory work concerned with the collection of information related to a patient's health status. Even though they spend less time with the patient than other health professionals, laboratorians supply valuable service to patient care. MLT's perform a wide variety of tasks including collection of blood specimens, performing analytical procedures on biological specimens while relating lab findings to common disease processes; performing preventative and corrective maintenance on automated equipment; monitoring of quality control procedures; communicating with patients and other health professionals and the public while exhibiting professional behavior. Lastly, in order to maintain competence in this profession, laboratory workers must have a lifelong commitment to continuing education. Graduates of the program are eligible to sit for the national certifying examinations offered by the Board of Registry of the American Society of Clinical Pathologists and the National Credentialing Agency for Laboratory Personnel.

## Scholastic Preparation and Admission Process\*

All candidates must submit a college application and a separate Allied Health application. Applications are accepted throughout the year. Complete information on the admission procedures is available from the Admissions Office or by calling the program coordinator at 647-6190.

In addition, applicants must arrange to have an official high school transcript or a copy of a high school equivalency diploma sent to the Admissions Office as well as official transcripts for all studies in other schools or colleges. These transcripts will determine whether a candidate has met the required basic competencies in mathematics, and science. Candidates who meet the basic competencies will be given an interview that will assess their knowledge of the laboratory field, measure their potential for working in a medical setting and discuss their course of study. If students do not meet basic competencies, the College has personnel and courses available to assist them.

#### Accreditation

The program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences which is located at 8410 W. Bryn Mawr, Suite 670, Chicago, IL 60631-3415. Telephone: (773) 714-8880.

## Curriculum

The first year of the program is spent at the College and combines general education and clinical courses. The second year includes a 12-month clinical year. The curriculum includes lectures as well as clinical training and practice under supervision. Clinical training is offered at Hartford Hospital. Students must have a physical, which includes drug testing, before beginning their clinical. During the clinical year, students must pay for parking, uniforms and other miscellaneous expenses.

The first year may be done on a part-time basis. The second clinical year must be done full-time. Those courses with an MLT designator are offered only during the day.

## Medical Laboratory Technician Requirements

CHEM 111	College Chemistry I	4
ENG 111	College Reading and Writing	3
MATH 102 MATH 110	Mathematical Modeling III <u>or</u> Quantitative Literacy	3
MLT 142	Introduction to the Medical Laboratory	2
Gen Ed	Fine Arts	3
CIS 102 CIS 106	Getting Acquainted with the IBM <u>or</u> Windows	1 2

Subtotal: 16-17

BIO 112	Human Biology	4
BIO 141	Microbiology	4
CHEM 112	College Chemistry II	4
Gen Ed	Humanities	3
MLT 182	Clinical Microscopy I	1
MLT 272	Parasitology/Mycology	2
		Subtotal: 18
Gen Ed	Social Science	3
MLT 201**	Clinical Microbiology	4
MLT 211**	Chemistry	4
MLT 221**	Hematology	3
MLT 231**	Immunology/Serology	2
MLT 251**	Phlebotomy	2
		Subtotal: 18
MLT 202**	Clinical Microbiology	4
MLT 212**	Chemistry	4
MLT 222**	Hematology	3
MLT 262**	Immunohematology	3
MLT 282**	Clinical Microscopy II	1
		Subtotal: 15

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**Total Credits Required: 67-68** 

#### Learning Outcomes

Upon successful completion of all Medical Laboratory Technician degree program requirements, graduates will

- Sit for the national certifying examinations offered by the Board of Registry of the American Society of Clinical Pathologists and the National Credentialing Agency for Laboratory Personnel.
- 2. Collect, process and analyze biological specimens.
- 3. Relate lab findings to common disease processes.
- 4. Perform preventive and corrective maintenance on automated equipment.
- 5. Monitor quality control procedures.
- 6. Apply principles of safety.
- Communicate with patients, other health professionals, and the public while exhibiting professional behavior.
- Students who do not meet the program entrance requirements should select appropriate courses from the Pre-Allied Health Program, an access program that provides courses and guidance to prepare the student for a career in the health field. (See page 23.)
- \*\* These courses are taught at Hartford Hospital.

# **Microcomputer Option,** Computer Information Systems, A.S. Degree

## Program Design

The Computer Information Systems associate degree, Microcomputer Option program prepares students for employment in entry-level positions where the emphasis in computing is the desktop environment. This program provides course work in hardware, varied system and applications software, and principles of programming as they relate to microcomputing.

Students interested in transferring to another institution to earn a bachelor's degree in management information systems should enroll in the Management Information Systems Transfer program.

#### Curriculum

The following curriculum may be completed on a full- or part-time basis. We urge students, especially those attending part-time, to work closely with a faculty member or advisor to insure they are taking the correct computer information systems courses and selecting the electives most appropriate for their goals.

Students with no keyboarding experience should take BOT 100A: Keyboarding concurrently with their first CIS course.

## **Microcomputer Option Requirements**

Windows	2
Advanced Windows	1
Introduction to Computer Technology	3
Programming Logic & Design with ANSI C	3
Microsoft Word for Windows	1
ENG 111: College Reading & Writing	3
COMM 213/SPCH 213: Effective Speaking	3
	Advanced Windows Introduction to Computer Technology Programming Logic & Design with ANSI C Microsoft Word for Windows ENG 111: College Reading & Writing

#### subtotal: 18

		subtotal: 17
CS 222	Programming in C	3
CS 201	Visual Basic I <u>or</u>	
Gen Ed	ECON 102: Microeconomics	3
CIS 166	Application Software: Excel	3
CIS 159	Database Management: Access	3
CST 114	Exploring the Internet	2
BUS 214	Managerial Communication	3
ENG 114	Technical Writing or	

CIS 118	Presentation Software: PowerPoint	1
CST 171	Network Essentials I	3
CST 191	Computer Hardware I	3
CS 202 CS 223	Visual Basic II <u>or</u> Programming in C++	3
Elective*	Programming Elective	3

Elementary Statistics with Computer Applications 4

subtotal: 17

Elective*	Programming Elective	3
CST 115	Building Web Pages	3
Gen Ed	Natural Science	3
Gen Ed	Social Science	3
Gen Ed	Fine Arts	3

Subtotal: 15

## **Total Credits Required: 67**

*	Programming	Elective:	select <u>two</u>	of the following:

CS 201:	Visual Basic I	3
CS 202:	Visual Basic II	3
CS 259:	Database Management -	
	Advanced Access with VBA	3
CAD 101:	Computer-Aided Design	3
CS 222:	Programming in C	3
CS 223:	Programming in C++	3
CS 224:	Programming in Java	3
CST 130:	Fundamentals of Operating Systems	4
CST 231:	Computer Operating System Workstation	4
CST 232:	Computer Operating System Server	4

**Note:** Students may elect to substitute CIS 270: Cooperative Education/Work Experience for any equivalent CIS credit course with prior departmental approval.

#### Learning Outcomes

Upon successful completion of all Microcomputer Option degree program requirements, graduates will

- Demonstrate effective attitudes and work habits through application of creative thinking, critical thinking, teamwork, good decision-making skills, responsibility, and self-reliance.
- 2. Express ideas effectively through written and oral communication.
- Ascertain sufficient knowledge of information technology appropriate for entry-level employment positions and for further advancement.
- Acquire the level of math skills appropriate for the student's program of study.
- Develop an appreciation for the need to remain current and aware of emerging and evolving technologies.
- Demonstrate the ability to define a problem and develop a logically structured solution.
- Demonstrate an understanding of basic networking concepts, including network topologies, hardware and software components, protocols, and the factors involved in making network decisions.
- 8. Demonstrate effective use of computer applications including word processing, spreadsheets, presentation software, and database management software.
- Demonstrate knowledge of the major concepts and language requirements to write, compile, and execute programs in a high-level programming language.
- Demonstrate the skills to troubleshoot and debug programming problems and to follow through with effective solutions.
- Demonstrate an appreciation for the liberal arts and sciences through broadened interest and knowledge in several non-technical subjects.

**MATH 111** 

# Microcomputer Processing, Certificate

## Program Design

The Microcomputer Processing certificate is principally designed for persons who wish to obtain a well rounded background in microcomputer skills to enhance career opportunities or personal productivity.

The student population for this program is likely to include:

- Managers of small offices who must be knowledgeable in all facets of microcomputer operations.
- Computer information systems graduates who wish to specialize in the microcomputer.
- Liberal Arts graduates who wish to develop technical skills in the microcomputer field.
- Students and graduates from business programs who wish to strengthen their résumé with technical microcomputer skills.
- Administrative staff who would benefit from additional microcomputer technical training.
- Individuals seeking a career change or increased career mobility.
- Individuals seeking to develop their microcomputer skills for personal use.
- Mature employees seeking a career change or increased career mobility.
- Adult learners returning to the labor force who are interested in developing expertise in the microcomputer field.

#### Curriculum

This program can be completed on a part-time basis over a two year period. It can be completed in one year through full-time attendance. Some courses may only be offered in the evening. Not all courses are offered each semester so students should plan their schedule carefully. It is recommended that students have previous keyboarding experience.

The following is a suggested curriculum arrangement for those wishing to complete the certificate within one year.

## Required Courses

noquinou o		
CIS 106*	Windows	2
CIS 107	Advanced Windows	1
CST 110	Introduction to Computer Technology	3
CS 114	Exploring the Internet	2
CS 125	Programming Logic and Design with ANSI C	3
CIS 166	Application Software: Excel	3
	Subtot	al: 14
CIS 118	Presentation Software: PowerPoint	1
CIS 159	Database Management: Access	3
BOT 125	Introductory Microsoft Word for Windows	1
CST 171	Network Essentials I	3
CST 191	Computer Hardware I	3
CS 201	Visual Basic I	3

Subtotal: 14

**Total Credits Required: 28** 

 Students with no keyboarding experience should take BOT 100A Keyboarding concurrently.

## **Learning Outcomes**

Upon successful completion of all Microcomputer Processing certificate program requirements, graduates will

- Demonstrate an understanding of a computer's operating system and its mandatory functions with regard to application software, file management, basic system maintenance, utilizing system resources, and customizing the computing environment.
- Demonstrate the ability to effectively use a computer as a tool at home, on the job or in the classroom.
- Demonstrate effective use of computer applications including word processing, spreadsheets, presentation software, and database management software.
- Demonstrate a basic understanding of internal functions of a computer system; i.e., I/O, memory and processing.
- Demonstrate the ability to define a problem and develop a logically structured solution.
- Demonstrate the ability to use Visual Basic for event-driven program development.
- Demonstrate an understanding of basic networking concepts, including network topologies, hardware and software components, protocols, and the factors involved in making network decisions.
- Use acquired skills to troubleshoot and maintain personal computer hardware.
- Demonstrate the ability to use Internet browsers, E-mail, and search engines.

# Multimedia Option,

# Graphic Design Degree, A.S. Degree

## Program Design

The purpose of the Graphic Design Multimedia Option is:

- to provide a multimedia transfer program in the area of digital design with an emphasis on the computer as a tool for the creation of animated and interactive presentation;
- to offer a degree program for those considering an entry level position in fields related to digital composition (animation, interactive programming, digital illustration).
- to provide greater technical knowledge of the creative visual arts as they apply to multimedia design and production.

The program is structured to equip students with a sound foundation in technical skills, graphic design concepts, aesthetics, terminology and vocabulary and to provide awareness of the application of creative and critical thinking in the use of technical knowledge. A strong emphasis has been placed on the use of the computer as a production and composing tool. For more information call Program Coordinator Ed Hogan, at 860-647-6234.

The course of study demands students' time and dedication, and will provide them with transfer and career choices based upon ability and achievement.

# Multimedia Option Requirements

Multillicula	Option Requirements	
ENG 111	College Reading and Writing	3
FA 210	Computer Graphics	3
FA 125	Design	3
Gen Ed	FA 121 : Drawing	3
Elective	Social Science	3
		Subtotal: 15
Gen Ed	ENG 120 : Introduction to Literature	3
FA 105	History of 20th Century Art	3
COMM 210	Broadcast/TV Production	4
Gen Ed	HIST 101: Western Civilization	3
FA 211	Computer Graphics II	3
		Subtotal: 16
COMM 176	Video/Filmmaking	3
FA 205	Graphic Design I	3
Gen Ed	Humanities	3
FA 251	Computer Animation	3
Elective	studio	3

Subtotal: 15

FA 206	Graphic Design II	3
FA 252	Advanced Computer Animation	3
Elective	liberal arts & science	3
Gen Ed	MATH 110: Quantitative Literacy	3
Gen Ed	Natural Science	3
Elective FA 270	studio <u>or</u> Cooperative Education/Work Experience	3

Subtotal: 18

**Total Credits Required: 64** 

## **Learning Outcomes**

Upon successful completion of all Multimedia Option, Graphic Design degree program requirements, graduates will

- Demonstrate an understanding and appreciation of graphic design as a form of communication and art.
- Demonstrate an ability to use design processes and principles to create visual products that convey a specific message to a targeted audience.
- Demonstrate creative thinking skills and strategies and use problemsolving techniques across a wide range of media.
- 4. Demonstrate an understanding of how creative processes and skills are integrated with printing and other reproduction processes found in the graphic design field.
- Demonstrate an understanding of non-print distribution systems such as CD-ROM, computer networks and the Internet.
- Demonstrate an awareness of the varied career paths within the graphics and media industries including, but not limited to, art direction, illustration, project design, production art, graphic design and media director, interactivity interface design, and digital video production and editing.

# Multimedia Studies, A.A. Degree

## Program Design

The purpose of the Multimedia Studies program is:

- to provide a multimedia transfer program in the area of digital design with an emphasis on the computer as a tool for the creation of animated and interactive presentation;
- to offer a degree program for those considering an entry level position in fields related to digital composition (animation, interactive programming, digital illustration, three-dimensional modelling, digital video production).
- to provide greater technical knowledge of the creative visual arts as they
  apply to multimedia design and production.

The program is structured to equip students with a sound foundation in technical skills, design concepts, aesthetics, terminology and vocabulary and to provide awareness of the application of creative and critical thinking in the use of technical knowledge. A strong emphasis has been placed on the use of the computer as a production and composing tool. For more information call Program Coordinator Ed Hogan, at 860-647-6234.

The course of study demands students' time and dedication, and will provide them with transfer and career choices based upon ability and achievement.

	e,	ubtotali 15 16
COMM 210	Broadcast/TV Production	4
COMM 176	Video/Filmmaking or	3
FA 210	Computer Graphics	3
Gen Ed	FA 125: Design	3
HIST 101	Western Civilization	3
Gen Ed	ENG 111: College Reading and Writin	g 3

Subtotal	: 1	5-1	6
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Gen Ed         ENG 120 : Introduction to Literature         3           Gen Ed         MATH 106: Elements of Modern Math         3           FA 105         History of 20th Century Art         3           FA 211         Computer Graphics II         3           FA 251         Computer Animation I         3           Gen Ed         Social Science         3			
Gen Ed MATH 106: Elements of Modern Math 3 FA 105 History of 20th Century Art 3 FA 211 Computer Graphics II 3	Gen Ed	Social Science	3
Gen Ed MATH 106: Elements of Modern Math 3 FA 105 History of 20th Century Art 3	FA 251	Computer Animation I	3
Gen Ed MATH 106: Elements of Modern Math 3	FA 211	Computer Graphics II	3
	FA 105	History of 20th Century Art	3
Gen Ed ENG 120 : Introduction to Literature 3	Gen Ed	MATH 106: Elements of Modern Math	3
	Gen Ed	ENG 120 : Introduction to Literature	3

MM 201	Introduction to 3D Modelling	3
FA 252	Advanced Computer Animation	3
MM 205	Digital Video/On-Line Editing	3
Gen Ed	Natural Science	3-4
Gen Ed	Humanities	3

Subtotal: 15-16

MM 299	Special Topics	3
Elective*	studio (computer)	3
Elective*	studio (computer)	3
Elective*	studio (computer)	3
Elective	liberal arts & science	3

Subtotal: 15

**Total Credits Required: 63-65** 

## **Learning Outcomes**

Upon successful completion of all Multimedia Studies degree program requirements, graduates will

- Demonstrate practical skills in computer-based multimedia production including animation, 3D modelling, digital video and interactive design and production.
- Demonstrate an ability to plan multimedia and interactive projects and produce all the elements involved in such projects (graphics, sound, animations, and video).
- Demonstrate an awareness of a variety of software used in multimedia production and the ways that this software can be integrated in the development of projects.
- 4. Use their training to pursue employment in digital media development, including but not limited to digital animation, 3D modeling, digital sound engineering, digital video production and editing, CD-ROM and computer game development, digital graphic arts and special effects production.
- \* Computer studio courses include Computer Graphics, Advanced Computer Graphics, Computer Animation, Advanced Computer Animation, 3D Modelling and Digital Video. These electives will permit a student to continue their computer training in the direction of their choice.

# **Music Option,** Liberal Arts and Science, A.S. Degree

## Program Design

The Music Option to the Liberal Arts and Science program has two goals: preparing students to meet the demands of the music profession and enabling the nonprofessional to enjoy a more rewarding life as a serious lover of music.

Courses in the music curriculum offer a thorough preparation in music fundamentals, jazz and popular theory, history (classical, contemporary and jazz), and performance. Individualized study with professional instrumental and vocal instructors is an important part of the curriculum. Each student plans his/her selection of courses with a member of the music faculty.

Special arrangements afford students the option of earning course credits at MCC or the Hartford Camerata Conservatory and apply that credit toward the A.S. degree at Manchester Community College. While completing the degree requirements for an associate degree, students receive support and advisement should they choose to transfer to another college or university to earn a bachelor's degree.

#### Curriculum

Music students must complete the following curriculum to earn an associate degree. Students may enroll full- or part-time.

## **Music Option Requirements**

		Subtotal: 15-16
Gen Ed	Natural Science	3
MUS 211**	Fundamentals	3
MUS 131	Private Music Lessons	1-2
MUS 123*	Chamber Music/Jazz Ensemble	2
MUS 121*	Chorus or	
MUS 111	History and Appreciation I	3
ENG 111	College Reading and Writing	3

•		
Gen Ed	Social Science	3
MUS 201**	Music Harmony & Ear Training I	3
MUS 132	Private Music Lessons	1-2
MUS 124*	Chamber Music/Jazz Ensemble	2
MUS 122*	Chorus <u>or</u>	
MUS 112	History and Appreciation II	3
Gen Ed	ENG 120: Introduction to Literature	3

Subtotal	l: 15-16
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MUS 113	Today's Music	3
MUS 202**	Music Harmony & Ear Training II with Keyboard Lab	4
MUS 221*	Chorus or	
MUS 223*	Chamber Music/Jazz Ensemble	2
MUS 231	Private Music Lessons	1-2
MATH 110	Quantitative Literacy	3
Gen Ed	Social Science	3

Subtotal: 16-17

Ear Training III
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ons 1-2
4
3
osophy 3

Subtotal: 16-18

Total Credits Required: 63-67

## **Learning Outcomes**

Upon successful completion of all Music Option degree program requirements, graduates will

- Demonstrate an historical cross-cultural awareness and appreciation of Western European and American Contemporary music.
- Demonstrate skills and techniques that reflect an understanding of the theoretical aspect of music including: an understanding of the fundamentals of music; exploration and development of voice leading principles; ear training, sight singing, rhythmic, melodic and harmonic dictation; keyboard skills and accompaniment techniques.
- Demonstrate performance skills in solo and ensemble group presentations.
- Demonstrate technical facility and knowledge of standard repertoire for specified vocal or instrumental medium (e.g., voice, piano, saxophone).
- Demonstrate an understanding of music that prepares them for further music study.
- Demonstrate proficiency in a foreign language at the intermediate level (A.A. degree only).
- \* Voice students should choose chorus sequence MUS 121, MUS 122, MUS 221, and MUS 222. Instrumental students should choose instrumental sequence MUS 123, MUS 124, MUS 223, and MUS 224.
- \*\* Students who have not studied piano are recommended to take a beginning piano class (MUS 215: Beginning Piano) or a comparable course before taking the theory sequence (MUS 211, 201, 202 and 203).

# Occupational Therapy Assistant, A.S. Degree

## Program Design

The Occupational Therapy Assistant associate degree program enables the graduate to treat patients who are impaired by a physical illness or injury, an emotional disorder, a developmental disability, or the aging process. Working under the supervision of an occupational therapist, an occupational therapy assistant uses activities and modalities as treatment to help people gain optimal function in their everyday life tasks. Specific services that an occupational therapy assistant provides may include training in activities of daily living, fabrication of splints, adapting home and work environments and tools, and therapeutic use of crafts and games.

## Scholastic Preparation and Admission Process

If you are a high school graduate or hold a state equivalency certificate, you may submit an official application to the College Admissions Office. Admission to a Health Career Program requires a separate application. You may request this application by contacting the Admissions Office or by calling 647-6140 or by contacting the Health Careers secretary at 647-6236.

To qualify for admission to the Occupational Therapy Assistant Program students must have a grade point average at above 2.5. It is suggested that interested students meet with the Occupational Therapy Program Coordinator to review a learning plan tailored to the individual needs of the student. The OTA Program Coordinator may be reached at 647-6197.

#### Curriculum

Because of the flexible nature of the program, students may select a full-time or part-time plan of study. Courses with an OTA designator are offered only during the day. Students with prior college credit may complete the program in a threesemester sequence. All coursework must be completed with a grade of C or better and a GPA of 2.5 must be maintained throughout the program. The clinical semester, which is offered both semesters, provides a four-month, full-time, supervised learning experience with a focus on psychosocial, physical, and developmental areas of practice. The Occupational Therapy Assistant program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. AOTA's phone number is (301) 652-AOTA. Graduates of the program will be able to sit for the national certification examination for the occupational therapy assistant administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be a Certified Occupational Therapy Assistant (COTA). When you apply to sit for the certification exam, you will be asked to answer questions related to the topic of felony convictions. For further information on these limitations, contact NBCOT. Connecticut requires a license in order to practice occupational therapy and the license is based on the results of the NBCOT Certification Examination.

## **Occupational Therapy Assistant Requirements**

OTA 101	Introduction to Occupational Therapy	3
OTA 120	Human Neuroscience with Kinesiology Lab	4
BIO 112	Human Biology with Lab ▲	4
CS 105	Programming in BASIC or	2
CS 110	Introduction to Computer Science or	3
CIS 102	Getting Acquainted with the IBM	1
PSYC 111	General Psychology ■	3
PSYC 124	Developmental Psychology ▲	
	(through the life span)	3

Subtotal: 18-20

Gen Ed	Fine Arts	3
OTA 102	Occupational Therapy with Children	3
OTA 102L	Treatment Modalities (Children)	1
OTA 112	Occupational Therapy with Adults	3
OTA 112L	Treatment Modalities (Adults)	1
OTA 122	Occupational therapy with the Elderly	3
OTA 122L	Treatment Modalities (Elderly)	1
OTA 232	Principles of Clinical Management	3
OTA 106	Level I Advanced Fieldwork	0

COMM 213/SPCH 213	Public Speaking	3
ENG 111	College Reading and Writing	3
MATH 110	Quantitative Literacy	3
OTA 220	Group Approach in Occupational Therapy	3
SOC 101	Introduction to Sociology	3
SOC 260	Medical Sociology	3

Subtotal: 18

Subtotal: 18

OTA 242	Level II Fieldwork	11
OTA 244	Advanced Seminar in Occupational Therapy	1

Subtotal: 12

#### **Total Credits Required: 66-68**

These courses are recommended for students who plan to transfer to a professional level occupational therapy program.

BIO 152	Human Anatomy and Physiology I	4
BIO 153	Human Anatomy and Physiology II	4
MATH 111	Elementary Statistics with Computer Application	4
CIS 111	Introduction to Computers	3

## **Learning Outcomes**

Upon successful completion of all Occupational Therapy Assistant degree program requirements, graduates will

- Sit for the National Certification Exam.
- Be employed in a health service occupation that meets the manpower needs of individuals, the community and the state.
- Demonstrate the interpersonal skills necessary to function as a Certified Occupational Therapy Assistant.
- Demonstrate the communication skills necessary to function in the health services profession.
- 5. Comprehend the scope of Occupational Therapy practice.
- 6. Comprehend the health-wellness-illness continuum.
- Apply principles in analysis and application of occupational therapy treatment in the spectrum of human occupation.
- ▲ Must have been taken within last five years.
- Must have been taken within last ten years.

# Office Microcomputer, Certificate

## Program Design

The Office Microcomputer certificate is designed for students who wish to upgrade their computer skills in the area of office software. This certificate uses the Microsoft Office 97 software package as the vehicle for this skill development. Students will develop proficiency in the Windows operating system, word processing, spreadsheet use, database creation and reporting, presentation development and using the Internet.

With the rapid expansion of microcomputers in the business world, individuals with microcomputer skills are essential at all levels of office management from the receptionist to the office manager. This certificate will provide an educational opportunity for the student who wants to obtain skill training but does not want to move into the programming level of computer use. All courses required for this certificate are available during the regular credit semester and in the Weekend College.

Required	Courses
BOT 124	N

BOT 124	Microsoft Word for Windows or	3
BOT 125	Introductory Microsoft Word for Windows	1
BOT 126	Intermediate Microsoft Word for Windows	1
BOT 127	Advanced Microsoft Word for Windows	1
CIS 106*	Windows	2
CIS 107	Advanced Windows	1
CIS 114	Exploring the Internet	2
	Sut	ototal: 8

CIS 118	Presentation Software: PowerPoint	1
CIS 159	Database Management: Access	3
CIS 166	Application Software: Excel	3

Subtotal: 7

**Total Credits Required: 15** 

\* Students with no keyboarding experience should take BOT 100A or BOT 107 concurrently.

## **Learning Outcomes**

Upon successful completion of all Office Microcomputer certificate program requirements, graduates will

- Demonstrate an understanding of a computer's operating system and its mandatory functions with regard to application software, file management, basic system maintenance, utilizing system resources, and customizing the computing environment.
- Demonstrate proficiency in creating and formatting all types of Microsoft Word documents.
- Demonstrate proficiency in developing and enhancing PowerPoint presentations.
- Demonstrate proficiency in using Excel features: workbooks, functions, charts, databases, templates and basic macros.
- Demonstrate proficiency in the use of a relational database management system.
- Demonstrate the ability to use Internet browsers, E-mail, and search engines.

# Paralegal, A.S. Degree

## Program Design

A paralegal or legal assistant is a person, qualified through education, training or work experience, who is employed or retained by a lawyer, law office, governmental agency or other entity. The paralegal performs specifically delegated, substantive legal work, for which a lawyer is responsible.

Paralegals may be asked to conduct research and prepare memoranda; to draft pleadings, deeds or contracts; to interview clients or witnesses; to prepare answers to interrogatories; or to digest depositions. They may prepare inventories, accounts and tax returns in connection with estates and trusts; perform real estate title searches and UCC searches; calendar and track important deadlines; or organize and maintain client files. Paralegals may not give legal advice or engage in the unauthorized practice of law.

The Paralegal associate degree program includes specialized courses in the paralegal profession as well as related courses in business and liberal arts. An option in the program is a cooperative education/work experience course in which students gain practical experience in a legal setting while earning academic credit.

The MCC Paralegal Association is an active student club that offers seminars throughout the year and distributes a newsletter to members.

The Paralegal program has been approved by the American Bar Association since 1984. It is a member of the American Association for Paralegal Education.

#### Curriculum

The Paralegal program is primarily an evening program of study, offering legal courses during the academic year. Many students work full time while attending classes at night. Students should note that not all courses are offered every semester, and only some courses are offered in the day. Part-time students should see a counselor for suggested course sequencing.

Note: All legal courses require students to be eligible for ENG 111, or permission of the instructor.

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LEGL 109	Introduction to Paralegalism	3
LEGL 110	Legal Ethics and Professional Responsibility	1
Gen Ed	ENG 111 : College Reading and Writing	3
BUS 101	Business Law I	3
Gen Ed	PLSC 111: American National Government or	
	PLSC 112: State and Local Government	3
BOT 160	Wordperfect or	3
CIS 106	Windows and	2
BOT 125	Introductory Microsoft Word for Windows	1
	Subto	tal: 16

		Subtotal: 16
LEGL 112	Legal Research	3
LEGL 221	Litigation	3
Gen Ed	Humanities	3
Gen Ed*	Mathematics	3
Elective		3

Subtotal: 15

LEGL 207	Real Estate Transactions	3
LEGL 231	Wills, Trusts and Estate Administration	3
ACCT 101	Financial Accounting	4
Gen Ed	Social Science	3
LEGL 211	Business Organizations	3
	S	ubtotal: 16
Elective**	Legal	3
Elective	Fine Arts	3
Gen Ed	Natural Science	3-4
Elective**	Legal	3
Elective		3

Subtotal: 15-16

Total Credits Required: 62-63

- Students may select any mathematics course except MATH 098 and 101.
- \*\* Legal Elective Choose <u>2</u> LEGL 120, 205, 212 LEGL 214, 215, 222 LEGL 225/CJ 225 LEGL 226/CJ 226 LEGL 270

## Learning Outcomes

Upon successful completion of all Paralegal degree program requirements, graduates will

- Understand the proper role of the legal assistant in the delivery of legal services to the public, and the ethical rules that govern the conduct of the legal profession.
- Understand how to analyze a fact situation, identify legal issues, research these issues, and prepare memoranda of law.
- Prepare legal documents such as deeds, mortgages, wills, trusts, pleadings, probate forms and business documents and agreements for review by the supervising attorney.
- Perform law office management and administrative tasks, through the establishment and implementation of office policy and procedures, and the development of computer competencies for maximum efficiency.
- Approach new problems and subject matter in an organized and efficient manner, with an understanding of the importance and responsibility placed on the paralegal.
- Demonstrate an understanding of artistic and literary expression, social issues, and scientific hypotheses.

# Paralegal, Certificate

## Program Design

A paralegal or legal assistant is a person, qualified through education, training or work experience, who is employed or retained by a lawyer, law office, governmental agency or other entity. The paralegal performs specifically delegated, substantive legal work, for which a lawyer is responsible.

Paralegals may be asked to conduct research and prepare memoranda; to draft pleadings, deeds or contracts; to interview clients or witnesses; to prepare answers to interrogatories; or to digest depositions. They may prepare inventories, accounts and tax returns in connection with estates and trusts; perform real estate title searches and UCC searches; calendar and track important deadlines; or organize and maintain client files. Paralegals may not give legal advice or engage in the unauthorized practice of law.

The Paralegal certificate program is designed for students who have or are obtaining an educational (not vocational) associate or baccalaureate degree in a major other than paralegal or legal studies. The certificate program provides them with the opportunity to enroll in a paralegal studies program that meets standards set by the American Bar Association, the National Federation of Paralegal Associations, and the American Association for Paralegal Education. Transcripts showing prior degrees must be sent directly to the Admissions Office

A student who applies for graduation from the Paralegal certificate program must provide proof that he/she has received, or will concurrently receive, an educational associate or baccalaureate degree in a major other than paralegal or legal studies from an accredited institution.

The MCC Paralegal Association is an active student club that offers seminars throughout the year and distributes a newsletter to members.

The Paralegal program has been approved by the American Bar Association since 1984. It is a member of the American Association for Paralegal Education.

## Curriculum

The Paralegal program is primarily an evening program of study, offering legal courses during the academic year. Many students work full time while attending classes at night. Students should note that not all courses are offered every semester, and only some courses are offered in the day. Part-time students should see a counselor for suggested course sequencing.

Note: All legal courses require students to be eligible for ENG 111, or permission of the instructor.

## **Required Courses**

•		
BUS 101	Business Law I	3
LEGL 109	Introduction to Paralegalism	3
LEGL 110	Legal Ethics and Professional Responsibility	1
LEGL 112	Legal Research	3
LEGL 207	Real Estate Transactions	3
LEGL 211	Business Organizations	3
LEGL 221	Litigation	3
LEGL 231	Wills, Trusts and Estate Administration	3
LEGL 120, 205, 212, LEGL 214, 215, 222, LEGL 225/CJ 225, LEGL 226/CJ 226, or LEGL 270	Legal Elective — Choose 2	6

**Total Credits Required: 28** 

## Learning Outcomes

Upon successful completion of all Paralegal certificate program requirements, graduates will

- Understand the proper role of the legal assistant in the delivery of legal services to the public and the ethical rules that govern the conduct of the legal profession.
- 2. Understand how to analyze a fact situation, identify legal issues, research these issues, and prepare memoranda of law.
- Prepare legal documents such as deeds, mortgages, wills, trusts, pleadings, probate forms and business documents and agreements for review by the supervising attorney.
- Perform law office management and administrative tasks through the establishment and implementation of office policy and procedures, and the development of computer competencies for maximum efficiency.
- Approach new problems and subject matter in an organized and efficient manner, with an understanding of the importance and responsibility placed on the paralegal.

# Personal Financial Planning, Certificate

## Program Design

The Personal Financial Planning certificate program is principally designed for individuals employed in financial planning or in areas related to the financial services industry. Students entering this program are assumed to have a business foundation gained either through college instruction or on-the-job learning.

Student population for this program is likely to include:

- Financial planning practitioners looking to update and strengthen their knowledge or broaden their base.
- Practitioners interested in earning the CFP® professional designation.
- Employees in financial institutions seeking professional development.
- · Mature employees seeking a career change.
- · Liberal arts college graduates seeking courses in financial planning.
- Students and graduates from business programs who are interested in financial planning courses not offered by their institutions.
- Adult learners returning to the labor force who are interested in working in the financial services industry.

Students who complete each course successfully and who meet all other certification requirements may be eligible to sit for the national Certified Financial Planner (CFP) exam, administered by the CFP Board of Standards.

To sit for this comprehensive exam, a student must complete a minimum of 60 semester credit hours of college level education and a fee must be paid to the CFP Board. Anyone considering seeking the CFP designation must meet individually with the program coordinator to be advised of CFP procedures and certification requirements.

#### Curriculum

The program may be completed on a part-time basis over three regular semesters. Evening courses will be offered during the fall and spring semesters.

Students should have a financial calculator capable of computing internal rate of return (IRR) to successfully complete the program.

Students are encouraged to take ACCT 101 (Financial Accounting) before taking the finance courses listed below. Note: Students enrolled in the Personal Financial Planning certificate program may be interested in a dual certificate in Taxation. With the completion of two additional courses, students may complete a dual certificate in taxation and sit for the Enrolled Agent Examination. Please see the Taxation certificate requirements on page 107. People coming from a non-business background should seek the counseling of the department chair-person or program coordinator.

## **Required Courses**

FNCE 210	Fundamentals of Personal Financial Planning	3
FNCE 220	Risk Management	3
FNCE 230*	Investment Management	3
ACCT 226	Introduction to Taxation & Financial Planning	3
FNCE 250	Retirement Planning and Employee Benefits	3
FNCE 260	Estate Planning	3

**Total Credits Required: 18** 

## Learning Outcomes

Upon successful completion of all Personal Financial Planning certificate program requirements, graduates will

- Determine whether and how an individual can meet life goals through the proper management of financial resources.
- Explain issues and concepts related to the overall financial planning process.
- Apply financial planning concepts, tools, and techniques in an objective, integrated, and comprehensive manner for the benefit of individuals to help them achieve their financial objectives, using the financial planning process.
- Demonstrate an understanding of their responsibilities to the public, to clients, to colleagues, and to employers in terms of acting in an ethical and professionally responsible manner in all professional services and activities.
- 5. Demonstrate mastery of the financial planning topics determined by the Certified Financial Planner Board of Standards to constitute the core curriculum for personal financial planning practitioners: gather client data and determine goals and expectations; analyze and evaluate a client's financial status; develop and present a financial plan; calculate and interpret time value of money; demonstrate an understanding of risk management, the process of risk analysis, and life insurance needs analysis; understand investment theory and strategies; explain the features of investment vehicles; calculate measures of investment and portfolio performance; understand the provisions of current Federal tax laws; apply tax planning strategies; and apply retirement and estate planning strategies.
- \* ACCT 101 is a prerequisite for FNCE 230.

# Pharmacy Technician, A.S. Degree

## Program Design

The Pharmacy Technician program prepares graduates to work under the supervision of registered pharmacists in providing a high level of modern pharmaceutical care in hospitals, clinics, extended care facilities, nursing homes and other organized health care settings. The program includes a 300-hour practicum in a pharmacy setting.

The program is offered through an articulation agreement between Manchester Community College and Gateway Community College in North Haven. The A.S. degree is awarded by Gateway Community College. All pharmacy technician (PHT) courses are held at Gateway. The non-professional (general education) courses may be taken at Manchester Community College.

## Scholastic Preparation and Admission Process

The Pharmacy Technician program relies on a selective admissions process. In addition to the college's general admissions policies, the applicant must adhere to the following criteria: high school diploma or equivalency; eighteen years of age by starting date; two recommendations and a personal statement; successful completion of a qualifying examination, consisting of mathematics, reading and writing skills; submission of the Pharmacy application/waiver form; a current medical examination report by a physician - prior to course enrollment - that states that the applicant is in good physical condition and emotional health and free of communicable diseases. The application/waiver form, recommendations, personal statement and medical examination report are submitted to the Gateway Community College Admissions Office.

All qualifying applicants are interviewed by a College Committee and the coordinator of the program. All candidate selections are final. To be considered for the fall semester, candidates must complete the application process by March 1. Applications received after this time will be considered on a space available basis. For more information about admission into this program, contact the MCC Health Careers Office in the Faculty West building, 860-647-6236.

## Accreditation

This program is accredited by the American Society of Health-System Pharmacists.

# **General Education Requirements**

BIO 101 General Biology I  CIS 166 Application Software: Excel  ENG 111 College Reading & Writing	
FNG 111 College Reading & Writing	3
gg	3
MATH 102 Mathematical Modeling III	3
COMM 213/SPCH 213 Effective Speaking or	
COMM 220/SPCH 220 Interpersonal Communication	3
Gen Ed Humanities	3
Gen Ed Social science	3

Subtotal: 22

## **Pharmacy Technician Requirements**

ACCT 101	Financial Accounting	4
BOT 107	Beginning Keyboarding	3
BUS 111	Business Environment	3
BUS 201	Business Management	3
CHEM 110	Elements of Chemistry	4
PHT 101*	Introduction to Pharmacy Procedures	3

Pharmacology	3
Pharmacy Procedures Lab	1
Pharmacy Dosage Calculations	3
Pharmacy Practicum & Clinical Conference	3
Advanced Topics in Pharmacy	3
Pharmacy Seminar	3
	6
	Pharmacy Procedures Lab Pharmacy Dosage Calculations Pharmacy Practicum & Clinical Conference Advanced Topics in Pharmacy

Subtotal: 42

**Total Credits Required: 64** 

# Pharmacy Technician, Certificate

## Program Design

The Pharmacy Technician certificate program is designed to meet the needs of individuals who are seeking skills upgrading or training.

## **Required Courses**

BIO 112	Human Biology <u>or</u>	4
BIO 101	General Biology I	
CIS 166	Application Software: Excel	3
CHEM 110	Elements of Chemistry	4
MATH 102	Mathematical Modeling III	3
BOT 107	Beginning Keyboarding	3
PHT 101*	Introduction to Pharmacy Procedures	3
PHT 102*	Pharmacology	3
PHT 103*	Pharmacy Procedures Lab	1
PHT 104*	Pharmacy Dosage Calculations	3
PHT 113*	Pharmacy Practicum & Clinical Conference	3
PHT 202*	Pharmacy Seminar	3

**Total Credits Required: 33** 

## Learning Outcomes

According to the standards of the American Society of Health-System Pharmacists, we prepare our students for entry-level positions and/or transfer. Our innovative courses enhance career decisions and lifelong learning.

Upon successful completion of all Pharmacist Technician program requirements, graduates will

- Assist the Pharmacist in serving patients. (Activities related to pharmacy prescription dispensing, medication distribution and administration, and the collection and organization of information related to individual patients.)
- Maintain medication and inventory control systems. (Activities and quality assurance related to medication and supply purchasing, inventory control, storage and handling, and preparation and distribution of medications, durable medical equipment, supplies, and equipment for a practice setting.)
- Participate in the administration and management of pharmacy practice. (Activities related to the administration and management process for the pharmacy setting including operations, quality improvement, accounting, human services, facilities, equipment, and information services.)
- Indicates these courses are currently available only at Gateway Community College. Students are encouraged to consult with their advisor in planning their course of studies.

# Physical Therapist Assistant, A.S. Degree

## Program Design

The Physical Therapist Assistant (PTA) associate degree program prepares students to function in health care settings as an entry level practitioner within the boundaries and scope of practice of a physical therapist assistant and under the supervision of a physical therapist. PTA's practice in hospitals, school systems, private offices, home health agencies, industry, rehabilitation hospitals and nursing homes.

The program is offered through a collaborative arrangement between Capital Community College, Manchester Community College, Naugatuck Valley Community College, Northwestern Community College, and Tunxis Community College. The A.S. degree is awarded by Manchester Community College. The two year course of study begins in January and includes a minimum of 67 credits in science, mathematics, psychology, social sciences and humanities. Seven physical therapy courses, which have a strong foundation in the sciences and in professional practice standards, are also required. Twelve credits are earned during the final semester in clinical practicums. These are done in physical therapy clinics that are affiliated with this PTA program. All physical therapy classes are held during the day at Naugatuck Valley Community College in Waterbury and the clinical practicums require 40 hours of attendance weekly throughout that semester. Non-professional courses will be taken at Manchester Community College.

## Scholastic Preparation and Admissions Process

The PTA Program relies on a selective admissions process which uses specific admissions criteria. These criteria are available through the admissions office in each college and include course work in algebra, chemistry or physics, and college level anatomy and physiology. Interested candidates will be expected to have a history of academic success, particularly with science courses. When the applications are evaluated, only the strongest candidates will be considered for an interview by the Admissions Committee. The student will need to demonstrate the skills necessary to become a PTA. The deadline for application is October 1 and the classes will begin in January each year. For more information about admission into this program, contact the MCC Health Careers Office in the Faculty West building, 860-647-6236.

Students who do not meet the program entrance requirements should select appropriate courses from the Pre-Allied Health Program, an access program that provides courses and guidance to prepare the student for a career in the health field. (See page 23.)

## Accreditation

One requirement for registration or licensure to work as a PTA is graduation from a program of education accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) of the American Physical Therapy Association. Naugatuck Valley Community College has been granted full accreditation by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association, 1111 North Fairfax St., Alexandria, VA 22314, (703) 684-2782. The program has been licensed by the Connecticut Board of Governors for Higher Education.

## **Physical Therapist Assistant Requirements**

i ilysical illerapi	ot Assistant Negunements	
BIO 153	Human Anatomy and Physiology II	4
ENG 111	College Reading and Writing	3
PSYC 111	General Psychology	3
PTA 120	Introduction to Physical Therapy	3
PTA 125	Physical Therapy for Function	4
		Subtotal: 17
PTA 222	Introduction to the Physical Therapy Cli	nic 1
		Subtotal: 1
COMM 213/SPCH 213	Effective Speaking	3
ENG 120	Introduction to Literature	3
Gen Ed	Mathematics	3-4
PTA 230	Physical Agents in Physical Therapy	4
PTA 235	Kinesiology for Rehabilitation	4
	Su	btotal: 17-18
Elective	Social Science	3
Gen Ed	Fine Arts	3 5
PTA 250	Therapeutic Exercise	5
PTA 253	Pathophysiology for Rehabilitation	3
PTA 258	PTA in the Healthcare Arena	2
		Subtotal: 16
PTA 260	Physical Therapy Seminar	2
PTA 262	PTA Internship II	5
PTA 265	PTA Internship III	5

Subtotal: 12

Total Credits Required: 63-64

## Learning Outcomes

Upon successful completion of all Physical Therapist Assistant program requirements, graduates will

- Sit for examination for state licensure/registration as a physical therapist assistant.
- Perform physical therapy interventions under the supervision of a physical therapist.
- 3. Accurately obtain patient information through data collection.
- Demonstrate accurate problem-solving abilities when working as a physical therapist assistant.
- Competently communicate with physical therapists, patients, families and other health care providers.
- 6. Effectively provide education to patients, families and other caregivers.
- 7. Produce documentation supporting physical therapy services.
- 8. Demonstrate behaviors that comply with appropriate statutes and with the ethical standards established by the American Physical Therapy Association.
- 9. Competently function within an interdisciplinary health care team.

# Public Relations, Certificate

## Program Design

The certificate program in Public Relations, bridging the disciplines of communications and business, is designed to appeal to several populations: new students considering a degree program in communications; employees in other areas of communications seeking retraining, and students with associate or bachelor degrees seeking rapid certification in the skills necessary for entry-level positions in public relations.

The program is designed for maximum flexibility. Students who are already proficient in specific areas of communication or technology will be able to fill in the voids in their training by customizing their courses to their individual needs. Similarly, students seeking a broad range of training in all areas relevant to public relations—including marketing, written and oral communications, videography, desktop publishing and graphics—will achieve a generalist's knowledge.

## **Transfer Opportunities**

Most courses in the certificate program would be transferable to a two- or fouryear degree program and all are transferable to the MCC Communication Degree program.

## **Required Courses**

BUS 121, 122 or 240	Business elective — Choose 1	3
COMM 176	Film/Videomaking	3
COMM 201	Public Relations	3
COMM 213/SPCH 213	Effective Speaking	3
COMM 270	Cooperative Education/Work Experience	3
COMM 281	Basic Newswriting	3
COMM 290	Desktop Publishing or	
COMM 291	Advanced Desktop Publishing	3
ENG 111, 112 or 114	English composition elective- Choose 1	
	(students should consult an advisor)	3
FA 205	Graphic Design	3
PHIL 203	Ethics	3

**Total Credits Required: 30** 

## **Learning Outcomes**

Upon successful completion of all Public Relations certificate program requirements, graduates will

- Design, implement and evaluate a marketing/PR campaign.
- 2. Write for internal and external publications with an understanding of the needs of the target audiences.
- Apply basic graphic design principles to newsletters, brochures, reports, and related PR projects.
- 4. Establish media contacts.
- 5. Serve as an effective spokesperson for an organization or business.
- 6. Apply ethical principles to decision making and crisis management.
- Understand the role of the public relations practitioner within the context of mass communication.
- Understand the effects of print and broadcast media on the practice of public relations.

# Real Estate Management, Certificate

## Program Design

The Real Estate Management certificate program is designed for persons interested in a part-time career or a career change, and/or for individuals who already have a degree and are looking for a career specialty.

Note: To take a business course numbered 100 or higher, students must be eligible for ENG 111.

## Required Courses

BUS 101	Business Law I	3
BUS 102	Business Law II	3
BUS 161	Real Estate Principles and Practices	3
BUS 162	Real Estate Appraisal I (Residential)	3
BUS 231	Basic Advertising Principles	3
BUS 262	Real Estate Appraisal II (Income)	3
BUS 263	Problems in Real Estate Brokerages	3
BUS 264	Real Estate Finance	3
CIS 111	Introduction to Computers	3
GEOG 201	Urban Geography	3

Total Credits Required: 30

## Learning Outcomes

Upon successful completion of all Real Estate certificate program requirements, graduates will

- Generally understand the U.S. legal system and be able to apply principles of contract law, sales law under Article II of the Uniform Commercial Code, and the law of agency to business situations.
- Discuss partnership and corporation law, property, wills and estates, commercial paper, the bank collection process, secured transactions and creditors' rights and government regulations of business.
- Possess computer skills appropriate to the real estate field, including: word processing, electronic spreadsheet, Internet browser, database management, and presentation software.
- 4. Use the Internet for business purposes, including research, marketing, and stock market analysis.
- Demonstrate advertising strategy, tactics and techniques, including media selection, ad preparation, market research methods, and program evaluation.
- 6. Apply and demonstrate the principles, methods and techniques of selling.
- Apply the topics required by the Connecticut Real Estate Commission leading to licensing of real estate salespersons and brokers.
- Analyze principles, techniques, and the major functions (planning, organizing, lending and controlling) of business enterprise management in order to run successful sales offices.
- Be a more effective investor in real estate as a broker, developer, lender or property manager.
- Understand the practical geographic problems of urban areas using census data, interpretation of aerial photographs, G.I.S. and map construction.
- Work with others, including culturally and intellectually diverse peoples; think critically; and gain an appreciation for life-long learning.
- 12. Develop sound ethical and moral professional characteristics.
- 13. Successfully enter the market place in the real estate field.

# Respiratory Care, A.S. Degree

## Program Design

The Respiratory Care associate degree program provides training in respiratory care, a health care specialty that concentrates on the areas of prevention, treatment, management and rehabilitation of people with lung disorders. Respiratory Therapists are involved in a variety of life-saving situations, working side-by-side with nurses, doctors and other health care providers and treating patients ranging in age from the newborn to the elderly. Using sophisticated equipment, therapists help people with such diseases as asthma, bronchitis and emphysema. Respiratory therapists are regarded as experts on the respiratory and cardiac systems and are often called upon for advice and help in deciding which course of care to prescribe.

## Scholastic Preparation and Admission Process

Students seeking admission to the Respiratory Care program should have completed one course each in algebra, biology and chemistry, either in high school or at the college level. A tour of one of the hospital affiliates is strongly recommended. Students will need to demonstrate the skills necessary to become a Respiratory Therapist; technical standards for the program are available upon request. Admission to the Respiratory Care Program requires a separate application. Applications are accepted on an on-going basis during the year prior to the September of the year in which the student hopes to be accepted. Applications will be accepted until the class fills. Prospective students are encouraged to apply early. Complete information on specific criteria for acceptance and the admission process is available from the Admissions Office by calling 860-647-6140 or from the program coordinator at 860-647-6193.

Students who do not meet the program entrance requirements should select appropriate courses from the Pre-Allied Health Program, an access program that provides courses and guidance to prepare the student for a career in the health field. (See page 23.)

#### Accreditation

The program is accredited by the Commission on Accreditation of Allied Health Education Programs. For information write to: CoARC, 1248 Hardwood Rd., Bedford, TX 76021-4244.

#### Curriculum\*

The program begins each September and continues through two years, including the summer semester. Classes with an RC designation and clinical experience are offered during the day. Beginning with the second semester of the program, students will train at the hospitals every week in conjunction with classes held at the College. Beginning with the second year, the clinical component requires full-time study. Hospital affiliates include Baystate Medical Center, Hartford Hospital, St. Francis Hospital and Medical Center, Manchester Memorial Hospital, New Britain General Hospital and the Hospital for Special Care. All hospital training is supervised by trained clinical instructors. After graduating from the program, students are eligible to take the entry level examination offered by the National Board for Respiratory Care.

A physical examination and an immunization record are required of all students prior to beginning clinical rotations. Students are responsible for hospital parking fees; uniforms; clinical supplies, e.g. stethoscopes, assessment examinations; and miscellaneous expenses.

## **Respiratory Care Requirements**

BIO 152	Human Anatomy and Physiology I	4	
MATH 110	Quantitative Literacy	3	
ENG 111	College Reading & Writing	3	
RC 201	Clinical Practice I	1	

RC 221	Respiratory Care I	3
RC 241	Ventilation Therapy I	3
		Subtotal: 17
BIO 153	Human Anatomy and Physiology II	4
RC 202	Clinical Practice II	1
RC 211	Applied Pharmacology	3
RC 222	Respiratory Care II	3
CHEM 110**	Elements of Chemistry	4
		Subtotal: 15
COMM 213/SPCH 213	Effective Speaking	3
RC 203	Clinical Practice III	1
RC 242	Ventilation Therapy II	3
		Subtotal: 7
Gen Ed	Social Science	3
PHYS 110	Elements of Physics or	
PHYS 111	Physics and the Human Body	4
RC 204	Clinical Practice IV	2
RC 251	Advanced Respiratory Care I	3
RC 282	Clinical Application I	3
		Subtotal: 15
BIO 141	Microbiology	4
Gen Ed	Fine Arts	3
RC 205	Clinical Practice V	2
RC 261	Advanced Respiratory Care II	3
RC 283	Clinical Application II	2
		Subtotal: 14

Subtotal: 14

**Total Credits Required: 68** 

## Learning Outcomes

Upon successful completion of all Respiratory Care degree program requirements, graduates will

- Sit for the National Board for Respiratory Care (NBRC) entry level examination for Certified Respiratory Therapist (CRT).
- Sit for the NBRC Advanced Level Examination for Registered Respiratory Therapist (RRT).
- Demonstrate the ability to comprehend, apply and evaluate information relevant to their role as an advanced level respiratory therapist.
- Demonstrate technical proficiency in the skills necessary to fulfill the role of advanced level respiratory therapist.
- Demonstrate professional behavior consistent with the practice of respiratory care.
- AH 090 is recommended as a preparation for this program.
- \*\* Students planning to transfer to a B.S Respiratory Care Program are encouraged to take CHEM 111 and CHEM 112.

# Social Service, A.S. Degree

## Program Design

The Social Service associate degree program is designed to prepare students for diverse employment opportunities and to provide a foundation for further academic pursuit. Additionally, the program includes field placement opportunities which provide students with "hands-on" exposure to the helping professions.

#### Curriculum

Students may enroll in this program full- or part-time. They can begin the program any semester and include field work at off-campus sites as part of their program.

## Social Service Requirements

Oociai oci vi	se rrequirements	
Gen Ed	ENG 111: College Reading and Writing	3
HS 101	Introduction to Human Services	3
Gen Ed	PSYC 111: General Psychology	3
Gen Ed	SOC 101: Introductory Sociology	3
Gen Ed	Natural Science	3-4
	Subtota	l: 15-16
ENG 112	Reading & Writing for Academic Research	3
HS 152	Work with Individuals and Families	3
PSYC 124	Developmental Psychology	3
Gen Ed	Mathematics	3-4
Elective	Social Science	3
	Subtota	l: 15-16
Gen Ed	ENG 120: Introduction to Literature	3
HS 201	Work with Groups	3
HS 291	Human Services Field Experience I	3
PLSC 112	State and Local Government	3
Gen Ed	Fine Arts	3
	Subt	otal: 15
HS 252	Work with Agencies and Communities	3
HS 292	Field Experience II or	
SOSC 270	Cooperative Education/Work Experience	3
Elective	Undesignated Elective — Choose 2	6
Elective	Social Science Elective	3

Subtotal: 15

Total Credits Required: 60-62

## **Learning Outcomes**

Upon successful completion of all Social Service degree program requirements, graduates will

- 1. Explain the history of human service movements.
- 2. Demonstrate knowledge of current human services theories.
- 3. Identify ethical and legal issues related to human services.
- 4. Demonstrate knowledge of the language, terms and concepts used in the helping professions.
- Apply a basic knowledge of assessment, planning, contracting, interviewing, intervention and evaluation.
- Develop an understanding of professional ethics relating to human services work.
- Describe a variety of styles and methods of working with individuals, couples, and families.
- Describe group process and structure and the various roles assumed by individuals in groups.
- Demonstrate an understanding of systems theory, the ecological perspective, role theory, and methods of decision making.
- Assess, plan, contract, intervene and evaluate the establishment of working with groups.
- Analyze the social planning, community planning, social action, community development, and advocacy activities in human service agencies.
- 12. Design a grant proposal focusing on human services.
- Demonstrate an understanding of the goals, policies, and procedures of one human service agency.
- Demonstrate knowledge of community resources to which referrals can be made.
- Use appropriate human service practice skills within the context of providing direct services.
- Use oral and written communication skills effectively in human service situations.

# Social Service, Certificate

## Program Design

The Social Service certificate program is designed for students seeking short-term academic and in-service professional development, and for those with extensive social service experience or an academic degree.

## Required Courses

HS 101*	ntroduction to Human Services	3
HS 152	Work with Individuals and Families	3
HS 201	Work with Groups	3
HS 252	Work with Agencies and Communities	3
HS 292**	Field Experience II or	
SOSC 270	Cooperative Education/Work Experience	3
Elective***	Undesignated — Choose 3	9
Elective***	Social Science — Choose 2	6

**Total Credits Required: 30** 

- \* Students with several years work experience in human services may request credit by examination for HS 101 or credit by experience for HS 291.
- \*\* All students must complete HS 291: Field Experience I.
- \*\*\* Students are to meet with the program coordinator before choosing electives.

## Learning Outcomes

With the addition of experience in the field of social service and upon successful completion of all Social Service certificate program requirements, graduates will

- 1. Explain the history of human service movements.
- 2. Demonstrate knowledge of current human services theories.
- 3. Identify ethical and legal issues related to human services.
- 4. Demonstrate knowledge of the language, terms and concepts used in the helping professions.
- Develop an understanding of professional ethics relating to human services work.
- Describe a variety of styles and methods of working with individuals, couples, and families.
- Describe group process and structure and the various roles assumed by individuals in groups.
- Demonstrate an understanding of systems theory, the ecological perspective, role theory, and methods of decision making.
- Assess, plan, contract, intervene and evaluate the establishment of working with groups.

# Sport and Exercise Studies, A.S. Degree

## Program Design

This program is designed for students interested in transferring to a baccalaureate college or university in preparation for opportunities as physical education teachers, athletic trainers, corporate fitness coordinators, wellness coordinators, recreation majors and coaches. The program may be used by students who choose to complete an associate degree and then obtain employment.

#### Curriculum

Students may select a full- or part-time plan, attending day or evening. The program includes six core courses that apply specifically to sport and exercise studies, eleven liberal arts and science courses with an emphasis on the sciences, and seven elective courses. Students who complete the program will receive certificates in adult CPR, standard first aid, sport injury module, and coaching from the state of Connecticut.

## **Sport and Exercise Studies Requirements**

BIO 152	Anatomy/Physiology I	4
ENG 111	College Reading and Writing	3
CIS 102	Meet the PC	2
HPE	Skills Class	1
HPE 141*	Principles & Practices of Sport	3
SOC 101	Introduction to Sociology	3
	Subto	tal: 16
BIO 153	Anatomy/Physiology II	4
ENG 112	Reading/Writing for Academic Research	3
HPE	Skills Class	1
REC 101	Introduction to Recreation & Leisure Studies g	<u>or</u>
HPE 201	Introduction to Physical Education	3
HPE 202	Adapted Physical Education	3
SOSC 110	Introduction to Wellness	3

Subtotal:	1	
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BIO 114	Principles of Nutrition	3
HPE 120	Physiology of Fitness	3
HPE	Skills Class	1
PSYC 111	General Psychology	3
Elective	Fine Arts	3
Elective	Social Science	3
		Subtotal: 16
AH 270	Cooperative Education	3
MATH 110**	Quantitative Literacy	3
HPE	Skills Class	1
HPE 140	Introduction to Athletic Training	3
HPE 161	Physical Fitness & Exercise	3
COMM 213/SPCH 213	Effective Speaking	3

Subtotal: 16

**Total Credits Required: 65** 

## **Learning Outcomes**

Upon successful completion of all Sport and Exercise Studies degree program requirements, graduates will

- 1. Understand the basic concepts of fitness, health and wellness.
- Prepare an exercise prescription for an individual beginning an exercise program.
- Understand the basic concepts of nutrition, as they relate to carbohydrates, fats, and proteins, and the functions of each within the human body.
- Identify the skills necessary to administer basic first aid and emergency care
- Identify the skills necessary to prepare athletes, with stretching exercises, and taping techniques, in order to assist in the prevention of athletic injuries.
- 6. Understand the techniques of coaching and the basic principles involved.
- Identify the skills necessary to assist individuals in making personal health style changes as they relate to overall health and wellness.
- 8. Utilize a computer in all aspects of their future career.
- Prepare clear, concise written reports related to assessing individual needs in fitness, health and wellness.
- Present oral reports on fitness, health and wellness to community and business groups.
- \* CPR/First Aid Certification required
- \*\* Transfer students will be advised to register for MATH 106 or MATH 111

# Surgical Technology, A.S. Degree

## Program Design

The Surgical Technology associate degree program provides education and training in surgical technology, a healthcare specialty whose practitioners are members of a surgical team, trained to work primarily in the operating room in cooperation with surgeons and nurses. Surgical technologists prepare the OR for use, maintain a sterile environment, hand instruments to the surgeon, maintain records and assist with patient care.

The program begins each September and continues through 21 months, including a required summer session. Surgical Technology (ST) classes and clinical rotations are scheduled only during the day. Pre-clinical and general education courses are campus-based; summer session and clinical courses are scheduled at area hospitals including Connecticut Children's Medical Center, Hartford Hospital, Manchester Memorial Hospital, and New Britain General Hospital. Graduates are prepared, eligible and encouraged to take an examination administered by the Association of Surgical Technologists to achieve the status of Certified Surgical Technologist.

Special expenses such as parking and uniforms may be required in this program.

#### Scholastic Preparation and Admission Process\*

Students seeking admission to the Surgical Technology program should have completed one biology laboratory course at the high school or college level within five years and a basic college algebra course, or be exempted by placement test results. Medically related experience either through employment or volunteering is strongly recommended. Students will need to demonstrate the skills necessary to become a surgical technologist. Admission to the Surgical Technology program requires a separate application which should be filed during the academic year prior to desired admission. Students are admitted on an on-going basis until the class is filled, so early application is recommended. A packet which contains further information and the application forms is available from the College Admissions Office or by calling 860-647-6236.

Students who do not meet the program entrance requirements should select appropriate courses from the Pre-Allied Health Program, an access program that provides courses and guidance to prepare the student for a career in the health field. (See page 23.)

## Accreditation

This program is accredited by the Accreditation Review Committee on Education in Surgical Technology and the Commission on Accreditation of Allied Health Education Programs.

#### Curriculum\*

The following course sequence is recommended for students without prior college experience. The ST course sequence begins in the Fall and must be followed as described below. Anatomy and Physiology, Microbiology and Chemistry must be successfully completed before the student begins the second year clinical courses (ST 222, ST 224). Students must pass a practice Certification Examination to complete ST 224 and be eligible for graduation.

## **Surgical Technology Requirements**

BIO 152	Human Anatomy & Physiology I	4
CHEM 110	Elements of Chemistry	4
ENG 111	College Reading and Writing	3
ST 101	OR Procedures I	4
ST 105	Medical Terminology	2

Subtotal: 17

BIO 141	Microbiology	4
BIO 153	Human Anatomy & Physiology II	4
PSYC 111	General Psychology	3
ST 102	OR Procedures II	4
		Subtotal: 15
ST 106	Seminar in Surgery	2
ST 220	Clinical Experience I	2
		Subtotal: 4
BIO 210	Human Pathology	3
CIS 102	Get Acquainted with IBM or	1
CIS 106	Windows <u>or</u>	2
CIS 111	Introduction to Computers	3
ENG 120	Introduction to Literature	3
Gen Ed	Mathematics	3
ST 222	Clinical Experience II	4
		Subtotal: 14-16
BIO 201	Pharmacology	3
COMM 213/SPCH 213	Effective Speaking	3
Gen Ed	Fine Arts	3
Gen Ed	Undesignated	3
ST 224	Clinical Experience III	4
-		0.14.4.1.40

Subtotal: 16

**Total Credits Required: 66-68** 

#### Learning Outcomes

Upon successful completion of all Surgical Technology degree program requirements, graduates will

- Serve as a member of a surgical team in providing high quality care in the operating room or other surgical environment.
- Perform highly-specialized skills by integrating basic knowledge of surgical techniques and application of problem-solving procedures.
- Demonstrate interpersonal skills and communicate effectively with patients and other health-care professionals.
- 4. Demonstrate ability to protect patients' rights and privacy by displaying good judgment, integrity, and a professional manner.
- Prepare for and successfully complete the examination for certification as a surgical technologist (CST).
- \* AH 090 is recommended as a preparation for this program.

# Taxation, Certificate

# Program Design

The Taxation certificate program is designed specifically for students interested in taking the examination to become an Enrolled Agent. Such a designation allows one to represent tax clients at the first level of the Federal Tax Court. This program is of special interest to public accountants and other tax preparers.

# Curriculum

Students may enroll full- or part-time. ACCT 101 (Financial Accounting) is a prerequisite for ACCT 223 and must be completed with a grade of C- or better.

Note: Students enrolled in the Taxation certificate program may be interested in a dual certificate in Personal Financial Planning. Please see the Personal Financial Planning certificate program requirements on page 97 of this catalog.

# **Required Courses**

ACCT 223	Federal Taxes	3
ACCT 224	Advanced Federal Taxes	3
ACCT 226	Introduction to Taxation and Financial Planning	3
FNCE 210	Fundamentals of Personal Financial Planning	3
FNCE 230	Investment Management or	
FNCE 250	Retirement Planning & Employee Benefits	3

**Total Credits Required: 15** 

# **Learning Outcomes**

Upon successful completion of all Taxation certificate program requirements, graduates will

- Complete simple accounting problems and be familiar with current financial accounting standards and practices.
- 2. Understand generally accepted accounting principles and their manual and computerized spreadsheet applications.
- 3. Prepare complete financial statements for sole proprietorships in compliance with current accounting standards and practices.
- Prepare the following tax returns and supporting schedules under simulated conditions: 1040, 1065, 1120 and 1120S.
- Possess computer competencies for maximum efficiency including the use of accounting, spreadsheet, presentation and tax software.
- Understand the provisions of current tax laws and the business and investment decisions they affect.
- 7. Understand all phases of the tax code and be able to focus on tax problems and the multiple alternatives that must be analyzed.
- 8. Work with others, including culturally and intellectually diverse peoples; think critically; and gain an appreciation for life-long learning.
- 9. Develop sound ethical and moral professional characteristics.
- 10. Successfully enter the marketplace in the field of taxation.

# Therapeutic Recreation, A.S. Degree

# Program Design

The Therapeutic Recreation Associate Degree program is designed to address the need for a degree beyond the Therapeutic Recreation Certificate for students pursuing careers as a therapeutic recreation director or supervisor in therapeutic recreation in long term care facilities. The associate degree in therapeutic recreation will also prepare students to work in a variety of therapeutic recreation settings such as rehabilitation facilities, penal institutions, group homes, facilities for developmentally disabled individuals, and in psychiatric settings. Students can expect to obtain employment upon completion of this degree program or transfer to a baccalaureate college or university in therapeutic recreation. Therapeutic recreation is a specialized allied health field within the recreation profession. Associated with leisure aspects of medical treatment, therapeutic recreation attempts to physically and socially rehabilitate patients who have chronic physical, psychological, and social disabilities. It involves recreation services that give the patient an opportunity to participate in recreational, leisure, and group activities specifically designed to aid in the recovery or adjustment to illness, disability or a specific social problem.

#### Curriculum

Students may enroll in this program full-time or part-time and attend classes days or evenings.

Thera	neutic Re	creation R	Requiremen	te
HIGHA	peulic ive	ci calion n	egull ellel	LC.

Elective	Computer Information Systems	1-2
ENG 111	College Reading and Writing	3
PSYC 111	General Psychology	3
REC 101	Introduction to Recreation & Leisure Services	3
SOSC 110	Introduction to Wellness	3
THRC 115	Introduction to Principles of	
	Therapeutic Recreation	3
	Subtotal:	16-17

Gerontology	3
Quantitative Literacy or	
Applications	3-4
Children with Disabilities and Their Families or Adults with Disabilities	3
Cooperative Education/Work Experience	3
Processes and Techniques in Therapeutic Recreation	3
	Quantitative Literacy or Elementary Statistics with Computer Applications Children with Disabilities and Their Families or Adults with Disabilities Cooperative Education/Work Experience Processes and Techniques in

		Subtotal: 15-16
BIO 112*	Human Biology	4
Gen Ed	Fine Arts	3
Gen Ed	Humanities	3
PSYC 124	Developmental Psychology	3
THRC 215	Therapeutic Recreation Programs: Planning and Implementation	3

Subtotal: 16

COMM 213/SPCH 213	Effective Speaking	3
Elective	Social Science or	
	Gerontology	3
THRC 230	Leisure and Aging	3
THRC 280	Professional Practicum Therapeutic Recreation	4

Subtotal: 13

**Total Credits Required: 60-62** 

# Learning Outcomes

Upon successful completion of all Therapeutic Recreation degree program requirements, graduates will:

- Meet the state health code requirements to hold the positions as a therapeutic recreation director in the State of Connecticut.
- Demonstrate the ability to comprehend and apply the necessary skills required of a therapeutic recreation director.
- Demonstrate the ability to comprehend the needs of individuals with special needs and the positive outcomes of therapeutic recreation intervention.
- Demonstrate the ability to successfully assess, plan, implement, and evaluate therapeutic recreation programs for individuals with special needs both in a clinical and community setting.
- Have developed leadership, interpersonal, and communication skills necessary to work in a healthcare or community based setting.
- Demonstrate professional behavior consistent with the therapeutic recreation code of ethics.
- Demonstrate skills for work as a therapeutic recreation program supervisor in long-term care facilities.
- 8. Demonstrate the ability to work in a variety of therapeutic recreation settings such as rehabilitation facilities, penal institutions, group homes for the developmentally disabled individuals, psychiatric settings, and a variety of other settings servicing individuals with special needs in a therapeutic recreation settings.
- Demonstrate computer skills necessary to the therapeutic recreation profession.
- Demonstrate accurate problem-solving abilities when working in the therapeutic recreation environment.
- \* Students planning to transfer to a baccalaureate program should take BIO 152 and BIO 153.

# Therapeutic Recreation, Certificate

# Program Design

The Therapeutic Recreation certificate program is designed for persons who seek academic and in-service professional development in the field of therapeutic recreation. This program enables the student to meet standards established in the Public Health Code of the State of Connecticut to work in chronic and convalescent nursing homes and other facilities with nursing supervision.

Therapeutic recreation is a specialized allied health field within the recreation profession. Associated with leisure aspects of medical treatment, therapeutic recreation attempts to physically and socially rehabilitate patients who have chronic physical, psychological, and social disabilities. It involves recreation services that give the patient an opportunity to participate in recreational, leisure and group activities specifically designed to aid in the recovery or adjustment to illness, disability or a specific social problem.

#### Curriculum

Students may enroll in this certificate program full- or part-time and attend classes days or evenings.

# **Required Courses**

Elective	Gerontology	3
Elective SOSC 110	Choose from fine arts, music, theater, <u>or</u> Introduction to Wellness	3
ENG 111	College Reading and Writing	3
PSYC 111	General Psychology	3
REC 101	Introduction to Recreation and Leisure	3
SOSC 270	Cooperative Education/Work Experience	3
THRC 115	Introduction to Principles of Therapeutic Recreation	3
THRC 116	Process and Techniques in Therapeutic Recreation	3
THRC 215	Therapeutic Recreation Programs: Planning and Implementation	3
THRC 230	Leisure and Aging	3

**Total Credits Required: 30** 

# **Learning Outcomes**

Upon successful completion of all Therapeutic Recreation certificate program requirements, graduates will

- Meet the state health code requirements to hold the position as a therapeutic recreation director in the State of Connecticut.
- 2. Demonstrate the ability to comprehend and apply the necessary skills required of a therapeutic recreation director.
- Demonstrate the ability to comprehend the needs of individuals with special needs and the positive outcomes of therapeutic recreation intervention.
- Demonstrate the ability to successfully assess, plan, implement, and evaluate therapeutic recreation programs for individuals with special needs both in a clinical and community setting.
- Have developed leadership, interpersonal, and communication skills necessary to work in a healthcare or community based setting.
- Demonstrate professional behavior consistent with the therapeutic recreation code of ethics.

# Visual Fine Arts, A.A. Degree

# Program Design

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 bachelor's degrees.

The Visual Fine Arts program also serves an ever-expanding population of students seeking personal enjoyment in the creative process. Technical expertise and aesthetic theory are offered to those who pursue art as an avocation.

# Curriculum

Students may enroll in this program full- or part-time. There are no requirements or prerequisites for students wishing to take art courses part-time or as electives for other programs.

Fine arts faculty members are available for consultation with students who wish to enroll in the program and thereafter for course selection and transfer information.

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Visual	Fine	Arte R	AUIIILD	ments
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Gen Ed	ENG 111: College Reading and Writing	3
Gen Ed	FA 105: History of 20th Century Art	3
FA 121* FA 127	Drawing <u>or</u> Figure Drawing	
FA 127	Two Dimensional Design	3 3
Elective**	Social Science	3
Elective	Social Science	
		Subtotal: 15
Gen Ed	ENG 120: Introduction to Literature	3
FA 101***	History of Art I or	
	studio course	3
FA 126	Three Dimensional Design	3
FA 131	Painting	3
FA 151	Sculpture	3
Gen Ed	Natural Science	3
		Subtotal: 18
FA 102***	History of Art II or	
	studio course	3
FA 141	Printmaking	3
Elective	Studio Course	3
Elective	Liberal Arts and Science	3

Elective	Studio Course	3
Elective	Studio Course	3
Gen Ed	Fine Arts	3
Elective	Studio Course	3
Gen Ed	MATH 110: Quantitative Literacy	3

Social Science

Subtotal: 15

Subtotal: 15

3

**Total Credits Required: 63** 

# Learning Outcomes

Upon successful completion of all Visual Fine Arts degree program requirements, graduates will

- Execute skills and techniques necessary for studio art and demonstrate dexterity with tools, knowledge of equipment specific to various media, and the safe use of all materials and equipment.
- Demonstrate an historical, cross-cultural appreciation and awareness of the field of visual art.
- Demonstrate creative thinking, the ability to solve aesthetic, technical and conceptual problems, and critical awareness.
- Demonstrate an understanding of the principles and elements of twoand three-dimensional design and their applications to various studio disciplines.
- Compile a comprehensive portfolio of work that reflects the breadth of their study and prepares them for transfer to baccalaureate institutions.
- At least two semesters of Drawing are strongly recommended.
- Social science electives may not exceed two courses in a subject.
- Either FA 101 or FA 102 is required, but not both.

Gen Ed\*\*

# Courses

# Course offerings are subject to change.

The courses in this section are grouped by subjects that are listed alphabetically. Within each subject group, the courses are listed in numerical order, the lowest first and the highest last.

Courses with numbers 099 and below are non-credit courses. Courses with numbers in the 100-199 range are considered first-year courses. Courses numbered 200 or higher are considered second-year courses.

The semester in which a course is generally offered is indicated by the codes: Fa = Fall, O = Occasional, Sp = Spring, and Su = Summer. Students and their advisors may use these designations in determining course selection for any particular semester.

Electives are credit courses selected by the student to supplement the required courses in a program of study. There are five kinds of electives and are indicated by the codes: business = B, humanities = H, liberal arts and sciences = L, natural science = N, and social science. = S

A complete list of the courses being offered is published each semester in the class schedule which is available in the Registrar's Office. A list of current Continuing Education courses is available in the Continuing Education Office. Course offerings are subject to change.

# **Accounting**

All accounting courses numbered 100 or higher require students to be eligible for ENG 111 and MATH 101 or higher.

# ACCT 098: Introduction to Accounting I

This course is designed to introduce students to accounting theory. Emphasis in the course includes the accounting cycle, bank checking accounts, and payroll. (O) no credit

#### **ACCT 101: Financial Accounting**

Theory and practice of accounting applicable to the accumulation, external reporting, and external uses of financial accounting information. [B] (Fa,Sp,Su) 4 credits

# **ACCT 102: Managerial Accounting**

Basic concepts and practice of accounting's role in providing information to managers to assist in their planning, control and decision-making activities. Topics include cost accounting, cost behavior relationships, analyses for managerial decisions, and the budget process. Prerequisite: C- or better in ACCT 101. [B] (Fa,Sp,Su) 4 credits

### **ACCT 105: Accounting and Business Applications Software**

This course teaches students to build a company's accounting system in QuickBooks 99. Students will learn to download QuickBooks 99 data into an Excel spreadsheet and build linked statements, footnotes and graphs. Students will also learn PowerPoint and Turbo Tax. Prerequisites: CIS 106 and ACCT 101. [B] (Fa,Sp) 3 credits

# **ACCT 110: Accounting Software Application**

Includes software application for a complete accounting cycle and other areas covered in ACCT 101. Prerequisite: C- or better in ACCT 101 and CIS 111. [B] (O) 1 credit

#### **ACCT 201: Intermediate Accounting I**

This course covers fundamental processes of accounting; working capital; investments; plant and equipment acquisition, depreciation and disposal; and intangibles. Prerequisite: C- or better in ACCT 102, CIS 106, and CIS 166. [B] (Fa) 4 credits

#### **ACCT 202: Intermediate Accounting II**

This course covers plant and equipment depreciation, reevaluations, intangibles, long-term liabilities, stockholder's equity, analytical processes, statement of cash flows, pensions, leases, publicly held companies. Prerequisite: C- or better in ACCT 201. [B] (Sp) 4 credits

#### **ACCT 213: Cost Accounting**

This course covers principles of cost accounting for manufacturing and business. Prerequisite: C- or better in ACCT 102. [B] (Sp) 3 credits

#### **ACCT 223: Federal Taxes**

Theories and laws of individual income tax returns will be taught. Prerequisite: C- or better in ACCT 101. [B] (Fa) 3 credits

#### **ACCT 224: Advanced Federal Taxation**

Corporation, partnership, estate and trust taxation, including tax administration and practice, will be taught. Prerequisite: ACCT 223. [B] (Sp) 3 credits

#### **ACCT 225: Practical Taxation**

Researching and solving taxation problems for individuals, partnerships, corporations; S Corporations, estates, trusts, state capital gains, state successions, and fiduciaries using actual tax forms and simulated financial situations will be taught. Prerequisite: ACCT 224. [B] (O) 3 credits

#### ACCT 226: Introduction to Taxation & Financial Planning

This course focuses on the provisions of current tax laws and the business and investment decisions they affect. Prerequisite: ACCT 223 or permission of the department chairperson. [B] (Sp) 3 credits

# **ACCT 227: Taxation and Financial Planning**

This course focuses on tax problems and sets out the multiple alternatives that must be analyzed. Prerequisite: ACCT 226. [B] (O) 3 credits

#### **ACCT 270: Cooperative Education/Work Experience**

This course provides students the opportunity to apply classroom theory in an actual work setting. Students may be placed in a variety of work settings as related to their program of study including corporations, small businesses and state offices. Prerequisites: 15 completed credit hours in the Accounting program including ACCT 101, 102, and 201. [B] (Fa,Sp) 3 credits. Please refer to page 16 for more information and general prerequisites for Cooperative Education/Work Experience.

# **Allied Health**

# AH 090: Allied Health Study Skills

A pass/fail study skills course for Pre-Allied Health students to learn how to effectively study using various learning strategies. Required prior to beginning Allied Health Program courses. Exception granted for those who have a grade point average of 3.2 or better, or have taken ENG 103 or equivalent study skills course. Class: 15 hours. (Su) 0 credits

#### AH 101: Introduction to Allied Health

A course that will allow students to gain an understanding of Allied Health programs and the duties and responsibilities necessary to each profession before making a definite career choice. They will also gain information about the assistance available at the College, to overcome deficiencies that prevent them from acceptance or carrying out career goals. Class: 1 hour per week. (Fa) 1 credit

#### AH 270: Cooperative Education/Work Experience

This course provides students the opportunity to apply classroom theory in an actual work setting. Students may be placed in a variety of work settings as related to their program of study including hospitals, nursing homes, laboratories. Prerequisites: 15 completed credit hours in Allied Health programs. (Fa,Sp) 3 credits. Please refer to page 16 for more information and general prerequisites for Cooperative Education/Work Experience.

# American Sign Language

#### ASL 101: American Sign Language I

American Sign Language (ASL), is the sign language most deaf people use when communicating among themselves. This course utilizes six unit sequences. Students will learn grammatical features, vocabulary and conversational skills including expressive and receptive skills of ASL. In addition, students will learn the culture of the deaf community, the history of ASL and the relationship of ASL to other forms of signing. Class: 3 hours per week. [L,S] (Fa,Sp) 3 credits.

#### ASL 102: American Sign Language II

This course is a continuation of American Sign Language I. This course utilizes six different unit sequences. Students will learn grammatical features, vocabulary and conversational skills including expressive and receptive skills of ASL. In addition, students will learn the culture of the deaf community, the history of ASL and the relationship of ASL to other forms of signing. Class: 3 hours per week. Prerequisite: ASL 101. [L,S] (Fa,Sp) 3 credits.

# Anthropology

# **ANTH 101: Introduction to Anthropology**

This course tries to untangle the evolution of the human species through fossil discovery and genetic insight; it seeks the similarities and differences between humans and the other primates; it takes the student from cave paintings in southern France to a "dig" in the Sinai Desert, from an extinct volcanic crater in Africa to a shamanistic dance in Nepal and a political feast in the Amazon. It does all this in search of answers to the question: What does it mean to be human? [L,S] (Fa,Sp) 3 credits

# **ANTH 150: Cross Cultural Issues**

Anthropology helps us to understand people whose ways of life are different from our own but with whom we share common needs, planet Earth and a common destiny. This course will help further the understanding of cultures that are currently immigrating to the U.S. from Southeast Asia, Latin America, South America, and the Caribbean. Class: 3 hours per week. [L,S] (O) 3 credits

# Astronomy

#### **ASTR 110: Introduction to Astronomy**

This is an introductory descriptive astronomy course with emphasis on the earth and its motions, the moon and planets, the sun, and stars and galaxies. Observation sessions will be required. Class: 3 hours per week. [L,N] (Fa,Sp,Su) 3 credits

# ASTR 110L: Astronomy Laboratory

A process-oriented laboratory experience in selected topics in elementary astronomy. Students will develop appropriate qualitative and quantitative models and understandings for the physical and dynamical characteristics of celestial bodies - the moon, planets, asteroids, comets, meteors, stars, star associations and clusters, galaxies and galactic clusters - through the use of direct observation and measurement as well as the use of star globes, charts, catalogues, graphs, photographs and CCD images. A scientific calculator is required. Laboratory: 2 hours per week. Prerequisite: MATH 101. [L,N] (Fa) 1 credit

# **Biology**

# **BIO 100: Principles of Biological Science**

This course is a survey of introductory biology, including such topics as cells, plants and animal systems, genetics, and ecology. This lecture/lab course is intended to fulfill the natural science lab requirement. Class: 3 hours per week. Lab: 3 hours per week. Prerequisite: eligibility for ENG 111. [N] (Fa,Sp) 4 credits

#### BIO 101: General Biology I

This course is a study of the fundamental principles of biology concerning the evolution, structure and function of cells. Recommended for LAS and/or transfer students. Class: 3 hours per week. Laboratory: 3 hours per week. Prerequisite: eligibility for ENG 111. [L,N] (Fa,Sp) 4 credits

#### BIO 102: General Biology II

This course is a study of unicellular and multicellular organisms. Both plants and animals are discussed. Class: 3 hours per week. Laboratory: 3 hours per week. Some dissection is required. Prerequisite: BIO 101. [L,N] (Fa,Sp) 4 credits

#### **BIO 104: Applied Nutrition**

Offered is an introduction to the study of nutrition as it relates to the establishment and promotion of wellness in everyday life. This course focuses on an understanding of basic principles and concepts of nutrition with applications towards examples drawn from the hospitality industry. Recommended for HOSP and culinary arts students. Class: 3 hours per week. Prerequisite: eligibility for ENG 111. [N] (Fa,Sp) 3 credits

# **BIO 110: Human Biology**

This course is a survey of the various organ systems of the human body, stressing anatomic and physiologic interrelationships. Not open for credit to students who have passed any higher-numbered anatomy or physiology course. Class: 3 hours per week. Prerequisite: eligibility for ENG 111. [L,N] (Fa,Sp) 3 credits

# **BIO 112: Human Biology**

This course is BIO 110 plus a three-hour laboratory. Not open to students who have passed another human anatomy and physiology course. For those students who have taken BIO 110, BIO 112 will be considered a repeat and will be awarded only one additional credit. Class: 3 hours per week. Laboratory: 3 hours per week. Prerequisite: eligibility for ENG 111. [L,N] (Fa,Sp) 4 credits

# **BIO 114: Principles of Nutrition**

An introduction to the study of human nutrition with emphasis on the scientific bases of facts and controversies surrounding issues of foods and diets will be taught. Class: 3 hours per week. Prerequisite: eligibility for ENG 111. [L,N] (Fa,Sp,Su) 3 credits

### **BIO 115: Biological Aspects of Human Sexuality**

This course includes: anatomy and physiology of human reproductive systems and the nature of human sexual responses, dysfunctions and diseases. Class: 3 hours per week. Prerequisite: eligibility for ENG 111. [L,N] (Fa,Sp) 3 credits

# **BIO 121: General Zoology**

Offered is a study of the animal kingdom and evolutionary trends that resulted in a diverse array of animals. Recommended for general studies and transfer students. Some dissection is required. Class: 3 hours per week. Laboratory: 3 hours per week. Prerequisite: eligibility for ENG 111. [L,N] (O) 4 credits

#### **BIO 141: Microbiology**

The morphology, physiology and pathology of microbial organisms will be taught. Class/laboratory: 6 hours per week. Prerequisites: any biology laboratory course or enrollment in an Allied Health program, and eligibility for ENG 111. [L,N] (Fa,Sp,Su) 4 credits

#### BIO 152: Human Anatomy and Physiology I

The anatomy and physiology of the integumentary, skeletal, muscular, nervous and endocrine organ systems are discussed and explored in appropriate laboratory investigations. Class: 3 hours per week. Laboratory: 3 hours per week. Prerequisites: any biology laboratory course or enrollment in an Allied Health program, and eligibility for ENG 111. Students are strongly advised to take a college-level biology course prior to this course. [L,N] (Fa,Sp) 4 credits

# BIO 153: Human Anatomy and Physiology II

The anatomy and physiology of the special senses, digestive, respiratory, cardiovascular, lymphatic, urinary and reproductive organ systems are discussed and explored in appropriate laboratory investigations. Class: 3 hours per week. Laboratory: 3 hours per week. Prerequisite: BIO 152. [L,N] (Fa,Sp,Su) 4 credits

#### BIO 155: Women's Health

This course is a study of current issues and practices related to women's health. Emphasis will be placed on female anatomy and physiology, the changes encountered in a woman's body over the lifetime and related aspects of health and disease. Upon successful completion of the course, the student should be scientifically and medically knowledgeable about the female body and be an "informed consumer" of medical information and practices concerning today's female population. Class: 3 hours per week. Prerequisite: eligibility for ENG 111. [L,N] (Fa,Sp) 3 credits

# **BIO 160: People and the Environment**

This course is an introduction to basic principles of ecology and the evaluation of some of the major environmental issues. Class: 3 hours per week. Prerequisite: eligibility for ENG 111. [L,N] (O) 3 credits

# **BIO 201: Pharmacology**

Offered is an introduction to the effects of drugs on human organ systems. Class: 3 hours per week. Prerequisites: Any human biology or an anatomy and physiology course, and eliqibility for ENG 111. [L,N] (Sp) 3 credits

### **BIO 203: Topics in Genetics**

This course deals with classical principles of human genetics as well as advances in research in areas such as recombinant DNA, biotechnology, and mapping and diagnosis of human genetic diseases. Emphasis will be placed on understanding the origin and extent of genetic diversity in humans and the role of evolution in shaping human genotypes. *This course is required for the Biotechnology Option and is offered at Middlesex Community College, Middletown, CT.* Prerequisites: BIO 101, BIO 152 and BIO 105\* or permission of the instructor. 3 credits.

\*Prerequisite course BIO 105 is offered at Middlesex Community College.

#### **BIO 206: Molecular Biotechniques**

A laboratory course designed to introduce molecular biology techniques such as plasmid and chromosomal DNA isolation, restriction enzyme mapping, agarose gel electrophoresis, and manipulation of DNA fragments. Three hours of lecture and three hours of laboratory per week. *This course is required for the Biotechnology Option and is offered at Middlesex Community College, Middletown, CT.* Prerequisites: BIO 141 and CHEM 104\* or permission of the instructor. 4 credits.

\*Prerequisite course CHEM 104 is offered at Middlesex Community College.

# **BIO 210: Human Pathology**

This course is an introduction to the study of human disease. Class: 3 hours per week. Prerequisites: Any human biology or human anatomy and physiology course, and eligibility for ENG 111. [L,N] (Fa) 3 credits

#### **BIO 260: Principles of Genetics**

This intermediate level course is designed to extend the understanding of college level biology students to encompass an understanding of heredity and of the hereditary material with particular attention to current theories and to the quantitative aspects of genetics. Prerequisites: BIO 101 and MATH 101 with a grade C or better. [L,N] (O) 3 credits

# **BIO 299: Biotechnology Internship**

Student will work a minimum of 10 hours per week in an industrial biotechnology laboratory. This course is required for the Biotechnology Option and is offered at Middlesex Community College, Middletown, CT. Prerequisite: permission of the instructor. 3 credits.

#### Business

All business courses numbered 100 or higher require students to be eligible for ENG 111 except BUS 111.

#### BUS 099: Introduction to Business, Survey of Business I

This course is the first of a two-course sequence (BUS 099 and BUS 100), offering an introductory survey of American business. Students receive practical instruction, a first-hand look at business through field trips, and experience in study skills including reading, writing, critical thinking, and discussion. Areas of business covered are: business structures, management, plant production, human resources and labor relations. (O) no credit\*

\*No credit for BUS 099 until both courses (BUS 099 and BUS 100) are successfully completed. Three credits are earned for this two-course sequence. This two-course sequence may be taken as an alternative to BUS 111.

#### BUS 100: Introduction to Business, Survey of Business II

This course is the second of a two-course sequence (BUS 099 and BUS 100), continuing an introductory survey of American business. In addition to skills learned in BUS 099, this course will focus on: marketing, accounting, corporate finance, the banking system, and the securities markets. Also covered are the legal and ethical influences on business as well as the international business environment. (O) 3 credits\*

\*Credit for BUS 100 is given only when both courses (BUS 099 and BUS 100) are successfully completed. Three credits are earned for this two-course sequence. This two-course sequence may be taken as an alternative to BUS 111. Prerequisite: BUS noo

#### BUS 101: Business Law I

This course is an introduction to the law, including crimes and torts, contracts, agency and sales law. [B] (Fa,Sp) 3 credits

# BUS 102: Business Law II

Partnership and corporation law, property, wills and estates, commercial paper, the bank collection process, secured transactions and creditors' rights and government regulation of business are taught. Prerequisite: BUS 101. [B] (Fa,Sp) 3 credits

### **BUS 111: Business Environment**

A survey of major business topics such as management, marketing, accounting, finance, computer science, organizational behavior, production, as well as the social and economic environment of business. [B] (Fa,Sp) 3 credits

# **BUS 118: Small Business Operation**

This course covers the fundamentals of operating a small business. Students will discuss topics that arise before a small business is opened, the process of determining customer needs and satisfying them, how to create and maintain

competitive advantage, useful information on the technical aspects of running a small business, and the on-going process of managing a small business. Prerequisites: eligibility for ENG 111 or permission of the instructor. [B] (Fa,Sp) 3 credits

#### BUS 121: Principles and Methods of Marketing I

This course covers marketing methods and institutions, including analysis and interrelationship of the marketing mix. Application of basic management and marketing strategy planning methods, and performance computations related to marketing efficiency. Prerequisite: eligible for ENG 111 or "C-" or higher in BUS 111. [B] (Fa) 3 credits

# BUS 122: Principles and Methods of Marketing II

Marketing theory and its application to product planning, price determination, government regulation, and distribution cost analysis through planned class activities will be taught. Prerequisite: BUS 121. [B] (Sp) 3 credits

#### **BUS 161: Real Estate Principles and Practices**

This is an introductory course in real estate, covering topics required by the Connecticut Real Estate Commission, leading to licensing of real estate salespersons and brokers. Designed for students who plan to enter the real estate profession or others who wish to obtain real estate knowledge to help them in business. [B] (Fa) 3 credits

#### BUS 162: Real Estate Appraisal I

Required by the Connecticut Real Estate Commission for licensing of real estate brokers. This course covers methods of appraising residential property. Prerequisite: BUS 161. [B] (Sp) 3 credits

#### **BUS 163: Introduction to Property Management**

This course is an overview of the property management field including the legal, interpersonal, maintenance and accounting administration functions of the property manager. Specific practices and problems dealing with the management of all kinds of commercial properties. [B] (O) 3 credits

# **BUS 201: Business Management**

This course is an analysis of principles, techniques and the major functions (planning, organizing, and leading) of business enterprise management. [B] (Fa,Sp) 3 credits

# BUS 211/ECON 211: Money and Banking

This course deals with the role and supply of money, the Federal Reserve system, the principles of banking, and the structure of financial institutions. Monetary policy and its application are emphasized. Class: 3 hours per week. Prerequisite: ECON 101. [L,S] (O) 3 credits

# **BUS 214: Managerial Communications**

This is a practical course in oral and written managerial communication skills, covering the writing of letters, memos and reports, editing techniques, and the preparation of resumes and cover letters. Prerequisite: ENG 111 or C- or higher in BUS 111. [B] (Fa,Sp) 3 credits

#### BUS 215/PHIL 215: Business Ethics

This course will examine the full extent of the relationship between business and ethics: The philosophical foundation for capitalism will be examined as will the application of ethical values and principles to employee/employer interactions. Class: 3 hours per week. Students are strongly urged to take PHIL 201 or the equivalent; or any 100 or 200 level English course to prepare for this course. [B,H,L] (Fa) 3 credits

#### BUS 221: Sales and Techniques of Selling

This course is an introduction to the principles, methods and techniques of selling, and the application of these principles through individual sales demonstrations. Prerequisite: eligible for ENG 111 or "C-" or higher in BUS 111. [B] (Fa,Sp) 3 credits

#### **BUS 231: Basic Advertising Principles**

This course is a study of advertising strategy, tactics and techniques, including media selection, ad preparation, market research methods, and program evaluation. Prerequisite: eligible for ENG 111 or "C-" or higher in BUS 111. [B] (Sp) 3 credits

# BUS 244/HIST 244: The Development of American Business

The goal of the course is to provide students interested in management with an historical, philosophical and economic framework for dealing with a rapidly changing business environment. [B,L,S] (O) 3 credits

# BUS 252: Retailing

A study of retailing methods and institutions including analysis of their behavior in a competitive environment. Prerequisite: eligible for ENG 111 or "C-" or higher in BUS 111. [B] (Fa,Sp) 3 credits

#### **BUS 260: Relationship Marketing**

The purpose of this course is to give the student a solid foundation in the customer service field. Students will learn concepts and skills necessary to perform effectively in a customer-driven service economy. This course will focus on the concepts and applications of communications, teamwork, coaching, and vision building, as well as an introduction to Total Quality Management. [B] (O) 3 credits

# **BUS 262: Real Estate Appraisal II**

This is a third course in real estate leading to a broker's license in the State of Connecticut that covers methods and procedures for the appraisal of income property. Prerequisite: BUS 162. [B] (O) 3 credits

### **BUS 263: Problems in Real Estate Brokerages**

This course assists potential real estate brokers in managerial techniques and principles of operating successful sales offices. Prerequisite: BUS 161. [B] (O) 3 credits

# **BUS 264: Real Estate Finance**

This course prepares the student to be a more effective investor in real estate as a broker, developer, lender or property manager. Prerequisite: BUS 161. [B] (O) 3 credits

# BUS 270: Cooperative Education/Work Experience

This course provides students the opportunity to apply classroom theory in an actual work setting. Students may be placed in a variety of work settings as related to their program of study including corporations, small businesses, financial institutions and governmental agencies. Prerequisites: 15 completed credit hours in Business Administration, Accounting, Computer Information Systems or Marketing programs. (Fa,Sp) 3 credits. *Please refer to page 16 for more information and general prerequisites for Cooperative Education/Work Experience.* 

#### **BUS 271: International Business**

This course provides students with a foundation for conducting international business and a general understanding of international corporate and government operations. The course will undertake a comprehensive overview of international business designed to provide a global perspective on international trade including topics in: foreign investment, international marketing, the operations of multinational corporations, and government relations. [B] (O) 3 credits

#### **BUS 272: Conducting Business in Developing Nations**

This course provides students interested in developing nations or the Third World with a background for conducting business or working for the U.S. government in these nations. Focus on special regions of the world will include: Africa, Latin America, Asia, Eastern Europe and the Middle East. [B] (O) 3 credits

# **Business Office Technology**

(formerly Office Administrative Careers)

\* NOTE: AVT (Audio-Visual Tutorial) is self-paced media-assisted instruction.

# **BOT 100A: Keyboarding for Information Processing**

Keyboard mastery for computer input. AVT instruction.\* Not for BOT students. [B] (Fa,Sp) 1 credit

# **BOT 103: Office Writing Procedures**

Provides students with opportunities to acquire skills to produce and edit mailable business documents, letters, articles and reports. [B] (Fa, Sp) 3 credits

#### **BOT 104: Introduction to Machine Transcription**

Fundamentals of machine transcription. AVT instruction.\* Prerequisite BOT 107. [B] (Fa,Sp) 1 credit

# **BOT 107: Beginning Keyboarding**

Keyboard mastery using computers with Microsoft Word software, includes development of speed and accuracy; introduction to the preparation of business correspondence, letters and reports and the development of proofreading skills. [B] (Fa,Sp) 3 credits

#### **BOT 108: Advanced Keyboarding**

Further development of speed and accuracy using computers with Microsoft Word software for the preparation of business documents, forms, tables and reports, development of speed, accuracy and proofreading skills. Prerequisite: C- or better in BOT 107. [B] (Fa,Sp) 3 credits

# **BOT 109: Machine Transcription**

Fundamentals of machine transcription including review of keyboarding skills, grammar, punctuation, spelling, capitalization and proofreading. AVT instruction.\* Prerequisite: BOT 107 or permission of instructor. [B] (Fa,Sp) 3 credits

# **BOT 113: Speedwriting**

Fundamentals of speedwriting including phrasing and brief forms; introduction to taking dictation and transcription. AVT instruction.\* Prerequisite: BOT 107 must be taken before or concurrently with this course. [B] (Fa,Sp) 3 credits

# **BOT 115: Records Management**

Creation, maintenance and disposition of records including alphabetic, geographic, subject, numeric, and chronological indexing, retrieving and storage utilizing manual and computer methods. AVT instruction.\* Prerequisite: BOT 107. [B] (Fa,Sp) 3 credits

# BOT 117: Keyboarding - Skill Building I

This course provides students who have completed either BOT 100A or BOT 107 the opportunity to continue to increase keyboarding speed and accuracy while analyzing typing techniques and prescribing practice that will enable the student to key faster and with greater accuracy. AVT instruction.\* Prerequisite: BOT 100A or BOT 107 or permission of instructor/coordinator. [B] (Fa,Sp) 1 credit

# BOT 118: Keyboarding - Skill Building II

This course provides students who have completed BOT 117 the opportunity to continue to increase keyboarding speed and accuracy while analyzing typing techniques and prescribing practice that will enable the student to key faster and

with greater accuracy. AVT instruction.\* Prerequisite: BOT 117 or permission of instructor/coordinator [B] (Fa,Sp) 1 credit

# **BOT 124: Microsoft Word for Windows**

Provides a working knowledge of word processing concepts using Microsoft Word for Windows software. Prerequisite: BOT 107 or 35 words-per-minute keyboarding skill. [B] (Fa,Sp) 3 credits

#### **BOT 125: Introductory Microsoft Word for Windows**

Fundamentals of the Microsoft Word for Windows software package. Prerequisites: CIS 106; knowledge of the keyboard. [B] (Fa,Sp) 1 credit

#### **BOT 126: Intermediate Microsoft Word for Windows**

Intermediate applications of the Microsoft Word for Windows software package. Prerequisite: BOT 125. [B] (Fa,Sp) 1 credit

#### **BOT 127: Advanced Microsoft Word for Windows**

Advanced applications of the Microsoft Word for Windows software package. Prerequisite: BOT 126. [B] (Fa,Sp) 1 credit

#### **BOT 130: Microsoft Office Suite Applications**

This course provides students with further advancement and enhancement of their office skills using the Microsoft Office Suite. Fundamentals of Microsoft Word, Excel, PowerPoint, Access and Outlook will prepare students for tasks performed by office support personnel in today's office environment. These applications are widely used in today's business and professional offices. Prerequisite: BOT 107 or permission of the instructor. [B] (Fa,Sp) 3 credits

#### **BOT 140: Medical Coding I**

This course is an in-depth study of basic International Classification of Disease, 9th Revision Clinical Modification (ICD-9-CM) and Current Procedural Terminology (CPT-4) coding. Diagnoses, procedures, signs and symptoms will be studied and coded by students using the necessary textbooks. The flow of medical records from physician's office to hospital discharge will be tracked for insurance, risk management and case study purposes. Prerequisite: BOT 241. [B] (Fa,Sp) 3 credits

# **BOT 141: Medical Coding II**

This course is a continuation of International Classification of Disease 9<sup>th</sup> Edition Clinical Modification (ICD-9-CM) and Current Procedural Terminology (CPT-4) coding. Students will utilize medical records and case histories to code the diagnoses and procedures according to the level of care received in the appropriate medical facilities. Prerequisite: BOT 140. [B] (Fa,Sp) 3 credits

# **BOT 142: Foundations/Management of Medical Insurance**

This course is designed to develop those abilities and skills that will enable students to define and explain the types of health insurance policies, contracts, and guideposts. Comparisons of Blue Cross/Blue Shield, as well as analysis of the insurance forms and application information to the forms is included. Emphasis will be placed on legal issues and medical record confidentiality. Prerequisite: BOT 241. [B] (Fa) 3 credits

#### **BOT 143: Computers in the Medical Office**

The student will become familiar with a variety of situations using specially designed medical software. Students will learn to input patient information, schedule appointments, and handle billing. In addition, they will produce various lists and reports, and learn to handle insurance claims both on paper and electronically. May be taken concurrently with BOT 141. [B] (Sp) 3 credits

# **BOT 160: WordPerfect**

Comprehensive word processing training using the WordPerfect software package. AVT instruction.\* Prerequisite: BOT 107 or 35 words-per-minute keyboarding skill. [B] (Fa,Sp) 3 credits

#### BOT 203/ENG 203: Advanced Editing and Proofreading

An advanced course designed to hone written communication skills, including editing and proofreading documents. This course will also help students develop a command of standards and conventions of written English. Prerequisite: ENG 111 or permission of instructor. [B,H,L] (Fa) 3 credits

### **BOT 210: Medical Machine Transcription I**

This course teaches the fundamentals of machine transcription and the development of medical reports, patient records, histories/physicals, and correspondence using appropriate reference sources. Keyboarding skills, grammar, punctuation, spelling, capitalization, and proofreading are covered. AVT instruction.\* Prerequisites: BOT 107, BOT 241 must be taken before or concurrently with this course; must be eligible for ENG 111. [B] (Fa,Sp) 3 credits

#### **BOT 211: Medical Machine Transcription II**

Further development of medical machine transcription demonstrating the ability to effectively incorporate English usage, medical terminology, proofreading and editing skills. Students will meet progressively demanding medical transcription accuracy and productivity standards. AVT instruction.\* Prerequisite: BOT 210. [B] (Fa, Sp) 3 credits

#### **BOT 222: Administrative Office Procedures**

Application of previously acquired office skills to the tasks and responsibilities encountered by the administrative assistant in today's business office. Topics include: professional image, human relations, job attitude, time management, decision making, technology and records management. Office projects relevant to students' programs will also be included. Prerequisite: BOT 107 or permission of instructor. [B] (Sp) 3 credits

#### **BOT 224: Office Accounting**

Provides students with knowledge of the accounting cycle and procedures for professional offices. Students will also be prepared to handle personal financial management. [B] (Fa) 3 credits

### BOT 233: Legal Terminology, Forms and Documents

Students will to be introduced to legal terminology and become familiar with widely used legal forms and documents. AVT instruction.\* Prerequisite: BOT 124 must be taken before or concurrently with this course. [B] (Fa,Sp) 3 credits

### **BOT 234: Legal Terminology and Transcription**

This course is a continuation of BOT 233 including a review of legal terminology and includes machine transcription of legal materials in the preparation of legal documents. AVT instruction.\* Prerequisite: BOT 233. [B] (Fa,Sp) 3 credits

#### **BOT 241: Medical Terminology**

Introduction and mastery of basic medical terminology through presentation of word roots, prefixes and suffixes. AVT instruction.\* [B] (Fa,Sp) 3 credits

### **BOT 261: Document Production**

Development of professional-level keyboarding skills in the preparation of business documents and correspondence. Prerequisites: BOT 124, BOT 108 or permission of instructor. [B] (Fa) 3 credits

### **BOT 262: Advanced Word Processing Applications**

Concepts of information/word processing and the integration of spreadsheets, desktop publishing and databases with word processing. Prerequisites: BOT 124, BOT 108 or permission of instructor. [B] (Sp) 3 credits

# **BOT 270: Cooperative Education/Work Experience**

This course provides students with the opportunity to apply classroom theory in an actual work setting related to their program of study. Prerequisites: 12 completed credit hours in Administrative Assistant, Legal; Administrative

Assistant, Medical; or Administrative Assistant, Office and the completion of BOT 222. [B] (Fa,Sp) 3 credits. Please refer to page 16 for more information and general prerequisites for Cooperative Education/Work Experience.

# CAD (Computer-Aided Design)

See Manufacturing.

# CAM (Computer-Aided Manufacturing)

See Manufacturing.

# Chemistry

# **CHEM 104: Allied Health Chemistry II**

An introduction to organic and biochemistry for transfer students planning careers in the allied health professions and other biology related majors that do not require general chemistry. Three hours of lecture and three hours of laboratory per week. This course is required for the Biotechnology Option and is offered at Middlesex Community College, Middletown, CT. Prerequisites: CHEM 111 or CHEM 103\*, or CHEM 105\*, or CHEM 121\*, or permission of the instructor. 4 credits.

\*Note: prerequisite courses CHEM 103, 105 and 121 are offered at Middlesex Community College.

### **CHEM 110: Elements of Chemistry**

A brief survey of atomic structure, chemical bonding, stoichiometry, periodicity, properties of gases, solutions, acid-base theory and an introduction to kinetics and equilibria will be taught. This is a one-semester course in general chemistry. Strongly recommended for students with no prior chemistry experience. Scientific calculator required. Class meets for 6 hours per week for integrated lecture and laboratory. Prerequisite: MATH 098 or math placement test. [L,N] (Fa,Sp) 4 credits

#### CHEM 111: College Chemistry I

The principles of chemistry, including atomic structure, periodicity, stoichiometry, reactions in solution, thermochemistry, chemical bonding, molecular structure and geometry, and properties of gases, will be taught. Students with no prior chemistry experience should strongly consider enrolling in CHEM 110 first. Scientific calculator required. Class: 3 hours per week. Laboratory: 3 hours per week. Prerequisite: MATH 101 or math placement test. [L,N] (Fa,Sp,Su) 4 credits

# CHEM 112: College Chemistry II

A continuation of the principles of chemistry, including intermolecular forces, properties of liquids and solids, physical properties of solutions, chemical kinetics, general chemical equilibria, acid-base theory and equilibria, solubility equilibria, electrochemistry, coordination compounds, and an introduction to organic chemistry. Scientific calculator required. Class: 3 hours per week. Laboratory: 3 hours per week. Prerequisite: CHEM 111. [L,N] (Fa,Sp,Su) 4 credits

# **CHEM 201: Principles of Organic Chemistry**

The principles of organic chemistry, emphasizing functional groups, molecular structure, nomenclature, and organic reactions; synthetic logic and basic methods of organic analysis will be included. Scientific calculator required. Class: 3 hours per week. Laboratory: 3 hours per week. Prerequisite: CHEM 111. [L,N] (O) 4 credits

# CHEM 211: Organic Chemistry I

A study of the structure, properties, reactions, and nomenclature of aliphatic hydrocarbons and their derivatives, including alkyl halides, alcohols and ethers. Emphasis will be given to mechanisms, stereochemistry, and synthetic considerations. Scientific calculator required. Class: 3 hours per week. Laboratory: 3 hours per week. Prerequisite: CHEM 112. [L,N] (O) 4 credits

#### CHEM 212: Organic Chemistry II

A study of the structure, properties, reactions, and nomenclature of aromatic compounds, aldehydes and ketones, carboxylic acids and their derivatives, amines, addition and condensation polymers, and biochemical molecules. Additional topics will include the role and use of spectroscopy, reactions involving carbanions, and alpha-beta unsaturated compounds. Scientific calculator required. Class: 3 hours per week. Laboratory: 3 hours per week. Prerequisite: CHEM 211. [L,N] (O) 4 credits

# **CHEM 270: Topics in Chemical Instrumentation**

An introduction to the theory and operation of the various instruments commonly encountered in the fields of environmental and biotechnical analysis. The course will provide an introduction to the common laboratory and field instruments used to perform these types of separation and analysis and the use of computers for data acquisition and evaluation. Eight hours of class and laboratory per week. This course is required for the Biotechnology Option and is offered at Middlesex Community College, Middletown, CT. Prerequisites: CHEM 111 and CHEM 112, or CHEM 121\* and CHEM 122\*, and permission of the instructor. 4 credits.

\*Note: prerequisite courses CHEM 121, and 122 are offered at Middlesex Community College.

# Communication

# COMM 150 Issues in Print, Broadcast and Photojournalism

An overview of law, ethics, and professional standards in media careers. Students must have access to a 35mm camera for photojournalism assignments. Class: 3 hours per week. (Sp) 3 credits

### COMM 171/FA 171: Film Study and Appreciation

The viewing, discussion and analysis (written and oral) of representative films from the early years of the industry to the present will be taught. [H,L] (Fa,Sp,Su) 3 credits

#### COMM 176/FA 176: Video/Filmmaking

A creative workshop in which students will work in groups and make their own movies. Students work with video camcorders and editors. Students will learn scripting, shooting, editing and audio production techniques. (Fa,Sp) 3 credits

# COMM 201: Public Relations I

A comprehensive survey of public relations principles and practices: fact-finding, planning and programming, action and communication, evaluation. This course covers relationships between organizations and their publics, and the effective use of media. Students will plan a complete public relations program. Class: 3 hours per week. Prerequisite: ENG 111. (Fa) 3 credits

# **COMM 206: Broadcast Announcing**

The rudiments of broadcast announcing in a studio setting: clear speech, presence, projection and intimacy will be discussed. This course will cover radio announcing. Proper commercial/PSA preparation and broadcast delivery of the commercial/PSA are stressed through classroom and on-microphone exercises, including development, enunciation, pronunciation, interpretation, integration, and pacing. Students are critiqued on an individual basis, following the evaluation of laboratory projects. Class: 3 hours per week. (Fa) 3 credits

### **COMM 208: Mass Communication**

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 plan to major in Communication and for those who want to be informed about the development of the influence of modern mass media. Class: 3 hours per week. (Sp) 3 credits

#### COMM 210: Broadcast/TV Production

The fundamentals of television production are presented in this lab course in the College's TV studio. Scripting, camera set-ups, how to work with talent, and the control room side of TV production are topics that will be covered. Class: 4 hours per week. (Fa) 4 credits

#### COMM 211: Advanced Broadcast/TV Production

This course is designed to give students further training in broadcast/TV production. The course will focus on using electronic news gathering and electronic field production formats and integrating them into studio productions. Students will learn about field production, including lighting, audio and camera techniques. Students will gain more expertise in the editing process. Students, in the latter part of the semester, will produce weekly programs for local and public access. Class: 4 hours per week. (Sp) 4 credits

#### COMM 213/SPCH 213: Effective Speaking

This course is designed to encourage students to develop their speaking and listening skills in order to become more confident communicators. The course introduced students to communication as an interactive process and emphasizes developing effective public presentation skills. Instruction stresses organization, research, writing, delivery and audience adaptation. Class: 3 hours per week. Prerequisite: eligibility for ENG 098. [H,L] (Fa,Sp,Su) 3 credits

# COMM 216/SPCH 216: Oral Interpretation of Literature

An introduction to reading literature aloud. Classes focus on analytical and reading techniques designed to bring literature to life. Students practice reading aloud in class and in front of other audiences. Class: 3 hours per week. [H,L] (O) 3 credits

#### **COMM 220/SPCH 220: Interpersonal Communication**

The focus of this course is on the theory and process of communication in both professional and personal interpersonal relationships. The course examines the theoretical and practical application of communication as it relates to family, friends, work and intimate relationships. Prerequisite: ENG 111. [H,L] (O) 3 credits

#### COMM 222/SPCH 222: Gender and Communication

Gender and Communication is a course dealing with issues of language, speech and perception as they relate to gender. Students become familiar with the various theoretical approaches to gender and their implications for the study of communication. They explore how women and men approach same and opposite sex interactions and relationships in personal, social and professional contexts. Class: 3 hours per week. Prerequisite: ENG 111. [H,L] (O) 3 credits

# COMM 251/FA 251 Computer Animation

Students will learn how to use the Macintosh computer to create animated presentations. The course will cover basic animation techniques as they apply to the digital environment as well as traditional skills such as storyboarding and script preparation. The software used will be Macromedia Director. The class is limited to 20 students. Studio: 6 hours per week. Prerequisites: FA 210, FA 211 or COMM 290 or permission of instructor. [L] (Fa,Sp) 3 credits

#### COMM 252/FA 252 Advanced Computer Animation

This course is a continuation of COMM/FA 251 with an emphasis on multimedia design and interactivity. Students will work with Macromedia Director's Lingo scripting language to create interactive presentations. Advanced tips and tricks with this software are covered, as well as a discussion of design principles for multimedia development. Topics such as digital video and sound are also discussed. The class is limited to 20 students. Studio: 6 hours per week. Prerequisite: COMM 251/FA 251 or permission of instructor. [L] (Sp) 3 credits

#### COMM 270, COMM 271: Cooperative Education/Work Experience

This course provides students the opportunity to apply classroom theory in an actual work setting. Students may be placed in a variety of work settings

as related to their program of study including TV, radio, and newspaper. Prerequisites: 12 completed credit hours in Media Associate program. (Fa,Sp,Su) 3 credits. Please refer to page 16 for more information and general prerequisites for Cooperative Education/Work Experience.

#### **COMM 281: Basic Newswriting**

This course covers news gathering and reporting within the context of news criteria. Interviewing, ethics and law are introduced. Class: 3 hours per week. Prerequisite: ENG 111 with a grade of B or better. (Fa,Sp) 3 credits

#### **COMM 282: Feature and Magazine Writing**

This course covers: Types of features considered most in demand such as profile, travel, health and consumer issues. It also introduces students to the freelance market. Class: 3 hours per week. Prerequisite: ENG 111 with a grade of B or better. (Sp) 3 credits

# **COMM 285: Television News Reporting**

Students are exposed to the skills used by television reporters and videographers. Students produce weekly "news reports" on various campus and community events. Scripting as well as videocamcorder and editing equipment operation is covered. Class: 3 hours per week. Prerequisite: COMM 281, COMM 218 or COMM 176/FA 176. (Sp) 3 credits

#### **COMM 290: Introduction to Desktop Publishing**

In this course the student learns to use the Macintosh computer, the image scanner and a variety of popular Desktop Publishing software programs including Microsoft Word, Photoshop, QuarkXpress, and PageMaker. Students use these programs to create a variety of publications ranging from simple flyers to four page newsletters. [H] (Fa,Sp) 3 credits

# COMM 291: Advanced Desktop Publishing

In this course the student learns to create Web pages for the Internet. Project-based activities introduce the use of basic HTML codes, design techniques and popular software used to create effective interactive Web pages. [H] (Sp) 3 credits

# **Computer Information Systems**

# CIS 098: Exploring the Computer

This course is designed for students who want to learn the basics of operating a microcomputer. The course is designed to be primarily hands-on and assumes no previous experience. Topics will include computer components, using files and functioning in the Windows environment. It is particularly recommended for students required to take any of the following courses: ENG 093, ENG 096, ENG 098, and/or MATH 098. Class: 3 hours per week. no credit

# CIS 102: Getting Acquainted with the IBM

An introductory look at the IBM/compatible microcomputer. Students will explore the use of the mouse and basic desktop features in the Windows environment. This hands-on course assumes no previous computer experience. (Fa) 1 credit

#### CIS 106: Windows

This course presents basic survival skills using the Windows operating system. The topics covered include: essential hardware and software concepts; using the mouse; using the Windows desktop; disk preparation; creating, editing, saving and printing files; creating and organizing folders; and exploring the Windows accessory programs. The course is taught in a hands-on environment and assumes no computer experience. Prerequisites: eligibility for MATH 101 and ENG 111. (Fa,Sp) 2 credits

#### CIS 107: Advanced Windows

This course presents the advanced skills necessary to fully use the myriad of Windows features. The topics covered include: sharing and exchanging data between programs, MS-DOS command syntax, file and system maintenance,

multimedia features, and connecting to the world. This course is taught in a hands-on environment. Prerequisite: CIS 106. (Fa,Sp) 1 credit

#### **CIS 111: Introduction to Computers**

This transferable course is designed for the individual who wants to become computer literate and learn how to effectively use the IBM/compatible microcomputer as a tool at home, on the job, or in the classroom. The student will be exposed to operating system concepts and application software through lecture and some hands-on experience. A research paper is a course requirement. *Please note: Students with no keyboarding experience should take BOT 100A concurrently.* Prerequisites: eligibility for MATH 101 and ENG 111. (Fa,Sp,Su) 3 credits

#### CIS 118: Presentation Software: PowerPoint

This course will demonstrate the use of presentation graphics programs and the characteristics of effective presentations. The course will give students practical experience with the PowerPoint program and its associated tools. Prerequisite: CIS 106 or CIS 111 or equivalent Windows experience. (Fa,Sp) 1 credit

CIS 125 now called CS 125: Programming Logic and Design with ANSI C

### CIS 159: Database Management: Access

This course covers introductory and advanced concepts in personal computer database management. Lecture integrated with a "hands-on" approach helps students acquire knowledge and skills in effective information management, including concepts of tables, queries, forms, reports, and macros. Half way through the course, concepts involving forms and queries are expanded upon: subforms and custom forms are created and a variety of sorts are covered, as well as queries with calculations, and multiple table queries. The concept of referential integrity in establishing table relationships is also explored. The latter part of the course covers tables, queries, reports, and forms in more detail, and introduces macros. Students work with multiple and joined tables, customize reports, create more advanced types of queries, import OLE objects, create linked subforms, and design and use various macros. Prerequisites: CIS 106, or CIS 111. (Fa,Sp) 3 credits

# CIS 166: Application Software: Excel

This course is designed to deliver the beginning, intermediate, and advanced capabilities of Microsoft Excel in a "hands-on" teaching environment. Topics covered include basic spreadsheet concepts; workbook design and organization; formatting data on the spreadsheet; using formulas and functions; using charts; using the database feature; and creating macros. Prerequisite: CIS 106. (Fa,Sp) 3 credits

CIS 201 now called CS 201: Visual Basic I

CIS 202 now called CS 202: Visual Basic II

CIS 213 now called CS 213: Computer Programming COBAL I

CIS 214 now called CS 214: Computer Programming COBAL II

CIS 225 now called CS 225: Systems Design

CIS 226 now called CS 226: MVS Operating Systems/JCL

#### CIS 270: Cooperative Education/Work Experience

This course provides students the opportunity to apply classroom theory in an actual work setting. Students may be placed in a variety of work settings as related to their program of study. For students in the computer information systems programs, this may include positions as system analysts, or staff specialists within a variety of settings. Prerequisites: 15 completed credit hours in the Computer Information Systems programs. (Fa,Sp) 3 credits. Please refer to page 16 for more information and general prerequisites for Cooperative Education/Work Experience.

# **Computer Science**

CS 125: Programming Logic and Design with ANSI C (formerly CIS 125) An introductory course in fundamental programming concepts that are commonly encountered in problem solving using a computer. A structured approach to program logic and design is used. The course provides students with the skills needed to design the programming logic for microcomputer applications, microcomputer languages, and mainframe languages. The basic computer language used is ANSI C, although the course emphasizes general programming theory and concepts common to all programming languages: algorithms, documentation, top-down structured program design and modularity, efficiency, testing and debugging, and user friendliness. Class: 3 hours per week.

#### CS 129: Algorithms in C

This course will cover algorithms and present reasons for understanding and using them. An in-depth treatment of sorting, searching and numerical methods will be covered prior to an analysis of compression and encryption techniques, and graph and geometric algorithms. Class: 3 hours per week. Prerequisites: CS 222 and CS 240 or permission of instructor. (O) 3 credits.

Prerequisite: eligibility for MATH 101 and ENG 111. (Fa,Sp,Su) 3 credits

# CS 201: Visual Basic I (formerly CIS 201)

This course will give the student practical experience with an object-oriented/event driven programming language. The emphasis of Visual Basic is on the objects included in the user interface and on the events that occur on these objects (i.e. clicking and scrolling). The development of good design and programming techniques is a major part of this course. Class: 3 hours per week. Prerequisite: CS 125 or previous programming experience. (Fa,Sp) 3 credits

# CS 202: Visual Basic II (formerly CIS 202)

This course is a continuation of the Visual Basic experience started in CS 201. The emphasis will be on more complex programming tasks using sequential and database files with bound and unbound forms. Also included will be topics on building graphics into the interface, using keyboard and mouse events, building menus, building class object, building user-controls, and using ActiveX controls. The use of Data Reports and creation of Help files will be discussed if time allows. Class: 3 hours per week. Prerequisite: CS 201. (Fa,Sp) 3 credits.

#### CS 213: Computer Programming COBOL I (formerly CIS 213)

This course is an introduction to structured COBOL programming. Students will analyze problems, design solutions, code, test and debug business-oriented programs. Prerequisites: CS 125 and CIS 111. (Fa,Sp) 4 credits

# CS 214: Computer Programming COBOL II (formerly CIS 214)

Advanced, structured COBOL programming techniques, including complex table handling, internal sorts, modular programming, various updating methods, PC screen manipulation, and VSAM coding will be taught. Prerequisite: CS 213. (Sp) 4 credits

# CS 215: Microprocessor Assembly Language

This course will cover computer organization and programming of microcomputers in assembly language. The main topic areas will be number systems and codes, principles of internal architecture, system software fundamentals and coding of assembly language instructions. Class: 3 hours per week. Laboratory: 2 hours per week. Prerequisite: CS 125 or permission of the instructor. (0) 4 credits.

# **CS 216: Computer Organization and Architecture**

An introduction to the internal structure of the digital computer. Topics include: computer abstractions and technology, instructions, arithmetic, pipelining and parallel processors, RISC, memories, interfacing processors and peripherals, assemblers and linkers, input/output, and the basics of logic design. The course includes a laboratory component. Class: 3 hours per week. Prerequisite: CS 215 or permission of instructor. (O) 3 credits

#### CS 222: Programming in C

This course introduces programming in the language C, and solving problems with both numerical and non-numerical applications. It entails fundamental rules of syntax, expressions and operators. Concepts of data types, functions and control structures are discussed, followed by an introduction to data structures including files, list and stacks. Class: 3 hours per week. Prerequisite: CS 125. (Fa,Sp,Su) 3 credits

#### CS 223: Programming in C++

This course introduces students to programming in the language C++, and solving problems with both numerical and non-numerical applications. It entails fundamental rules of syntax, expression and operators. Concept of data types, functions, control structures, arrays, pointers, strings, data abstraction with classes, objects, and operator overloading are discussed, followed by topics covering object-oriented programming. Sequential file processing and direct-access file processing is discussed. Students will design, write and execute modular programs on a PC. Class: 3 hours per week. Prerequisite: CS 222. (Fa,Sp) 3 credits

#### CS 224: Programming in Java

This course introduces students to programming in the language Java. Students will design and create Java applications and Java applets. The concepts of object-oriented programming for the Internet will be covered. Class: 3 hours per week. Prerequisites: CS 222. (Fa,Sp) 3 credits

# CS 225: Systems Design (formerly CIS 225)

An intensive study of the elements of computer-based systems analysis and design. Systems methodology is studied and a team approach is used to complete a semester project. Prerequisites: CIS 111 and CS 125. (Sp) 4 credits

#### CS 226: MVS Operating Systems/JCL (formerly CIS 226)

The study of operating systems, utility programs, job control language, and software packages with practical application on an IBM MVS/ESA system will be taught. CS 213 may be taken concurrently. Prerequisite: CS 125. (Fa) 3 credits

# CS 230: Database Concepts and Applications with Oracle

This course introduces database design and creation using a DBMS product. Topics include: database terminology, usage in industry, design theory, types of DBMS models, and creation of basic tables, queries, reports and forms. Upon completion of this course, students will be able to create database tables, queries, reports, and forms which follow acceptable design practices. Class hours: 3 hours per week. Prerequisite: CST 110 and CS 125. (Fa) 3 credits

#### CS 240: Data Structures

This course will cover data structures and present reasons for using them. A few topics in software engineering will be covered and used throughout the course. An introduction to the analysis of algorithms will be covered prior to an in-depth treatment of linked lists, stacks and queues, sets, hash tables, trees and tree traversal, heaps and priority queues, and graphs. Class: 3 hours per week. Prerequisites: CS 222 or permission of instructor. (O) 3 credits

# CS 259 Database Management: Advanced Access with VBA

This course covers advanced concepts in personal computer database management. Lecture integrated with a hands-on approach helps students acquire knowledge and skills in effective information management, including concepts of private and public functions and subroutines, data access objects, OCX controls, and advanced queries. Students work with multiple joined tables and advanced report concepts, examine and utilize various control properties, and develop a standard user interface to the application they will create as part of the class. Microsoft Access Visual Basic for Applications will be the primary programming language used in the development of private and public functions

and subroutines. Class: 3 hours per week. Prerequisites: CIS 159 and CS 202 or permission of the instructor. [B] (Fa) 3 credits

# **Computer Technology**

#### **CST 110: Introduction to Computer Technology**

This course covers a computer's basic technical concepts. Hardware topics will include input output devices, storage media, processing units, memory, and telecommunications devices, and the interactions between them. Software is covered as it relates to the technology in both use and resource management. Current topics, including the Internet, multimedia, computer crime, security, ethics, and privacy issues will also be covered. Class: 3 hours per week. Prerequisite: CIS 111 or permission of the instructor. (Fa,Sp) 3 credits

#### CST 114: Exploring the Internet (formerly CIS 114)

This course includes the basic skills needed to become an informed Internet user. Major topics include: connecting to the Internet, accessing the Internet, using e-mail, browsing the World Wide Web with Netscape Navigator, and the dynamics of using Web search engines. Class: 2 hours per week. Prerequisite: CIS 106. (Fa,Sp) 2 credits

#### **CST 115: Building Web Pages** (formerly CIS 115)

This course is designed to deliver the fundamentals for designing and building Web pages. Various standards for design will be explored along with the tools for development of pages for the Intranet and the Internet. The Web building tools used and explored in class will depend on current technologies. To complete course assignments, individuals can use the MCC laboratory computers of their home computer. Netscape or a comparable browser will be used for this class. Class: 3 hours per week. Prerequisite: CST 114 or a working knowledge of the Internet. (Fa,Sp) 3 credits

# CST 130: Fundamentals of Computer Operating Systems (formerly CT 130)

An introductory course in computer operating system concepts which are required for using and maintaining computer systems. Topics include: hardware management; disk, file and directory structures; installation and set-up; resource allocation, system optimization and configuration; system security; and utilities. Basic computer operating systems discussed are: DOS; Windows 95; Windows and UNIX. Upon course completion, students will be able to install and configure a basic operating system and maintain and optimize computer system performance. Class: 3 hours per week. Laboratory: 2 hours per week. Prerequisite: CST 110. (Fa,Sp) 4 credits

# CST 171: Networking Essentials I (formerly CIS 171)

This course will cover introductory network concepts. The advantages and disadvantages of networking will be explored. Factors in making network decisions, network topologies, and hardware and software components will be covered. Examples of network operating systems will be discussed (i.e. Novell, Windows). Basic administration on the Windows network will be explored in a "hands-on" setting. Concepts as they relate to network administration will be included (i.e. protocols, troubleshooting, and designs). Class: 3 hours per week. Prerequisite: CST 110 or permission of the instructor. (Fa,Sp) 3 credits

# CST 172: Networking Essentials II

This course will cover advanced network concepts. Factors in network designs, network upgrading, network security; troubleshooting and network administration will also be covered. Advanced network protocols and various network troubleshooting tools will also be introduced during the course. The course will focus on preparation for industry certification examinations: CompTIA's Network + and Microsoft's Network Essentials. Class: 3 hours per week. Prerequisite: CST 171. (Sp) 3 credits.

#### CST 191: Computer Hardware I (formerly CIS 191)

This course will cover the basic principles of maintaining the PC. The course will cover computer hardware, configuration, optimization, troubleshooting, and repair of the microcomputer and its associated peripherals. The course will emphasize hands-on experience in installing, maintaining, and troubleshooting various problems with the operating systems as well as computer hardware. Class: 3 hours per week. Prerequisite: CIS 106 and CIS 107 or CST 110 or a working knowledge of Windows or permission of the instructor. (Fa,Sp) 3 credits

#### CST 192: Computer Hardware II

This course will cover the advanced principles of maintaining the PC. The course will cover hardware troubleshooting and repair of the microcomputer and its associated peripherals. The course will emphasize hands-on experience in troubleshooting various problems with the computer operating system as well as computer hardware. This course will emphasize preparing the student for the CompTIA A+ examination. Class: 3 hours per week. Prerequisite: CST 191. (Fa,Sp) 3 credits

# CST 231: Computer Operating Systems - Windows Workstation (formerly CT 231)

This course introduces operating system concepts for the Windows Workstation operating system. Topics include: hardware management, file and memory management, system configuration/optimization, networking options, and utilities. Upon completion of the course, students will be able to perform operating systems functions at the single/multi-user level in a Windows environment. The course includes a laboratory component. Class: 3 hours per week. Laboratory: 2 hours per week. Prerequisite: CST 130 or permission of instructor. (Fa) 4 credits

# CST 232: Computer Operating Systems - Windows Server (formerly CT 232)

This course is a continuation of CST 231: Computer Operating Systems-Windows Workstation— at the Windows Server network level. The course includes a laboratory component. Class: 3 hours per week. Laboratory: 2 hours per week. Prerequisite: CST 231. (Sp) 4 credits

# **CST 233: Computer Network Management**

This course covers the fundamentals of network administration and system management. Topics include: assessing and configuring basic network services, managing directory services, and using network management software. Upon completion of the course, students will be able to apply system administration skills in developing network management strategies. Class: 3 hours per week. Prerequisite: CST 172. (Fa) 3 credits

### CST 245/MM 245: Web Page Design

Students will learn the fundamentals of designing, planning and producing web sites and pages for posting on the Internet. Image management and creation, information design, and animation creation and use are major topics. Emphasis will be on site design and management. Students will work with HTML code and a web page editor. Class: 6 hours per week. Prerequisites: FA 210, COMM 290 or permission of the instructor. (Fa,Sp) 3 credits

# **Criminal Justice**

# CJ 102: Criminal Justice Field Experience

This course is one hundred twenty hours of supervised field experience in a cooperating social service agency. Class: 1 hour, weekly pro-seminar. Prerequisites: CJ 111 and the consent of the program coordinator. (O) 3 credits

# CJ 110: The Police Role in the Community

This course covers the study, analysis and recommendations for reducing the severity of the major tension points between police and the community. Emphasis

is given to the practical application of scientific knowledge and methodology to police-community relations in the State of Connecticut. (Fa,Sp) 3 credits

#### **CJ 111: Introduction to Criminal Justice**

This course is a descriptive-analytical survey of crime and criminal justice in the United States today, that explores strategies for change involving all levels of government, private groups and every American citizen. Class: 3 hours per week. [S] (Fa,Sp) 3 credits

#### **CJ 112: Police Patrol Procedures**

The history and growth of traffic problems and the development of specialized traffic control methods. Class: 3 hours per week. (Sp) 3 credits

### **CJ 114: Introduction to Corrections**

An introduction to the correctional system in the United States and other allied countries. Emphasis will be placed on the role of corrections in our society and criminal justice system as a whole. [S] (Fa,Sp) 3 credits

#### CJ 122: Police Administration

This course is an introduction to police organization, administration, personnel, public relations, crime prevention and theory. Class: 3 hours per week. (Sp) 3 credits

### CJ 131: Safety and Fire Protection Management

The management of safety and fire prevention services and accident prevention programs will be covered. Class: 3 hours per week. (O) 3 credits

# CJ 133: Security Administration

The principles of organization, management, budgeting, personnel, records and public relations of a security agency will be covered. Class: 3 hours per week. (O) 3 credits

#### CJ 135: Introduction to Security Methods

A review and study of the organizations that require security, such as retail operations, medical institutions, educational institutions, financial operations and others, and of the legal and economic aspects that must be considered in security operations. Class: 3 hours per week. (O) 3 credits

### CJ 136: Introduction to Security Methods II

A concise study of the procedures and operations that affect security and guarantee the rights of those involved in any security system. Class: 3 hours per week. (O) 3 credits

# CJ 140: Motor Vehicle Stops and Safe Extrication:

The academic aspect of this course will provide an in-depth look and discussion of Connecticut motor vehicle laws. The practical aspect of the course will concentrate on suggested police procedures for the stopping and extrication of individuals from their vehicles. Several practicals will focus on the safe extrication of felony suspects as well as investigation of the suspected DWI offender. (O) 1 credit

#### CJ 141: Gangs and "Families": Past, Present and Future

The course will provide the student with an overview of the psychology and sociology behind various gangs around the country. In depth coverage will be given to local gangs' symbolism including their graffiti, styles, tattoo, patches and other markings. Additionally, this course will cover assorted proactive strategies for the police and the community in their attempt to control gang violence/crime. (O) 1 credit

# CJ 142: Identifying and Coping with Domestic Violence and Child Abuse

Instruction will encompass a history of domestic violence, its causes, social impact and the impact on other family members. The recent changes in the area of law enforcement and its response to domestic situations will also be addressed. The seminar will culminate with a decision making workshop focusing on the arrest/non-arrest dilemma. (O) 1 credit

#### CJ 143: Survey of Drugs of Abuse

The course will consist of an overview of drugs of abuse with regards to identification, effects on the body, mind and behavior. Class will include didactic presentation, video presentation discussion and interactive class presentations. (O) 1 credit

# CJ 144: Community Policing Techniques

This course will help to identify the social science, theoretical and historical roots of community policing and will clarify the concept in both organizational and philosophical terms. Research relative to the successes and failures of community policing will be studied as well as various programs that fall under the community policing rubric. (O) 1 credit

#### CJ 145: Management and Preservation of the Crime Scene

This course will concentrate on collection of specific physical evidence at various crime scenes. Collection techniques will encompass crime scene photography, note taking, crime scene sketching, evidentiary search methodology and chemical/powder latent fingerprint collection and preservation. Constitutional considerations relative to the collection of said physical evidence as well as testimonial evidence from witnesses, victims and suspects is included. (O) 1 credit

#### CJ 151: Profiles of the Violent Offender

This course introduces the student to the fundamental principles of violence in American society, namely the nature, existence and causation of violent crime, and the problems and procedures involved in the investigation and apprehension of violent criminals. (O) 1 credit

#### CJ 152: Traumatic Incident Stress Management

The focus of this seminar is the identification, origin and management of personal stress as it relates to public service fields. These sessions will draw upon the day-to-day life experiences and coping mechanisms of individuals working in law enforcement and other public service fields. (O) 1 credit

# CJ 153: Serial Sex Offenders

This course will provide an in-depth look at the psychology, sociology and characteristics of the habitual sex offender. In-depth coverage will be given to the modus operandi of these offenders as well as a discussion concerning the profile of individuals who become their victims. (O) 1 credit

### CJ 155: Hostile Situation Management

This seminar will focus on the controversy surrounding the management of crisis/ hostile situations. The course will deal with the crucial questions of when, where and how force should be used in dealing with the public. (O) 1 credit

#### CJ 156: Advanced Studies in Gangs and Cults

The course will provide the student with an overview of the psychology and sociology behind various gangs around the country. In this advanced course the student will be exposed to West Coast gangs' symbolism including their graffiti, styles, tattoo(s), patches and other markings. Additionally this course will cover assorted cult groups identified throughout the country and some of the proactive strategies police and family members use to extricate individuals caught up in cults. (O) 1 credit

#### CJ 157: Interviewing and Interrogation

This course will present the determination of when interviewing or interrogation should be used. The use of interviewing methods including the how, what and why of each will be discussed. (O) 1 credit

# CJ 160: The Death Penalty

This course will introduce students to the death penalty laws of the State of Connecticut, other states, and other countries. This will be accomplished through lecture, group discussion, reading material, video presentation and an expert

guest lecturer. There will also be an in-depth discussion concerning present day death penalty cases. (O) 1 credit

#### CJ 161: Crime, Criminal and the Media

In this one credit course, the student will look at various aspects of the effect of the media in the criminal realm. This course will also explore the historical events that have led to the contemporary relationship that now exists between the police and the media. (O) 1 credit

#### CJ 162: Test Preparation for Police Candidates

The goals and objectives of this two-day program are to prepare the student to successfully pass the written and oral board phases of police testing. In addition the student will learn about orientation and the human resource component of law enforcement provisions. (O) 1 credit

#### CJ 201: Institutional Treatment of the Offender

Introduction to the principles and practices of placing and treating adult and juvenile offenders in different institutions. Class: 3 hours per week. Prerequisite: CJ 111. (O) 3 credits

# CJ 202: Community Correction

This course introduces students to historical, theoretical and judicial processes in the development of community correctional programs, with emphasis on juvenile delinquency programs at the police and judicial level (probation, parole, drug, alcohol and self-help programs). Class: 3 hours per week. Prerequisites: CJ 111 and 201. (O) 3 credits

#### CJ 203: Corrections Administration

This course introduces students to the specifics of corrections organization, systems, administration, personnel, public relations, programs, planning and budgeting, and governmental and executive control. Class: 3 hours per week. Prerequisite: CJ 111. (O) 3 credits

#### CJ 211: Criminal Law I

Students will study the elements of crime, especially the intent and the act, and a survey of the common law felonies and misdemeanors that make up the body of criminal law. Class: 3 hours per week. (Fa) 3 credits

#### CJ 212: Criminal Law II

A study of the act(s) which make up the elements of a crime. The analysis of these criminal elements will allow an in-depth understanding and exploration into a wide spectrum of modern day criminal law and effective legal reinforcement. Class: 3 hours per week. Prerequisite: CJ 211. (Sp) 3 credits

# CJ 221: Criminal Investigation

Methods and procedures of investigation in misdemeanors and felonies will be taught. Class: 3 hours per week. Prerequisite: CJ 111. (Fa) 3 credits

### CJ 222: Evidence and Court Procedure

The rules of evidence, with emphasis on the hearsay rule, the exceptions to the rule, best evidence rule, documents, corpus delicti, opinion evidence, circumstantial evidence, privileged communications, wiretapping, confessions, search and seizures, will be covered. Class: 3 hours per week. (Sp) 3 credits

#### CJ 225/LEGL 225: Trial Techniques

Provides in-depth involvement, academically as well as practically, in various aspects of courtroom experience. The rules of evidence are examined through the study of various legal problems. Ability to analyze facts and legal issues and to develop logical legal arguments is emphasized. Concentration is given to proper courtroom demeanor and advocacy skills. [B] (Fa) 3 credits.

#### CJ 226/LEGL 226: Mock Trial Practicum

Provides in-depth involvement, academically as well as practically, in various aspects of the courtroom experience. Selected students become role players in a national competition involving a mock scenario. Selected students are supplied a complex legal problem. Fact analysis and development of logical legal arguments are undertaken, and students prepare and present both sides of a case, competing against other colleges. Analytical and communication skills are developed in following courtroom procedure. Prerequisite: Students must try out during the previous semester and be selected for the American Mock Trial Association team. Not available to students who have received a Bachelor's degree. [B] (Sp) 3 credits.

#### CJ 227: Advanced Trial Presentation

Students in this advanced trial techniques and litigation class will further develop and perfect their skills in the presentation of a legal case in front of a courtroom (judge or jury). The student will learn to go beyond the basic aspects of courtroom rules and procedures and will develop a theme of how a case should be presented differently at different times and in front of different audiences. This class is set forth to fine tune the litigation skills of the prospective law student in a legal debate atmosphere. Furthermore, this course will perfect the technique and ability of the student to research, analyze and use legal case law and evidence to their fullest capacity in order to present the most effective and persuasive case possible in a court of law. Class: 3 hours per week. (Sp) 3 credits.

#### CJ 230: Introduction to Forensic Science

Forensic science is the application of science to those criminal and civil laws that are enforced by police agencies in a criminal justice system. The study of physical evidence encompasses any and all objects that can establish that a crime has been committed or can provide a link between a crime and its victim or a crime and its perpetrator. This course will be devoted to the discussion of methods and techniques available to law enforcement personnel and forensic scientists for the evaluation of physical evidence. Class: 3 hours per week. (F) 3 credits.

### CJ 231: Advanced Forensic Science

This course will be devoted to advanced topics within the area of forensic science. The physical evidence at a crime scene provides investigators with valuable information linking the suspect to the crime scene, to the victim and to a weapon. This course will discuss advanced methods of crime scene reconstruction and hands-on application of crime scene techniques available to law enforcement personnel and forensic scientists for evaluation of physical evidence. Some travel will be required. Class: 3 hours per week. (O) 3 credits

# CJ 232/PSYC 232: Social Psychology of Criminal Behavior

This course will provide an overview on the psychological understanding of crime and the criminal. It will provide an analysis of individual differences in various criminal activities with a focus on a conceptual and practical understanding of the predictors of individual behavior. Class: 3 hours per week. (O) 3 credits

# **Deaf Studies**

#### DS 111: Deaf Studies I: Introduction to the Deaf Community

This introductory course examines various aspects of the deaf community. It addresses culture, controversies, activities and events in the deaf community. In addition, the course explores the hearing mechanism, hearing disorders and the role of audiological assessment in the deaf community. Class: 3 hours per week. [L,S] (Fa,Sp) 3 credits

# **Drug/Alcohol Rehabilitation Counselor**

# DARC 101: Introduction to Issues in Drug/Alcohol Abuse

This course covers key issues of the alcohol and drug abuse treatment field from the standpoint of the unique sociological and public health aspects involved. Class: 3 hours per week. Prerequisite: eligibility for ENG 111. [S] (Fa) 3 credits

# **DARC 111: Introduction to Counseling**

Theory and skills of therapeutic counseling will be taught. Discussion of relevant theory as well as development of such skills as attending behavior, reflection of feelings, direct mutual communication and interpretation will be covered. The focus of this course is issues in substance abuse. Class: 3 hours per week. Prerequisite: eligibility for ENG 111. [S] (Fa) 3 credits

#### **DARC 112: Group Therapy and Techniques**

The emphasis of this course is on understanding the theory of group dynamics. An organized overview will be presented of the different modalities within the generic term "group counseling" and of the various guidelines for the appropriate use of these modalities with different client populations. The focus of this course is issues in substance abuse. Class: 3 hours per week. Prerequisite: DARC 111. [S] (Sp) 3 credits

#### DARC 117: Introduction to Alcohol and Drug Prevention Education

Students will be introduced to a comprehensive overview of prevention. The course will focus upon the role models of prevention, prevention theory, practical application of theory and program planning. The five core functions of a preventions professional, ethics, cultural competency and prevention opportunities for treatment professionals. Class: 3 hours per week. (O) 3 credits

# DARC 158: Biology of Drug/Alcohol Abuse

The study of drug abuse in current times, including the pharmacology and pathology of chronic drug abuse with respect to the individual as well as society and the law, will be covered. Class: 3 hours per week. Prerequisite: eligibility for ENG 111. See the Drug and Alcohol Rehabilitation Counselor Program for restrictions. [N] (Sp) 3 credits

#### **DARC 213: Advanced Counseling**

The course will provide students with an in-depth study of individual and group counseling theory and an opportunity to synthesize theory with practical application. Class: 3 hours per week. (Sp) 3 credits

#### DARC 214: Psychotherapy and Spirituality

This course will explore practical methods of integrating spirituality into the process of psychotherapy. Designed for counseling students, with particular emphasis on drug and alcohol rehabilitation counseling, this course will contrast both spirituality vs. religion and pastoral counseling vs. spiritual counseling. Students will explore ways in which traditional counseling theories lend themselves to the discussion of a personal spirituality, and practice traditional counseling techniques in integrating spirituality into the process of psychotherapy. (O) 3 credits

# DARC 251: Counseling Internship I

Prospective drug and alcohol counselors are expected to demonstrate their counseling skills for a minimum of 15 hours per week in a clinical setting under the joint supervision of the College and qualified clinical personnel of the treatment agency. *Open only to students formally accepted into the DARC Program.* Class: 2 hours per week plus 15 hours of field placement per week. Prerequisites: DARC 101, 111, 112; BIO 158. (Fa) 6 credits

#### DARC 252: Counseling Internship II

This course is a continuation of DARC 251. *Open only to students formally accepted into the DARC Program.* Class: 2 hours per week plus 15 hours of field placement per week. Prerequisite: DARC 251. (Fa) 6 credits

# **Earth Science**

# **ERSC 110: Introduction to Earth Science**

This course is an introductory survey of selected topics in geology, oceanography, astronomy, and meteorology. Earthquakes, moon probes, sea explorations, plate tectonics, and severe weather are among the topics treated in depth. The course may be supplemented with field trips. Class: 3 hours per week. [L,N] (Fa,Sp,Su) 3 credits

# **Economics**

# **ECON 101: Macroeconomics**

This course covers determinants of the level of national economic activity, employment and prices, fiscal and monetary policy, international economics, and payment mechanisms. Class: 3 hours per week. [L,S] (Fa,Sp) 3 credits

#### **ECON 102: Microeconomics**

Demand and supply, principles of the market mechanisms, pricing and output determination under competitive and noncompetitive market behavior, factor productivity, prices and international economics will be taught. Class: 3 hours per week. [L,S] (Fa,Sp,Su) 3 credits

# ECON 211/BUS 211: Money and Banking

This course deals with the role and supply of money, the Federal Reserve system, the principles of banking, and the structure of financial institutions. Monetary policy and its application are emphasized. Class: 3 hours per week. Prerequisite: ECON 101. [L,S] (O) 3 credits

#### **ECON 212: International Economics**

This course presents the principles of international trade and finance, theory of comparative advantage, exchange rates, monetary standards, international financial institutions, and the history of national policies affecting trade. Students will learn both the principles of international trade and many applications. Prerequisite: ECON 102. [L,S] (O) 3 credits

# Education

# **ED 111: Introduction to Early Childhood Education**

This course is designed to acquaint students with the field of early childhood education. Foundations of early childhood education, the content of the curriculum and significant aspects of child growth and development will be covered. Class: 3 hours per week. (Fa,Sp) 3 credits

#### ED 117: Observation & Assessment of the Early Childhood Program

The course will focus on the role of the learning environment and teacher/child interaction in the early childhood program. Students will visit programs and use observation forms to assess the quality of early childhood experience for the young child. Six 4-hour observation visits are required. Class: 3 hours per week and the required program visits. Prerequisite: ED 111. (Sp) 4 credits

#### ED 118/ENG 118: Children's Literature

This course offers an overview of children's literature including its history, genres, and leading authors and illustrators. It covers selection and critical study of books for children, including folklore, poetry, fiction and nonfiction. Issues related to children's literature and literature extension activities will also be explored. Class: 3 hours per week. Prerequisite: ENG 111. [H] (Fa,Sp) 3 credits

#### ED 123: Language and Literacy

This course is an introduction to the language and literacy development of children from birth through age eight. It explores ways that adults can promote growth in the areas of reading, writing, listening and speaking. Class: 3 hours per week Prerequisite: eligibility for ENG 111. (Fa) 3 credits

#### ED 200: Field Experience

Students take 150 hours of training in a cooperating institution where they assume responsibilities appropriate to their previous background and experience. Attendance is required at seminars and group evaluation sessions. Prerequisite: 30 credit hours of approved course work. Note: students must teach at least 10 hours per week in a nationally accredited early childhood program. (Sp) 3 credits

# ED 210: Administration & Supervision of Early Childcare Programs

This course will focus on administering Early Childhood Programs. It will look at establishing the program's framework, operation, and implementation for both center-based and family home child care settings. Class: 3 hours per week. (O) 3 credits

### **ED 211: The Early Childhood Curriculum**

The study of the role of the teacher as she/he plans, implements, and evaluates a curriculum that focuses on the design of the learning environment; the interaction between teacher, child, and family; and the development of activities that foster children's social, emotional, physical, and intellectual development. Class: 3 hours per week. (Sp) 3 credits

# ED 212: Creative Activities for the Early Childhood Program

This course examines the role of music, movement, art, language and literacy, dramatic play, blocks, table toys, sand and water in the curriculum. The relationship of creative activities to the total educational program of the young child is explored. Students create and present developmentally appropriate activities. Class: 3 hours per week. (Fa) 3 credits

#### ED 217: Advanced Early Childhood Curriculum

This course focuses on the teaching strategies necessary to design and implement a high quality early childhood program and will address topics of previous curriculum courses in greater depth. Study topics will include observation and planning for individual and groups of children, working with families, and ethnics. Class: 3 hours per week. Prerequisite: ED 211. (Sp) 3 credits

### ED 237: Science, Nature and the Environment

This course will focus on the teacher's role in supporting and expanding young children's interests in science, nature and the environment. Students will both share and explore ideas, materials and activities both indoors and outdoors. Topics will include the importance of sand and water play, fostering observation skills and encouraging trial and error experiences. Identifying quality science literature for young children will also be addressed. Class: 3 hours per week. Prerequisite: ED 111. (Sp) 3 credits

# **Electronics**

# ELC 120: AC/DC Circuit Analysis

An introductory course in DC and AC circuit fundamentals with emphasis on circuit analysis, measurements, and test equipment operation. Topics include: DC/AC circuit principles, circuit analysis laws and theorems, components, test equipment fundamentals, circuit simulation software, and other related topics. Upon completion of the course, students will be able to interpret circuit schematics, design, construct, verify, and analyze DC/AC circuits and use electrical test equipment. The course includes a laboratory component. Class: 3 hours per week. Laboratory: 2 hours per week. Co-requisite: MATH 115. 4 credits

#### **ELC 122: Electronics**

The course includes semiconductor -based devices such as diodes, bipolar transistors, FET's, thyristors, and related electronic components. Emphasis is placed on analysis, selection, biasing, and applications in power supplies, small signal amplifiers, and switching and control circuits. Upon completion of the course, students will be able to construct, analyze, verify, and troubleshoot discrete component circuits using appropriate techniques and test equipment.

The course includes a laboratory component. Class: 3 hours per week. Laboratory: 2 hours per week. Prerequisites: ELC 120. 4 credits

#### **ELC 220: Digital Electronics**

This course covers combinational and sequential logic circuits. Topics include: number systems, Boolean algebra, logic families, MSI and LSI circuits, AC/DC converters, and other related topics. Upon completion of the course, students will be able to construct, verify, and troubleshoot digital circuits using appropriate techniques and test equipment. The course includes a laboratory component. Class: 3 hours per week. Laboratory: 2 hours per week. Prerequisite: ELC 120, MATH 115. 4 credits

#### ELT 111: Circuit Analysis I

An introductory course in electric circuit analysis. Mathematical techniques for analyzing and predicting the behavior of passive circuits excited from DC sources are emphasized. Topics include: the properties of resistance, capacitance and inductance; series, parallel and complex circuits, voltage sources and current sources; the maximum power transfer theorem; Kirchoff's current and voltage laws, Norton's and Thevenin's theorems, Maxwell's mesh analysis and Superposition theorem; and the transient response of RC and RL circuits. Class: 3 hours per week. Laboratory: 2 hours per week. Prerequisites: MATH 102, math placement test or two years of high school algebra. (Fa) 4 credits

#### **ELT 112: Circuit Analysis II**

Students will study the basic principles that govern the behavior of passive circuits excited from sinusoidal voltage and current sources. Topics include: reactance, impedance and admittance, the application of network theorems to AC circuits; single-phase and poly-phase circuit analysis; power and power factor correction; mutual induction, transformers and resonance. Class: 3 hours per week. Laboratory: 2 hours per week. Prerequisite: ELT 111. (Sp) 4 credits

# **ELT 113: Electrical Power Systems**

This course covers the basic principles and major components used in energy conversion systems. Topics include: DC motor/generators, AC motor generators, AC squirrel cage induction motors and transformers and their control systems. Class: 3 hours per week. Prerequisites: PHYS 122, ELT 111. (Fa) 3 credits

#### ELT 201: Electronics I

A basic course beginning with a study of the physics of semiconductor devices and the DC and AC operation of solid state devices in active circuits. Devices studied include: diodes, zener diodes, bipolar and field effect transistors, and operational amplifiers. Emphasis is placed on the analysis and design of biasing networks and the small signal operating properties of discrete device amplifiers. Device characteristic curves and properties are developed for each of the devices above. Computer-aided circuit simulation and analysis techniques are introduced for solving active electronic circuits. Class: 3 hours per week. Laboratory: 2 hours per week. Prerequisites: ELT 111. MATH 191. (Fa) 4 credits

# ELT 202: Electronics II

This course is a continuation of ELT 201. Topics include: multistage amplifiers, multiple device circuit configuration, large signal amplifiers, active filters, regulated power supplies, oscillators, the Bode plot, Nyquist plots, frequency response, feedback and stability. Class: 3 hours per week. Laboratory: 2 hours per week. Prerequisites: ELT 201, ELT 112, MATH 191. (Sp) 4 credits

# **ELT 213: Controls Electronics**

This course introduces students to electronic controls systems. Topics include: complex algebra, phasors, impedance, transfer functions, open and closed loop systems and sequential control including pneumatic and relay logic. Students will study pneumatic control elements, ladder diagrams, interfacing techniques, stepper motor controls and servo motor controls, the use of microcomputer controls in industrial applications such as robotics, application of data conversion electronics

and the applications of program controllers. Class: 3 hours per week. Laboratory: 2 hours per week. Prerequisites: ELT 201, MATH 191. (Fa) 4 credits

#### **ELT 215: Microprocessors**

This course introduces microprocessor architecture and microcomputer systems including memory and input/output interfacing. Topics include: assembly language programming, bus architecture, bus cycle types, I/O systems, memory systems, interrupts, and other related topics. Upon completion of the course, students will be able to interpret, analyze, verify, and troubleshoot fundamental microprocessor circuits and programs using appropriate techniques and test equipment. This course includes a laboratory component. Class: 3 hours per week. Laboratory: 2 hours per week. Prerequisite: ELC 220. 4 credits

# **Engineering**

# Technical Education 101: Introduction to Engineering & Technology

An introduction to engineering and technology fields with special emphasis on the programs of Engineering Science; Manufacturing Engineering Science; Industrial Engineering Technology; Electronics Technology; Quality Assurance Technology; Tool, Die, and Gage Maker Technology; and Machine Tool Service Technology. The course will include an introduction to the history and development of technology, career choices in the fields of engineering and technology, professional responsibilities in the chosen career fields, study skills, use of the technical library and publications, and information about specific technical programs at MCC. Class 1 hours per week. (Fa,Sp) 1 credit

#### **ENGR 101: Engineering Drawing Interpretation**

An introduction to the interpretation of engineering drawings beginning with the basics of orthographic projection. Topics include: working drawings, lines, linear and angular dimensioning, sectional views, tolerances and allowances, thread representation, arrowless and tabular dimensioning, steel specifications, auxiliary views, point-to-point and datum dimensioning conforming to ANSI Y14.5M and ISO standards. Class 3 hours per week. (Fa) 3 credits

# **ENGR 102: Geometric Dimensioning and Tolerancing**

An intermediate course in the interpretation of engineering drawing beginning with the basics of dimensional tolerances and tolerance systems. Topics include: the mathematics of interpreting and specifying tolerances on dimensions, the system of geometric tolerancing, the basic nomenclature and standard symbols conforming to ANSI Y14.5M. Class: 3 hours per week. Prerequisite: ENGR 101. (Sp) 3 credits

# **ENGR 111: Introduction to Engineering**

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. Class: 3 hours per week. Prerequisite: MATH 102 or a satisfactory score on math placement test. (Fa,Sp) 3 credits

#### **ENGR 121: Mechanics**

A basic course in the fundamentals of classical mechanics. Topics include: vectors, kinematics, translational and rotational equilibrium, torque, Newton's laws of motion, gravitation, work, power, energy, impulse, momentum, rotary motion and elasticity. Class: 3 hours per week. Laboratory: 2 hours per week. Prerequisite: MATH 116. (Fa) 4 credits

#### **ENGR 122: Electricity/Electronics I**

A basic course in electricity and electronics for students who are not electronics majors. Topics include: DC circuits, AC circuits, basic magnetics, fundamentals of electrical machinery and basic electronics. Class: 3 hours per week. Laboratory: 2 hours per week. Prerequisite: MATH 116. (Fa) 4 credits

#### **ENGR 123: Electricity/Electronics II**

An intermediate class in electricity and electronics for students preparing for careers in manufacturing machine tool service. Topics include: basic principles and major components (DC motor/generators, AC motor/generators, etc.) used in energy conversion, analog and digital circuits, and machine control systems, circuits and components. Class: 3 hours per week. Lab: 2 hours per week. Prerequisite: ENGR 122. (Sp) 4 credits

#### **ENGR 211: Engineering Statics**

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 included. Class: 3 hours per week. Prerequisite: MATH 192 (which may be taken concurrently). (Fa) 3 credits

### **ENGR 212: Engineering Dynamics**

Engineering applications of Newtonian mechanics to dynamic forces, translational motion, work, impulse and momentum will be taught. Topics included: kinematics, kinetics of particles and rigid bodies, vibrations, energy and momentum conservation. Class: 3 hours per week. Prerequisites: ENGR 211 and MATH 192. (Sp) 3 credits

#### **ENGR 221: Introduction to Electric Circuit Analysis**

Linear electric circuit analysis using Ohm's and Kirchhoff's laws: includes loop and nodal analysis; transients in electric circuits; behavior of operational amplifiers and nonlinear devices; design, operation and use of electric instruments; basic meter movements; and simple filter circuits. TI-85 graphing calculator required. Class: 3 hours per week. Laboratory: 2 hours per week. Prerequisites: PHYS 132 and MATH 192. Corequisite: MATH 201. (Sp) 4 credits

# **English**

# ENG 093: Preparatory College Reading and Writing I

This course is designed for students who need a semester of reading and writing experiences before continuing on to ENG 096. This course will engage students in reading and writing activities with an emphasis on whole class and small group discussion. Students who complete the course with a grade of "C" or better are required to take ENG 096. Class: 3 hours per week. (Fa,Sp) no credit

# **ENG 096: Preparatory College Reading and Writing II**

This course focuses on reading and writing as processes. Students interact with various types of text through reading, writing, listening and speaking. They will have the opportunity to create meaningful pieces for real purposes and real audiences. This course will prepare students to understand, interpret and respond to course content at the college level. As a result of this course, students will form a set of personal strategies for reading and writing. A grade of "C" or better is required to take ENG 098. Class: 6 hours per week. (Fa,Sp) 3 credits

### **ENG 098: Preparatory College Reading and Writing III**

This course is designed for students who need to further develop their capabilities in language use—reading, writing, thinking and speaking to prepare them for the kinds of assignments they will be asked to complete in ENG 111 and beyond. Student will read, discuss, think and write about a number of topics. A grade of "C" or better is required to take ENG 111. Class: 3 hours per week. (Fa,Sp,Su) no credit

# **ENG 100: Basic Study Skills**

This course is designed for and required of all students enrolled in the Adults in Transition program. Taken just before their first semester, this course introduces students to fundamental study skills. It presents these skills as processes and shows how they relate to and reinforce one another. Class: 15 hours. (Fa,Sp) 1 credit

#### ENG 103: Reading Dynamics and Study Skills

This course enhances reading and study skills on an individualized and group basis. The course includes the following areas: reading comprehension, note taking, memory training, time management, outlining procedures, how to use the library, how to take essay and objective examinations, and how to study. Class: 3 hours per week. [H,L] (Fa,Sp,Su) 3 credits

#### ENG 106: ESL - Structure I

This is the beginning level of content-based grammar for the ESL student. Students will practice grammatical patterns as well as pronunciation, stress and intonation. Class: 4 hours per week. Note: ENG 106 may be taken concurrently with ENG 116, however permission of instructor is required. [H,L] (Fa,Sp) 4 credits

#### ENG 107: ESL - Structure II

This course is the intermediate level of content-based grammar for the ESL student. Students will practice grammatical patterns as well as pronunciation, stress and intonation. Class: 4 hours per week. Prerequisite: C or better in ENG 106 or appropriate placement test score or permission of instructor. ENG 107 may be taken concurrently with ENG 117, however permission of instructor is required. IH.L1 (Fa.Sp) 4 credits

# **ENG 111: College Reading and Writing**

This course is designed to introduce students to "the language of the academy"—that is, to the complex literacies of reading, writing, thinking, and speaking required of college students regardless of their area of specialization. ENG 111 also introduces students to the specific requirements and standards of academic writing, including essay format, voice, and organizational strategies. Class: 3 hours per week. Prerequisite: ENG 098 with a grade of "C" or better, or placement via assessment test. [H,L] (Fa,Sp,Su) 3 credits

#### ENG 112: Reading and Writing for Academic Research

This is a course designed to develop and refine the advanced skills in composition that are essential for both academic and professional writing. Emphasis will be on writing from data (outside sources). The main areas covered will be expository writing, argumentation and the research paper. Class: 3 hours per week. Prerequisite: ENG 111 with a grade of "C" or better. [H,L] (Fa,Sp) 3 credits

#### **ENG 114: Technical Writing**

This course focuses on the researching, writing, and editing of documents commonly found in the fields of science, technology, and business. Major topics covered include memo reports, instructions, proposals, progress reports, abstracts, document design, and documentation styles for technical reports. Class: 3 hours per week. Prerequisite: ENG 111 with a grade of "C" or better. [H,L] (Sp) 3 credits

#### **ENG 115: Critical Thinking**

This course is designed to help students sharpen their analytical skills and deal clearly and logically with information. The role of language and perception in the reasoning process will be explored. Reading, writing, research and discussion will cover a broad spectrum of controversial topics and open-ended problems. This class will help students, not only with other college courses, but with life! [H,L] (Sp) 3 credits

# ENG 116: ESL - Reading/Writing I

This is a beginning course of reading and writing in ESL. It also concentrates on proper spelling, punctuation and capitalization of written paragraphs. Class 4 hours per week. Prerequisite: C or better in ENG 106 or appropriate placement test score or permission of instructor. ENG 116 may be taken concurrently with ENG 106, however permission of instructor is required. [H,L] (Fa,Sp) 4 credits

#### ENG 117: ESL - Reading/Writing II

This is an intermediate course of reading and writing in ESL, emphasizing reading comprehension, inference and critical thinking strategies as well as more complex paragraph format and eventual essay development. Class: 4 hours per week. Prerequisite: C or better in ENG 107 or appropriate placement test score or permission of instructor. ENG 117 may be taken concurrently with ENG 107, however permission of instructor is required. [H,L] (Sp) 4 credits

#### ENG 118/ED 118: Children's Literature

(Fa,Sp) 3 credits. See Education.

### **ENG 120: Introduction to Literature**

This course is an introduction to the thematic and formal elements of literatures of diverse cultures, with an emphasis on fiction, poetry, drama, and the essay, with the aim of developing interpretive reading and writing skills. Class: 3 hours per week. Prerequisite: ENG 111 with a grade of "C" or better. [H,L] (Fa,Sp,Su) 3 credits

#### **ENG 140: Film and Literature**

This course explores what happens when classic (and not-so-classic) works of fiction and drama are brought to the screen. In studying specific literature-to-film adaptations, students examine the elements of both media (metaphor, narration, symbol, shot, sound, editing) and debate what differences, if any, exist between so-called serious art and entertainment. Class: 3 hours per week. Prerequisite: ENG 111 with a grade of "C" or better. [H,L] (Sp) 3 credits

#### ENG 202: British Literature II

A survey of representative figures and concerns in British literature from 1799 to the Modern Period. Class: 3 hours per week. Prerequisite: ENG 120 or permission of instructor. [H,L] (Fa) 3 credits

# ENG 203/BOT 203: Advanced Editing and Proofreading

[H,L] (Fa,Sp) 3 credits. See Business Office Technology.

### **ENG 220: Introduction to Contemporary Women Poets**

A seminar on the lives and work of women poets from 1950 to the present. Students will read, discuss, and analyze poems and explore how they reflect the life and times of the author. Students will keep a journal to record their understanding of the poems and to explore how the poems reflect their own experience. Class: 3 hours per week. Prerequisite: ENG 111 or permission of the instructor. [H,L] (Sp) 3 credits

# **ENG 221: Creative Writing: Fiction**

A workshop experience in which students write a polished story (or stories) and study the short stories of published writers and fellow students. Class: 3 hours per week. Prerequisite: ENG 111 or permission of the instructor. [H,L] (Fa) 3 credits

#### **ENG 222: Creative Writing: Poetry**

A workshop in which students write and polish poems and study the poems of published writers and fellow students. Class: 3 hours per week. Prerequisite: ENG 111 or permission of the instructor. [H,L] (Sp) 3 credits

#### **ENG 245: American Literature I**

An examination of writings from the era spanning the arrival of Columbus to the Civil War. Topics covered include Native American tales and oratories, slave folklore, and both the popular and "classic" works of writers from the Puritan period, the eighteenth century and the American Renaissance. Class: 3 hours per week. Prerequisite: ENG 120 or permission of the instructor. [H,L] (Fa) 3 credits

#### ENG 246: American Literature II

A study of major American writers from the late 19th century to the present day, with focus on their contributions to the rapid and unique changes in style, form

and content that mark the literary tradition of 20th century America. Class: 3 hours per week. Prerequisite: ENG 120 or permission of the instructor. [H,L] (Sp) 3 credits

#### ENG 251: Western World Literature I

This course introduces students to Western literature from the Greeks through the Renaissance, and (for purposes of comparison) to a variety of so-called "non-canonical" texts from writers who until very recently were not studied in college classrooms. Students will examine the poetic and narrative strategies of writers from a variety of classes and cultures. Class: 3 hours per week. Prerequisite: ENG 120 or permission of the instructor. [H,L] (Fa) 3 credits

#### **ENG 252: Western World Literature II**

This course is designed to introduce students to Western literature from the Age of Reason through the Modern Period, and (for purposes of comparison) to introduce students to a variety of so-called "non-canonical" texts from writers who until very recently were not studied in college classrooms. Students will examine the poetic and narrative strategies of writers from a variety of classes and cultures. Class: 3 hours per week. Prerequisite: ENG 120 or permission of the instructor. [H,L] (Sp) 3 credits

#### **ENG 271: Women in Literature**

A course designed to explore the nature, roles, relationships, and feelings of women as expressed by women writers in various literary genres (essays, short stories, personal reflections, poems, plays and novels). Students will read the works of women writers of the 17th, 18th, 19th and 20th centuries, who share their ideas and understanding of what it is to be human and, particularly, to be female. Class: 3 hours per week. Prerequisite: ENG 120 or permission of instructor. [H,L] (Fa) 3 credits

# **Environmental Science**

# **EVSC 100: Introduction to Environmental Science**

An introduction to the problems of physical resources management and aspects of ecological concern in our natural environment, with emphasis on our demand for energy, the consumption of our natural resources, resource pollution, and waste management. Alternate sources of energy are explored. Class: 3 hours per week. [L,N] ((Fa,Sp,Su) 3 credits

# **EVSC 110: Fundamentals of Solar Energy**

A study of the availability and use of solar energy as an alternate energy source. Consideration is given to both air and liquid systems with specific application to active and passive solar energy systems. Class: 3 hours per week. [L,N] (O) 3 credits

# **Finance**

# **FNCE 150: Investment Basics**

Introduction to the basics of money management: budgeting, saving, and investing. Students will develop an understanding of reconciling bank or brokerage statements, reading stock, bond, and mutual fund listings in <a href="The Wall Street Journal">The Wall Street Journal</a>, and learning what to look for in a mutual fund prospectus and an annuity contract. Students will also be introduced to various retirement programs (IRA, Keogh, 401k, 403b, etc.). [B] (Fa,Sp) 1 credit

#### **FNCE 210: Fundamentals of Personal Financial Planning**

A survey of the financial planning process, introduction to regulations affecting financial planners, construction of financial statements, analysis of client's current financial situation, overview of economic environment, presentation of time value of money concepts, and introduction to case analysis. Financial calculator required; HP 12-C recommended. [B] (Fa,Sp) 3 credits

#### **FNCE 220: Risk Management**

Principles of risk management; the insurance contract and concepts relating to life insurance, property and liability insurance, medical and disability insurance, and social insurance; case analysis evaluating insurance needs; and selecting appropriate risk management techniques are covered. Time value of money calculations using financial calculator. Prerequisite: FNCE 210 or permission of program coordinator. [B] (O) 3 credits

# **FNCE 230: Investment Management**

Principles of investment management, including the study of stocks, bonds, government securities, mutual funds, futures, options, and tangible assets for investment to construct and manage an investment portfolio with knowledge of risk and tax considerations are covered. Time value of money calculations using financial calculator. Prerequisite: ACCT 101 and FNCE 210, or permission of program coordinator. [B] (O) 3 credits

# **FNCE 240: Tax Planning and Management**

A study of the principles of tax planning and management, including the study of tax law, terminology and calculation; tax implications of selecting a particular form of business; tax-advantaged investments; tax planning techniques; intrafamily and charitable transfers; and tax traps. Prerequisite: FNCE 210, or permission of program coordinator. [B] (O) 3 credits

# **FNCE 241: Corporation Finance**

A study of the principles and techniques of financial management, covering money and capital markets, financial analysis, working capital management, long-term financing, time value of money, risk, leverage, and cost of capital. Prerequisite: ACCT 102. [B] (Fa,Sp) 3 credits

### **FNCE 250: Retirement Planning and Employee Benefits**

A survey of the key terms and concepts of retirement planning and analysis of employee benefit programs using time value of money calculations. Students will study both private corporate pension plans and government programs, including social security and Medicare, as well as qualified and nonqualified corporate programs. Prerequisite: FNCE 210 or permission of program coordinator. [B] (O) 3 credits

#### **FNCE 260: Estate Planning**

A survey of principles of estate planning, including discussion of descent and distribution, wills, intestacy, probate and administration, Probate Court, estate and gift tax returns, and fiduciary accounting. Prerequisite: FNCE 210 or permission of program coordinator. [B] (O) 3 credits

# FNCE 265: Personal Financial Planning Case Study and Analysis

A course covering case study and analysis and integration of the six major areas of personal financial planning. Upon completion of the course, students will be able to analyze a case and prepare an appropriate financial plan for a variety of clients. Prerequisites: FNCE 210, FNCE 220, FNCE 230, FNCE 260, ACCT 226 or permission of the program coordinator. [B] (O) 3 credits

#### **Fine Arts**

# FA 101: History of Art I

The history and appreciation of fine arts (painting, sculpture, architecture, etc.) from prehistoric through medieval eras. Outside reading and visits to galleries and museums are required. Class: 3 hours per week. [H,L] (Fa) 3 credits

# FA 102: History of Art II

The history and appreciation of fine arts (painting, sculpture, architecture, etc.) from the Renaissance through the 20th century. Outside reading and visits to galleries and museums are required. Class: 3 hours per week. [H,L] (Sp) 3 credits

#### FA 105: History of 20th Century Art

Visual art movements of the past 100 years from Impressionism and Cubism to today's art. Outside reading and visits to galleries and museums are required. Class: 3 hours per week. [H,L] (Fa,Sp) 3 credits

#### FA 106: Women in the Visual and Performing Arts

This course will address the cultural biases that have relegated women artists to the 'back burner' of mainstream cultural aesthetics. A historical survey of women's contributions to the visual and performing arts will augment, inquiry into philosophical questions such as: "Is there a 'Feminist' Aesthetic?" or "Who determines what is 'great' art?" Class: 3 hours per week. [H,L] (O) 3 credits

FINE ARTS STUDIO COURSES: Students enrolled in fine arts studio courses are responsible for buying any supplies required for satisfactory completion of the course. All studio courses are open to both beginning and advanced students. Advanced students may work on individual projects. Studio courses meet 6 hours per week.

#### FA 115: Introduction to Studio Art

A course covering the fundamentals of visual art through hands-on experience. The course includes basic design and composition, color theory, drawing and a thorough exploration of the creative process through the use of a wide variety of media and techniques including drawing, water media, collage and fiber. [H,L] (O) 3 credits

#### FA 121, FA 122, FA 223, FA 224: Drawing I/II

This course covers the basic elements, media and processes of drawing including composition and perspective. Extensive drawing from still-life, landscape and the live model will emphasize development of students' manual, perceptual and conceptual skills. Studio: 6 hours per week. [H,L] (Fa,Sp) 3 credits. May be taken up to four times as FA 121, 122, 223 and 224, all of which run concurrently.

# FA 125: Two Dimensional Design

The theory and practice of design principles: compositional problems, color and the interrelationships of space, planes and volumes are examined in two dimensional projects using a variety of media. Studio: 6 hours per week. [H,L] (Fa,Sp) 3 credits.

#### FA 126: Three Dimensional Design

Investigation of spatial design as a decision-making and problem-solving process bounded by criteria such as human sensory systems, basic structural systems and materials. Class activities will include studio assignments, demonstrations, lectures, slide presentations, museum visits and critiques. Studio problems will be worked on during and outside of class time. Studio: 6 hours per week. [H,L] (Fa,Sp) 3 credits

### FA 127, FA 128, FA 227, FA 228: Figure Drawing

This in-depth course is based in both anatomical and expressive approaches to human figure drawing. A variety of media will be explored, including color and wet media, along with instruction in composition, proportion and foreshortening principles. Students will work extensively from the live model. Studio: 6 hours per week. [H,L] (Fa,Sp) 3 credits. *May be taken up to four times as FA 127, 128, 227, 228, all of which run concurrently.* 

# FA 131, FA 132, FA 233, FA 234: Painting

A course in the technical and aesthetic fundamentals of painting, covering construction of a canvas, selection and use of materials, basic color theory, and realistic and expressive paint handling. Students will work in both traditional and experimental painting styles. Studio: 6 hours per week. [H,L] (Fa,Sp) 3 credits. May be taken up to four times as FA 131, 132, 233, 234, all of which run concurrently. Experience in drawing is strongly recommended.

#### FA 137, FA 138, FA 237, FA 238: Water Color

An introduction to the technical and aesthetic principles of painting with water media, primarily water color. This course will cover the selection and use of water media materials in a variety of styles and deal with varied subject matter from the still life to the landscape. Design elements and compositional problems are also included. Studio: 6 hours per week. [H,L] (Fa,Sp) 3 credits. *May be taken up to four times as FA 137, 138, 237, 238, all of which run concurrently. Experience in drawing is strongly recommended.* 

# FA 141, FA 142, FA 143, FA 144: Printmaking

A course in the materials, design and techniques of printmaking: monoprinting, intaglio, relief, planographic and serigraph. Studio: 6 hours per week. [H,L] (Fa) 3 credits. *May be taken up to four times (when offered) as FA 141, 142, 143 and 144, all of which run concurrently.* 

### FA 151, FA 152, FA 253, FA 254: Sculpture

A course in the principles, techniques, and materials of sculpture (metal fabrication/welding, casting, plaster, wood, etc.). Students will concentrate on controlling sculptural media and examining the fundamentals of three-dimensional design. Studio: 6 hours per week. [H,L] (Fa,Sp) 3 credits. *May be taken up to four times as FA 151, 152, 253, 254, all of which run concurrently.* 

#### FA 161, FA 162, FA 163, FA 164: Creative Crafts: Fiber Arts

A course in contemporary and traditional means of making art with fibers including weaving, soft sculpture, batik, tapestries, paper making and coiling. Studio: 6 hours per week. [H,L] (O) 3 credits. *May be taken up to four times as FA 161, 162, 163 and 164, all of which run concurrently.* 

#### FA 165, FA 166, FA 267, FA 268: Ceramics

Experimentation with, and development of, basic skills in a variety of hand-forming, wheel-throwing, firing and glazing techniques. The class focuses on processes involved in creating both utilitarian and sculptural works. Studio: 6 hours per week. [H,L] (Fa,Sp) 3 credits. *May be taken up to four times as FA 165, 166, 267 and 268, all of which run concurrently.* 

#### FA 171/COMM 171: Film Study and Appreciation

[H,L] (Fa,Sp,Su) 3 credits. See Communications.

#### FA 176/COMM 176: Video/Filmmaking

(Fa) 3 credits. See Communications.

### FA 201: Illustration I

A studio course designed to develop fundamental graphic rendering skills. The course explores a variety of materials and media through the creation of images. The emphasis is on the translation of concepts into visuals. (May be taken up to 4 times for credit.) [H,L] (Fa,Sp) 3 credits

#### FA 202, FA 203, FA 204: Illustration II, III, IV

These studio courses expand the skills and techniques of translating concepts into visual form that were learned in FA 201, with a greater emphasis on project development and professional presentation. [H,L] (Fa,Sp) 3 credits

#### FA 205: Graphic Design I

An introduction to communication design and basic studio skills with an emphasis on developing the ability to convert creative concepts into a visual medium. The course covers design layout, typography, the development of graphic identity, portfolio development and mechanical preparation. [H,L] (Fa,Sp) 3 credits. *May be taken up to four times for credit.* 

# FA 206, FA 207, FA 208: Graphic Design II, III, IV

Subsequent semesters of graphic design build on fundamentals covered in FA 205 but place a greater emphasis on professional design presentation through the development of more complex projects. [H,L] (Fa,Sp) 3 credits

#### FA 210: Computer Graphics I

An introduction to creating images using the Macintosh computer. Students will learn basic imaging skills through the use of several software programs. Previous drawing or design experience is helpful and no prior computer skills are required. [L] (Fa,Sp) 3 credits

### FA 211, FA 212, FA 213: Advanced Computer Graphics

This course is a continuation of computer imaging skills developed in FA 210 but with an emphasis on creating and executing design projects on the computer. The course includes instruction in advanced software such as Adobe Illustrator and Adobe Photoshop as well as such topics as image scanning, memory management and color outputting. Studio: 6 hours per week. (Advanced Computer Graphics may be taken up to three times for credit.) Prerequisite: FA 210 or permission of instructor. [L] (Fa,Sp) 3 credits

# FA 251/COMM 251, FA 252/COMM 252: Computer Animation

[L] (Fa,Sp) 3 credits. See Communications.

#### FA 270: Cooperative Education/Work Experience

This course provides students the opportunity to apply classroom theory in an actual work setting. Students may be placed in a variety of work settings as related to their programs of study including corporations, publishing/graphic design firms and newspapers. Prerequisite: 15 completed credit hours in Graphic Design. (Fa,Sp) 3 credits. Please refer to page 16 for more information and general prerequisites for Cooperative Education/Work Experience.

# **French**

#### FREN 101: Elementary French I

An introduction to spoken and written French and Francophone culture. Emphasis is on communication through development of skills in conversation, reading and writing based upon the principles of French grammar and pronunciation. No previous knowledge of French is required. Class: 4 hours per week. [H,L] (Fa) 4 credits

# FREN 102: Elementary French II

The second half of Elementary French. Practice in conversation, reading and writing, and the study of French grammar and culture as an aid to communication. Class: 4 hours per week. Prerequisite: FREN 101 or one year of high school French, or permission of instructor. [H,L] (Sp) 4 credits

#### FREN 108: Elementary French I and II

An intensive beginning French course in which FREN 101 and 102 are completed in one semester. This course is a study of written and spoken French and Francophone culture with emphasis on oral proficiency through audio and video tapes. Class: 8 hours per week. [H,L] (O) 8 credits

#### FREN 111: French Conversation

This course is designed for the student with no previous French experience who needs French vocabulary and grammar which is useful for the traveler. The emphasis will be on oral communication and comprehension. [H,L] (O) 3 credits

#### FREN 125: French Culture and Civilization

This course, taught in English, will acquaint the student with French customs and culture. In addition to an overview of French history, the course will present life in France today and will provide practical information for those intending to visit France. [H,L] (O) 3 credits

# FREN 130: France Today

This course is designed as a companion course to the academic travel program. It is open only to participants on the trip and is conducted as an independent study course before, during and after the trip. Credits: 1, 2, or 3 credit hours (the

number of credit hours earned depends on the nature of the trip, the final project, and the extent of participation). Corequisite: student must participate in an academic trip sponsored by MCC. [H,L] (O) 1, 2 or 3 credits

#### FREN 201: Intermediate French I

An intermediate level study of the principles of French grammar and basic vocabulary as a means of developing skills of conversation, reading and writing. The course includes the study of Francophone culture. Class: 4 hours per week. Prerequisites: FREN 101 and 102, 108, or two years of high school French, or permission of instructor. [H,L] (Fa) 4 credits

### FREN 202: Intermediate French II

This course is the second half of Intermediate French. The course will work to continue to develop skills in listening, speaking, reading and writing, including reading from selections on Francophone culture. Class: 4 hours per week. Prerequisites: FREN 101 and 102, or two years of high school French, or permission of instructor. [H,L] (Sp) 4 credits

#### FREN 251: Advanced French I

This course allows students to perfect their skills in French. Oral and written practice will be based on cultural and literary readings. Prerequisites: FREN 202, or three years of high school French or permission of instructor. [H,L] (O) 3 credits

#### FREN 252: Advanced French II

This course is the second half of Advanced French. Students will read, discuss and write about excerpts from literary masters of the French-speaking world. Prerequisite: FREN 251 or three years of high school French or permission of instructor. [H,L] (O) 3 credits

# Geography

#### GEOG 101: People and Land: Introduction to Geography

This course introduces some of the many topics geographers examine to explain the relationship between people and place. Topics include the physical earth, i.e. how mountains and lakes form, cultural patterns such as how languages in neighboring countries are related, population analysis, like human migration trends, and economic analysis including growth and decline of regions. Geographic factors that underlie current political, social and economic problems will also be explored. [L,S] (Fa,Sp,Su) 3 credits

#### **GEOG 111: World Regional Geography**

This course provides the student 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 regions such as South and Central America, Asia, Africa and the Middle East. This course provides a background for understanding world events. [L,S] (Fa,Sp,Su) 3 credits

### **GEOG 201: Urban Geography**

The history, nature and function of urban settlements are considered, with attention to geographic problems of urban areas. Introduction to practical problems, using census data, interpretation of aerial photographs, G.I.S. and map construction. Class: 3 hours per week. [L,S] (Sp) 3 credits

#### GEOG 202: A Geography of the United States and Canada

A regional study of the environmental, cultural, political and economic patterns that give character to the different parts of the U.S. and Canada. Historical and contemporary factors are considered to determine the place of this region in the modern world, with a focus on the changing role of the U.S. in the global marketplace. [L,S] (Sp) 3 credits

# GEOG 203: This Fragile Planet: Toward an Environmentally Responsible World

An introduction to the global environmental dilemma from the end of the 20th century perspective. Attention to natural and cultural environmental problems with stress on causes, remedial action, policy and politics. [L,S] (Fa) 3 credits

#### **GEOG 204: Geography and Tourism Development**

The course introduces students to tourism and the components that link geography and travel together. The tourism system model of demand, travel, destination, and marketing is discussed. This course also gives insight into tourism planning; impacts on the water, land, and air; travel geography; travel modes; accommodations; support industries; resorts; tourism regulation; consumer behavior; and trends. The comprehensive view outlined in the course brings to the forefront the immense proportions of world tourism. [L,S] (Sp) 3 credits

#### GEOG 205: Physical Geography and Human Activity

In order to understand the human physical environment, physical geography examines the atmosphere, lithosphere and hydrosphere — our life zone, the biosphere. This course will examine each of these earth layers and their connectivity in order to provide students with an understanding of the world around them. Class: 3 hours per week. [L,S] (O) 3 credits

### GEOG 246: Introduction to Geographic Information Systems (GIS)

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. We will develop handson experience through use of a micro-computer 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. Class: 3 hours per week. Prerequisite: GEOG 101 or 111. [L,S] (O) 3 credits

# Geology

# **GEOL 110: Introduction to Physical Geology**

An introduction to the principles governing the composition and structure of the Earth's crust, and the study of land forms and geological processes on and within the Earth's surface. Topics include rock-forming minerals, rocks, fossils, glaciers, earthquakes, volcanoes, plate tectonics and mountain building. Field trips will be required as a component of the laboratory. Class: 3 hours per week. Laboratory: 3 hours per week. [L,N] (Fa,Sp) 4 credits

# Gerontology

# **GERN 141: Dealing with Alzheimers'**

An introduction to the possible causes and ramifications of Alzheimers' disease. This course will emphasize the physical, psychological and sociological aspects of the disease for individuals, families and society. Class: 3 hours per week. (Su) 1 credit

#### GERN 142: Health, Nutrition and the Elderly

An introduction to the variety of health-related changes experienced by the elderly and the impact of those changes on health choices made by the elderly. The course emphasizes healthy options for individuals during the later stages of life. Class: 3 hours per week. (Fa) 1 credit

# **GERN 143: Legal Issues for Seniors**

The student will be introduced to an array of options related to retirement planning, power of attorney, trusts and wills. The student will be provided with information leading to the preparation of legal documents although no specific legal advice will be given. Additionally, students will learn about the process of probate. Class: 3 hours per week. (Su) 1 credit

#### **GERN 144: Aging and Mental Health**

Students will examine mental health, mental health issues, and mental health service delivery systems as they relate to the elderly population. Class: 3 hours per week. (Fa) 1 credit

#### **GERN 145: Work and Leisure Opportunities for the Elderly**

This course will examine the financial and emotional impact of retirement. Work and leisure opportunities for the elderly, discrimination against the older worker and adjustment to retirement will be explored. Class: 3 hours per week. (Sp) 1 credit

# **GERN 146: Caring for the Elderly at Home**

This course will consider the key social issues and current health care delivery systems that impact the aged population and their families. Emphasis will be placed on the advantages and disadvantages of home care for the elderly. Class: 3 hours per week. (Sp) 1 credit

### **GERN 161: Aging America: Issues and Dilemmas**

This course will introduce a multidisciplinary approach to the study of aging. Students will learn how to separate the facts from the stereotypes about aging and to examine basic sociological, psychological and physiological factors that affect the aging process. Class: 3 hours per week. [L,S] (Sp) 3 credits

# Health, Physical Education

The College offers instruction in many different kinds of athletic activities and an associate degree in Sport and Exercise Studies. Consult the class schedule for the list of health, and/or physical education courses offered each semester.

#### **HPE 120: Physiology of Fitness**

A survey of sport/exercise physiology and its application to sport performance and fitness. Emphasis will be placed on a study of physiological changes associated with training for various sports. (Sp) 3 credits

HPE 125: Beginning Tennis (Fa,Sp) 1 credit

HPE 126: Racquetball (O) 1 credit

HPE 127: Beginning Badminton (O) 1 credit

HPE 128: Volleyball (O) 1 credit
HPE 129: Basketball (O) 1 credit
HPE 130: Softball (Fa,Sp) 1 credit
HPE 131: Soccer (Fa,Sp) 1 credit
HPE 132: Bowling (Fa) 1 credit

HPE 133: Beginning Golf (Sp) 1 credit

HPE 138: Self Defense-Elementary Tae Kwon-Do (O) 1 credit HPE 139: Aerobics and Weight Training (Fa,Sp) 1 credit

# HPE 140: Introduction to Athletic Training (formerly Medical Aspects of

An introduction to the basic concepts and techniques in the prevention, diagnosis, treatment and rehabilitation of athletic injuries. Practical applications are examined as the basic concepts of training, conditioning, diet and nutritional needs are presented. Extensive experience in taping and on field care is an important aspect of the course. (Fa) 3 credits

### **HPE 141: Principles and Practices of Sport**

An introduction to the basic principles and practices required to deal with the arrangement, administration and organization of athletic programs. Emphasis is placed on planning athletic activities: legal responsibilities, historical perspectives of sport, ethics, philosophy, sport psychology, sport pedagogy, sport medicine

and physiology will be introduced. This course meets state certification requirements. Class: 3 hours per week. (Fa,Sp) 3 credits

#### **HPE 158: Adventure Based Dynamics**

This course is designed to provide students with the knowledge, skills, and ability to: increase mutual support within diverse groups; develop leadership skills; increase skills in cooperative learning; develop team building skills; improve agility and interactive skills through hands-on experiences. Students will participate in problem solving situations and exercises to assist in the development of these skills. (Fa,Sp) 1 credit

#### HPE 160: First Aid and Safety

This course provides the skill and knowledge needed in the immediate care of injured persons and seeks to create a safety consciousness for accident prevention. American Red Cross certificates are awarded to those who qualify. The prevention and care of basic athletic injuries are also studied. Class: 2 hours per week. (Fa,Sp) 2 credits

### **HPE 161: Physical Fitness and Exercise**

This course is designed to provide the background information concerning exercise prescription, development and follow through. Students will be trained in exercise testing, theory and ethics, and practical exercise programs for the beginning exerciser. They will receive a practical understanding of all aspects of fitness center operations from both a fitness specialist and management point of view. (Sp) 3 credits

#### **HPE 165: Professional Practicum**

This course is designed to allow qualifying students the opportunity to gain oncampus and/or off-campus teaching, coaching, supervision, or practical experience under the supervision of a program coordinator and in cooperation with a qualified professional when appropriate. The student will perform 40 hours of work for each semester hour of credit. This work will reflect the duties of the intern as outlined and agreed upon by the student and the program coordinator. (Fa,Sp) 1-3 credits

#### **HPE 201: Introduction to Physical Education**

An introduction to the professional aspects of physical education. Includes the history, philosophy and foundation of the role of physical education in society today. Topics in the course will involve the philosophical and scientific foundations of physical education and an examination of literature, scientific inquiry, exercise prescription, and career options available. 3 credits

# **HPE 202: Adapted Physical Education**

An introduction to the instructional adaptations necessary to meet the physical activity needs of students with disabilities. Individual assessments, educational planning, service delivery and advocacy for special needs, are content areas stressed in this course. It draws on the fields of adapted physical education, special education, psychology, medicine, occupational therapy, physical therapy, and therapeutic recreational service to provide a complete, comprehensive resource. 3 credits

# History

# HIST 101: Western Civilization Through the Reformation

An examination of major themes in the development of Western Civilization from the earliest historical beginnings. Topics include: Ancient Middle East, Greece and Rome, Medieval and Renaissance Europe. Class: 3 hours per week. [H,L,S] (Fa,Sp,Su) 3 credits

# HIST 102: Western Civilization Since the Reformation

A continuation of HIST 101, examining the history of Western Civilization from the Protestant Reformation to the Cold War. Class: 3 hours per week. [H,L,S] (Fa,Sp) 3 credits

#### HIST 121: World Civilization I

Beginning with an examination of the most ancient human societies, as revealed in the archaeological record, the course goes on to study the origin, development and spread of the major civilizations in the world, their contacts, interactions and cross-fertilization down to the point at which the civilization of Western Europe begins its world-wide expansion. Class: 3 hours per week. [H,L,S] (0) 3 credits

#### HIST 122: World Civilization II

This course studies the major trends and conflicts throughout the world after 1500 to the present, focusing on the impact of and reaction to the Western world through slavery, imperialism, the two world wars, and the Cold War. Class: 3 hours per week. [H,L,S] (Sp) 3 credits

#### HIST 201: United States History I

The course represents a social, political, and economic survey of America beginning before the arrival of Columbus and continuing to 1877 through an analysis of the transformation from Native American to Anglo-American society, from sectionalism to national unity, from westward expansion to urban development and an examination of the forces shaping American thinking and society. Other topics will feature race, ethnicity, women, and family issues. Class: 3 hours per week. [H,L,S] (Fa,Sp,Su) 3 credits

#### HIST 202: United States History II

The course represents a social, political, and economic survey of the United States from 1877 to the present through an analysis of the growth of transportation, industrialization, urbanization, technology, and imperialism and an analysis of their effects in shaping American thinking and society. The discussion will also feature women's suffrage, civil rights, and ethnic and minority issues. Class: 3 hours per week. [H,L,S] (Fa,Sp,Su) 3 credits

#### HIST 204: The City in American History

An examination of the impact of the city upon American life, centered around the transformation from the 17th century, pre-industrial town to the post-industrial 20th century city. Field trips are included. Class: 3 hours per week. Prerequisite: any one of the following: GEOG 101; HIST 201, 202 or 215; CJ 111; HS 101; SOC 101. [H,L,S] (O) 3 credits

#### **HIST 210: Colonial History**

A study of the 13 American colonies in the 17th and 18th centuries with emphasis on the Europeans and Africans who settled the colonies. Field trips will be included. Class: 3 hours per week. [H,L,S] (O) 3 credits

# HIST 215: America Since 1945

America's political, social, intellectual and diplomatic history, with emphasis on the period from 1945 to present. Topics include: the Cold War and Détente, the quest for social justice, the changing face of urban America, race relations, social and political upheavals. Class: 3 hours per week. [H,L,S] (O) 3 credits

#### HIST 220: Racial and Ethnic History of the United States

This course will examine immigration to this country from Europe, Africa, Asia and Latin America. It will explore whence we came and why, and how we adapted to life in the United States while retaining emotional attachments to our homelands. Field trips and slide lectures complement class discussions and readings. Class: 3 hours per week. [H,L,S] (O) 3 credits

#### HIST 222: Modern Ireland

Study focuses on the political, social, cultural and economic development of Ireland after 1600. Major themes discussed include: Ireland's relationship with Britain, the role of the Catholic Church, emigration, and the creation of the divided modern Irish state. Class: 3 hours per week. [H,L,S] (O) 3 credits

# HIST 224: Native American Peoples: A Survey of the History of American Indians

The course offers students a balanced perspective of Native American people from an ethnohistory point of view. By studying primary sources, including the voices of native people, formal historical texts and the popular press, the course will offer a new look at the complex story of the original residents of the North American territory that we now call the United States. Class: 3 hours per week. [L,S] (O) 3 credits

# HIST 230: African American History I

A study of the life of transplanted Africans and their descendents in the Americas with an emphasis on British North America and the United States before 1877. Students will explore a variety of issues such as the causes of the African slave trade, the impact of slavery on both whites and blacks, the African influence on American culture, the slaves' contribution to the growth of the American economy and industrialization, the rhetoric and reality of freedom and slavery, and the cause and legacy of the Civil War. Class: 3 hours per week [H,L,S] (O) 3 credits

#### HIST 242: Europe in the 20th Century

An introductory survey of the diplomatic, political, social and intellectual history of Europe from 1914 to present. Class: 3 hours per week. Prerequisite: 3 hours of college history. [H,L,S] (Sp) 3 credits

# HIST 251: History of Women in the U.S.A.

A study of American women from pre-contact period to the late 20th century. Special emphasis will be given to the effects of race, class and ethnic origins on the history of particular groups of American women. [H,L,S] (O) 3 credits

# HIST 261: From Village Green to Mill Town: The Transformation of American Life in the 19th Century

This course uses modernization theory to explain the changes in American life from the end of the War of 1812 to 1890. Particular emphasis will be placed on economic and technological developments, especially in industry and transportation. The increased authority and operations of the Federal Government will be considered. These changes will be viewed as the result of mostly conscious decisions to increase human control over the environment. Attention will be paid to the less anticipated effects of these changes on family and community life. [H,L,S] (O) 3 credits

# HIST 270: Far Eastern Civilization

The major political, social and intellectual developments in China and Japan from earliest times to the present. Class: 3 hours per week. [H,L,S] (O) 3 credits

#### HIST 280: Modern Africa

Modern Africa focuses on the history of the continent after 1500 through the study of African states and societies on the eve of European contact, the impact of the Trans-Atlantic slave trade, the Scramble for Africa, de-colonization and the creation of contemporary African states. Class: 3 hours per week. [H,L,S] (O) 3 credits

#### HIST 281: Modern China

The impact of Western encroachment on China in the 19th century, the attempts of China to deal with the West and with problems arising from contact with the West, the Revolution of 1911 and the period of Nationalist control, the conflict with Japan, the growth and victory of the Communist Party, and the internal changes wrought by the People's Republic of China since 1949 will be studied. Class: 3 hours per week. Prerequisite: 3 hours of college history. [H,L,S] (O) 3 credits

# **Hospitality Management**

### **HOSP 101: Basic Foods Preparation**

Introduces techniques and procedures required to prepare basic foods, with emphasis on use of equipment, identification of a standard quality product, and the importance of methods by which to develop sanitary working habits. Class: 1 hour per week. Laboratory: 3 1/2 hours per week. Prerequisite: eligibility for MATH 101 or MATH 098 taken concurrently. [B] (Fa,Sp) 3 credits

### **HOSP 102: Regional American Cuisine**

Full-course regional American menus are prepared in quantity. Students experience various responsibilities in the dining room and kitchen areas. Emphasis is on preparation or recipes, purchase orders, requisitions and income and expense summaries. Class: 1 hour per week. Laboratory: 5 hours and 30 minutes per week. Prerequisite: C- or better in HOSP 101. (Fa,Sp) 4 credits

# **HOSP 105: Cake Decorating**

The class introduces students to the fundamentals and necessary skills needed for commercial cake decorating. Class: 1 hour per week. Laboratory: 3 hours per week. [B] (Fa,Sp) 2 credits

#### **HOSP 106: Food Safety Certification**

The course will cover the basics of food safety. It will prepare students to sit for a nationally recognized food safety certification exam. This exam meets the mandatory food safety certification requirement for the state of Connecticut. Class: 1 hour per week. [B] (Fa,Sp) 1 credit

#### **HOSP 111: Introduction to the Hospitality Industry**

A survey course encompassing three major areas of the Hospitality Industry: the foodservice industry including restaurants, institutions, clubs, and schools; the hotel-motel industry, including travel and tourism; and hospitality management theories, styles, and laws. Career opportunities are emphasized in each area. [B] (Fa,Sp) 3 credits

#### **HOSP 112: Sanitation and Safety**

A study of sanitation and safety problems encountered in the foodservice industry, and controls and solutions to those problems. Moral, legal and economic aspects of food protection problems and solutions are discussed. The National Restaurant Association's Applied Foodservice Sanitation Certification Exam will be offered during this course. Prerequisite: eligibility for ENG 111. [B] (Fa,Sp) 3 credits

# **HOSP 115: Basic Baking and Pastry Arts**

An introduction to baking and pastry with intensive hands-on laboratory training in a quantity food environment. This course concentrates on the production and quality control of baked goods. Laboratory classes emphasize basic ingredients and production techniques for breads, rolls, batters, cookies, pies, basic cakes, and decorations. Class: 1 hour per week. Laboratory: 3 hours and 30 minutes per week. Prerequisite: eligibility for MATH 101 or MATH 098 taken concurrently. [B] (Fa,Sp) 3 credits

# **HOSP 120: Decorative Work and Display Pieces**

A laboratory course in the principles, techniques and materials of sculpture (ice, tallow, salt dough etc.) for buffet presentation and culinary salon artistic competitions and shows. The course includes theory and practice of artistic culinary design principles. [B] (Fa) 1 credit

#### **HOSP 171: Introduction to Casino Hotel Management**

Casino/gaming operations are structured and managed differently from other hotel operations. This course discusses the management structure of casinos; the rules and regulations that affect day-to-day operations; government restrictions; the clientele; pari-mutuel wagering; marketing strategies; Native American gambling establishments; legislation concerning the size and types of games permitted; international casino and gaming trends; and the legality of opening a facility. Casinos

are complex and unique entities; this course examines the keys to successful operations. [B] (O) 3 credits

# **HOSP 202: Introduction to Beverage Management**

A study of the history, manufacture and sale of wines, brewed beverages and distilled spirits. Special emphasis is given to responsible use of these products through Training for Intervention Procedures by Servers of Alcohol (TIPS), a nationally recognized certification program. Legal and social issues involving alcohol are also explained. [B] (Fa) 3 credits

#### **HOSP 203: Food Controls and Purchasing**

A theoretical and practical approach to the various aspects of food and beverage cost control and purchasing. Includes a computer application model for foodservice management programs based on the C-BORD Menu Development Software System. Prerequisites: C- or better in HOSP 101 and ACCT 101. [B] (Fa) 3 credits

# **HOSP 210: Buffet Catering and Garde Manger**

A lecture/production course with emphasis on organization in the catering of buffets, banquets, and receptions. Students experience artistic production and participate in community service projects. Summaries and evaluations are prepared at the conclusion of each session. Class: 1 hour per week. Laboratory: 5 1/2 hours per week. Prerequisite: C- or better in HOSP 102. [B] (Fa,Sp) 4 credits

#### **HOSP 212: Equipment, Design and Layout**

Simple drafting procedures are used to lay out basic floor plans and simple evaluations of project drawings. Students are taught to interpret architectural plans. The selection of equipment and the making of applicable scale templates are part of the term project in which each student designs his or her own operation. Prerequisite: C- or better in HOSP 102. [B] (Sp) 3 credits

#### **HOSP 214: Hospitality Human Resource Management**

A course in managing people, including recruiting, training, motivating and supervising. Forecasting, staff planning and payroll controls are included. Emphasis is on the supervisor from the standpoint of his or her effectiveness in motivation, communication and productivity. Prerequisite: C- or better in HOSP 111. [B] (Sp) 3 credits

# **HOSP 215: Advanced Baking and Pastry Arts**

This course focuses on the preparation of advanced pastries and classical desserts which include the preparation of petit fours, cake decoration and calligraphy, sugar and chocolate work, ice cream and show pieces. The course objectives also include the preparation of pralines, candies and speciality items. Laboratory classes are complemented with baking and pastry arts related studies that introduce management operations and procedures in the baking profession. Class: 1 hour per week. Laboratory: 3 1/2 hours per week. Prerequisite: C- or better in HOSP 115. [B] (Fa,Sp) 3 credits

# **HOSP 217: International Foods**

Full-course, ethnic menus are planned, prepared and served by student teams. Emphasis is on organization, showmanship and supervision. Students will provide both oral and written reports on the menu presentations including food and labor costs, product and production analysis, and menu presentation and delivery. Class: 1 hour per week. Laboratory: 5 1/2 hours per week. Prerequisite: C- or better in HOSP 102. [B] (Fa,Sp) 4 credits

# **HOSP 231: Consumer Research and Marketing**

A course to familiarize students with hospitality sales practices used in restaurants, hotels and clubs, from market analysis to actual sales activity. The course includes guest lectures, term projects, and voluntary membership in the Hotel Sales Management Association. Prerequisite: C- or better in HOSP 111. [B] (Fa) 3 credits

#### **HOSP 232: Convention Sales and Services**

This course offers a practical insight into the different types of conventions and meetings, the various types of organizations that stage such events, and the people they represent. Students are introduced to product and supplier specifications and selection. Different techniques and strategies used to target various markets are determined. This course also includes how to analyze a hotel property to determine which segments of the market may be sold to successfully and how to organize a staff to go after that business. [B] (O) 3 credits

# **HOSP 241: Hotel Management Procedures**

Management techniques used in all phases of hotel-motel management are studied, including front office procedures, housekeeping, public relations, food and beverage problems, and control procedures. [B] (Sp) 3 credits

### **HOSP 270: Cooperative Education/Work Experience**

This course provides students the opportunity to apply classroom theory in an actual work setting. Students may be placed in a variety of work settings as related to their program of study including corporations, institutions, restaurants, hotel and conference settings. Prerequisites: 12 completed credit hours in a Hospitality Careers program. (Fa,Sp,Su) 3 credits. *Please refer to page 16 for more information and general prerequisites for Cooperative Education/Work Experience.* 

# HOSP 295: Supporting People with Disabilities in the Hospitality Industry

This course is designed to provide foodservice students with the appropriate skills needed to train individuals with special needs in foodservice occupations. Emphasis is on teaching strategies, training techniques, understanding behavior management, task analysis, and work adjustments for learners with special needs as they relate to foodservice operations. Class: 1 hour per week. Laboratory: 5 hours per week. Prerequisite: C- or better in HOSP 102. [B] (Fa,Sp) 4 credits

# **Human Services**

### **HS 101: Introduction to Human Services**

Course includes history of the human service movement, introduction to current theory and knowledge related to human services, and survey of contemporary helping professions. Class: 3 hours per week. [S] (Fa) 3 credits

#### HS 105: Human Abuse: An Introduction to Issues in Child Abuse

This course will provide an overview of the impact of abuse on children including the warning signs that may signal abuse and the profiling of potential abusers. Class: 3 hours per week. [O] (Fa) 3 credits

#### HS 152: Work With Individuals and Families

An introduction to current knowledge and theory related to understanding basic human needs. Theory and classroom practice of the interactional skills needed in the helping professions: assessment, planning, contracting, interventions, interviewing and evaluation is studied. Self-awareness regarding personal values and professional ethics is developed. Class: 3 hours per week. Prerequisite: HS 101 or 6 credits in psychology. (Sp) 3 credits

# **HS 201: Work with Groups**

Current group theory, knowledge, methods and skills are covered that lead to beginning competence in helping people behaviorally change through group experience. Class: 3 hours per week. Prerequisites: HS 101 or employment in a human service position. (Fa,Sp) 3 credits

#### HS 252: Work with Agencies and Communities

An introduction to the study of human service organizations. The skills, methods, and functions of human service providers are explored, developed, analyzed, presented and integrated into the overall learning experience of the students.

Through the utilization of group process, students will develop and present a grant proposal. Class: 3 hours per week. Prerequisites: HS 101, 152, 201 and 291. (Sp) 3 credits

#### HS 291: Human Services Field Experience I

120 hours of supervised field work in a cooperating human service agency. Attendance is required at weekly pro-seminar meetings. Prerequisites: HS 101, HS 152 and permission of coordinator. HS 290 for disabilities specialist students. (Fa) 3 credits

#### HS 292: Human Services Field Experience II

120 hours of supervised field work in a cooperating human service agency. Attendance is required at weekly pro-seminar meetings. Prerequisites: HS 101, HS 152, HS 201, HS 291 and permission of coordinator. HS 290 for disabilities specialist students. (Sp) 3 credits

# **Humanities**

#### **HUMN 101: Introduction to the Humanities**

An interdisciplinary course that examines the interplay of the humanities and society from a multicultural perspective. Emphasis is on the interactions of the arts (literature, music, painting, theatre) with the personal and social issues of one's culture and of other cultures. Class: 3 hours per week. Prerequisite: ENG 111 or permission of instructor. [H,L] (Fa,Sp) 3 credits

# **HUMN 110: Performance Skills**

Personal growth course in effective communication skills in the performing arts and job-related presentations. Students will learn to focus energy to overcome performance anxiety and project more ease in professional, business and social situations. Fees for performance skills lessons are in addition to regular tuition and are arranged between student and teacher. Class: 3 hours per week. Prerequisite: permission of instructor. [H,L] (O) 3 credits

# **HUMN 201: Harlem Renaissance**

Students will explore and experience the incredible surge of creative activity in literature, music, the visual and performing arts by African Americans in the 1920s. Class: 3 hours per week. Prerequisite: ENG 111 or permission of the instructor. [H,L] (O) 3 credits

# Japanese

# JPNS 101: Elementary Japanese I

An introduction to spoken and written Japanese language and culture. Emphasis is on communication through development of skills in conversation, reading, and writing (*Hiragana*) based on the principles of Japanese grammar and pronunciation. No previous knowledge of Japanese is required. Class: 3 hours per week. Laboratory: 1 hour per week. [H,L] (Fa) 3 credits

### JPNS 102: Elementary Japanese II

This course is the second half of Elementary Japanese. Practice in conversation, reading, and writing *Hiragana* and *Katakana* with the study of Japanese grammar and pronunciation as tools for communication. Class 3 hours per week. Laboratory: 1 hour per week. Prerequisite: JPNS 101. [H,L] (Sp) 3 credits

# JPNS 201: Intermediate Japanese I

A third semester course in spoken and written Japanese and the culture of Japan. Emphasis on communication through development of skills in conversation, reading, and writing based on the principles of Japanese grammar and pronunciation. Class: 3 hours per week. Laboratory: 1 hour per week. Prerequisites: JPNS 101 and 102, or two years of high school Japanese, or permission of the instructor. [H,L] (Fa) 3 credits

#### JPNS 202: Intermediate Japanese II

A fourth semester study of spoken and written Japanese and the culture of Japan. Continued instruction in communication through development of skills in conversation, reading, and writing based on the principles of Japanese grammar and pronunciation at the intermediate level. Class: 3 hours per week. Laboratory: 1 hour per week. Prerequisite: JPNS 201, or three years of high school Japanese, or permission of the instructor. [H,L] (Sp) 3 credits

# Legal

All paralegal courses require students to be eligible for ENG 111, or permission of instructor, as a prerequisite for enrollment.

#### LEGL 109: Introduction to Paralegalism

Introduces students to the role of the paralegal in the legal system and the work place. Students will learn about the U.S. legal system and its origins and functions. An overview of the litigation process and legal research is included. Students will become familiar with sources of legal authority, legal analysis, and writing. [B] (Fa,Sp) 3 credits.

### LEGL 110: Legal Ethics and Professional Responsibility

Introduces students to the paralegal profession and the basic ethical principles which regulate those working in law, placing special emphasis on how the rules affect paralegals. Regulation of attorneys and unauthorized practice of law is discussed with reference to permitted paralegal tasks. Critical issues such as conflicts of interest, confidentiality, competence, and financial matters are emphasized. Students will become familiar with the law affecting lawyers and legal assistants, including the American Bar Association Rules of Professional Conduct, and guidelines and codes adopted by bar and paralegal professional organizations. [B] (Fa,Sp) 1 credit

# LEGL 112: Legal Research

Provides an understanding of the basic tools of legal research. Students will become familiar with the use of the law library, examining primary and secondary authorities and law-finding tools. Research procedural methods are advanced through case examples and problem-solving techniques. Research findings are reported in legal memoranda. An off-campus law library must be used. Prerequisite: LEGL 109 Introduction to Paralegalism. [B] (Fa,Sp) 3 credits

#### **LEGL 120: Legal Writing**

This course introduces the paralegal student to a variety of writing tasks, including drafting of correspondence, documents, pleadings, memoranda and appellate briefs. Communication skills will be improved through exercises to develop direct, clear and concise writing. Emphasis is given to analysis of relevant authority and constructing arguments. Use of formbooks and sample documents will be included. [B] (O) 3 credits

#### **LEGL 205: Administrative Law**

Presents a basic understanding of legal concepts affecting public administrative agencies, including the way in which administrative agencies fit into the United States system of government, delegation of authority and separation of powers, the types and organization of administrative agencies, sources of administrative law, rule making, legislative oversight, agency actions, controls on agencies, appeals, adjudications, judicial review, and legal ethics. Specific areas of agency action are explored, which include environmental law, Social Security, civil rights, immigration law, and Workers' Compensation. [B] (O) 3 credits

#### **LEGL 207: Real Estate Transactions**

Examines basic principles of real property law, with an emphasis on the role of paralegals in residential real estate transactions. Areas studied include acquisition of real property and fixtures, surveys and legal descriptions, co-ownership, easements and other encumbrances, marketable record title and title insurance,

brokers and sales contracts, mortgage financing, and closing procedures. Students gain practical experience through document preparation, and familiarity with land records through assignments. Ethical issues related to this practice area are discussed. [B] (Fa,Sp) 3 credits.

#### **LEGL 211: Business Organizations**

Provides an introduction to and understanding of the basic principles of law that apply to the formation of different business organizations—sole proprietorship, general partnership, limited partnership, LLC, LLP, and corporation—for the paralegal. Students will be taught legal concepts regarding the scope and skills needed in the formation and operation of these business forms. Familiarity with legislation, legal terminology, legal ethics, and legal requirements will be stressed. Practical applications and drafting of necessary documents and forms will be included. [B] (Fa,Sp) 3 credits.

### LEGL 212: Introduction to Bankruptcy Law & Practice

Provides an introduction to and understanding of basic bankruptcy practice and procedure for the paralegal. Students are taught the basic legal concepts, legal ethics, and skills which are needed in a bankruptcy practice. Familiarity with the federal bankruptcy courts, the role of the trustee, and the fundamental goals, procedures, documents and forms of Chapters 7, 11, and 13 of the United States Bankruptcy Code will be stressed. Students will be introduced to both federal and state legislation impacting bankruptcy. Practical applications and drafting of necessary documents and forms will be included. Prerequisites: LEGL 211 or BUS 102. [B] (O) 3 credits.

# LEGL 214: Computer-Assisted Legal Research

Provides an understanding of the components of computer-assisted legal research systems. Students will become familiar with pertinent computer hardware and software, and the language used in search instructions; planning a computer search; and executing a search on programs such as Law Office Information Systems, Westlaw and Lexis-Nexis. Hands-on assignments will develop research skills in using computers to find, read and update the law. Management of research session records and incorporation of nonlegal databases will be discussed. Internet research, including both unrestricted and password restricted sites will be conducted. Students should plan to spend one to two hours per week in the MCC Library using its legal databases. Prerequisite: LEGL 112, or B or better in LEGL 109. [B] (O) 3 credits.

#### **LEGL 215: Environmental Law**

Provides an introduction to and a basic understanding of environmental law for the paralegal. Students will be taught basic concepts regarding both national and state environmental laws. Familiarity with legislation, legal terminology and legal requirements in the area of environmental law will be stressed. Practical application will be presented. [B] (O) 3 credits.

#### **LEGL 221: Litigation**

Provides the student with a basic understanding of the civil litigation process as preparation for employment as a paralegal. The course surveys and reviews the civil litigation process in state and federal courts, including the form and content of documents used in instituting or defending civil lawsuits. Students will be taught legal concepts and skills necessary to work as a litigation paralegal. Emphasis is given to court and office procedures before, during, and after trial, including causes of action and remedies, lawyer and client relationships and ethics, discovery, pleadings, organization of evidence, juries and verdicts; structure of a civil trial; post-trial motions; judgments; appeals, settlements, releases, and dismissals; and arbitration and medication. [B] (Fa,Sp) 3 credits

# **LEGL 222: Family Law**

Provides an introduction to and basic understanding of family law and practice for the paralegal. Students will be taught legal concepts regarding the scope and skills needed in a family law practice. Familiarity with legislation, legal

terminology, and legal requirements in the area of family law will be stressed. Topics covered will include family law research, ethics, interaction with the client, premarital agreements, ceremonial and common law marriages, annulment, separation, dissolution of marriage, child custody, child support, tax consequences, legal rights of women and men, legal status of children, adoption, and surrogacy. Practical applications and drafting of documents will be included. [B] (O) 3 credits

#### **LEGL 225: Trial Techniques**

Provides in-depth involvement, academically as well as practically, in various aspects of courtroom experience. The rules of evidence are examined through the study of various legal problems. Ability to organize facts and legal issues and to develop logical legal arguments is emphasized. Concentration is given to proper courtroom demeanor and advocacy skills. An American Mock Trial Association case problem is used in this course. Students learn to analyze the given facts and legal issues within the problem and develop logical legal arguments. Students learn to identify what additional information is necessary to understand and present the case and how to find it. [B] (Fa) 3 credits

#### **LEGL 226: Mock Trial Practicum**

Provides in-depth involvement in various aspects of the courtroom experience. Selected students become role players in a national competition involving a mock scenario. Students are supplied a complex legal problem. Fact analysis and development of logical legal arguments are undertaken, and students prepare and present both sides of a case, competing against other colleges in the American Mock Trial Association Tournament. Students prepare demonstrative and illustrative evidence for the trial. Students develop legal analytical and communication skills in the academic as well as practical aspects of courtroom procedure which will help them assist an attorney before and during trial. Prerequisite: Students must try out during the previous semester and be selected for the American Mock Trial Association team. Not available to students with a baccalaureate degree who are seeking or have earned a professional or graduate degree. [B] (Sp) 3 credits.

### LEGL 231: Wills, Trusts, and Estate Administration

Provides a basic understanding of the fundamental principles of law and legal terminology relating to the control and disposition of property before and after death, the probate court system and the probate process. Students will be taught basic concepts concerning wills, trusts, probate administration, estate and gift taxation, and fiduciary accounting. Responsibilities, ethical considerations, and duties of the paralegal in the handling of an estate will be stressed. Students will gain practical experience through exposure to document preparation, file management, and preparation of forms for estate administration. [B] (Fa,Sp) 3 credits

#### LEGL 270: Cooperative Education/Work Experience

Provides students with the opportunity to apply classroom theory in an actual work setting. Students may be placed in a variety of work settings related to the program of study, including private law firms, corporate legal departments, government or other settings in which practical experience may be gained. In addition to site placement (150 hours for unpaid internships; 300 hours for paid placement), students attend seminars focusing on job-related interpersonal skills, such as values and preferences, time and stress management, communication skills, conflict management, corporate culture, new employee orientation, performance evaluations, business ethics, leadership, and career advancement. Job search strategies are discussed and practiced. Prerequisites: 12 completed credit hours in the Paralegal program and permission of instructor. Students work with the Cooperative Education Director during the semester before enrollment to secure an appropriate site placement. [B] (Fa,Sp,Su) 3 credits. Please refer to page 16 for more information and general prerequisites for Cooperative Education/Work Experience.

# Manufacturing

# CAD 101: Computer-Aided Design I (AutoCAD)

An introduction to the techniques of generating graphic images with computers. Topics include: overview of CAD technology, computer technology, hardware descriptions and requirements, file manipulation and management, two- and three-dimensional geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail and assembly drawing including tolerance studies. Class: 3 hours per week. (Fa,Sp) 3 credits

#### CAD 102: Computer-Aided Design II (AutoCAD)

A continuation course in industrial drafting concepts using a CAD system, specifically oriented towards the design of machine tool tooling, fixtures and gages. Class: 3 hours per week. Prerequisite: CAD 101. (Fa,Sp) 3 credits

# CAD 103: Computer-Aided Design I (CADKEY)

An introduction to the techniques of generating graphic images with computers. Topics include: overview of CAD technology, computer technology, hardware descriptions and requirements, file manipulation and management, two and three-dimensional geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail and assembly drawing including tolerance studies. Class: 3 hours per week. (Fa,Sp) 3 credits

### CAD 105: Parametric Design-Pro/ENGINEER

An introduction to parametric design utilizing the Pro/ENGINEER software technology. A continuation of solid modeling concepts. Class: 3 hours per week. Prerequisite: CAD 102. 3 credits

# **CAM 101: Computer-Aided Manufacturing**

An introductory course in the utilization of computer technology for the planning, implementation and control manufacturing processes. The process of manual and automated preparation of computer-aided manufacturing systems programs and equipment are studied in preparation for implementing these techniques in a computer-integrated manufacturing environment. This will be accomplished through numerical control programming (CNC) and CAD/CAM interface. Class: 3 hours per week. Prerequisites: MFG 111, CAD 101. (Fa) 3 credits

# MFG 111: Manufacturing Materials and Processes I

An introduction to the basic principles on which manufacturing processes are based, and to the basic materials produced by or used in these processes. Topics include: the basic processes in manufacturing metals, testing or engineering materials; ferrous and non-ferrous metals and alloys; fundamental metal-casting, molding and heat treating processes; non-metallic materials; metal cutting, forming, welding and joining; metal machining processes; and quality control measurement and inspection. Class: 3 hours per week. Prerequisite: MATH 115 (may be taken concurrently). (Fa) 3 credits

#### MFG 112: Manufacturing Materials and Processes II

A continuation of MFG 111 - Manufacturing Materials and Processes I - with emphasis on metal machining and fabrication technologies, numerical control machining, tooling and fixture design and manufacture, and advanced metals machining technologies and concepts. Class 3 hours per week. Prerequisite: MFG 111. (Sp) 3 credits

### MFG 113: Production Control

A basic course in the planning and scheduling of manufacturing production activities. Class 3 hours per week. (Fa) 3 credits

# MFG 114: Plant Layout

A course in plant layout as practiced in modern industry. Analysis is made of the procedures used in placing equipment, organizing efficient machine-operator patterns and servicing of machines. Time is devoted to practical work on actual layout problems, including integrated production lines, using tools such as layout templates, three-dimensional models, man-machine charts and process flow charts.

The relationship of work standards, methods and layout inspection, production control and maintenance is also discussed. Class: 3 hours per week. Prerequisite: MFG 111. (Fa) 3 credits

#### MFG 115: Fundamentals of Tool Design

A basic course in the fundamentals, principles, practices, tools, theories and commercial standards of single point, jig, fixture and die design. Included is theory in the design of metal cutting tools and individual products and design work. Class: 3 hours per week. Laboratory: 2 hours per week. Prerequisites: MFG 112, MATH 116, CAD 101. (Fa) 4 credits

#### MFG 116: Hydraulics I

An introduction to the basic principles involved in machine tool hydraulic systems. Topics include: the study of the transmission, application and control of oil fluid power, the basic components used in hydraulic component arrangement in various fluid circuit design. Class: 3 hours per week. Prerequisites: ENGR 121, MATH 116. (Fa) 3 credits

### MFG 117: Hydraulics II

A continuation of MFG 116 - Hydraulics. Topics include: the selection, installation, maintenance and trouble shooting of fluid power components and systems used in machine tools, including electrohydraulic servosystems. Class: 3 hours per week. Prerequisite: MFG 116. (Sp) 3 credits

#### MFG 118: Vacuum Systems and Pneumatics

An introduction to the pneumatic and vacuum systems used in machine tools and machining centers. Topics covered include the proper selection, installation, maintenance and trouble shooting of pneumatic and vacuum systems used in machine tools. Class: 3 hours per week. Prerequisites: ENGR 121, MATH 116. (Sp) 3 credits

#### MFG 119: Productivity Improvement

This course deals scientifically with analytical and creative problems affecting time management. Topics include: the principles of methods, design and work measurement; motion study techniques and the establishment of time standards. Applications to product design, machine and tool design, process planning, production scheduling, plant layout, budgeting, sales prices, manpower requirements, wage incentives and methods of improvements are studied. Class: 3 hours per week. Prerequisites: MFG 111, MFG 113, MFG 114. (Sp) 3 credits

# **Mathematics**

# MATH 098: Mathematical Modeling I: Number Sense & Geometry

This course is designed to enhance the student's mathematical literacy so that he/she will be prepared to deal effectively with a variety of practical problems. Topics include: interpretation and analysis of charts and graphs; geometry and measurements; estimation and reasonableness of answers, applications using ratios, proportions, percents and decimals; properties of the whole, integer, and rational numbers and operations on the real numbers; and solutions of equations. A review of the operations and fundamental concepts of arithmetic and geometry will be imbedded in and connected to real world problem situations. A TI-83 graphing calculator is required. Class: 3 hours per week. Prerequisites: placement by mathematics assessment test and eligibility for ENG 098. (Fa,Sp,Su) no credit

# MATH 100: Number Sense, Geometry and Algebraic Concepts

This innovative course satisfies the requirements for both MATH 098 and MATH 101 in a single semester. The course will provide the student with enhanced mathematical literacy in arithmetic, geometric, and algebraic concepts while strengthening and building problem solving and reasoning skills. Topics include: interpretation and analysis of charts and graphs; geometry and measurements; estimation strategies; ratio and proportion; percents and decimal numbers; properties of the whole numbers, integers, rationals and reals; operations of the

real numbers; use of variables, equations and graphs to interpret problems in symbolic form; properties and theorems of the real number systems to solve linear, quadratic, rational, and literal equations; linear systems; and integer exponents. Practical problem applications and graphing calculators will be fully integrated into the course. A TI-83 graphing calculator is required for the course. Prerequisites: placement by mathematics assessment test, and eligibility for ENG 098. (It is recommended that students consult with either the Mathematics Department or their advisor.) (Fa,Sp) 3 credits

# MATH 101: Mathematical Modeling II: Algebraic Concepts

A first course in mathematical modeling using variables, equations, and graphs designed to develop students' ability to encode and interpret practical quantitative problems in symbolic form. The course includes all of the basic properties and theorems of the real number system that are required to solve linear, quadratic and selected rational equations. Linear systems, basic graphing, integer exponents and selected literal equations are included. Elementary geometric concepts are used throughout. A TI-83 graphing calculator is required and fully integrated into the course. Class: 3 hours per week. Prerequisites: eligibility for ENG 111, and Bor better in MATH 098 or placement by mathematics assessment test. *No credit if already completed a higher numbered math, except MATH 110.* (Fa,Sp,Su) 3 credits

### MATH 102: Mathematical Modeling III: Advanced Algebraic Concepts

A second course in mathematical modeling whose main themes are functions, represented by table, graph and rule, and problem solving. Polynomial functions with special attention to linear, quadratic and power functions; rational with attention to the reciprocal function; square root, absolute value, piecewise and exponential functions are studied. A TI-83 graphing calculator is required and used throughout. Class: 3 hours per week. Prerequisites: C or better in MATH 100 or MATH 101, or placement by mathematics assessment test. C or better in ENG 111 (recommended) or concurrent registration in ENG 111 (acceptable). No credit if already completed MATH 120 or any higher numbered math course. [N] (Fa,Sp,Su) 3 credits

# MATH 105: Trigonometry

A brief review of sets, relations, functions, and inverses. Topics include trigonometry of the right triangle, solutions of triangles, the trigonometric functions, the circular functions, identities, solving trigonometric equations, graphs, inverse trigonometric functions, polar coordinates and vectors. Emphasis is on an analytic approach. Class: 2-3\* hours per week. Prerequisite: MATH 102 or placement by mathematics assessment test. Recommended: MATH 109 or high school geometry. \*The 3-credit MATH 105, required for all students enrolled in the technology Pathways Program, includes a 1 hour per week laboratory including introduction to scalars and vectors, geometric and algebraic methods of vector addition in a plane and IBM PC laboratory problems to enhance the lecture part of the course. [L,N] (O) 2-3 credits

# MATH 106: Elements of Modern Mathematics

An introduction to contemporary mathematics for students of science, social science and the liberal arts. Topics may include: sets and deductive reasoning, inductive reasoning, logic, counting techniques, social choice and decision making, management science and the nature of geometry—growth and symmetry. Applications are considered throughout. A TI-83 calculator is required. Class: 3 hours per week. Prerequisites: C or better in MATH 102 or placement by mathematics assessment test, and C or better in ENG 111. [L,N] (Fa,Sp) 3 credits

# **MATH 108: Elementary Statistics**

An introduction to statistical theory and its applications. The use of statistics as a decision-making tool will be discussed. Topics include: data collection, organization and summarization, measures of central tendency and variation, counting techniques, introductory probability theory, discrete and continuous probability

models, normal distribution theory, sampling distributions, confidence interval estimation and hypothesis testing in the one sample case. A group project which will include the design of a survey, collection, analysis of data and presentation of the results is required. A statistical calculator is required and will be used throughout. Class: 3 hours per week. Prerequisite: MATH 101 or placement by mathematics assessment test or MATH 110. The department recommends a C or better in the prerequisite course. A student cannot receive credit for MATH 108 if credit has already been received for MATH 111. Students planning to transfer to a four-year institution with a freshman statistics 4 credit requirement should take MATH 111 instead of MATH 108. [L,N] (O) 3 credits

# MATH 109: Geometry

A foundation course in Euclidean geometry using an axiomatic approach recommended especially for physical science and engineering majors who have not had a formal geometry course. Topics include: inductive and deductive reasoning; logic; polygons; parallelism; congruence; similarity; coordinate geometry; direct, indirect and coordinate proof; three-dimensional space; and a brief introduction to non-Euclidean geometries. As appropriate, computer software is used to encourage exploration and formulation of hypothesis. Class: 3 hours per week. Prerequisites: C or better in ENG 111 (recommended) or concurrent registration in ENG 111 (acceptable) and C or better in MATH 102 or B+ or better in MATH 100 or MATH 101 or placement by mathematics assessment test. MATH 150 concurrently is strongly recommended. [L,N] (Fa,Sp) 3 credits

#### MATH 110: Quantitative Literacy

Selected topics in mathematics chosen to satisfy the General Studies program requirement in mathematics. A course designed to demonstrate the fundamental nature of mathematics and its applications in modern life through a non-algebraic introduction to the concepts of statistics. Topics include random sampling, design of surveys and experiments, information from samples, confidence intervals, elementary probability, examining numbers and data critically, graphing and data analysis, written discussion of numerical analysis, and simulation. A TI-30 XIIs or TI-83 calculator is required. Applications considered throughout. Prerequisites: C or better in MATH 098 or placement by mathematics assessment test and C or better in ENG 098. [L,N] (Fa,Sp) 3 credits

# MATH 111: Elementary Statistics with Computer Applications

An introduction to statistical theory and its applications. The use of statistics as a decision-making tool will be discussed. Topics include: data collection, organization and summarization, measures of central tendency and variation, counting techniques, introductory probability theory, discrete and continuous probability models, normal distribution theory, sampling distributions, confidence interval estimation and one sample hypothesis testing. A group project which will include the design of a survey, collection analysis of data and a presentation of the results is required. A statistical calculator is required and will be used throughout. Applications of statistical techniques in a variety of disciplines will use the Minitab Statistical Software Package. Class: 4 hours per week. Prerequisites: C or better in MATH 102, or C or better in both MATH 101 and MATH 110, or C or better in MATH 100 and MATH 110, C or better in ENG 111. A student cannot receive credit for MATH 111 if he/she has already received credit for MATH 108. [L,N] (Fa,Sp,Su) 4 credits

### MATH 113: Structure of Mathematics I: Number Systems

A course designed for students planning to be certified in Early Childhood Education, Elementary or Middle School Level Education (grades 4-8). A study of the real number system that stresses conceptual understanding of the basic operations and their applications. Topics include an examination of whole numbers, integers, and 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. Problem-solving strategies will be developed and integrated throughout. In order to develop and illustrate concepts, manipulatives and technology will be used where appropriate. A Texas Instruments "Math Explorer"

is required, or, for those planning to teach middle school, a TI-80. Prerequisites: Grade of C or better in MATH 102 or placement by mathematics assessment test, and C or better in ENG 111. [L,N] (F,S) 3 credits

#### MATH 115: Technical Mathematics I

A first course in technical mathematics with an emphasis on the application of algebraic and geometric techniques and principles to the solution of problems in industrial technology. The course is designed to develop and enhance the students' mathematical skills through presentation of relevant technical situations, and an integrated development of graphic, algebraic and geometric models and solution methods. A TI-83 or TI-86 graphing calculator is required and is used throughout. Prerequisite: placement by mathematics assessment test or a grade of C or better in MATH 102 and C or better in ENG 111. (Fa) 3 credits

#### MATH 116: Technical Mathematics II

A second course in technical mathematics with an emphasis on the application of trigonometry and algebraic techniques and principles to the solution of problems in industrial technology. The course is designed to develop and enhance the students' mathematical skills through presentation of relevant technical situations, and an integrated development of graphic, algebraic and trigonometric models and solution methods. A TI-83 or TI-86 graphing calculator is required and used throughout. Prerequisites: C or better in MATH 115, or placement by mathematics assessment test. Recommended MATH 109 or high school geometry. (Sp) 3 credits

#### MATH 120: Topics in Modern Mathematics I: Functions, Graphs, Matrices

A course in selected topics from contemporary mathematics with applications for students in business, economics, and social science. Topics include: the concepts of function and rate of change, a review of algebraic and graphical aspects of polynomial functions, a study of exponential and logarithmic functions, mathematical modeling, and operations on systems of linear equations including matrix operations. A TI- 83 graphing calculator is required and used throughout the course. Class: 3 hours per week. Prerequisite: C or better in MATH 102 or placement by mathematics assessment test, and C or better in ENG 111. [L,N] (Fa) 3 credits

#### MATH 121: Topics in Modern Mathematics II: Applied Calculus

A course in selected topics from calculus with applications in business, economics, and social science. Students will learn the fundamental concepts of calculus and how to apply them to real-life problems. A major goal is to develop conceptual understanding (rather than algebraic manipulation) through the use of graphing calculators and through the consideration of graphical, numerical and algebraic perspectives. The major conceptual focus is on rates of change and their interpretations within a problem context. The definition of the integral, the Fundamental Theorem of Calculus, some selected applications of integration and some integration techniques are included. A TI-83 graphing calculator is required and used throughout. Class: 3 hours per week. Prerequisite: C or better in both MATH 120 and ENG 111. [L,N] (Sp) 3 credits

# MATH 130: Applied Calculus

A survey of the major concepts of calculus with emphasis placed on applications in the managerial and the social sciences. Topics include a brief review of functions and graphing, the concepts of limit, derivatives, and the fundamental theorem of calculus. Class: 3 hours per week. Prerequisite: MATH 102 or placement by mathematics assessment test. [L,N] (0) 3 credits

# MATH 135: Elementary Mathematical Models—A College Algebra Course with a Liberal Arts Perspective

A course designed to convey a sense of the utility, power, and method of mathematics through genuine and understandable applications. Linear, quadratic, polynomial, exponential and logistic functions will be the major focus as these are

most commonly encountered in other disciplines. Time permitting, rational and logarithmic functions will also receive attention. Each model will be introduced with an application that is first analyzed using difference equations, followed by the algebraic review/extension needed to move to a study of function family that is the solution of the difference equation. Numerical, graphical and analytic methods will be employed throughout; the course focus is on discrete and continuous models of growth. The course will end with a brief examination of the chaotic behavior that can occur in logistic models. A graphing calculator (preferably a TI-83) is required. Prerequisites: C or better in MATH 102 or placement by mathematics assessment test, and C or better in ENG 111. [N,L] (O) 3 credits

# MATH 150: Precalculus Mathematics

A detailed study of relations and functions, operations on functions, and their graphs. Characteristics of various families of functions, modeling and solving application problems are the main focus of the course. In particular, exponential, logarithmic and circular functions along with polynomial, rational and selected algebraic families will be developed. A TI-83 or 86 graphing calculator is required and will be used throughout. Class: 4 hours per week. Prerequisite: a grade of C or better in MATH 102, or C or better in MATH 116, or placement by mathematics assessment test, and C or better in ENG 111. [L,N] (Fa,Sp,Su) 4 credits

#### MATH 188: Problems, Reading and Applications in Calculus

A supplemental problem-solving session dominated by problems that will direct attention more to ideas than to techniques. There will be some self-contained examples of applications of calculus that are tractable, relevant and interesting to students. Other problems will require imagination, outside reading and consultation, cooperation and coherent writing. Students will be required to defend both their methodology and their conclusion. Lastly, the readings along with the associated problems from the readings will provide some history of the discipline as well as how mathematics in general and calculus in particular has contributed to intellectual history. May be taken up to two times as MATH 188 and MATH 189. Prerequisite: concurrent registration in MATH 190 or MATH 192 and C or better in ENG 111. [L,N] (O) 1 credit

# MATH 189: [L,N] (O) See MATH 188

#### MATH 190: Analytic Geometry and Calculus I

A first course in calculus with analytic geometry for students in mathematics, science, engineering and technology. Topics include families of functions (including exponential and logarithmic) represented by table, graph and equation, modeling of actual data, the concepts of limit and continuity, the derivative and antiderivatives, the definite integral and the Fundamental Theorem of Calculus. Applications from mathematics, engineering, and economics will receive special attention. Solutions to such problems will require the use of a graphing calculator and/or a symbolic algebra system (Mathcad of Derive). A TI-86 graphing calculator is required. Prerequisites: C or better in MATH 150, or placement by mathematics assessment test, and C or better in ENG 111 (recommended) or concurrent registration in ENG 111 (acceptable). Students cannot receive credit for MATH 190 if they have already received credit for MATH 191. [L,N] (Fa,Sp) 5 credits

### MATH 192: Analytic Geometry and Calculus II

A second course in Calculus and analytic geometry for students in mathematics, science, engineering and technology. Topics include antiderivatives, the definite integral, the Fundamental Theorem of Calculus, techniques of integration, numerical approximation, methods of integration, separable differential equations, improper integrals, sequences and series, polar coordinates and parametric equations. Applications of these topics are used throughout the course and will include problems in area, volume, arc length and exponential growth and decay: (Estimation and approximation techniques are considered throughout the course and include methods for approximating solutions to equations, methods of numerical integrations, and the use of power series to approximate functions.) Solutions of these problems will require the use of graphing calculator and/or Derive software.

A TI-86 graphing calculator is required. Prerequisites: C or better in ENG 111 (recommended) or concurrent registration in ENG 111 (acceptable) and C or better in MATH 190. [L,N] (Fa,Sp) 4 credits

#### MATH 201: Differential Equations

An introductory course in differential equations. Solution methods for differential equations including selected first order equations, nth-order equations, and systems of linear equations using matrix techniques, Laplace transforms, and numerical methods. Series techniques for selected linear differential equations including Bessel's equation will be considered. Computer software and/or graphing calculators will be integrated as appropriate throughout the course. Recommended for science and engineering students. Class: 4 hours per week. Prerequisites: MATH 192 and C or better in ENG 111. [L,N] (Sp) 4 credits

#### MATH 208: Statistics II: Methods and Applications

Introduction to statistical research methods with applications to business, economics and social sciences. Emphasis on: statistical inference, hypothesis testing, correlation and simple linear regression and multiple regression, analysis of variance, nonparametric methods and Chi-square tests. The statistical software package, Minitab, will be used throughout the course. Class: 3 hours per week. Prerequisites: MATH 108 or MATH 111, C or better in ENG 111. [L,N] (Sp) 3 credits

#### MATH 220: Introduction to Linear Algebra

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. Applications will be considered with emphasis on numerical methods. Computers and/or graphing calculators will be integrated as appropriate. Class: 3 hours per week. Prerequisites: MATH 192 and C or better in ENG 111. [L,N] (Fa, odd years) 3 credits

#### MATH 250: Set Theory and Foundations

A formal introduction to the basic concepts of modern abstract mathematics. Topics include: symbolic logic, sets and relations, recursive and inductive procedures, functions, cardinality, algebraic structures, graph theory, and methods of proof. Class: 3 hours per week. Prerequisites: MATH 191 or MATH 190 and C or better in ENG 111. [L,N] (Sp, even years) 3 credits

# MATH 293: Analytic Geometry and Calculus III

A course in multivariable calculus with analytic geometry for students of mathematics, science and engineering. Topics include: parametric equations, two-and three-dimensional vector algebra, vector differential calculus, differentiation of functions of several variables, multiple integrals, and line and surface integrals. Applications are considered throughout. Computer software and/or graphic calculators will be integrated as appropriate throughout the course. Class: 4 hours per week. Prerequisites: MATH 192 and C or better in ENG 111. IL.NI (Fa) 4 credits

# **Medical Laboratory Technician**

These courses are open only to students in the Medical Laboratory Technician Program or with permission of program coordinator.

# MLT 142: Introduction to the Medical Laboratory

An introduction to basic skills and selected procedures used in the medical laboratory. Class/laboratory: 3 hours per week. (Fa) 2 credits

#### MLT 182: Clinical Microscopy I

Theory and procedures performed on urine and other body fluids, such as spinal fluid, synovial fluid and serous fluids. Class/laboratory: 3 hours per week. (Sp) 1 credit

#### MLT 201: Clinical Microbiology

An introduction to the basic theories of clinical bacteriology and mycology, aseptic techniques for handling specimens and preparing media, primary specimen inoculation, subculturing, colony-count techniques, processing anaerobic and microaerophilic cultures, staining techniques, organism identification procedures and antibiotic susceptibility testing. (Fa) 4 credits

#### MLT 202: Clinical Microbiology

Study of disease-causing microorganisms and the techniques performed for their isolation and identification. (Sp) 4 credits

#### MLT 211: Chemistry

Theory and performance of chemical analyses on blood and other body fluids. (Fa) 4 credits

# MLT 212: Chemistry

The quantitative analysis of chemical components of blood serum, plasma and other body fluids, gravimetric, titrimetric, colorimetric, specto-photometric and automated procedures. (Sp) 4 credits

#### MLT 221: Hematology

Theories and concepts of the formation, physiology and pathology of blood. (Fa) 3 credits

#### MLT 222: Hematology

Practical aspects and techniques used in the study of blood, including cell counts, staining techniques, differentiation of normal and abnormal cells, special tests, coagulation studies and automated procedures. (Sp) 3 credits

#### MLT 231: Immunology/Serology

Basic concepts of the antigen-antibody reaction and the immune system. The theory and performance of immunological techniques used in serodiagnostic testing. (Fa) 2 credits

# MLT 251: Phlebotomy

The theory, skills and attitudes necessary to obtain blood by venipuncture and other skin puncture techniques from patients in hospitals and other health care settings. (Fa) 2 credits

#### MLT 262: Immunohematology

An introduction to blood banking, with emphasis on proper techniques of blood collecting, grouping and typing procedures, compatibility testing and processing. (Sp) 3 credits

# MLT 272: Parasitology/Mycology

The identification and processing of selected common specimens for parasitologic examination. Identification of common disease-causing yeasts and molds by macroscopic and microscopic examination. Class/laboratory: 3 hours per week. (Sp) 2 credits

#### MLT 282: Clinical Microscopy II

Practical aspects and analytical procedures performed on urine and other body fluids within the clinical lab. (Sp) 1 credit

# Meteorology

# MTEO 110: Introduction to Meteorology

An introduction to the principles of atmospheric behavior, with emphasis on atmospheric motion, general circulation, air masses and frontal systems, clouds and precipitation, and their relation to climate and weather formations. A field trip to a local weather bureau may be included. Class: 3 hours per week. [L,N] (Fa) 3 credits

# Multimedia

# MM 201: Introduction to Three-Dimensional Modelling

Students will learn to design and create in digital 3D space, changing flat art and images into shapes with solid volume. The course will cover basic 3D topics such as wireframe assembly, extruding and lathing, various approaches and techniques of lighting and shading, image and texture mapping and development of animation in the 3D space. Use and integration of 3D forms and animations with other multimedia software will also be covered. Class: 6 hours per week. Prerequisites: FA 210 or FA 211 or COMM 290 or permission of the instructor. (Fa) 3 credits

#### MM 202: Three-Dimensional Modelling II

This course will help the student elaborate on the 3D skills that were developed in MM 201. Students will work on longer, more involved projects either in 3D scene development or 3D animation. This course counts as a Computer Studio elective in the Multimedia Studies program. Class: 6 hours per week. Prerequisites: MM 201 or permission of the instructor. (Fa,Sp) 3 credits

#### MM 205 Digital Video/On-Line Editing

This course will introduce students to the discipline of digital video. All analog video will be digitized using a Macintosh computer and clips assembled into larger productions using on-line software such as Adobe Premiere and the Data Translation Media 100 editing suite. Topics will include scripting, analog digitizing, compression schemes, Quicktime movies, A/B roll composition, output to tape, special effects managing and sound design. Class: 6 hours per week. Prerequisite: COMM 176 or COMM 210 and FA 210 or FA 211 or COMM 290 or permission of instructor. (Fa,Sp) 3 credits

# MM 206: Digital Video II

This course allows students to continue their training in computer-based video editing. Students will develop projects of their own design and learn to take a video project from the planning stages, through video shooting, to digitization and editing. This course counts as a Computer Studio elective in the Multimedia Studies program. Class: 6 hours per week. Prerequisite: MM 205 or permission of the instructor. (Fa,Sp) 3 credits

#### MM 245/CST 245: Web Page Design

Students will learn the fundamentals of designing, planning and producing web sites and pages for posting on the Internet. Image management and creation, information design, and animation creation and use are major topics. Emphasis will be on site design and management. Students will work with HTML code and a web page editor. Class: 6 hours per week. Prerequisites: FA 210, COMM 290 or permission of the instructor. (Fa.Sp) 3 credits

#### MM 299: Animation on the Internet

Students will learn the fundamentals of designing, planning and producing animated presentations for posting on the Internet. Various software applications will be used to produce moving graphics. The focus of the course will be the specific applications and limitations of developing motion graphics in several formats for use on the World Wide Web. Understanding the production requirements for using the Internet as a delivery system for animation and other multimedia elements is essential to the students' success. Prerequisites: FA 210 or FA 211, COMM 290 or permission of the instructor. [L] (Fa) 3 credits

#### Music

# MUS 111: History and Appreciation of Music I

A survey of western music from medieval times through the classical period, with an introduction to the concept of sound, melody, rhythm, harmony, texture and form. Emphasis will be given to major developments in polyphonic music along with the rise of vocal and instrumental compositions. Class: 3 hours per week. [H,L] (Fa) 3 credits

#### MUS 112: History and Appreciation of Music II

A survey of western music from the romantic period to modern times with emphasis given to the major forms of composition as well as pieces that have literary or other non-musical associations. A review of music concepts such as sound, melody, harmony, rhythm and form. Class: 3 hours per week. [H,L] (Sp) 3 credits

#### MUS 113: Today's Music: Jazz, Blues, Gospel, Country, Rock

A music appreciation course that examines the development of American music from its roots in the spiritual, ragtime, blues, and jazz to the later styles of rock'n'roll, country and soul. Emphasis will be given to the impact of these earlier styles on contemporary practices. Class: 3 hours per week. [H,L] (Fa,Sp) 3 credits

#### MUS 121, MUS 122, MUS 221, MUS 222: Chorus

Open to all students and members of the community. Course may be repeated up to four semesters as MUS 121, 122, 221, and 222. Class: 3 hours per week. [H,L] (Fa,Sp) 2 credits

# MUS 123, MUS 124, MUS 223, MUS 224: Chamber Music/Jazz Ensemble

Instrumental performing groups of various kinds and sizes, depending on the students enrolled. Course may be repeated up to four semesters as MUS 123, 124, 223 and 224. Credit may be earned for life experience. Class: 3 hours per week. [H,L] (Fa,Sp) 2 credits

# MUS 127, MUS 128, MUS 227, MUS 228: Vocal Ensemble: Madrigal

This course is designed to rehearse and perform sacred and secular music written for the smaller vocal group. Unlike Chorus, an audition is necessary to prepare the singer for the increased difficulty of the musical material in this course. Course may be taken for a total of 4 credits as MUS 127, 128, 227, and 228. Class: 1 1/2 hours per week. [H,L] (O) 1 credit

#### MUS 131, MUS 132, MUS 231, MUS 232: Private Music Lessons

Private vocal or instrumental lessons. Private teacher must be approved by the Liberal Arts Division. Fees for lessons are in addition to regular tuition and are arranged between student and teacher. Class: 1/2 or 1 hour per week. Course may be taken for a total of 8 credits as MUS 131, 132, 231 and 232, all of which can run concurrently according to students' needs. May be taken for liberal arts elective credit. (Fa,Sp) 1 or 2 credits

# MUS 201: Music Harmony and Ear Training I

Students will be introduced to tonal harmony and ear training. Topics will include diatonic harmonic procedures and voice leading principles. The ear training section of the course will develop listening skills, sight singing, rhythm and melodic dictation. Prerequisite: MUS 211 or permission of instructor. Class: 3 hours per week. [H,L] (Sp) 3 credits

# MUS 202: Music Harmony & Ear Training II with Keyboard Lab

This is the second course in tonal harmony and ear training. In the music harmony section of the course, topics will include a further exploration of diatonic harmonic progressions, introduction of chromatic harmony and methods of modulation in four-part choral settings. The ear training section will offer further development in ear training skills through the sightsinging of melodies based on tonic, dominant, sub-dominant chords, melodic dictation and rudimentary harmonic dictation. The keyboard lab will provide students with the opportunity to apply harmonic skills and techniques to the piano keyboard. Prerequisite: MUS 201 or permission of instructor. Class: 4 hours per week. [H,L] (Fa) 4 credits

# MUS 203: Music Harmony & Ear Training III with Keyboard Lab

This is the third course in tonal harmony and ear training. In the music harmony section of the course, there will be an emphasis on the use of skills acquired in MUS 211, MUS 201 and MUS 202 to analyze common musical forms from the 16th, 17th, 18th and 19th centuries. These forms will include binary, ternary, and early sonata allegro, dance suites, inventions, fugues, as well as minuets,

trio and early rondo forms. Forms covered will also include expanded sonata forms, concerto, waltz, nocturne and impressionistic forms. The ear training section will cover expanded exercised on the use of diatonic chords, diatonic melodic, harmonic and chromatic dictation. The piano keyboard lab will engage in the study and application of more complex chord forms (i.e., 9ths, 11ths, and 13ths), the use of open voicings, and more complicated accompaniment. Prerequisite: MUS 202 or permission of instructor. Class: 4 hours per week. IH.L1 (Sp) 4 credits

#### MUS 211: Fundamentals of Music

As a beginning course in the theory of music, students will be introduced to the skills necessary to read, write and perform music, with basic training in pitch and emphasis on performance. Prerequisite: basic piano skills. Class: 3 hours per week. [H,L] (Fa) 3 credits

### MUS 213: Music Theory and Composition I

Continuation of four-part writing through 13th chords and secondary 7ths. Intermediate study of jazz harmony, composition and instrumentation. Course meets at the Camerata Conservatory, Hartford. Class: 3 hours per week. Prerequisite: MUS 212 or equivalent. [H.L] (Fa) 3 credits

# MUS 214: Music Theory and Composition II

Study of more complex four-part writing and jazz harmony, and analysis and writing using advanced harmonic and melodic materials. Course meets at the Camerata Conservatory, Hartford. Class: 3 hours per week. Prerequisite: MUS 213 or equivalent. [H,L] (Sp) 3 credits

#### MUS 215: Beginning Piano

Students will be introduced to the piano keyboard and will acquire basic skills in reading general music notation, music notation related to the piano and an understanding and application of basic chords. Students will also receive a foundation in music theory and appreciation. Highly recommended for Music Option students needing basic piano skills for MUS 211. Class: 3 hours per week. [H,L] (Fa,Sp) 3 credits

#### MUS 225: Keyboard Harmony I

The study of basic keyboard skills as well as accompaniment techniques. Emphasis on harmonic recognition, voice leading principles and sight singing skills. Course will include group activities as well as individualized instruction. Prerequisites: MUS 201 or permission of instructor and basic piano skills. Course meets at the Camerata Conservatory, Hartford. Class: 2 hours per week. [H,L] (Fa) 2 credits

# MUS 226: Keyboard Harmony II

Continued the study of keyboard skills and accompaniments techniques. Emphasis on harmonic recognition, voice leading, and sight reading. Course includes group activities as well as individualized instruction. Course meets at the Camerata Conservatory, Hartford. Class: 2 hours per week. Prerequisite: MUS 225 or permission of instructor. [H,L] (Sp) 2 credits

# MUS 241: Electronic Music I

The study of contemporary electronic music composition, technique, performance, and recording using synthesis, computer, sequencing and recording equipment. Prerequisite: MUS 211/212 or permission of instructor. [H,L] (O) 3 credits

# MUS 251 Music History I: The Classical Period

A study of Western European music development from the early 18th century through the works of Haydn, Mozart and early Beethoven. Topics will include: an overview of the pre-classical period, an analysis of the significant musical styles of the period, a biographical study of the key composers and the impact of the culture on the music development of the period. Prerequisite: eligibility for ENG 111. Recommended: MUS 111. [H,L] (Fa) 3 credits

# **Occupational Therapy Assistant**

These courses are restricted to students accepted into the Occupational Therapy Assistant program. Permission from the program coordinator is required.

# **OTA 101: Introduction to Occupational Therapy**

An overview of occupational therapy that describes the philosophy and theoretical foundation of the profession as well as the role of the occupational therapy assistant. Level I, observational experiences will be required. (Fa) 3 credits

#### **OTA 102: Occupational Therapy with Children**

An overview of disabilities and diseases that affect children, and the study of occupational therapy theory and practice as it pertains to the treatment of these disabilities. Prerequisites: OTA 101 and 120, BIO 112, and PSYC 124. (Sp) 3 credits

### **OTA 102L: Treatment Modalities Laboratory**

A laboratory course in occupational therapy to complement OTA 102; must be taken concurrently with OTA 102. Laboratory: 2 hours per week. (Sp) 1 credit

#### OTA 106: Level I Advanced Fieldwork

A pass/fail course providing 20 hours of supervised fieldwork experience where the student applies treatment learned in OTA courses and learns about the roles of other professionals involved in patient treatment. Prerequisites: OTA 101, 120, BIO 112, PSYC 124. To be taken concurrent with OTA 102, 112, 122 and 232. (Sp) 0 credits

# **OTA 112: Occupational Therapy with Adults**

An overview of disabilities and diseases that affect adults, and the study of occupational therapy theory and practice as they pertain to the treatment of these disabilities. Prerequisites: OTA 101 and 120, BIO 112, and PSYC 124. (Sp) 3 credits

#### **OTA 112L: Treatment Modalities Laboratory**

A laboratory course in occupational therapy to complement OTA 112; must be taken concurrently with OTA 112. Laboratory: 2 hours per week. (Sp) 1 credit

# OTA 120: Human Neuroscience with Kinesiology Lab

A study of the human nervous system with a focus on sensory and motor behavior. The lab is a focus on anatomy and physiology including assessment of function. Prerequisite: concurrently or after OTA 101 and the biology requirement. Class: 3 hours per week. Laboratory: 2 hours per week. (Fa) 4 credits

# OTA 122: Occupational Therapy with the Elderly

An overview of disabilities and diseases that affect the elderly, and the study of occupational therapy theory and practice as they pertain to the treatment of these disabilities. Prerequisites: OTA 101, 120, BIO 112, and PSYC 124. (Sp) 3 credits

#### **OTA 122L: Treatment Modalities Laboratory**

A laboratory course in occupational therapy to complement OTA 122; must be taken concurrently with OTA 122. Laboratory: 2 hours per week. (Sp) 1 credit

# OTA 220: Group Approach in Occupational Therapy

A course designed to enable students to increase knowledge of themselves and the impact of their behavior on others. It will enable the student to understand and use the transfer of feelings, ideas, facts and findings in one-to-one and group relationships as part of the therapeutic process. Prerequisite: concurrent or after OTA 101 and 120. (Fa) 3 credits

#### **OTA 232: Principles of Clinical Management**

A course designed to develop the student's ability to formulate treatment plans, document treatment, and understand professional issues of supervision, quality assurance and job performance. Prerequisites: OTA 101 and 120 and concurrent with 102, 112 or 122. (Sp) 3 credits

#### OTA 242: Level II Fieldwork

Sixteen weeks of clinical training under the direction of an occupational therapy practitioner. Half the training deals with psychosocial dysfunction and half with physical disabilities. Prerequisite: completion of all OTA and general education course work, and Level I Advanced Fieldwork. (Fa,Sp) 11 credits

# **OTA 244: Advanced Seminar in Occupational Therapy**

The study of occupational therapy treatment principles and applications using the single case model; to be taken concurrently with OTA 242. Prerequisite: completion of all OTA and general education course work, and Level I Advanced Fieldwork. (Fa,Sp) 1 credit

# Oceanography

# **OCEN 110: Introduction to Oceanography**

An introduction to the science of the ocean with emphasis on the geological, physical, chemical and biological aspects of oceans. Topics include physical and chemical properties of seawater, circulation, bathymetry, waves, tides, El Niño, and marine plant and animal habitats. A field trip may be included. Class: 3 hours per week. [L,N] (Fa,Sp) 3 credits

# **Office Administrative Careers**

See Business Office Technology

# Paralegal See Legal

# Pharmacy Technician

All Pharmacy Technician courses are offered at Gateway Community College, North Haven, CT.

# PHT 101: Introduction to Pharmacy Procedures

Orients students in an on-line format to the operation of the hospital pharmacy and the responsibilities of the pharmacy technician in the health care team. The student develops skills necessary to prepare and distribute medications including: medical terminology; basic mathematical calculations; interpreting physician orders; dispensing unit does; sterile compounding; intravenous admixtures; purchasing; packaging; and professional ethics. Prerequisite: College reading or placement test; MATH 101. (Fa) 4 credits

# PHT 102: Pharmacology

This pharmacology course is designed to provide the students in the Pharmacy Technician Program an introduction to the study of drugs, their indications, effects, side effects, and interactions on the human body. Co-requisites: BIO 112, PHT 101 and PHT 103 or permission of the coordinator. (Fa) 3 credits

# PHT 103: Pharmacy Procedures Laboratory

This course includes six hours per week of laboratory experience which provides the student with the opportunity to apply the principles from PHT 101 Introduction to Pharmacy Procedures course. Students will perform drug distribution, ambulatory pharmacy, aseptic and chemotherapy procedures. Corequisite: PHT 101. (Fa) 1 credit

#### PHT 104: Pharmacy Dosage Calculations

This course presents the application of common fractions, decimal, metric system, percent, ratio, proportion, systems of weight and measure, dosage calculations as they apply to the practice of pharmacy. (Fa) 3 credits

# PHT 113: Pharmacy Practicum and Clinical Conference

Prepares the student to develop special technical skills and competency in hospital pharmacy procedures. The student will be trained to assist in the non-professional (non-judgmental) aspects of preparing and dispensing medications. Students will function under the supervision of a licensed pharmacist. A minimum of 300 hours of experience in a hospital pharmacy is required. Prerequisites: PHT 101, PHT 102 and PHT 103. Co-requisite: PHT 202. (Sp) 3 credits

#### PHT 201: Advanced Topics in Pharmacy

Covers the supervisory responsibilities of the pharmacy technician in personnel, inventory, management, budget control, and purchasing. The role of the technician as liaison with pharmaceutical sales representatives, including contract maintenance, negotiation, and ethical purchasing practices will be discussed. Prerequisites: PHT 101, PHT 102, PHT 103, PHT 113, and MATH 102. (Fa) 3 credits

#### PHT 202: Pharmacy Seminar

Discusses current and/or controversial issues in pharmacy practice and the evolving role of the pharmacy technician. Students will prepare to enter the profession by developing a resume and refining employment skills. Guest speakers, class presentations, and readings from current professional journals will be used extensively. Prerequisites: PHT 101, PHT 102 and PHT 103 or permission of the coordinator. Co-requisite: PHT 113. (Sp) 3 credits

# **Philosophy**

# PHIL 201: Introduction to Philosophy

Development of personal views on the fundamental issues of human existence: the nature of reality, the nature of the human person, knowing and thinking, freedom, basis of morality, aesthetics, the philosophical basis of political systems, and God's existence. Class: 3 hours per week. [H,L] (Fa,Sp,Su) 3 credits

#### PHIL 203: Ethics

The fundamentals and principles of ethics: moral conscience, good and evil, values, norms, ethical judgment, major ethical systems, punishment, religion and ethics. Contemporary problems with case studies; in particular, issues of environmental and bio-medical ethics. Class: 3 hours per week. [H,L] (Fa,Sp,Su) 3 credits

#### PHIL 205: Logic

Logic is the study of sound reasoning, Areas of concern include practical logic, deduction, induction, and symbolic logic. Focus is upon the application of logical distinctions to rational argument, fallacies, definition, and generally to scientific method. Recommended for all students. Class: 3 hour per week. [H,L] (Fa,Sp) 3 credits

#### PHIL 207: Religions of the World

Survey of the major religions of the world: Christianity, Judaism, Islam, Buddhism and Hinduism, with emphasis on essential doctrines and practices. A review of contemporary cults and sects. Class: 3 hours per week. [H,L] (Fa,Sp) 3 credits

#### PHIL 211: Chinese Philosophy

An inquiry into the concept of order and harmony in Chinese philosophy. Readings in English translation will include both primary texts and contemporary analyses of materials from Confucianism, Taoism, and other Chinese philosophic schools. Recommended for all students. Class: 3 hours per week. [H,L] (O) 3 credits

#### PHIL 213: Health Care Ethics

This course relates specific health experiences and issues to ethical theories of traditional and contemporary philosophy. It includes a critical examination of current opinions on moral issues in health care and gives a fair consideration of those views. Class: 3 hours per week. [H,L] (Sp) 3 credits

#### PHIL 215/BUS 215: Business Ethics

[B,H,L] (Fa) 3 credits. See Business.

#### PHIL 227: Buddhist Philosophy

An examination of the predominant philosophical themes in divergent traditions of Buddhism. Some topics to be covered are metaphysics, ethics, aesthetic concepts, and the Buddhist values for confronting contemporary problems. Recommended for all students. Class: 3 hours per week. [H,L] (O) 3 credits

#### **Photography**

#### PHOT 191: Photography I

An introduction to basic camera operation, black and white darkroom procedures, non-silver processes, photographic genres, and visual language. Students must have a 35mm camera with manual exposure controls and provide their own film and paper. Class: 4 hours per week. Laboratory: extensive lab work is required outside these hours. [H,L] (Fa,Sp) 4 credits

#### PHOT 192, PHOT 293, PHOT 294: Photography II, III, IV

A continuation of black and white photography, including refining printing and presentation, and the development of a body of work. A written and oral presentation on a published photographer will be required. Students must have a 35 mm camera with manual exposure controls, and provide their own film and paper. Photography III and IV encourages the use of medium and large formats and digital photography. Class: 4 hours per week. Laboratory: extensive lab work is required outside these hours. Prerequisite: PHOT 191 or permission of instructor. [H,L] (Fa,Sp) 4 credits

#### PHOT 159: Documentary Photography

This course will teach students how to prepare a comprehensive documentary project. Students will be introduced to the concepts and vocabulary of Documentary Photography. Instruction will include discussion and slides about documentary photography and documentary photographers, as well as selection of topics and preparation of the final project. Prerequisite: PHOT 191. [H,L] (Fa) 4 credits

#### PHOT 210: Digital Photography

An introduction to digital photography and specifically Adobe Photoshop, through the use of the students' own photographs and negatives. Students will be introduced to the basic vocabulary, concepts, and tools of Photoshop. Through lectures, slides, demonstrations and assignments, students will learn the fundamentals of digitizing, manipulating and printing their own photographs. Prerequisite: Basic computer and photographic experience preferred. Class: 4 hours per week. [H,L] (Sp) 4 credits

#### **PHOT 256: Portfolio Preparation**

Through the production of photographic works, class discourse, and critiquing photographs, students will learn how to develop a cohesive portfolio. Prerequisite: PHOT 191. [H,L] 4 credits

#### PHOT 259: Alternative and Experimental Photography

Students will experiment with a variety of alternative processes and cameras. These processes will include: infrared, cyanotype, Van Dyke, liquid emulsion, Polaroid transfers, large photographs, and pinhole or plastic cameras. Students must have 35 mm camera with manual exposure controls and provide their own film, paper, and supplies as needed. Prerequisite: PHOT 190 or permission of instructor. [H,L] 4 credits

#### PHOT 260: Lighting and Advanced Printing Techniques

Through class demonstrations and assignments students will begin to understand how different lighting and printing techniques affect the subject and meaning of a photograph. Prerequisite: PHOT 191 or permission of instructor. [H,L] 4 credits

#### Physical Education See Health, Physical Education.

#### **Physical Science**

#### PHSC 100: Principles of Physical Science

An introduction to the physical sciences that provides an integrated treatment of facts, topics and concepts from physics and chemistry. Applications in astronomy and geology are included. Class: 3 hours per week. Prerequisite: MATH 101 or math placement test. Not open to students who have passed higher-numbered courses in the physical sciences. [L,N] (O) 3 credits

#### PHSC 101: Principles of Physical Science

This course provides an introduction to the physical sciences with an integrated approach between classroom presentation and laboratory experimentation. Topics include measurement, the scientific process, concepts from physics and chemistry. Class: 3 hours per week. Laboratory: 2 hours per week. Prerequisite: MATH 101 or math placement test. Not open to students who have passed higher-numbered courses in the physical sciences. [L,N] (O) 4 credits

#### PHSC 115: Explorations in Science for Women

An interdisciplinary course focusing on the use of biology, chemistry, physics, mathematics and technology to solve problems. It will incorporate both content and the development of study skills in these areas. This course is strongly recommended for women who would like a better understanding of how science, mathematics and technology effect their lives and the career possibilities in these fields. [L,N] (O) 3 credits

#### **Physical Therapist Assistant**

All Physical Therapist Assistant courses are offered at Naugatuck Valley Community College, Waterbury, CT.

#### PTA 120: Introduction to Physical Therapy

Learning opportunities in this course assist the student to recognize the roles of physical therapy within various practice settings. Students differentiate functions of physical therapists and physical therapist assistants as members of the health care team through study of documentation principles, ethics, laws and organizations important to the provision of services. Learning also includes development of knowledge and abilities within the domains of conduct, communication and sensitivity to individual and cultural differences. Prerequisite: Admission to the PTA Program. (Sp) 3 credits

#### PTA 125: Physical Therapy for Function

This course provides the student with introductory concepts and techniques for effective patient teaching and physical therapy intervention for function and mobility. Emphasis is placed on competence in problem-solving and the physical therapist assistant's role in modification of physical therapy interventions. Prerequisite: Admission to the PTA Program. (Sp) 4 credits

#### PTA 220: Introduction to the Physical Therapy Clinic

This course provides an orientation to the physical therapy clinic and to the provision of physical therapy interventions. Students develop communication, intervention, and problem-solving techniques within the physical therapy clinic. Prerequisite: PTA 120 and PTA 125 with a grade of "C" or higher. (Su) 1 credit

#### PTA 230: Physical Agents in Physical Therapy

This course develops the student's competence with problem-solving and application of physical therapy interventions using physical agents, including therapeutic applications of heat, cold, water, electricity, light and mechanical forces or devices. Prerequisites: PTA 120 and PTA 125 with a grade of "C" or higher, PTA 220 with a grade of "P". (Fa) 4 credits

#### PTA 235: Kinesiology for Rehabilitation

This course fosters learning of the anatomical and biomechanical principles of human movement through the study of the musculoskeletal and nervous systems. Competencies attained include accurate data collection by goniometry, manual muscle testing, posture and gait analysis including the effects of biomechanical forces on the human body. Prerequisites: PTA 120 and PTA 125 with a grade of "C" or higher, PTA 220 with a grade of "P". (Fa) 4 credits.

#### PTA 250: Therapeutic Exercise

Learning includes the theory and techniques to safely and effectively implement therapeutic exercise interventions based on a plan of care established by a physical therapist. Students also develop competence to measure a patient's response to interventions and respond accordingly and to provide effective instruction to patients and caregivers. Prerequisites: PTA 230 and PTA 235 with a grade of "C" or higher. (Sp) 5 credits

#### PTA 253: Pathophysiology for Rehabilitation

This course develops comprehension about abnormalities and the physical, physiological and psychological changes that occur throughout the human lifespan. The student learns the effects of pathology on the rehabilitation of patients with orthopedic, neurological, and general medical conditions. Prerequisites: PTA 230 and PTA 235 with a grade of "C" or higher. (Sp) 3 credits

#### PTA 258: PTA in the Healthcare Arena

This course develops the student's ability to apply physical therapy interventions and data collection techniques within the clinic environment and advances the student's abilities with communication, conduct and problem-solving within the structure of the health care system. Prerequisites: PTA 230 and PTA 235 with a grade of "C" or higher. (Sp) 2 credits

#### PTA 260: Physical Therapy Seminar

In this course students demonstrate the ability to apply principles of problem solving to selected professional issues, industry trends, and special populations that may be encountered as a physical therapist assistant. Learning opportunities assist in the transition from student to clinician and identification of interest areas for lifelong learning. Prerequisites: PTA 250, PTA 253 and PTA 258 with a grade of "C" or higher. (Fa) 2 credits

#### PTA 262: PTA Internship II

Within this clinic-based course students learn to integrate and apply physical therapy concepts and to effectively perform physical therapy interventions as a physical therapist assistant. Students develop their abilities for daily organization and management of a patient caseload and effectively contribute to the health care team. Prerequisites: PTA 250, PTA 253 and PTA 258 with a grade of "C" or higher. (Fa) 5 credits

#### PTA 265: PTA Internship III

Within this clinic-based course students learn to problem-solve and competently function in the clinic environment as a physical therapist assistant. Students develop competence with time management, clinical prioritization and the entry-level abilities of the physical therapist assistant prior to course completion. Prerequisites: PTA 250, PTA 253 and PTA 258 with a grade of "C" or higher. (Fa) 5 credits

#### **Physics**

#### PHYS 110: Elements of Physics

An introductory course in the physics of motion, heat, sound, electricity, magnetism, light, optics and the theory of the atom. Intended for non-science majors. A process oriented laboratory approach emphasizing exploration and problem solving. Students with credit for high school physics should elect PHYS 121 or 131. Scientific calculator required. Class meets 5 hours per week for integrated lecture and laboratory. Prerequisite: MATH 101 or math placement test. [L,N] (Fa,Sp) 4 credits

#### PHYS 111: Physics and the Human Body

An introductory course in physics commonly taken by students in the allied health sciences and related disciplines. Numerous applications and examples related to the health sciences are used throughout to illustrate physical principles in mechanics, heat and thermodynamics, electricity and magnetism, and wave phenomena. Special attention is devoted to energy and power in humans, heat and the human body, aspects of electricity in the human body, and applications of electromagnetic radiation. This course may be taken as alternate elective in place of PHYS 110 in any program which PHYS 110 is recommended as an elective. Students cannot receive credit for both PHYS 110 and 111. Scientific calculator required. Class and laboratory: 5 hours per week; integrated approach with approximately 3 hours class and 2 hours laboratory. Prerequisite: MATH 101 or math placement exam. [L.N] (O) 4 credits

#### PHYS 121: General Physics I

Basic concepts of mechanics and heat, including forces, work and energy, conservation laws, physics of fluids, temperature, heat transfer and the laws of thermodynamics. Scientific calculator required. Class: 3 hours per week. Laboratory: 2 hours per week. Prerequisite: MATH 102, or two years of high school algebra, or math placement test. [L,N] (Fa,Su) 4 credits

#### PHYS 122: General Physics II

Basic concepts of electricity, magnetism and wave motion, including electric and magnetic fields, electromagnetic radiation, wave properties of light and optics. Scientific calculator required. Class: 3 hours per week. Laboratory: 2 hours per week. Prerequisite: PHYS 121. [L,N] (Sp,Su) 4 credits

#### PHYS 131: University Physics I

Intended for physics, chemistry, engineering and math transfer majors. Topics include: principles of Newtonian mechanics and thermodynamics, particle dynamics, work, energy and momentum, rotational motion, gravitation, calorimetry, heat, energy, expansion and the laws of thermodynamics. Graphing calculator required. Class: 3 hours per week. Laboratory: 3 hours per week. Prerequisites: MATH 190 or MATH 191 (may be taken concurrently although completion of MATH 190 or 191 prior to PHYS 131 is advisable), PHYS 110 (or one year of high school physics). [L,N] (Fa) 4 credits

#### PHYS 132: University Physics II

Intended for physics, chemistry, engineering and math transfer majors. Principles of electromagnetic waves, electricity and magnetism, wave properties of light and optics are covered. Topics include Coulomb's Law, Gauss' Law and electric fields, Ohm's Law, DC circuits, Ampere's Law, inductance, elements of AC circuits, light and optics. Graphing calculator required. Class: 3 hours per week. Laboratory: 3 hours per week. Prerequisites: PHYS 131, MATH 192 (may be taken concurrently). [L,N] (Sp) 4 credits

#### PHYS 133: University Physics III

Intended for physics, engineering and math transfer majors. Principles of quantum radiation and modern physics, including electromagnetic waves, relativistic mechanics, quantized radiation, and an introduction to 20th century physics are studied. Scientific calculator required. Class: 3 hours per week. Laboratory: 3 hours per week. Prerequisites: PHYS 132, MATH 293 (may be taken concurrently). [L,N] (O) 4 credits

#### **Political Science**

#### PLSC 101: Introduction to Political Science

The study of politics through the identification of great political issues that are analyzed from historical and philosophical viewpoints. Class: 3 hours per week. [L,S] (Fa) 3 credits

#### **PLSC 102: International Relations**

An examination of the international community, emphasizing theory and practice in international politics. Class: 3 hours per week. [L,S] (Sp) 3 credits

#### **PLSC 111: American National Government**

A study of the American political system at the national level, with emphasis on political dynamics and public policy. Class: 3 hours per week. [L,S] (Fa,Sp,Su) 3 credits

#### PLSC 112: State and Local Government

The forms, functions, processes and problems of state and local government in the United States, with special emphasis on Connecticut state government. Class: 3 hours per week. [L,S] (Fa,Sp,Su) 3 credits

#### PLSC 212: Constitutional Law and Civil Rights

An examination of the United States Constitution as it applies to police power and landmark decisions of the United States Supreme Court interpreting and defining police power. Class: 3 hours per week. [L,S] (Fa,Sp) 3 credits

#### PLSC 280: Legislative Internship

Spring semester only. Students must apply in October. Selected students will spend two days per week interning at the State Capitol. Interns will be prepared to perform the following services for legislators: bill analysis and tracking, spot research, drafting news releases, and constituent casework. (Sp) 6 credits

#### **Psychology**

#### **PSYC 111: General Psychology**

Survey of psychology as a behavioral science, including its scientific origins: human development, learning, memory and thinking, motivation and emotion, personality, intelligence and social psychology. Class: 3 hours per week. [L,S] (Fa,Sp,Su) 3 credits

#### **PSYC 112: Advanced General Psychology**

Study of research and measurement techniques in psychology; the physiological bases of behavior, sensation, perception and abnormal patterns of behavior; major therapies; and altere states of consciousness. Class: 3 hours per week. Prerequisite: PSYC 111. [L,S] (Fa,Sp) 3 credits

#### PSYC 117: Psychology of Death, Grief and Loss

This course will examine the processes of death, dying and grieving. Death and loss as they relate to major developmental life tasks are also studied, including the effect of death and loss upon survivors. Both Eastern and Western perspectives are considered. [L,S] (Fa,Sp) 3 credits

#### **PSYC 120: Understanding Self and Others**

Personal growth and development through awareness of one's impact on others and the impact of others on oneself. [L,S] (Fa,Sp,Su) 3 credits

#### **PSYC 124: Developmental Psychology**

A survey of cognitive, social, psychomotor and perceptual growth and change as they are influenced by heredity and environment from prenatal stages through childhood, adolescence, mid-life and aging. Class: 3 hours per week. Prerequisite: PSYC 111. [L,S] (Fa,Sp,Su) 3 credits

#### PSYC 125: Psychology of Aging and Mental Health

The course will offer a realistic portrait of the personal experiences of late life and highlight the mental health issues that confront human beings as they age. [L,S] (Sp) 3 credits

#### PSYC 127: Psychological Aspects of Human Sexuality

This course considers the influence of interacting psychological and social factors upon human sexual behavior, with a strong emphasis on attitudinal and affective learning. Developmental issues, including the effects of past sexual trauma, are explored. Class: 3 hours per week. Prerequisite: PSYC 111. [L,S] (O) 3 credits

#### **PSYC 131: Social Psychology**

Social psychology focuses upon the effects of groups upon the individual and how the individual influences the group. The course examines theoretical attempts to explain how people influence each other. Topics include one-to-one relationships, group formation, group structure and leadership. A group project is required. Class: 3 hours per week. Prerequisite: PSYC 111. [L,S] (Sp) 3 credits

#### **PSYC 163: Children With Disabilities and Their Families**

This course is a general introduction to children with disabilities, their families and their education. The course includes discussion of the psychological, medical and sociological aspects of children with disabilities and their relationship to family, community and especially the educational system. The course emphasis is on the inclusion of children with disabilities within family, community and school. [L,S] (Fa) 3 credits

#### **PSYC 173: Adults with Disabilities**

This course is a general introduction to adults with disabilities and the issues faced by them in current American society. The emphasis is on issues relating to full inclusion in neighborhoods, community associations, workplaces and leisure-recreation experiences. The Americans with Disabilities Act (ADA) and its powerful implications for full community inclusion by men and women with disabilities will be examined. [L,S] (Sp) 3 credits

#### **PSYC 183: The Learning Process and Disabilities**

This course explores various learning theories, especially behavior modification, as they relate to children and adults with disabilities. Included will be an introduction to the biological aspects of the brain and learning. Ethical questions regarding the application of certain learning theories will be examined. [L,S] (Fa) 3 credits

#### **PSYC 193: Issues and Trends in Disabilities**

This course will examine current legal, ethical, community, family and personal support issues affecting children and adults with disabilities and their families. Through the study of literature, newsletters and media accounts and by listening to the leaders and advocates of today, students will more fully understand the challenges and opportunities of people with disabilities. [L,S] (Sp) 3 credits

#### **PSYC 200: Health Psychology**

The psychological factors that promote health and enhance resistance to disease or place people at risk for disease are explored. Emphasis is placed upon those psychological factors which can prevent or reverse illness and sustain or recapture health. Class: 3 hours per week. [L,S] (O) 3 credits

#### **PSYC 210: Abnormal Psychology**

Origins and models of normal and abnormal behavior. Areas presented include anxiety disorders, schizophrenia, infantile autism and personality disorders. Consideration of prevention and treatment methods for emotional and behavioral disorders. Class: 3 hours per week. Prerequisite: PSYC 111. [L,S] (Fa,Sp) 3 credits

#### PSYC 232/CJ 232: Social Psychology of Criminal Behavior

This course will provide an overview on the psychological understanding of crime and the criminal. It will provide an analysis of individual differences in various criminal activities with a focus on a conceptual and practical understanding of the predictors of individual behavior. Class: 3 hours per week. [L,S] (O) 3 credits

#### **PSYC 234: Child Development**

An evaluation of current issues, theories, and research in the area of child development. This study of physical, cognitive and socioemotional development includes: genetics, development of self, language, play, learning, intelligence, personality, and social interactions from conception through age twelve. Emphasis is on normal development. Class: 3 hours per week. Prerequisite: PSYC 111. [L,S] (Fa,Sp) 3 credits

#### **PSYC 240: Organizational Behavior**

A survey of the psychological factors that influence the individual in the work setting. Includes employee attitudes, motivation, group dynamics, decision making, leadership, assessment and training as an introduction to human resource management. [L,S] (Fa,Sp) 3 credits

#### PSYC 243: Supervision: Leadership Behavior

The supervisory function in profit and nonprofit organization involves the ability to work with and through people. Topics studied include: motivation, leadership style, communications, performance appraisal, time management, stress, and workers with special needs. [L,S] (O) 3 credits

#### **PSYC 244: Adolescent and Adult Development**

An exploration of current problems, theories and research in adolescent and adult development. A basic exploration of physical, cognitive, and socioemotional changes and the psychological dynamics which accompany them including adjustments, changing roles, and social relationships. Class: 3 hours per week. Prerequisite: PSYC 111. [L,S] (Fa,Sp) 3 credits

#### PSYC 250: The Psychology of Sport

This course examines psychological theories and research related to sport and exercise behavior. The course is designed to introduce you to the field of sport and exercise psychology by providing a broad view of the major topics in the area. Class: 3 hours per week. Prerequisite: PSYC 111. [L,S] (Fa,Sp) 3 credits

#### **Quality Assurance**

Quality assurance courses are offered by the College in cooperation with local industrial organizations and the American Society for Quality Control.

#### **QA 100: Statistical Process Control**

An introduction to the concepts of manufacturing statistical process control. Topics include: measures of central tendency, measures of variation, normal distribution theory, process run charts, process control charts for variable and attribute data, normal probability plots, Pareto diagrams and cause and effect diagrams. Class: 3 hours per week. Prerequisite: MATH 108 or MATH 111. (Fa,Sp) 3 credits

#### **QA 110: Measurement and Measurement Systems**

An introductory course in the techniques of making successful measurements for dimensions, pressures, temperatures and other manufacturing process variables. The design and use of automated measuring and test equipment will be discussed. Methods for establishing controls for preparation and use of inspection gaging will be discussed. Prerequisite: ENGR 101. (Sp) 3 credits

#### QA 120: Inspection and Gaging

An introductory course that will cover the use of inspection gages. Students will gain hands-on experience with a variety of gages and measuring instruments. Basic concepts of angle measurement and true position layout will be discussed. Class: 3 hours per week. Prerequisites: ENGR 101 and QA 110. (Fa) 3 credits

#### QA 140: Layout Inspection

A course in the applications of engineering drawing interpretation and layout inspection techniques for detailed inspection of manufactured products. Students will become familiar with layout equipment such as rotary heads, sine plates, precision gage blocks and pins. Students will learn when and how to apply geometric true positioning concepts. Class: 4 hours per week. Prerequisites: ENGR 101, QA 100, QA 110, QA 120. (Sp) 4 credits

#### QA 150: Statistical Methods of Quality Improvement

A course in various statistical methods and their applications in industry. Course concentration will deal with the use of statistical logic and methods to aid in the solution of quality, production and engineering type problems. Class: 3 hours per week. Prerequisite: QA 100. (Fa) 3 credits

#### **Quantitative Methods**

#### QM 110: Quantitative Methods for Business Careers

A broad introduction to mathematical problems most commonly associated with business-oriented careers will be covered. This course provides students with sufficient background to assist them as consumer decision-makers and future employees of business firms. Prerequisite: eligible for MATH 101 or higher. (Fa,Sp) 3 credits

#### Recreation

#### **REC 101: Introduction to Recreation and Leisure Studies**

This course serves as an introduction to the field of recreation and leisure service. The student will understand the development of the recreation movement from early ages to the present with emphasis on future perspectives. Cultural, economic, and social factors in reference to leisure participation will be explored. Career opportunities in a variety of settings will be highlighted. Philosophies of recreation will be discussed. Students will develop a personal philosophy of recreation and leisure. (Fa) 3 credits.

#### Respiratory Care

These courses are open only to students in the Respiratory Care program.

#### **RC 201: Clinical Practice**

Placed in various clinical situations under the supervision of clinical instructors, students perform techniques learned in the classroom. (Fa) 1 credit

#### **RC 202: Clinical Practice**

Placed in various clinical situations under the supervision of clinical instructors, students perform techniques learned in the classroom. (Sp) 1 credit

#### **RC 203: Clinical Practice**

Placed in various clinical situations under the supervision of clinical instructors, students perform techniques learned in the classroom. (Su) 1 credit

#### RC 204: Clinical Practice

Placed in various clinical situations under the supervision of clinical instructors, students perform techniques learned in the classroom. To be taken concurrently with RC 251. (Fa) 2 credits

#### RC 205: Clinical Practice

Placed in various clinical situations under the supervision of clinical instructors, students perform techniques learned in the classroom. (Sp) 2 credits

#### RC 211: Applied Pharmacology

The study of the composition, indication and effects of medication administered to patients, with emphasis on the drugs prescribed for the cardiopulmonary system. (Sp) 3 credits

#### RC 221: Respiratory Care I

An introduction to the anatomy and physiology of the respiratory system including an in-depth study of normal breathing. Assessment of the pulmonary patient concludes the course. (Fa) 3 credits

#### RC 222: Respiratory Care II

The theory and administration of respiratory care procedures including airway management, monitoring devices, and clinical assessment of the respiratory patient will be taught. Prerequisite: RC 221. (Sp) 3 credits

#### RC 241: Ventilation Therapy I

The theory and function of gas administration systems and devices will be taught. Medical gases, regulators and oxygen delivery systems are discussed. (Fa) 3 credits

#### RC 242: Ventilation Therapy II

A study of the volume ventilators used in respiratory care with an in-depth explanation of mechanical and functional operation. Indications, hazards and complications for continuous ventilation of the patient are stressed. Prerequisite: RC 241. (Su) 3 credits

#### RC 251: Advanced Respiratory Care I

A study of the pulmonary and cardiac circulation, hemodynamic monitoring, and fluid and electrolyte balance as it relates to cardiopulmonary medicine. Prerequisite: BIO 153. (Fa) 3 credits

#### RC 261: Advanced Respiratory Care II

A study of the respiratory care modalities used in the care of neonatal and pulmonary rehab patients. (Each population will be discussed in separate units.) Prerequisite: RC 251. (Sp) 3 credits

#### RC 282: Clinical Application I

A study of cardiopulmonary abnormalities and their treatment. Acute and chronic diseases of congenital, accidental, malfunctional and microorganismal origin are studied. To be taken concurrently with RC 251. (Fa) 3 credits

#### RC 283: Clinical Application II

The study of cardiopulmonary abnormalities and diseases of the neonatal, pediatric and adult patient with major emphasis on diagnosis and treatment. Prerequisite: RC 282. (Sp) 2 credits

#### **Social Science**

#### **SOSC 110: Introduction to Wellness**

A survey of contemporary health concepts and concerns that affect life style. Students will learn to apply these concepts by assessing their own level of fitness. Topics include: disease in the United States, health models, fitness, nutrition, stress, drugs, alcohol, tobacco, alternative medicine and the concept of self care. Class: 3 hours per week. [L,S] (Fa,Sp) 3 credits

#### **SOSC 150: Transition Development**

This course is designed for adult students who are resuming their education. Topics include goal setting, academic and career choices, math anxiety, family and work stresses, problem solving, and skill building. *Open only to students in the Adults in Transition program.* (Fa,Sp) 2 credits

#### SOSC 155: Women's Issues and the Law

An examination of legal responses to gender-based treatment in society. Legal materials will be studied to provide both a historical and current perspective on issues affecting women and men. Readings will be used as the basis for public policy discussions and greater understanding of the law of sex discrimination. [L,S] (Fa) 3 credits

#### SOSC 201: Introduction to African/American Studies

An interdisciplinary survey course of the historical, social, economical, political, philosophical and cultural experience of the African American. This course serves as the introductory course to give students an Africentric perspective to evaluating information in society; other philosophical perspectives may be introduced. Recommended for potential U.S. History and American Studies majors. [L,S] (O) 3 credits

#### SOSC 220: Computers and Their Impact on Society

This is a course in elementary computer concepts and the historical development of computer technology. It emphasizes an introduction to hardware, software and programming. Applications to areas of education, science, business and personal use are among the subjects discussed. Hands-on instruction in BASIC and a review of major applications are included. This course is not intended for computer information systems majors and will be directed toward persons with no prior knowledge of computers. Class: 3 hours per week. [L,S] (O) 3 credits

#### SOSC 232: Crime and Punishment

Social crime and justice in America. This course will investigate the kinds of behavior which American society has defined as criminal and the legal treatment responding to such behavior. Class: 3 hours per week. [L,S] (O) 3 credits

#### SOSC 242: American Families

A look at nuclear American family life from early Colonial period to the present, to see how various commentators have regarded and evaluated American families. Course will rely on the writings of historians, sociologist, novelists and social critics. Class: 3 hours per week. [L,S] (O) 3 credits

#### SOSC 262: Puerto Rican History and Culture

An introduction to the history and culture of Puerto Rico designed to give both Hispanic and other students an understanding of the historical factors and the cultural concepts that help develop today's Puerto Rico and its people, both on the island and on the mainland. Class: 3 hours per week. [L,S] (O) 3 credits

#### SOSC 270: Cooperative Education/Work Experience

This course provides students the opportunity to apply classroom theory in an actual work setting. Students may be placed in a variety of work settings as related to their program of study including social service agencies, day care facilities, and corporations. Prerequisites: 12 completed credit hours in the Social Service, Disabilities Specialist, Criminal Justice, Sport and Exercise, Therapeutic Recreation, and Early Childhood/Educational Associate programs. (Fa,Sp) 3 credits. Please refer to page 16 for more information and general prerequisites for Cooperative Education/Work Experience.

#### Sociology

#### **SOC 101: Introduction to Sociology**

Introduction to the perspective, working concepts and investigatory methods of the sociologist as they apply to the understanding of social institutions, social processes and social problems. Class: 3 hours per week. [L,S] (Fa,Sp,Su) 3 credits

#### SOC 202: Contemporary Social Problems

A detailed analysis of major social problems in American society. Problems including population, ecology, poverty, race and ethnic relations, urbanization, the role of the media, criminal activity, aging, health, and housing will be evaluated. Emphasis is on American society, but some international issues and situations will be examined. Community awareness and involvement will be stressed as students evaluate local issues as well. Prerequisite: SOC 101. Class: 3 hours per week. [L,S] (Fa,Sp) 3 credits

#### SOC 203: Sociology of Deviance

Analysis of social deviance, review and discussion of causes, and possible approaches for controlling deviant behavior. Areas to be studied include mental illness, alcohol and drug abuse, sexual deviance, criminal activity, physical abuse, violent behavior, and collective deviance. Class: 3 hours per week. Prerequisite: SOC 101 or permission of instructor. [L,S] (Fa) 3 credits

#### SOC 205: Impact of Aging on the Family

This course will consider key social issues and current service delivery systems that affect the aged population. Prerequisite: SOC 101. Class: 3 hours per week. [L,S] (Sp) 3 credits

#### SOC 211: Juvenile Delinquency

Examines the social aspects of juvenile delinquency and the pressures that cause this behavior to emerge. The organization, functions and jurisdiction of the juvenile court system, as well as processing, detention, case disposition and juvenile delinquency statutes, are examined. Class: 3 hours per week. Prerequisite: SOC 101. [L,S] (O) 3 credits

#### SOC 221: Criminology

Introduces the fundamental principles of criminology; namely, the nature, existence and causation of crime, the problems and procedures involved in the administration of justice, and rehabilitative and corrective treatment. Class: 3 hours per week. Prerequisite: SOC 101. [L,S] (Sp) 3 credits

#### SOC 231: Marriages and Families

This course will explore the complexity and diversity of contemporary family arrangements in American society. Prerequisite: SOC 101. [L,S] (Fa,Sp) 3 credits

#### SOC 241: Urban Sociology

Discusses the emergence of urban life, the historical development and changing social patterns and life styles in metropolitan America, urban renewal and redevelopment, urban stratification and power, and urbanizing the Third World. Class: 3 hours per week. Prerequisite: SOC 101. [L,S] (O) 3 credits

#### SOC 245: Industrial Sociology

This course seeks to apply sociological principles to the study of industrialization and modernization; the individual in the work organization; the social organization of the work place; power, status, wealth, and advancement; applied problems and the community of the industrial organization. Class: 3 hours per week. Prerequisite: SOC 101. [L,S] (O) 3 credits

#### SOC 251: Sociology of Sport

This course is designed to introduce students to the field of sport sociology by providing a broad overview of the major topics in the area. The course will examine the importance of social forces upon sport activities and organization as well as

the economic and political ramifications of sport in American society. Class: 3 hours per week. Prerequisite: SOC 101. [L,S] (O) 3 credits

#### SOC 260: Medical Sociology

An interdisciplinary course on the relationship between social factors and health. Prerequisite: SOC 101. Class: 3 hours per week. [L,S] (Fa,Sp) 3 credits

#### SOC 261: Survey of Women's Issues

An interdisciplinary study of women in contemporary America, making use of the data and methodology of history, psychology and sociology. Class: 3 hours per week. [L,S] (Sp) 3 credits

#### SOC 262: Women and Violence

The course uses a multidisciplinary approach to explore the historical, social, political, psychological and personal meaning of violence against women. Areas to be studied include sexual assault, battering, incest/child abuse, and sexual harassment. Class: 3 hours per week. [L,S] (Fa) 3 credits

#### SOC 271: Sociology of Ethnic and Racial Minorities

Focuses on the interrelationship of institutionalized prejudice and discrimination and related aspects of society. The experience of various ethnic and racial minorities in the United States is investigated in studying the origins and functions of subordination for society. Class: 3 hours per week. Prerequisite: SOC 101. [L,S] (O) 3 credits

#### SOC 277: Social Survey Research

This course will introduce students to the logic and skills used conducting social research. Topics include interview and questionnaire design and writing a research report. Data will be computerized and elementary data analysis performed using a statistical software package. The overall objective is for the student to develop critical thinking skills to become more informed consumers of social survey research. Class: 3 hours per week. Prerequisites: SOC 101 and MATH 101 or by permission of instructor. [L,S] (Sp) 3 credits

#### **Spanish**

#### SPAN 101: Elementary Spanish I

An introduction to spoken and written Spanish. Emphasis is on basic grammar and developing all four language skills (reading, writing, listening and speaking) with an emphasis on Hispanic culture. No previous Spanish language experience required. Class: 4 hours per week. [H,L] (Fa,Su) 4 credits

#### SPAN 102: Elementary Spanish II

A second semester course in which students develop all four language skills (reading, writing, listening, and speaking) while studying grammatical structures (preterite, imperfect, and present progressive tenses; object pronouns, reflexive verbs) that are more advanced than those studied in the first semester Spanish course. Hispanic culture will be studied. Class: 4 hours per week. Prerequisite: SPAN 101, one year of high school Spanish, or permission of instructor. [H,L] (Sp,Su) 4 credits

#### SPAN 108: Elementary Spanish I and II

An intensive, beginning Spanish course in which two semesters of Spanish (101 and 102) are completed in one semester. Students will develop all four language skills. The emphasis in class will be speaking and listening, the assignments will emphasize reading and writing. Hispanic culture will be studied. No previous Spanish language experience required. Class: 8 hours per week. [H,L] (Fa,Sp) 8 credits

#### SPAN 112: Elementary Career Spanish

Development of speaking and listening ability for understanding and communication in daily situations, with emphasis on oral comprehension,

speaking and pronunciation, and the development of a utilitarian vocabulary. SPAN 112 may be substituted for 102; speak with the instructor about the desirability of making this substitution. Class: 4 hours per week. Prerequisite: SPAN 101 or one year of high school Spanish, or permission of the instructor. [H,L] (O) 4 credits

#### SPAN 125: Spanish Culture

A survey of Spanish culture taught in English. Topics of study include art, music, literature, history, geography, political systems, bullfighting, and culture with a small "c" (use of two surnames, extended families, cuisine, etc.) Class: 3 hours per week. [H,L] (O) 3 credits

#### **SPAN 130: Hispanic Culture**

This is an independent study course which is offered in conjunction with an academic trip and is available only to participants of that trip. Pre-trip assignments will prepare the students for the research that will be done in the country of the trip and post-trip assignments will organize and analyze the information observed and collected in the Hispanic country. (This course can be done in English or in Spanish.) Class: hours per week will depend on number of credit hours. Corequisite: student must participate in an academic trip sponsored by MCC. [H,L] (O) 1, 2 or 3 credits

#### **SPAN 135: Hispanic Culture and Conversation**

A one-semester, first-level course for two-year career program students which stresses aspects of Hispanic culture, as well as pronunciation and vocabulary skills in Spanish, that would be helpful as an additional tool in future employment, job advancement, and effective fulfillment of daily job routines. Class: 3 hours per week. [H,L] (O) 3 credits

#### SPAN 145: Mexican Culture

A survey of Mexican culture taught in English. Topics of study includes art, music, literature, ancient civilizations, history, geography, political systems, bullfighting, and culture with a small "c" (use of two surnames, bargaining in the market, extended families, cuisine, etc.). Class: 3 hours per week. [H,L] (O) 3 credits

#### SPAN 201: Intermediate Spanish I

A third semester course in which grammar, conversation and reading materials are at an intermediate level. Cultural readings will be in Spanish. Class: 4 hours per week. Prerequisites: SPAN 101, and 102 or 112, 108 or two years of high school Spanish or permission of instructor. [H,L] (Fa) 4 credits

#### SPAN 202: Intermediate Spanish II

A fourth semester course in which the grammar, conversation and reading materials are at an intermediate level. Cultural readings will be in Spanish. Class: 4 hours per week. Prerequisite: SPAN 201 (211) or three years of high school Spanish or permission of instructor. [H,L] (Sp) 4 credits

#### SPAN 208: Intermediate Spanish I and II

An intensive, intermediate Spanish course in which two semesters of Spanish (201 and 202) are completed in one semester. Students will be taught all four language skills with an emphasis on speaking and listening in class and an emphasis on reading and writing through the assignments. Cultural readings will be in Spanish. Class: 8 hours per week. Prerequisite: SPAN 102 or 112, 108 or two years of high school Spanish or permission of instructor. [H,L] (Sp) 8 credits

#### SPAN 211: Intermediate Career Spanish I

Specialized, filmed dialogue situations, taped materials, vocabulary building and aural-oral understanding. Class: 4 hours per week. Prerequisites: SPAN 101 and 102 (112), or 108 or two years of high school Spanish or permission of instructor. [H,L] (O) 4 credits

#### SPAN 212: Intermediate Career Spanish II

Selected dialogues from career situations, role playing, development of cross-cultural understanding and communication skills. Class: 4 hours per week. Prerequisites: three years of high school Spanish or permission of instructor. [H,L] (O) 4 credits

#### SPAN 251: Advanced Spanish I

A fifth semester course in which language skills will be reinforced while increased emphasis is placed on composition and conversation. Literature and culture will also be studied in Spanish. Class: 3 hours per week. Prerequisites: SPAN 202, 208 or permission of the instructor. [H,L] (O) 3 credits

#### SPAN 252: Advanced Spanish II

A sixth semester course in which language skills will be reinforced while increased emphasis is placed on composition and conversation. Literature and culture will also be studied in Spanish. Class: 3 hours per week. Prerequisites: SPAN 202, 208 or permission of instructor. [H,L] (O) 3 credits

#### Speech See Communication

#### **Student Development**

#### SD 100: Creating Your Own College Success

This course is designed to help students maximize the value of their college experience. Topics include self assessment, goal setting, decision making, and time management. Emphasis will be placed on the development of a plan leading to a successful college experience. (Fa,Sp) 1 credit

#### SD 101: Career Life Planning

A course designed to develop the knowledge and skills necessary for lifelong career planning. Students will increase their self-awareness through analysis of self-assessment data obtained from biographical data, interest inventories, value surveys, personality surveys, and ability surveys. Students will also develop personal career directions and strategies for working toward them. Students will be expected to share personal and life experiences in group settings. (Fa,Sp) 3 credits

#### SD 111: First Year Experience: Foundations for College Success

The course provides students with the skills and knowledge to succeed in college. The course integrates discipline specific course work with assignments which will allow students to practice good college level thinking and learning skills. Topics discussed in the course include critical thinking, reading comprehension, and problem solving. Skills to be developed include time management, research skills and collaborative learning techniques. The course fosters an understanding and appreciation for the diversity of the college community and encourages students to become responsible and enthusiastic participants in their education. Class: 3 hours per week. (Fa,Sp) 3 credits

#### Surgical Technology

These courses are open only to students in the Surgical Technology program.

#### ST 101: Operating Room Procedures I

An introduction to theoretical experience of the basic skills used in an operating room: aseptic technique, technologists' arts, instrumentation, draping techniques, and related operating room skills. An explanation of essential patient care concepts necessary for effective functioning in an operating room. (Fa) 4 credits

#### ST 102: Operating Room Procedures II

An introduction to practical experience of the basic skills used in an operating room: aseptic technique, technologists' arts, instrumentation, draping techniques, and related operating room skills, includes an extensive survey of various surgical specialties including specific operations in each discipline. (Sp) 4 credits

#### ST 105: Medical Terminology

An introduction to basic and advanced medical terms used in medicine and surgery. Open to all students. (Fa) 2 credits

#### ST 106: Seminar in Surgery

This course serves as a bridge between the preclinical and clinical phases of the program and emphasizes the total picture of the surgical patient. Students learn about health care departments outside the operating room that are integral to diagnosis and treatment of surgical conditions. Presentations by physicians and practitioners emphasize surgical procedures and perioperative care of the patient. A research paper on a surgical procedure is required. (Su) 2 credits

#### ST 220: Clinical Experience I

An introduction to clinical practice in general and specialty surgical procedures in the operating room and outpatient facilities. Emphasis is on applying skills learned in the pre-clinical courses to clinical practice including experiences in basic operating room procedures and minor surgery. (Su) 2 credits

#### ST 222: Clinical Experience II

Clinical practice in the operating room concentrating on experience in basic procedures of general and specialty surgery. (Fa) 4 credits

#### ST 224: Clinical Experience III

Clinical practice in the operating room concentrating on experience in advanced levels of general and specialty surgery. Includes classroom preparation for the national certification examination and development of job search skills. (Sp) 4 credits

#### Theatre

#### **THEA 111: Introduction to Theatre**

An introduction to the theory and practice of live theatre. The course covers how plays are produced, it establishes aesthetics by which live performances can be judged, and looks at the historical origins of current practices. Students read, attend and discuss plays produced by area professional theatre. Prerequisite: ENG 111 (may be taken concurrently). [H,L] (Fa) 3 credits

#### THEA 115: Modern Dance I

An introduction to modern dance techniques, improvisation, choreography and history. The course includes thorough body warm-up, physically energizing dance sequences and combinations, creative explorations, dance compositions, films and an informal performance. Open to all students. May be taken one or two semesters. Class: 3 hours per week. [H,L] (Fa) 3 credits

#### THEA 181: Acting I

A first course in acting. Students will focus on relaxation and physical awareness, and on developing their imagination, concentration and characterization skills. They will be introduced to basic vocal and physical techniques. Class: 3 hours per week. [H,L] (Fa,Sp) 3 credits

#### THEA 182: Acting II

A continuation of THEA 181. Students will focus on script analysis and interpretation, and will expand their emotional, expressive and technical ranges. Class: 3 hours per week. Prerequisite: THEA 181 or equivalent training or experience. [H,L] (Sp) 3 credits

#### THEA 201: Theatre Practicum

Students earn academic credit by participating in Theatre Wing productions, either on stage or backstage. Credit earned depends on extent of participation and degree of responsibility. Class: by arrangement. *Course may be repeated for up to a maximum of six credit hours*. Prerequisite: THEA 181 or THEA 195, or equivalent training or experience. [H,L] (Fa,Sp) 1-3 credits

#### THEA 291: Survey of Drama

Critical study of representative plays from classical times to the present designed to promote intelligent and imaginative reading and comprehension of the western world's dramatic traditions. Class: 3 hours per week. Prerequisite: ENG 120 or THEA 111. [H,L] (Sp) 3 credits

#### **Therapeutic Recreation**

#### THRC 115: Introduction to Principles of Therapeutic Recreation

This course provides a background of study for the field of therapeutic recreation. It encompasses the history and development of the profession with an emphasis on understanding the persons who are served, their disabilities, and the environments in which they live. An experiential approach offers understanding and empathy. Class: 3 hours per week. Prerequisite: eligibility for ENG 111. (Fa,Sp) 3 credits

#### THRC 116: Processes and Techniques in Therapeutic Recreation

This course is designed to provide an overview of the process and techniques used in treatment oriented programs. The course explores leadership skills of the helping professional through an in-depth look at facilitation techniques used in therapeutic recreation, including, but not limited to: creative arts, physical/body movement, mental stimulation, and social interaction in relation to the needs of special population groups. Emphasis is placed on meeting clients' needs through proper activity selection, including activity analysis and program adaptation/modification. Prerequisite: eligibility for ENG 111. (Fa,Sp) 3 credits

# THRC 215: Therapeutic Recreation Programs: Planning and Implementation

This course involves the student in the study of the therapeutic recreation process with emphasis on program planning. The needs of the client will be met through a well planned process that includes assessing functional abilities and needs, planning program goals and objectives, implementing the program, and evaluating both the program and the client. Prerequisites: THRC 115 and eligibility for ENG 111. (Sp) 3 credits

#### THRC 230: Leisure and Aging

This course serves as an overview to the delivery of therapeutic recreation services to older adults. The course will assist the student in developing an understanding of the elderly and how activity intervention may be used to reach treatment and rehabilitation goals. The course will focus on issues such as the physiological, psychological, and socio-economic factors of the aging process, leisure resources, community and institutional services, and recreation in assisted living facilities and in long term care settings. (Sp) 3 credits

#### THRC 280: The Professional Practicum in Therapeutic Recreation

This course provides the student with practical experience in a therapeutic recreation setting. The student is required to work a minimum of 200 hours in a community based or medical setting that provides therapeutic recreation services. During this period, the student will apply the knowledge, methods, and leadership techniques which have been learned in academic courses. Students will also participate in 15 hours of classroom discussion during the semester. (Su) 4 credits

## **Faculty and Professional Staff**

#### **President**

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Post Graduate Certificate, University of London,

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MA, University of Aberdeen, Scotland

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Executive Assistant Emerita to the President AS, Manchester Community College AS, Manchester Community College

HOLT, LLOYD I.

Associate Dean Emeritus of Enrollment and

Retention Services

PhD University of Connecticut MS, University of Connecticut BS, University of Maine

HORWITZ, DOROTHY G.

Associate Professor Emerita of English and

Romance Languages MA. Columbia University BA, Bucknell University

HOWES-STEVENS, SUZANNE Professor Emerita of Fine Arts MA, University of Hartford BFA, Massachusetts College of Art

KLEPACKI, RONALD J.

Professor Emeritus of Mathematics and Physics

MS, Trinity College

MA, University of Connecticut

BS, Central Connecticut State University

LEE. WELLINGTON C.

Professor Emeritus of Computer Information Systems

MEd, St. Lawrence University JD, National University of Taiwan

LEWIS, THOMAS R.

Professor Emeritus of Geography

PhD Rutgers University CASG, Clark University

MS, Central Connecticut State University BS, Central Connecticut State University

LIPSHIRES, SIDNEY S. Professor Emeritus of History PhD University of Connecticut

MA, Trinity College BA, University of Chicago

LONG, PATRICIA K.

Professor Emeritus of Accounting MS. Central Connecticut State University

BA, Annhurst College AS, Becker Junior College

MANNING, ROBERT F. Professor Emeritus of Fine Arts MA, University of Hartford BFA. Pratt Institute

McCONNELL, THERESA Professor Emerita of Business

Certificate in Financial Planning, Fairfield University

EA, IRS Enrolled Agent MBA, University of Connecticut BA, Rutgers University

MISTRETTA, JOSEPH PATRICK **Director Emeritus of Athletics** MA, University of Connecticut BS, West Virginia Wesleyan College

NATALE, BARBARA

Director Emerita of Library Services MS, Southern Connecticut State College BA, Central Connecticut State College

OFIARA, SYLVIAN E.

Associate Professor Emeritus of Photography Certificate, Progressive School of Photography

PISK. ROSEMARIE G.

Professor Emerita of Office Administrative Careers

MS, Marywood College BA, Marywood College

PLESE, CHARLES A.

Dean Emeritus of Institutional Development

MEd, Springfield College BEd. University of Michigan AA, Flint Community College QUINLAN, CONRAD S. Professor Emeritus of Chemistry MAT, Brown University MEd, University of Hartford AB, University of Connecticut

REGAN. CHARLES E. Director Emeritus, Business Careers Division

6th year, University of Connecticut MA, University of Connecticut BS, Keene State College

RICHARDSON JR., ROBERT E.

Professor Emeritus of Speech and Theatre

PhD Princeton University MA, Princeton University BA, Trinity College SALAMON, MARIE

Director Emerita of Personnel MHSA, Antioch University

AS, Manchester Community College

SCHEIDEMAN, JACK L.

Director Emeritus of the Instructional Media Center

6th Year, University of Connecticut MA, University of Northern Colorado BA, University of Northern Colorado

SCHOBER, LEROY E.

Professor Emeritus of Accounting LLB, University of Connecticut MBA, University of Michigan BS, University of Pennsylvania

SCHWARTZ, JUDITH R. Professor Emerita of Business

MS, Central Connecticut State University BS, Simmons College

SCHWEITZER, BURTON L.

Professor Emeritus of Reading and English

EdD, Nova University

6th year, Central Connecticut State University

MEd, University of Hartford

BS, Central Connecticut State University

SHOREY, WAYNE K. Professor Emeritus of Biology MS, University of Maine, Orono

BS, Bates College

SINES, B. BARBARA

Assistant Director Emerita, Information Technology Center

MEd, University of Hartford

BS, Eastern Connecticut State University AS, Manchester Community College AS, Manchester Community College RN, Grace-New Haven Hospital

SMAGA, BRENDA Professor Emerita of Occupational Therapy

MS, Columbia University BA, San Jose State University

STEERE, KENNETH W. Professor Emeritus of Psychology

MD, Yale Divinity School BA, Wesleyan University

STEVENS, JOHN E.

Professor Emeritus of Fine Arts MFA, University of Hartford BFA. Massachusetts College of Art

SULLIVAN, KATHLEEN T. Professor Emerita of English MA. University of Massachusetts BA, University of Massachusetts AA, Berkshire Community College

SUTHERLAND, JOHN F. Professor Emeritus of History PhD Temple University MA, University of Maine BS, University of Maine TAMARKIN, TOBY S.

Director Emerita of the Humanities & Communication

Arts Division

PhD University of Connecticut MA, University of Connecticut BA, Ohio State University

TATRO, JAMES O.

Dean Emeritus of the Division of Community Services

MA, University of Connecticut AMT, Harvard University AB, Harvard University

TEGUIS, ALEXANDRA Professor Emerita of Psychology MA. Assumption College BA, University of Massachusetts

TIERNEY, JOYCE E.

Associate Professor Emerita of Accounting 6th year, University of Connecticut

MA, New York University BA, University of Connecticut

VIZARD, RICHARD E. Professor Emeritus of Business MS, University of Maine BS. American International College

WERBNER, ALFRED P.

Professor Emeritus of Real Estate JD, New York Law School

WILLARD, LAWRENCE F. MA, Fairfield University

Associate Professor Emeritus of Communications

AB, Middlebury College ZAHEER, MOHAMMAD Professor Emeritus of Economics PhD University of Connecticut EdS, Indiana University MS. Indiana University

MA, Panjab University, Pakistan BCom, Panjab University, Pakistan

ZULLO. FRANK X.

Associate Professor Emeritus of Law Enforcement

MPA, City College of New York BA, City College of New York

## Adjunct Faculty (Health Careers)

# Drug/Alcohol Rehabilitation Counselor Program

BLUE RIDGE TREATMENT CENTER, Bloomfield Karen Gardner, MA, CADC, primary counselor/team leader

FARRELL TREATMENT CENTER, New Britain Richard Rinauldo, PhD, executive director

HARTFORD (Meadows) CORRECTIONAL FACILITY,

Jay-Todd Schuder, MS, LADC, clinical supervisor and program coordinator

JOHNSON MEMORIAL HOSPITAL, Enfield Roseann Harding, RN, coordinator, chemical dependence program

LEBANON PINES, Lebanon Bill Sugden, CADC, director

MANCHESTER MEMORIAL HOSPITAL, Manchester

Dale Smith, MS, LADC, intern supervisor

THOMAS MURPHY CENTER, Willimantic Mary Lemay, MA, program director NATCHAUG HOSPITAL, Mansfield

Robin Rosen, MA, LADC, addictions coordinator

NEW HOPE MANOR, Manchester Judy Johnson, BS, prevention director

PERCEPTION HOUSE, Willimantic

Diane Therough, MHSA, RN, CARN, director RADGOWSKI CORRECTIONAL INSTITUTION,

Montville

Report Warfield MS LADC addiction convices pre

Robert Warfield, MS, LADC, addiction services program coordinator

RUSHFORD CENTER, Middletown Elly Sears, MS, LADC, CCS, clinical manager, residential program

SALVATION ARMY, Hartford Beverly Robinson, CADC, program director

STONEHAVEN, Portland

Lucy Rosenblatt, MA, CAC, intern supervisor

WATERFORD COUNTRY SCHOOL, Waterford Vivian McFarland, LCSW, CADC, CCS, shelter director

### Medical Laboratory Technician Program

HARTFORD HOSPITAL

Wayne Aguiar, MS, MT(ASCP), NCA(CLS), program director

Joan Flynn, BS, MT(ASCP), instructor Rosanne Lipcius, MS, MT(ASCP), instructor Yvette McCorter, PhD, instructor William Pastuszak, MD, instructor Phyllis Roy, BA, MT(ASCP), clinical lab education assistant

William Rzauke, MD, instructor Herbert Silver, MD, medical director Carol Skarzynski, BA, C(ASCP) instructor Robert Skiba, BA, H(ASCP)SH, instructor Alan Wu, PhD, instructor

#### Occupational Therapy Assistant Program

ACES VILLAGE SCHOOL, North Haven Patricia Tapper, OTR/L, clinical supervisor Ellen D'Agostino, COTA/L, clinical instructor

BACKUS HOSPITAL, Norwich Amy Anderson, OTR/L, clinical instructor

COLCHESTER PUBLIC SCHOOLS, Colchester Kathy Epperson, OTR/L, clinical supervisor Kimberly Brodeau, COTA/L, clinical instructor

CONNECTICUT VALLEY HOSPITAL, Middletown Elaine Keeler, OTR/L, clinical supervisor Steve Kellor, OTR/L, clinical instructor Valnere McLean, OTR/L clinical instructor Amy Macensky, COTA/L, clinical instructor Kathy Nelson, COTA/L, clinical instructor Tileen Sebastiano, COTA/L, clinical instructor

EASTERN REHABILITATION NETWORK, Granby Lynn Brown, COTA/L, clinical instructor

EASTER SEALS REHAB OF CENTRAL CT, Meriden Kim Bange Pier, OTR/L, clinical supervisor

HARTFORD PUBLIC SCHOOLS, HARTFORD Ann Koba, OTR/L, clinical supervisor Joan Deerborn, COTA/L, clinical instructor Damaris Michaud, COTA/L, clinical instructor

HEBREW HOME AND HOSPITAL, West Hartford Joan Gray, OTR/L, clinical supervisor

KETTLEBROOK HEALTH CARE CENTER, E. Windsor Cindy Reynolds, OTR/L, clinical supervisor

MIDDLETOWN PUBLIC SCHOOLS, Middletown Pat Aloisi, OTR/L, clinical supervisor

NEW BRITAIN GENERAL HOSPITAL, New Britain Donna Bristol-Goeben, COTA/L, clinical instructor

PORTLAND CARE AND REHAB CENTER, Portland Peggy Doyle, COTA/L, clinical instructor

REHAB HOSPITAL OF CT, Hartford Tina Hillemeir, OTR/L, clinical supervisor Michelle Aafedt, COTA/L, clinical instructor

ST. FRANCIS HOSPITAL BEHAVIORAL HEALTH, Hartford

Cris Adams, OTR/L, clinical supervisor

ST. JOSEPH'S LIVING CENTER, Windham Nancy Broughton, COTA/L, clinical instructor Vanessa Robinson, COTA/L, clinical instructor

THERAPY UNLIMITED, Watertown Jeff Wickline, OTR/L, clinical instructor

THE RESERVOIR, West Hartford Alicia Capella, COTA/L, clinical supervisor Laura Fontaine, COTA/L, clinical instructor

WESTFIELD CARE AND REHAB CENTER, Meriden Theresa Kossar, COTA/L, clinical instructor

WALNUT HILL HEALTH CARE CENTER, New Britain Linda Hassette, OTR/L, clinical supervisor

WOLCOTT VIEW MANOR, Wolcott Kim Keegan, OTR/L, clinical supervisor Debbie McGinn, COTA/L, clinical instructor Debbie Phipps, COTA/L, clinical instructor

#### Respiratory Care Program

BAYSTATE MEDICAL CENTER, Springfield, MA John Castro, BS, RRT, clinical instructor Patricia Daley, BS, RRT, clinical supervisor

CONNECTICUT CHILDREN'S HOSPITAL, Hartford

Tammy Barker, AS, RRT, clinical instructor Toni Grady, AS, RRT, CPFT, clinical instructor

GENOX, HOMECARE, Newington & Stratford Sylvia Colvin, BS, RRT, clinical instructor HARTFORD HOSPITAL, Hartford Leonard Heroux, MEd, RRT

H. Kenneth Lyon, MEd, RRT, clinical instructor Sally Mirtl, BS, RRT, clinical instructor Patricia O'Rourke, MS, RRT, educational director

HOSPITAL FOR SPECIAL CARE
Peter Bartlett, RTT, RCU team leader
Walter McManus, RRT, clinical instructor
Thomas Nielson, BA, RRT, clinical instructor
Laurie Tambellini, RRT, COU team leader
Mary Turley, BS, RRT, clinical instructor

MANCHESTER MEMORIAL HOSPITAL
Kathleen Brown, BS, RRT, clinical instructor
Patricia Carroll, RRT, RN, lecturer
Nancy Cosgrove, AS, RRT, RPSGT, clinical instructor
Tom Farrell, BS, CRT, RPFT, RPSGT, director of
neurodiagnostic services

Elaine Koza, MS, RRT, director of respiratory care Robert Marigliani, BS, RRT, clinical instructor Carl Wright, BS, RRT, RPFT, manager of respiratory care

**NEW BRITAIN EMS** 

Marge Letitia, RN, CEN, EMT-P, coordinator of EMS services

NEW BRITAIN GENERAL HOSPITAL
Mary Barrows, BS, RRT, clinical instructor
Jacqueline Bezrutczyk, BS, RRT, clinical instructor
Theresa Boudreau, BS, RRT, clinical instructor
William Carroll, CRTT, RPFT, clinical instructor
Nancy Kroeber, RN, cardiology manager
Ed McElroy, AS, RRT, respiratory care department
manager

Steve McGinnis, AS, CRTT, CPFT, clinical instructor Tom Perzan, BA, CRTT, CPFT, clinical instructor Gail Sileo, CRTT, clinical instructor

ST. FRANCIS HOSPITAL/MEDICAL CENTER, Hartford Rick Vale, BS, RRT, instructor Richard Zuwallack, MD, medical director & instructor

## Surgical Technology Program

CONNECTICUT CHILDREN'S MEDICAL CENTER, Hartford

JoAnn Carufel, RN, BSN, CNOR, Director Perioperative Services

HARTFORD HOSPITAL, Hartford Judith Barham, CST, BA, instructor Margaret Fusco, CST, BS, instructor Betty Hall, CST, AS, program director Ann Johnson, CST, AS, instructor George Perdrizet, MD, medical advisor

MANCHESTER MEMORIAL HOSPITAL, Manchester Carol Bucknavage, RN, BS, OR manager June Roncarti, RN, CNOR, BSN Ed, clinical instructor

NEW BRITAIN GENERAL HOSPITAL
Judy Giammarco, RN, CNOR, MS, perioperative
educator

Katherine Jenuska, RN, CNOR, MBA, director of surgical services

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## **Connecticut Community College System Schedule of Fees**

38.00

7.00

114.00

21.00

57.00

10.50

#### **GENERAL FUND TUITION**

1 Full time student nor competer (1)

1.	Full-time student - per semester (1)	
	a) Connecticut resident (2)	\$840.00
	b) Out-of-state resident (2)	2,616.00
	c) NEBHE	1,260.00
2.	Part-time student - per semester hour	
	a) Connecticut resident (2)	70.00
	b) Out-of-state resident (2)	218.00
	c) NEBHE	105.00
3.	TV course student - per course (3 credits)	210.00
GENERA	AL FEES (3)	
Auxilia	ary Service Fund Fees	
Colle	ege Service Fee	
1.	Full-time student - per semester	
	a) Connecticut resident	94.00
	b) Out-of-state resident	282.00
	c) NEBHE	141.00

# f) NEBHE (5-12 credits, per credit hour) Student Activity Fund Fees

Part-time student - per semester

e) NEBHE (fewer than 5 credits)

a) College Service Fee (fewer than 5 credits)

c) Out-of-state resident (fewer than 5 credits)

course basis, depending upon course offered.)

b) College Service Fee (5-12 credits, per credit hour)

d) Out-of-state resident (5-12 credits, per credit hour)

uuc	THE ACTIVITY I WHA I 663	
1.	Full-time student - per semester	10.00
2.	Part-time student - per semester	5.00

#### **EXTENSION FUND FEES**

_		
1.	Extension Fund student - per semester hour	
	regular academic year	73.00
	summer session	73.00
	on-campus, weekdays, weekend, regular semester, (5)	73.00
2.	Extension Fund student - credit-free (rate set on a per	

#### **SPECIAL FEES**

1.	Application Fee (6)	
	full-time student	20.00
	part-time student	20.00
2.	Program Enrollment Fee (7)	10.00
3.	Late Registration Fee	5.00
4.	Graduation Fee (local option)	31.50
5.	Transcript Fee	3.00
6.	Installment Payment Plan	15.00
7.	Late Tuition/Fee Payment	15.00
8.	Returned Check Fee	25.00
9.	Replacement of lost ID card	1.00
10.	CLEP Examination Fee (8)	
	for general or subject exams	
	one exam	40.00
	each additional exam, same month	40.00
11.	Academic Evaluation Fee	15.00
12.	TV course student - per course (3 credit hours)	7.25*
	*In addition to applicable tuition.	
13.	Portfolio Assessment Fee	50.00

#### Fee Deposit - Non-Refundable

Full-time and part-time students at the time of registration must pay a non-refundable deposit of all fees applicable to the courses for which registered, including courses for audit, exclusive of tuition.

The total tuition applicable to the courses for which registered, including courses for audit, is payable in one installment and is due six weeks before the first day of classes unless a deferred payment schedule, in accordance with approved Board of Trustees policy, has been approved.

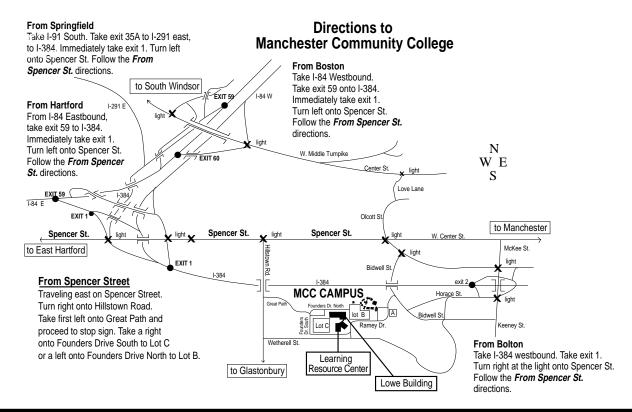
#### Installment Payment Plan

An Installment Payment Plan is available to students who are registered for a minimum of eight (8) semester hours. Students may apply for an installment payment plan at the time of registration. There is a \$15 non-refundable fee for participation in the plan.

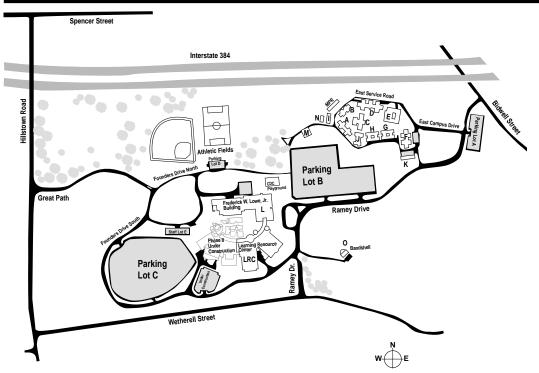
#### Footnotes

- Students enrolled in Tuition Fund courses and/or Educational Extension Fund courses carrying 12 semester hours or more will be classified as full-time students for general fee purposes.
- Waivers:
- a. Complete waiver of tuition for dependent child of person missing in action or former prisoner of war.
- b. The Connecticut Tuition Waiver is available for veterans who served on active duty (for at least 90 days) in the U.S. Armed Forces during time of war and were released from active duty under honorable conditions. The periods of conflict are: the Vietnam Era (1/1/64 to 7/1/75), the Korean hostilities (6/27/50 to 10/27/53), World War II (12/7/41 to 12/31/46), World War I (4/6/17 to 11/11/18) and any previous periods of conflict as far back as the Spanish-American War (4/21/98 to 8/13/98). The 100 percent tuition waiver is available for veterans if they are residents when accepted for admission.
- c. The tuition fees of veterans of armed forces who served in either a combat or combat support role in the invasion of Grenada, the peace keeping mission in Lebanon, or service during Operation Desert Shield and Operation Desert Storm (8/1/90-6/30/94) shall be waived. To be eligible for such waiver, a veteran must be a resident of Connecticut at the time he/she is accepted for admission and be honorably discharged or released under honorable conditions from active service in the armed forces. "Combat or combat support role" means assigned to the theatre of operations during the invasion or peace keeping mission.
- d. Tuition, general fees and the application fee are completely waived for those persons 62 years of age or older who have been accepted for admission, provided at the end of the regular registration period, there is space available in the course in which the person intends to enroll. Special fees other than application fee must still be paid.
- e. Tuition may be waived or remitted by the President, or his designated appointee, for any in-state student who demonstrates substantial financial need and who is enrolled on a full-time or part-time basis in a degree or certificate program or a pre-college remedial program.
- f. Tuition shall be waived for any student attending the Connecticut State Police Academy who is enrolled in a criminal justice program at the Academy that is offered in coordination with a regional community college that accredits courses taken in the program. This waiver applies only to courses taken at the Connecticut State Police Academy and not to course work required for a degree taken at the college.
- g. The tuition fees of any eligible member of the Connecticut Army or Air National Guard shall be waived. To be eligible for such 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 regional 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.
- h. The Community College Presidents are authorized to waive the Student Activity Fee only for students enrolled in Tuition Fund financed courses offered at off-campus locations.
- General Fees are applicable to both Tuition Fund and Extension Fund students, except the TV course and courses by newspaper.
- 4) On-campus Extension Fee: rate applies to on-campus Extension Fee courses that permit the colleges to enroll additional students beyond the level supported by the General Fund.
- Not applicable for the following: (a) CONNTAC applicants, (b) Upward Bound applicants and (c) needy and deprived students as determined by college.
- 6) Not applicable if student paid the \$20 application fee.
- CLEP exam fees are payable to College Level Examination Board and are not deposited or held in state accounts.

College Presidents, with the approval of the Executive Director, are authorized to waive general and special fees of students enrolled in special programs when the circumstances justify such action.



#### **Manchester Community College Campus**



**Visitors** are welcome at the College. Administrative offices are open from 8:30 a.m. until 4:30 p.m., Monday through Friday. Evening hours are available by appointment. Summer session hours are published in the summer session catalog.

Manchester Community College is located in the southwestern corner of Manchester near East Hartford and Glastonbury. College property is bounded on the north by Interstate Route 384.

The main entrance to the College is on Great Path. Visitors are requested to park in lots A, B or C. Administrative offices are located in the Frederick W. Lowe, Jr. Building at the west end of the campus.

All buildings have ramps to provide easy access for people with disabilities. There are also designated parking spaces for people with disabilities.



#### **MCC CAMPUS**

A Classrooms

B Classrooms

C Classrooms

D Classrooms

E Emeriti Hall

Art Department F Founders Hall

G Faculty East

H Faculty West (Closed)

I Music Building Fitness Center

J Alumni Auditorium

K Maintenance

L Lowe Building:

Admissions/Registrar's Offices

Bookstore

Classrooms/Faculty

Offices

LRC Learning Resource

Center:

Library

Classrooms/Faculty

Offices

Computer Science & Health Career Labs Continuing Education

Instructional Media

Center/TV Studio

Athletic Department Classroom/Offices

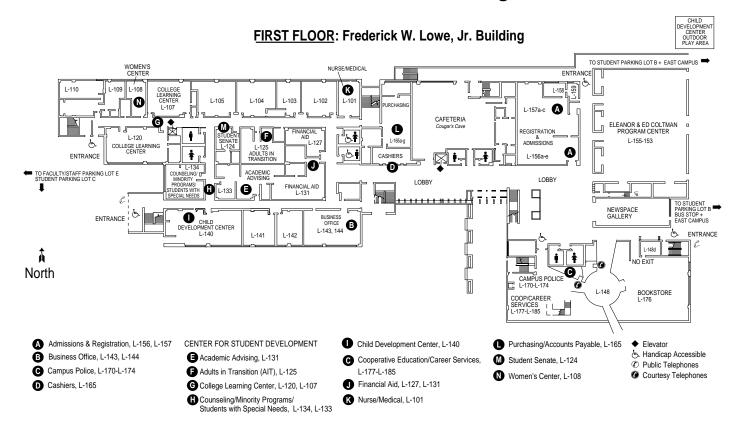
MPR Music Practice Room

N Locker Rooms

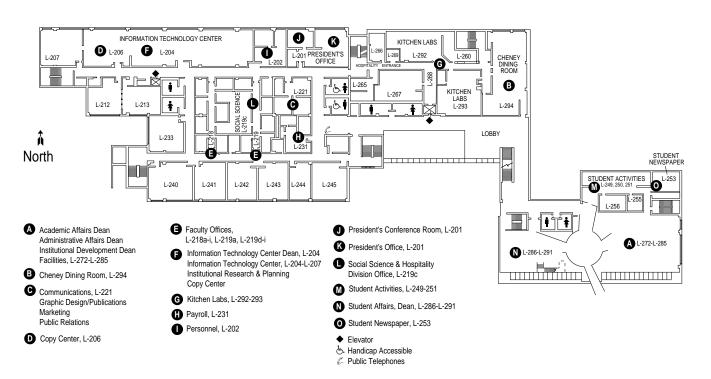
O Bandshell

Μ

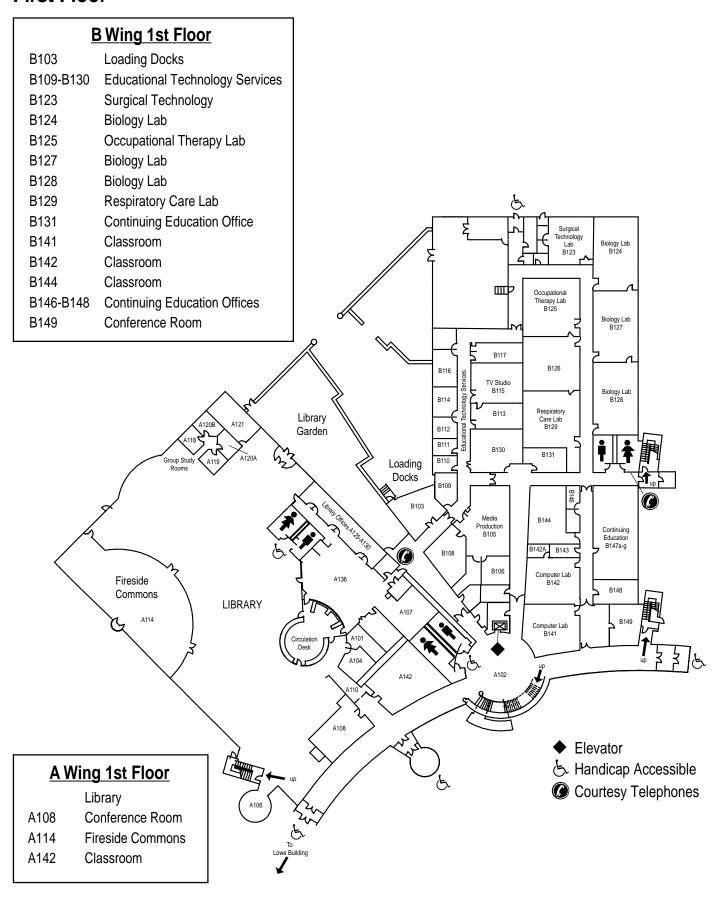
## Frederick W. Lowe, Jr. Building



### SECOND FLOOR: Frederick W. Lowe, Jr. Building



# Learning Resource Center First Floor



# Learning Resource Center Second Floor

<b>B Wing 2nd Floor</b>			
B204	Student Lounge		
B205-B207	Computer Labs		
B208	Distance Learning Lab		
B209	Classroom		
B210	Language Lab		
B212	Faculty Office		
B213	Seminar Room		
B214	Computer Lab		
B218-B222	Computer Labs		



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