Common Questions About Greenfield Community College

Who goes to GCC?
GCC is an "open admission" institution, which means we welcome everyone, regardless of previous academic record. Our students are mainly from Hampshire and Franklin counties, but oftentimes, from elsewhere. For example, hundreds of students from many foreign countries have chosen to come to GCC for their education.

Where do I begin at GCC?
By talking to our Admissions Director, and filling out an application form. Most applicants, but not all, have either a high school diploma or a high school equivalency diploma. No SAT's or entrance exams are required for acceptance to GCC.

For more information on applying to GCC see page 1.

What if I can't afford to go to college?
Our Financial Aid Office can usually help you with funding from federal, state and private sources. If you need help in paying for college, talk to the Financial Aid Director as soon as you decide you want to come to college.

For more information about financial aid, see page 1.

What if my grades in high school weren't very good?
We believe everyone deserves a chance at an education. Your high school grades won't be considered for admission, but you may want to improve your study and classroom skills by enrolling in developmental courses. You may also sign up for free tutoring and help with study skills at the Learning Center.

For more information about tutoring and help with classwork, see page 65.

I have children. What will I do with them during the day?
The GCC Child Care Center has two locations, including The Rainbow Room, an on-campus center that is open when College classes are in session. Some financial aid is available for childcare.

For more information on child care, see page 21.

What's the difference between transfer programs and career programs?
Transfer programs are generally designed for the student who wishes to make GCC the first two years of a four-year education. Career programs generally prepare the student to enter the workforce, although they, too, can sometimes form the basis of a four-year education.

Can you help me with career planning?
The Learning Center offers regular workshops on skills assessment and career choices.

For more information on career counseling, see page 65.

What if I want to continue my education at a four-year college?
Hundreds of students have found that spending their first two years of college at GCC is an economical and convenient way to start a bachelor's degree. GCC students have successfully transferred to dozens of four-year colleges around the country, and our transfer record is one of the best in the state. If you are thinking about transferring, it's a good idea to make an appointment with our Transfer Coordinator to discuss your plans.

For more information about transfer, see page 19.

Si el ingles es un problema para mi, que puedo hacer?
Si el Ingles no es tu primer idioma, a lo mejor necesitas tomar los cursos de Ingles como segundo idioma que ofrecemos. Además, si necesitas ayuda en el proceso de admisiones o en llenar la beca, tenemos una persona bilingue que trabaja en oficina de admisiones y de ayuda financiera que te puede ayudar. Su oficina esta localizada en el segundo piso en Servicios Estudiantiles.

What if I'm too scared to go to college?
Relax! You're not alone; many people are nervous about coming back to college, or attending college for the first time. Getting a college degree takes hard work, persistence and a strong commitment on your part, but you can do it. If confidence, self-esteem, time management, relationships or other personal problems are getting in the way of your progress, you may want to talk it over with a counselor in the Learning Center.

For more information on counseling services, see page 65.

How do I figure out what courses to take?
On registration day, you will be assigned an advisor. Normally, this is a faculty member who will assist you in choosing the courses that best suit your workload and major. Your advisor will help you with such decisions throughout your career at GCC.

I don't have time to take a two-year program. What can you do for me?
Our one-year certificate programs offer you the chance to brush up outdated skills or learn new ones in a short amount of time.

For more information on certificate programs, see page 66.

What do people do for fun at GCC?
You name it! You don't need residence halls to have an active student life. Our Student Activities office regularly sponsors trips, dances, parties, plays, concerts and other activities. The Student Senate offers a chance to participate in the college community. Our Athletic Department offers a full range of intramural programs for both men and women.

For more information on student activities, see page 21.
1991 - 92

GREENFIELD COMMUNITY COLLEGE CATALOG

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ONE COLLEGE DRIVE
GREENFIELD, MASSACHUSETTS 01301  (413) 774-3131

Greenfield Community College does not discriminate on the basis of race, color, national origin, age, sex or handicap in admission to, access to, treatment in or employment in its programs and activities. The Affirmative Action Officer and Dean of Student Affairs (Section 504 Coordinator) are designated to handle inquiries regarding the nondiscrimination policies. Questions regarding the College's nondiscrimination policy may also be directed to the Regional Director, Office for Civil Rights, U.S. Department of Education, J. W. McCormack Building, Room 222, Boston, MA 02109-4557.

In accordance with applicable provisions of Chapter 15A of the General Laws all educational programs, college sponsored activities, college tuition, fees, and related charges are subject to change upon approval by the Massachusetts Board of Regents or the Greenfield Community College Board of Trustees.
WELCOME TO GREENFIELD COMMUNITY COLLEGE

Founded in 1962, Greenfield Community College provides a broad range of courses, programs and services to a diverse population in northwestern Massachusetts, southern Vermont and New Hampshire.

We offer associate degree programs that prepare students for employment in several career fields or for transfer to four-year colleges and universities.

We offer a stimulating and exciting academic environment for those who seek academic enrichment, but who are not pursuing a career or a degree. As "the community's college," we constantly strive to develop programs and services that meet the needs of groups and individuals in the community we serve.

In our first year, we enrolled slightly more than 100 students, who attended classes in an old elementary school, a former factory, and a remodeled warehouse in the center of Greenfield. In 1974, we moved to our current modern facilities just off the Mohawk Trail and Interstate 91 in Greenfield. Today, enrollment is the highest in our history, with more than 3,000 students attending classes in our day and evening divisions.

We pride ourselves on the quality of our programs as well as our accessibility to all members of the community. Our open admissions policy and low tuition make a higher education possible for many who might not otherwise be able to attend college. We welcome students from diverse cultural, ethnic and economic backgrounds and we value the contributions our students make to the campus community.

Greenfield Community College is one of 29 institutions, including 15 community colleges, that make up the Massachusetts Public Higher Education System. We are governed locally by a board of trustees appointed by the governor, and at the state level by the Board of Regents of Higher Education. Greenfield Community College is fully accredited by the New England Association of Schools and Colleges.

GENERAL INFORMATION

Admissions Requirements

Most applicants to Greenfield Community College have earned high school diplomas or General Education Development Test (GED) equivalents, but we do not require a diploma to attend. If you do not have a diploma, please discuss your application with the Director of Admissions. In some cases, testing may be required as part of the admission process. We do not require entrance examinations such as SATs or ACTs. We usually admit students to the programs of their choice, if space is available. If you are applying to the Nursing Program, you must have completed college preparatory high school chemistry or college chemistry and other science courses with a grade of "C" or better within recent years.

To apply:

1. Obtain an admissions application from our Admissions Office, or from your high school guidance office.
2. Return the completed application form, along with your non-refundable application fee, to the Admissions Office. Please make checks payable to Greenfield Community College. (Note: You may apply to three Massachusetts community colleges for one application fee. When an application fee has been paid to another Massachusetts community college, please indicate which one, and ask that college to send verification of payment to our Admissions Office.)

The application fee is $10 for Massachusetts residents and $35 for out-of-state and international students. If you are unable to afford this fee, please contact the Director of Admissions to discuss the situation.

3. Request that any schools which you have attended previously, including high school, college, or other post-secondary institutions, send official transcripts of your academic record to the Admissions Office.

4. Contact the Admissions Office to arrange a personal interview if you wish to discuss your major and career plans.

5. If you are applying for readmission to GCC, you should file a Petition for Reinstatement with the Admissions Office. There is no fee for readmission to the College.
International Students

We welcome international students at Greenfield Community College. We do not provide housing on campus, but our Student Activities Office can help you find suitable housing in the community. We are also unable to offer financial assistance under any federally-funded financial aid program. Therefore, international students should have ample financial resources to meet their college expenses.

**Estimated College Expenses for International Students Per Academic Year**

<table>
<thead>
<tr>
<th>Expense</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition and fees</td>
<td>$4,586</td>
</tr>
<tr>
<td>Room and board (food)</td>
<td>6,380</td>
</tr>
<tr>
<td>Books and supplies</td>
<td>500</td>
</tr>
<tr>
<td>Medical care and insurance</td>
<td>300</td>
</tr>
<tr>
<td>Personal expenses</td>
<td>1,785</td>
</tr>
<tr>
<td>Transportation (after arrival in U.S.)</td>
<td>985</td>
</tr>
</tbody>
</table>

**TOTAL EXPENSES**  $14,536

(These costs reflect the tentative tuition-and-fee schedule for the 1991-92 school year, based on 15 credit hours. All costs are subject to change and may vary for each student.)

If you are an international student, you should submit your completed application to the Admissions Office at least six months prior to the time you plan to attend. We recommend that you contact our Director of Admissions as soon as possible to ensure that all necessary requirements have been met in sufficient time. Along with your completed application, please send the following documents to our Admissions Office:

- Medical Examination Record
- Certification of Finances
- Results of Test of English as a Foreign Language (TOEFL) (A score of 550 is required for admission.)

**English as a Foreign Language**

If English is not your native language, whether you are a U.S. citizen or an international student, we require you to take a standardized placement exam. If you demonstrate proficiency in English by your score on this exam, you will not be required to take coursework in English as a Foreign Language (EFL). But if your placement score indicates a need for further English language study, we require you to enroll in EFL classes at the appropriate level and limit your enrollment in other classes as well.

**Veterans**

If you are a veteran of the United States armed services, or if you are a dependent of a deceased or disabled veteran, you may be eligible for veterans' educational assistance benefits. In addition, the state of Massachusetts provides tuition exemptions at public colleges and universities for eligible Vietnam Era Veterans enrolled in day or evening classes. Veterans must submit a copy of Form DD214 to the Office of Veterans Affairs. Active members of the Massachusetts National Guard may also be eligible for tuition assistance. For additional information, contact the Office of Veterans Affairs.
New England Regional Student Program

Through the New England Board of Higher Education (NEBHE), Massachusetts participates in the Regional Student Program (RSP), which enables students from one New England state to attend public colleges or universities in another New England state at tuition rates below those normally charged to out-of-state students. Eligible New England students who reside outside of Massachusetts currently pay 150 percent of the tuition charged Massachusetts residents. This is a substantial saving compared to the standard non-resident tuition. To qualify, you must be a resident of one of the five other New England states and be pursuing a degree program that is not offered at a two-year community college in your home state or is offered at a Massachusetts community college that is closer to your home. For more information, please contact our Admissions Office.

Getting Credit Where It's Due

You may qualify for advanced placement in specific courses at GCC, based on your performance on College Board Advanced Placement Examinations given to high school seniors. Furthermore, your previous educational experiences, including courses completed at other accredited or recognized institutions of higher education, may enable you to gain additional college credit even before taking courses at GCC.

You may receive college credit for:

- satisfactory performance on College Board Advanced Placement Examinations
- satisfactory performance on College Level Examination Program (CLEP) examinations
- demonstrated competence on GCC challenge examinations (for which we charge $20)
- unique life and work experiences that lend themselves to evaluation
- coursework completed in the military through recognized educational programs

General Education Development Test (GED)

The GED provides an opportunity for students who have not received a high school diploma to earn a high school equivalency certificate. We conduct GED testing regularly at the College. For more information about the GED program, please contact our GED Testing Center at the college.

Note: To learn more about admissions, advanced credit or other admissions-related issues, see the Admissions Director.
Tuition

Tuition cost is based on your official permanent residence, and Massachusetts residents pay the lowest tuition. Students from other New England states who qualify for the Regional Student Program (RSP) of the New England Board of Higher Education (NEBHE) currently pay 150 percent of the Massachusetts resident tuition. All other non-Massachusetts residents pay the highest tuition. We charge no additional tuition for enrollment beyond 12 credits, which is considered full-time. The table below indicates current tuition rates, which are subject to change, without advance notice, by the Massachusetts legislature and the Board of Regents of Higher Education.

<table>
<thead>
<tr>
<th></th>
<th>Per credit</th>
<th>Full time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Massachusetts residents</td>
<td>$ 39.58</td>
<td>$ 475.00</td>
</tr>
<tr>
<td>Qualified NEBHE students</td>
<td>59.38</td>
<td>712.50</td>
</tr>
<tr>
<td>Non-Massachusetts residents</td>
<td>166.25</td>
<td>1995.00</td>
</tr>
</tbody>
</table>

Fees

ALL FEES ARE SUBJECT TO CHANGE WITHOUT ADVANCE NOTICE AS REQUIRED TO MEET FINANCIAL CONTINGENCIES.

College Services Fee

The non-refundable college services fee consists of a base fee of $10 plus $20 per credit per semester. This fee helps to pay the costs of classroom and laboratory instructional materials, health service, and commencement, among other expenses involved in providing services to students.

Health Services Fee

All full and part-time students pay the $8 per semester health services fee.

Student Activities Fee

We charge a non-refundable student activities fee of $20 per semester for students enrolled in fewer than 12 credits of coursework and $40 per semester for students enrolled in 12 or more credits of coursework. This fee supports a wide range of student activities, including concerts, movies, dances, clubs, theater and music productions, and athletics. In addition, the fee entitles you to a copy of the Student Handbook and a student identification card.

NOTE: As this catalogue goes to press, tuition and fees for the Fall, 1991 semester have not yet been established. Fiscal problems in the state of Massachusetts make some tuition and fee increases likely. For an up-to-date estimate of costs, please contact our Admissions Office.
Late Registration Fee

A non-refundable late registration fee of $10 is charged for registering for classes after the semester begins.

Estimated Expenses

Your costs of attending GCC involve several types of expenses that will vary depending on your individual circumstances. In general, though, your total expenses will include tuition and fees, books and supplies, room and board, transportation, and personal expenses (such as clothing, laundry, and recreation).

<table>
<thead>
<tr>
<th></th>
<th>Living with Parents</th>
<th>Living Off-Campus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books and Supplies</td>
<td>$ 500</td>
<td>$ 500</td>
</tr>
<tr>
<td>Room</td>
<td>762</td>
<td>4322</td>
</tr>
<tr>
<td>Board</td>
<td>2058</td>
<td>2058</td>
</tr>
<tr>
<td>Transportation</td>
<td>985</td>
<td>985</td>
</tr>
<tr>
<td>Personal</td>
<td>1292</td>
<td>1785</td>
</tr>
<tr>
<td><strong>TOTAL EXPENSES</strong></td>
<td><strong>$5597</strong></td>
<td><strong>$9650</strong></td>
</tr>
</tbody>
</table>

Housing/Transportation

GCC does not have dormitory facilities, but the Student Activities Office provides assistance in locating housing in the community, including a housing information booklet and an ad board on which students may post notices about housing. Local newspapers also include available housing advertisements.

Ample, well-lit parking is available free of charge. The Greenfield/Montague Transportation Authority and the Franklin Regional Transit Authority provide regular bus service to campus from the greater Greenfield area.

Paying Your Bill

We require payment for tuition and fees approximately three weeks before classes begin each semester. We recommend that you pay your bill by mail, and make your check, bank check, or money order payable to Greenfield Community College. We also accept payment by MasterCard and Visa. Please do not send cash. You may also pay your bill in person at our Business Office on the fourth floor of the College.

If you have not paid your bill in full by the date that it is due, your schedule may be cancelled. In addition, any outstanding financial or property obligation to the College will prevent you from registering for a subsequent semester, receiving grade reports, sending official transcripts, and services offered by the College. If your bill remains excessively overdue, we may forward it to a collection agency, which will cost you an additional fee for collection.

Financial Aid from Private Sources

If you have received a financial aid award from an off-campus group or individual, please provide the Financial Aid Office with official certification and complete terms of the award as early as possible.
Are You a Full-Time or Part-Time Student?

We consider you a full-time student if you are registered for at least 12 credits of graded coursework per semester. If you are registered for less than 12 credits, we consider you a part-time student. Your full-time or part-time status may affect your eligibility for programs like insurance coverage and financial aid.

Are You an In-State or Out-Of-State Resident?

We consider you an in-state resident if you are a U.S. citizen or permanent resident, and have established a residence in Massachusetts and have maintained continuous residence in Massachusetts for at least six months immediately prior to the date of your application to GCC.

Tuition Refunds

We refund tuition only if you provide written notice that you will not attend, or submit a completed withdrawal or drop/add form to our Registrar’s Office, according to the following schedule:

<table>
<thead>
<tr>
<th></th>
<th>Percent Refunded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before the semester begins</td>
<td>100</td>
</tr>
<tr>
<td>During the first 10 class days of semester</td>
<td>75</td>
</tr>
<tr>
<td>After the tenth class day of the semester</td>
<td>0</td>
</tr>
</tbody>
</table>

Insurance Programs

Health and Accident Insurance

We require all full-time students to carry basic health and accident insurance. If you are not covered by another policy, we provide a basic policy which you purchase when you pay your tuition and fees. Options to the policy, which you may purchase, include coverage for a spouse and dependent children.

Liability Insurance

We require all Nursing Program students to carry professional liability insurance approved by the College.
FINANCIAL AID

In an effort to enable all qualified students to attend GCC regardless of their financial situation, we offer assistance to students with demonstrated financial need. Our Financial Aid Office can help you with a combination of three general types of financial assistance:

- Grants and scholarships from federal, state and local sources, which you do not repay,
- Loans backed by federal, state or private sources, which you must repay, usually at long term, low-interest rates, and
- College Work-Study, which provides you with a job during the summer or the school year, either on or off-campus.

All programs are subject to changes in regulations and procedures.

What Kind of Financial Aid is Available?

We participate in all major federal and state financial aid programs, including:

Grants and Scholarship Programs

The Pell Grant Program is a federally-funded program that provides grants to students with exceptional financial need. To apply, use either a College Scholarship Service Financial Aid Form (FAF) or a Pell Grant application form. You can find both forms at the Financial Aid Office or at your high school guidance office.

The Supplemental Educational Opportunity Grant (SEOG) Program is a federally-funded, campus-based program that provides grants for exceptionally needy students, based on the student's financial resources, the cost of education, and the funds available to the College. To apply, you must submit a Financial Aid Form (FAF) to the College Scholarship Service. You can find this form at our Financial Aid Office or at your high school guidance office.

The Massachusetts State Scholarship Program offers scholarships to needy students who have been Massachusetts residents for one year prior to September enrollment. To apply, you must submit the Massachusetts Financial Aid Form (MFAF) by May 1 of the year in which the school year begins. These forms are available at a local high school guidance office or at the GCC Financial Aid Office.

The Massachusetts Tuition Waiver Program and the Massachusetts State Part-Time Scholarship Program supplement other aid programs available through GCC by providing grants to students with demonstrated financial need. To apply, you must submit a Financial Aid Form to the College Scholarship Service. You can find this form at our Financial Aid Office or at a local high school guidance office.

Loan Programs

The Perkins Student Loan Program enables GCC to make low-interest, deferred-payment loans to students with demonstrated financial need. Borrowers begin repayment after they graduate or complete their studies at the College. To apply, you must submit a Financial Aid Form (FAF) to the College Scholarship Service. This form is available at our Financial Aid Office or at a local high school guidance office.
The Nursing Student Loan Program uses state and federal funds to provide low-interest, deferred-payment loans to Nursing Program students with demonstrated financial need. To apply, you must submit a Financial Aid Form (FAF) to the College Scholarship Service. You can find this form at our Financial Aid Office or at a local high school guidance office.

The Stafford Student Loan Program enables students with financial need to obtain low-interest, deferred-payment loans through banks or other lending agencies. In Massachusetts, we call this program the Higher Education Loan Program (HELP), administered by the Massachusetts Higher Educational Assistance Corporation. To apply, you must submit a Financial Aid Form to the College Scholarship Service. This form is available at our Financial Aid Office or at a local high school guidance office.

If you have received a scholarship from an off-campus group or individual, please provide the Financial Aid Office with official certification and complete terms of the award as early as possible.

Work-Study Program

The College Work-Study Program uses state and federal funds to offer part-time on-campus and off-campus jobs to students with demonstrated financial need. The program enables students to earn money while gaining job experience. To apply, contact the Financial Aid Office.

How Do I Apply For Financial Aid?

To be eligible for financial aid, you must:

• be enrolled in the College in a degree or certificate program, Pell Grant amounts vary, depending on whether you are enrolled full time (12 credits or more), three-quarter time (9-11 credits), or half time (6-8 credits).
• provide information about you and your family’s financial background, including:
  1. Financial Aid Form (FAF) or a Massachusetts Financial Aid Form (MFAF), both of which are available at a local high school guidance office, or from our Financial Aid Office. When you complete your FAF, please include the GCC code number 3420, and make a copy for yourself before mailing the form.
  2. Student Aid Reports (SAR) from the Pell Grant Program are mailed directly to students from the Pell Grant processor. You must submit your SAR forms to our Financial Aid Office. You may apply for a Pell Grant using either a College Scholarship Service form (FAF or MFAF) or a Pell Grant application form, both of which are available at your local high school guidance office and at our Financial Aid Office.
  3. Verification of all income, which includes a copy of your federal income tax forms for the calendar year prior to enrollment. You must also submit verification of untaxed income such as Social Security or welfare benefits to our Financial Aid Office. If you are a dependent student, we require verification of your parents’ or guardian’s income as well.
  4. Submit all necessary documentation to our Financial Aid Office by March 1 to be sure we receive it by April 15 in the spring before the school year begins. Processing by the College Scholarship Service and the Pell Grant Program takes about four weeks. We attempt to notify students about financial aid decisions by early June.
NOTE: We will not process your Stafford Student Loan application until you have signed and returned your financial aid award letter to our Financial Aid Office.

If we award you financial aid, your college charges will be paid by the middle of each semester. If your award includes work-study, you will receive a biweekly paycheck based on the hours you have worked during the previous pay period. You should plan accordingly to ensure that you have sufficient funds to support you until you receive your award.

To remain eligible for financial aid, you must maintain satisfactory academic progress, which means you may not be placed on academic probation or suspension, and you must earn a minimum number of credits during each semester you attend GCC, based on your enrollment status in each semester.

To learn more about financial aid and how to apply for it, please contact our Financial Aid staff in the Student Services Office Suite on the second floor of the College.
ACADEMIC POLICIES AND PROCEDURES

When you are admitted to GCC, we normally expect that you will undertake an organized program of courses that will enable you to earn a certificate or an associate degree. You may also want to take credit or non-credit courses during the day or the evening to enhance your occupational skills or enrich your personal life, without pursuing a degree or certificate. If you are a high school student, you may be eligible to take credit courses that will help fulfill your high school graduation requirements while earning credit toward a college degree. To do so, you will need the written approval of your principal.

Placement Testing

All students are required to take placement tests before enrolling in courses. These tests assess reading/writing and mathematics skills. The purpose of the tests is to enable a student and an advisor to select initial courses that match the student’s skill level. The only exceptions to required testing are made for: 1) students who can demonstrate that they have successfully completed college work in English Composition and mathematics, or 2) non-degree students who are taking personal enrichment courses only. However, these students must obtain instructor or assistant dean approval first.

Academic Advising

A faculty member will serve as your academic advisor throughout your time at GCC. While an advisor is assigned to you initially, you may change advisors at any time. You should maintain close contact with your advisor who will provide guidance in selecting courses and making career plans. Obtaining good advice early can help you to avoid problems later. You may find assistance with academic and other issues through the Learning Center as well. It is important to inform your advisor of anything which may affect your studies.

If you are planning to transfer to a four-year college, you should also talk to the Transfer Coordinator at your earliest convenience.

Attendance

We expect you to attend class regularly. Absences may jeopardize your academic status at GCC and lower your grades. Individual instructors and program coordinators have the authority to establish attendance standards appropriate for their courses, and they should inform you in writing of those standards at the beginning of the course.

Religious Absences

We recognize that your religious beliefs may occasionally cause you to miss class or other college activities, and that you should not be penalized academically as a result of those absences. Under Massachusetts state law, you are excused from work requirements when they conflict with your religious beliefs, and your professor must provide you with the opportunity to make up a missed examination or class work, provided that such makeup examinations or work do not create an unreasonable burden on the College.
Changes of Major

As a normal part of your development and study at GCC, your academic and career goals may change. When considering a change of major, you should first consult with your advisor. You should then submit a change of major form to the Registrar's Office, after obtaining the approval of the appropriate assistant dean. Some programs may not accept new students for the Spring semester.

Credit Overload

You cannot take a course load of more than 18 credits except with the approval of your advisor and your advisor's assistant dean, and provided that you are in good academic standing with the College.

Adding a Course

You may add a course through the first week of the semester with the approval of your advisor. You may add courses after this time only with the approval of the instructor, the appropriate assistant dean, and the Dean of Student Affairs, in addition to the approval of your advisor. You must use a drop/add form to add courses, and the form must be submitted to and processed by the Registrar's Office before the change becomes official.

Dropping a Course

You may drop a course through the first two-thirds of the course. If you drop a course during the first third of the course, no record of the course will appear on your record. If you drop a course during the second third of the course, you will receive a grade of "W" for the course. We will not process an official withdrawal from a course during the last third of the course, and if you stop attending class, you will receive a grade for the course assigned by the instructor. If you want to drop a course, you should consult with your advisor, and you must complete a drop/add form and submit the form to the Registrar's Office for processing, before the change becomes official. If you simply stop attending class or only tell your instructor that you are dropping the course, the change will not occur and you may jeopardize your eligibility for tuition refunds, financial aid, and future enrollment at the College. If extraordinary circumstances force you to consider dropping a course during the last third of the semester, you may discuss with either the Dean of Student Services or the Dean of Continuing Education the possibility of making an exception to the policy.

Withdrawal from the College

You may withdraw from the College anytime during the first two-thirds of the semester. If you withdraw during the first third of the semester, no record of the courses in which you were enrolled will appear on your record. If you withdraw during the second third of the semester, you will receive grades of "W" for all courses in which you were enrolled. We will not process an official withdrawal during the last third of the semester and if you stop attending classes you will receive grades assigned by the instructor for all courses.

If you find it necessary to consider withdrawing from GCC, you should consult with your advisor and your instructors first. To withdraw officially, you must submit a completed withdrawal form to the Registrar's Office and fulfill all of your financial and property obligations.
to the College. As with dropping a course, if you simply stop attending class or if you only
tell your instructors that you are withdrawing, the withdrawal will not become official and you
may jeopardize your eligibility for tuition refunds, financial aid, and future enrollment at GCC.

If extraordinary circumstances force you to consider withdrawal during the last third of the
semester, you may discuss with either the Dean of Student Services or the Dean of
Continuing Education the possibility of making an exception to the policy.

Medical Withdrawal

If you need to withdraw from the College for health reasons, you may request a medical
withdrawal by discussing your situation with the Director of Health Services. A medical
withdrawal requires the recommendation of the Director of Health Services and the approval
of the Dean of Student Services, who may also consult with counselors or others as
appropriate.

Grading

We will mail a grade report to you which indicates your grades at the end of each semester.
In addition, in the middle of each semester we will mail preliminary reports of academic
deficiency to you for each course in which you are earning grades of “D,” “F,” or “O.” In our
grading system, plus and minus symbols may be used only for grades of “B” and “C,” while
a minus symbol may be used for the grade of “A.” Listed below are the grading symbols that
we use.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
</tr>
<tr>
<td>C</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>D</td>
<td>Poor</td>
</tr>
<tr>
<td>F</td>
<td>Failing</td>
</tr>
</tbody>
</table>

IN - Incomplete indicates work of acceptable quality where the student has failed to
complete course requirements and the instructor wishes to allow time for the
completion of the work. The “IN” must be removed within four weeks of the beginning
of the next semester or it is replaced by an “F” or “NC” (for courses graded CR/NC)

W - Withdrawn indicates that a student has withdrawn officially from a course or from
the College. Withdrawal from the College requires the submission of a completed
withdrawal form and fulfillment of all financial and property obligations to the College.

AU - Audit (not registered for credit or a grade) Audit may be selected at the time of
registration. Changes to or from an audit status are treated as adding a course and
must be processed prior to the end of the add period at the beginning of the semester.

CR - Credit NC - No Credit (credit/no credit option) Students may elect
to take one course each semester on a CR/NC (credit/no credit) basis, in addition to
courses normally graded CR/NC, provided that at least nine credits of coursework are
taken on a graded (A, B, C, D, F) basis. Students must perform work of “C” quality or
better to earn credit (CR). This option must be selected at the time of registration.
Courses taken on a CR/NC basis often are not transferable to other institutions.

NG - No Grade Submitted is assigned temporarily by the Registrar to indicate that no
grade was received from the instructor.

O - Insufficient Basis for Evaluation indicates that the student discontinued attend-
dance in the class without formally withdrawing from the class or the College prior to
the final withdrawal date. The O grade will be treated as an F grade in the calculation
of the grade point average.
Grade Point Average

At the end of each semester or after any grade change, we calculate your semester and cumulative grade point averages. These averages provide a general indication of the quality of your academic performance, based on one semester and on all of the courses that you have taken at GCC.

To calculate a grade point average (GPA), we convert all letter grades to numbers, which we call grade points, as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>B+</td>
<td>3.35</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
</tr>
<tr>
<td>A-</td>
<td>3.65</td>
</tr>
<tr>
<td>A</td>
<td>4.00</td>
</tr>
<tr>
<td>C+</td>
<td>2.35</td>
</tr>
<tr>
<td>C</td>
<td>2.00</td>
</tr>
<tr>
<td>D</td>
<td>1.00</td>
</tr>
<tr>
<td>F</td>
<td>0.00</td>
</tr>
<tr>
<td>O</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Once the letter grades have been converted to grade points, we multiply the grade points by the number of credits for each course, resulting in what we call quality points. We then total all of the quality points and divide the sum by the total number of credits, resulting in the grade point average. In calculating a grade point average, we use only the grades listed above with corresponding grade points. No other grades affect the grade point average in any way.

It should be noted that courses with a “D” advising code (developmental courses) are not calculated into the grade point average.

Repeating a Course

You may repeat any course, but you may not earn credit twice for the same course. When you repeat a course, your latest grade replaces the previous grade in the calculation of your grade point average.

You may substitute options available under English Composition I (ENG 101, 103, 105) for each other when you repeat English Composition I. Similarly, you may substitute options available under English Composition II (ENG 112, 114, 116) for each other when you repeat English Composition II.

Waiver of Academic Policy

If you think that unusual or extenuating circumstances justify an exemption from an academic policy, requirement, or regulation, you may request a waiver using an appropriate form, obtained in the Registrar’s Office. Your request should be initiated by your advisor and you must gain the approval of the appropriate program coordinator, assistant dean, and the Dean of Academic Affairs. Your request will be considered on its individual merit.

Dean’s List

The Dean’s List recognizes students with superior academic achievement. To be included on the Dean’s List, you must earn a GPA for the semester of at least 3.50 at the end of the semester, with no incomplete grades and no grade lower than a “C” for that semester and a cumulative GPA of at least 2.00. In addition, day division students must carry at least 12 credits of graded coursework to be eligible for the Dean’s List. Matriculated continuing education students must have previously completed at least six credits of graded coursework during the semester to be eligible for the Dean’s List.
Academic Standing

We place prime importance on your academic success. We base our academic standing decisions on our desire to assure both the College's academic integrity and your achievement within prescribed standards. The categories of academic standings follow.

<table>
<thead>
<tr>
<th>Category</th>
<th>Standard</th>
<th>Actions Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dean's List</td>
<td>A semester GPA of at least 3.50 at the end of the semester with no incomplete grades, no grade lower than a &quot;C&quot; for that semester, and a cumulative GPA of 2.00 or higher.</td>
<td>Placed on the Dean's List for the semester.</td>
</tr>
<tr>
<td>Normal Progress</td>
<td>Both a cumulative GPA and a semester GPA of 2.00 or above.</td>
<td>No action taken.</td>
</tr>
<tr>
<td>Academic Review</td>
<td>Either a cumulative GPA or a semester GPA under 2.00 or both, and not previously on review.</td>
<td>Placed on Academic Review. Reduction of academic load and/or co-curricular activities expected. Diagnostic interview in Learning Center required.</td>
</tr>
<tr>
<td>Academic Probation</td>
<td>Both a cumulative GPA and a semester GPA for the current semester under 2.00 and student on Review for one semester.</td>
<td>Placed on Academic Probation. NOT ELIGIBLE FOR FINANCIAL AID. Other actions same as Review.</td>
</tr>
<tr>
<td>Academic Suspension</td>
<td>Both a cumulative GPA and a semester GPA under 2.00 and a cumulative GPA lower than the previous semester.</td>
<td>Precluded from enrollment for one full semester; otherwise placed on Probation.</td>
</tr>
<tr>
<td>Academic Dismissal</td>
<td>Both a cumulative GPA and a semester GPA under 2.00 and a cumulative GPA lower than the previous semester and previously suspended.</td>
<td>Precluded from future enrollment.</td>
</tr>
</tbody>
</table>

*Note: For financial aid purposes, Probation, Suspension, and Dismissal constitute "unsatisfactory academic progress."

We recognize that any of the academic standing actions described above may be affected by unusual circumstances. You may request that the Dean of Student Affairs review your individual circumstances to determine if they warrant additional action.

New Start Policy

If you have not attended GCC for more than two academic years and you were on probation, suspension or dismissal at the time that you discontinued your attendance, you may be readmitted to the College on academic review for the first semester of your return, but thereafter normal academic progress standards will apply. Such readmission will be at the discretion of the Dean of Student Affairs.

Fresh Start Option

Greenfield Community College has a “fresh start” option for students. Once in a lifetime, if you return to Greenfield after being away for at least two consecutive years, you can elect
the “fresh start” option. Your grade point average (GPA) will be calculated only from the point you are readmitted for the purposes of the College’s academic standing policy. Your previous coursework may be applied toward your degree under this policy, but will not be calculated in your GPA. Your official transcript will include a statement explaining this “fresh start” option. In the event of multiple two-year absences, you have the option of choosing the effective readmission date of the policy. You must elect this option in person in the office of the Registrar.

Petition to Review Academic Record

If you are currently enrolled, you may petition the Transcript Review Committee to review your academic record for the purpose of seeking relief from past poor academic performance. The Transcript Review Committee requires that you either have completed at least 12 credits of coursework since the semester for which you seek relief before you submit your petition or you have completed 6 credits of coursework and you include two letters from current instructors with your petition. Petition forms are available from the Registrar’s Office.

Graduation Requirements

To earn an associate degree, you must complete the course requirements of the curriculum, achieve a cumulative grade point average of at least 2.00 for all courses taken at GCC, and be in good standing with the College. All associate degree programs require at least 60 credits of coursework, and several require more. You must complete at least 15 credits of coursework at GCC.

If you wish to earn an additional associate degree, you must:
   a. meet all specific requirements of each degree program,
   b. complete at least 15 credits of coursework beyond the previous degree awarded; and
   c. of those 15 additional credits, at least 12 must be completed at GCC.

You normally must fulfill the requirements stipulated in the catalog at the time you matriculate with the College. If the requirements change while you are enrolled as a matriculated student, you may elect to fulfill any requirements that are in effect during your period of enrollment.

To graduate “with honors” you must earn a cumulative grade point average of at least 3.50 and complete at least thirty credits of coursework at Greenfield Community College.

Application for Graduation

To be considered for graduation, you must submit a graduation application to the Student Activities Office by mid-February. Graduation applications are available in the Registrar’s Office beginning in November. We formally award degrees only once each year, following the close of the spring semester.

The Family Educational Rights and Privacy Act of 1974

You have certain rights to privacy about the information that we maintain about you. For more information, including a full text of the regulations regarding your records and your right to privacy, please consult the Student Handbook or the Registrar’s Office.
Sexual Harassment/Affirmative Action

We consider the sexual harassment of a student, an employee, or any other person in the College to be unacceptable, impermissible, and intolerable. Individuals who believe they have been the subject of such harassment should consult with the Affirmative Action Officer to obtain counseling concerning their rights under the law and the effective means of informally resolving grievances. The Community Colleges of Massachusetts Affirmative Action Plan is available in the College Library, and from the Affirmative Action Officer.

Affirmative action and equal opportunity shall apply to all segments of the College. Any person who believes s/he has been the subject of discrimination should consult with the Affirmative Action Officer of the College.

Transcripts

You may request official transcripts of your academic record for yourself or for other colleges or employers by completing a transcript request form in the Student Services Office. You also may request a transcript by writing a letter in which you clearly identify yourself and where you would like a transcript to be sent. We cannot accept telephone requests. We provide you with one free transcript and we charge $2 for each subsequent transcript. Please allow at least one day to process your request.
In addition to our academic programs, we offer a wide range of services and activities to enhance your classroom experience at GCC. We encourage you to take advantage of these services and to become a part of the College community.

Transfer Coordinator

About one-half of our graduates go on to four-year colleges and universities, and most of these students use the services of our Transfer Coordinator, located in the Student Services Office Suite on the second floor of the College. If you are considering transfer, we strongly encourage you to see the Transfer Coordinator at your earliest convenience. He can help you choose the transfer school that best suits your academic goals and needs, and he can advise you on transfer procedures and deadlines.

The Transfer Coordinator also has a library of catalogues of four-year colleges and universities, and students have the opportunity to meet with representatives from over 100 colleges and universities at GCC’s annual College Day held each fall. GCC has a number of transfer agreements with four-year colleges and universities, and the Commonwealth Transfer Compact ensures the transferability of credits from the state’s community colleges to the state colleges and universities. Presently, GCC has articulation agreements with:

<table>
<thead>
<tr>
<th>Central New England College of Tech.</th>
<th>Northeastern University</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art Institute of Boston</td>
<td>Rensselaer Polytechnic Institute</td>
</tr>
<tr>
<td>Bentley College</td>
<td>Massachusetts School of Visual Arts</td>
</tr>
<tr>
<td>Clarkson Institute</td>
<td>University of Lowell</td>
</tr>
<tr>
<td>Lyndon State College</td>
<td>University of Massachusetts</td>
</tr>
<tr>
<td>New England College</td>
<td>Western New England College</td>
</tr>
<tr>
<td>North Adams State College</td>
<td>Worcester State College</td>
</tr>
</tbody>
</table>

To qualify for the Transfer Compact, you must:

1. be accepted for transfer admission by one of the state-supported universities or four-year public colleges in Massachusetts;

2. earn an associate degree from one of the Massachusetts regional community colleges with the following distribution of credits, with a minimum of 60 credits:

   6 credits of English composition/writing
   9 credits of behavioral/social sciences
   8 credits of natural/physical sciences
   3 credits of mathematics
   9 credits of humanities/fine arts
   25 remaining credits of other college-level work.
The Learning Center

The staff at the Learning Center helps students improve their academic and personal skills by providing a number of academic and counseling services. All services at the Learning Center are free of charge and confidential in nature. If you find yourself in need of academic help, if you are experiencing stress from personal problems, or if you are having trouble keeping up with school work, we urge you to visit the Learning Center on the fourth floor of the College. Learning Assistance Programs include:

- free tutoring in academic subjects, including reading and writing improvement and study skills, as well as special subject areas;
- free counseling in areas relating to your academic career and personal concerns. The counselors are available to help you identify and explore issues of importance to you. In addition, a list of community resources and referrals is available.

Media Center

The Media Center is responsible for meeting the growing educational communication needs of the College. It provides instruction in the planning and production of audio and visual materials as well as instruction in the use of media-related equipment. In addition, the Media Center provides services in three areas, including:

- educational film and video rentals
- instructional material production
- media equipment circulation

Library/Learning Resource Center

The GCC Library resources are available to all citizens of the Commonwealth of post-high school age who have appropriate identification, as well as the faculty, staff and students of GCC. The collection contains more than 72,000 units of print and non-print material. In addition to a rich variety of books, periodicals, newspapers and videocassettes, the Library also has facilities for language practice, film and video viewing, microfilm reading and self-service photocopying.

Reader services include individual library instruction on request; information, reference and reserve assistance; interlibrary loan and microfilm copying.

Five important special collections are available for public use: the Archibald MacLeish Collection, the Pioneer Valley Resource Center, the Yankee-Rowe Local Public Document Collection, the Massachusetts State Data Center census materials, and the George H. Reavis Collection of Phi Delta Kappa educational materials.

Academic Computing Center

The Academic Computing Center, located in the north end of the College on the third floor, is open to all students, regardless of major or credit load. The Center’s personal computers may be used for term papers or other student projects. For those who may need help working a computer, a tutor is often on duty.
Health Services

The Student Health Service staff is able to help with a variety of health problems and referrals. Most services are free of charge to any student enrolled at the College. The Health service office, located off the first floor lobby, is open from 8:30 am to 4:30 pm daily. An adult nurse practitioner and a staff nurse are available on a drop-in basis and physician appointments are available twice a week. All medical records are confidential and information cannot be released without permission of the student. State law requires full-time students be covered by some form of health insurance to cover possible hospital costs; contact the Health Service or the Business Office for more information about the Massachusetts Community College Accident and Sickness Insurance Plan. The Health Service also has a Wellness Resource Center with a large selection of health-related materials. We invite you to drop in to read materials or view films about achieving and maintaining a high level of wellness.

The GCC Child Care Center

The College offers child care services at two locations. The Pierce Street site is in a neighborhood setting in the center of Greenfield. Year-round early childhood programs are available for children ages one month through kindergarten. The Rainbow Room, an on-campus preschool program for children ages 2 years-9 months to kindergarten, is available September through May while college classes are in session.

Consultation for all programs is provided by GCC Early Childhood Education faculty. Some financial aid is available to income-eligible families. For more information about child care at GCC, call 774-3413.

College Store

The College Store is open every day during the academic year. Evening school and special occasion hours will be posted in the lobby at the store entrance. The College Store carries supplies, required texts, paperbacks, and study guides. We advise that you begin attending classes before you buy your books.

No charging is permitted in the College Store, and personal checks will be accepted for the amount of purchase only. A maximum personal check of $5 will be accepted by the College Store for cash upon presentation of College ID. There is no charge for this service; however, there is a $5 charge for returned checks.

Refunds will be made for a period of two weeks after classes begin for the semester. Books must not be marked or damaged, and you must have both the sales slip and an approved Petition for Course Change (drop/add form) to return books. The policy on refunds does not apply to other merchandise.

Dining Facilities

The Cafeteria is open Monday through Friday from 7:30 am until 3 pm. It is also open evenings, Monday through Thursday, from 6 pm until 9 pm during the academic year. The Cafeteria offers a full breakfast menu, hot entrees, sandwiches, and hot and cold drinks. A daily dinner special is available each day, and special group dinners, luncheons or coffee hours may be arranged through food services.
STUDENT ACTIVITIES

The Student Activities program is a vital part of life at GCC. Student Activities helps student groups plan and operate their programs, and encourages faculty to serve as organizational advisors and participants. Typical activities include intramural and varsity athletics, social and recreational activities, cultural programs, exhibits, workshops, lectures, films, tours, trips and clubs.

The Student Activities Office publishes the annual Student Handbook, which includes all of the policies and regulations that apply to you as a student, as well as a full description of student services offered at GCC. As a student, you will be expected to read it, and you will be held responsible for policies and regulations included in it.

Student Association

When you pay your student activities fee, you automatically become a member of the Student Association, the structure within which the Student Senate and the Student Activities program operates. Members may hold office, vote in elections, and participate in Association programs.

Student Senate

As a student, you will be eligible for election by the members of the Student Association to the Student Senate. The Student Senate approves student organization budgets and supervises expenditures with the consent of the College President. Its objectives are:

- to promote and support activities that enhance the life of the College community
- to administer and allocate the funds of the Student Association in conjunction with the College administration
- to represent the student body on and off-campus
- to act with College officers in supervising the College activities program

Athletics

GCC offers varsity intercollegiate programs in soccer, basketball, baseball, golf, and cross country for men; cross country, volleyball, basketball, and softball for women. Intramural sports are offered as interest warrants.

To participate in a varsity program, you must be carrying 12 credits during the semester you participate, and you must have passed 12 credits with a 1.75 grade point average in the previous semester. To participate in a second season of a particular sport, you should first confirm your eligibility with the Director of Athletics, whose office is located in Room NO1.

Performing Arts

The Theatre and Music departments both offer opportunities for student performance. The College choir performs both within the College and the community several times each year. At least one major theatre production is presented each semester. Participation in all theater events is open to all members of the College community.
CONTINUING EDUCATION/COMMUNITY SERVICE

The Division of Continuing Education and Community Service (DCE) provides a variety of credit and non-credit learning experiences, held at different times and locations. Courses and workshops are designed in response to community needs, using College and community resources whenever possible, and at a reasonable cost consistent with the mandate, "at no cost to the Commonwealth."

DCE instructors include faculty members from the College’s day division, as well as professors from other colleges and members of the surrounding communities.

DCE offers credit and non-credit courses, generally in the evening hours, in fall, spring, and summer sessions, as well as a wide range of non-credit community service workshops, lectures, conferences, community forums, and other special events.

In addition, DCE offers, in conjunction with other organizations, a number of summer programs for young people, such as Soccer Camp, Baseball Camp, and the Summer Sampler Program.

While most of the courses offered through DCE are held at the Greenfield campus, some are scheduled at the Franklin County Technical School in Turners Falls. Credit and non-credit courses may be scheduled at other off-campus locations on request.

CENTER FOR BUSINESS AND INDUSTRY

The Center for Business and Industry, established in 1988, provides customized training and education programs for area businesses, and courses are offered either in the workplace or at the Greenfield campus.

For a brochure or more information on the courses and services offered by the Division of Continuing Education or the Center for Business and Industry, see the Dean of Continuing Education in the Deans’ Suite on the second floor of the College.
ACADEMIC PROGRAMS

We believe our mission as a community college includes providing programs that enable you to transfer to baccalaureate degree programs and programs that prepare you to enter a variety of occupational fields upon completion. Several programs serve both purposes, depending upon your interests and the elective courses that you choose to take. Our offerings consist of associate degree programs, which require at least sixty credits of coursework, and certificate programs, which require up to thirty-five credits of coursework. We have listed all of our programs below. More detailed descriptions of the programs and their requirements follow.

Associate in Arts Degree

- Liberal Arts
  You may focus your study in one of the following areas, although your diploma will read simply "Liberal Arts":
  -- American Studies
  -- Art
  -- Classical Humanities
  -- Data Processing
  -- Education
  -- Food Science
  -- Human Ecology
  -- Math-Science
  -- Natural Resources
  -- Pioneer Valley Studies
- Business Administration Transfer

Associate in Science Degree

- Accounting
- Art
- Computer Information Systems
- Criminal Justice
- Early Childhood Education
- Engineering Science
- Fire Science Technology
- Industrial Technology
- Graphic Design
- Management
- Marketing
- Media Communication
- Nursing
- Office Administration
- Recreation & Leisure Services

Certificate Programs

- Business Microcomputer Applications
- Computer Aided Drafting
- Computer Assisted Bookkeeping
- Fire Science Technology
- Licensure for Early Childhood Educators
- Office Assistant*
- Outdoor Leadership*
- Advanced Outdoor Leadership
- Physical Fitness
- Physical Science Technician
- Pioneer Valley Studies*
- Real Estate
- Word Processing

* Certificate programs approved by the Massachusetts Board of Regents of Higher Education.

All programs approved by the Greenfield Community College Board of Trustees and all degree programs approved by the Massachusetts Board of Regents of Higher Education.
Cooperative Education

Through GCC's cooperative education program, you may earn academic credit by taking advantage of employment opportunities in your major field of study. In order to participate in the program, you must have completed at least one semester of coursework (12 credits) with a cumulative grade point average of 2.0 or better.

Upon acceptance, a faculty coordinator and co-op placement specialist will work with you to secure a qualified employment position. A learning contract is then developed between you and the faculty coordinator, outlining the learning goals and objectives and the criteria to be used in grading. In addition to the job placement, you are required to attend a one-hour per week seminar.

For more information or an application, call or stop by the Office of Cooperative Education in the Deans' Suite on the second floor of the College.

Directed Study

You may undertake advanced individual study beyond the specific course offerings of the College by using the directed study option. To do so, you must make special arrangements with an instructor who agrees to work with you on the project and gain the approval of the appropriate assistant dean.

Directed study courses use a three letter department code and either a 295 or 296 number designation. You may earn a maximum of six credits through the directed study option in any one subject. To obtain additional information and application materials, please contact a group office or the Registrar’s Office.

LIBERAL ARTS PROGRAMS

The Liberal Arts Programs consist of a broad range of general studies (including the humanities, behavioral sciences, and natural sciences, with options to focus on more specialized fields of interest) and lead to the Associate in Arts degree. Many professions, including law, medicine, economics, education, and journalism require a strong liberal arts background for admission to baccalaureate and graduate schools. We have designed the programs to provide a foundation of liberal studies that will enable you to transfer to baccalaureate degree programs at other institutions. To facilitate transfer to Massachusetts public colleges and universities, our Liberal Arts Programs fulfill the requirements of the Commonwealth Transfer Compact. If you are considering transfer to another institution, we urge you to contact our Coordinator of Transfer at your earliest opportunity.
Liberal Arts/General Program

The Degree: Associate in Arts

The Program: provides a broad background in the humanities, behavioral sciences, and natural sciences, enabling you to develop strength in various professional fields.

Your Next Step: transfer to a four-year college.

NOTE: To learn more about transfer requirements, see the Transfer Coordinator in Student Services.

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition I (ENG 101, 103, or 105)</td>
<td>3</td>
</tr>
<tr>
<td>English Composition II (ENG 112, 114, or 116)</td>
<td>3</td>
</tr>
<tr>
<td>Oral Communication (SPE 101 or 121)</td>
<td>3</td>
</tr>
<tr>
<td>Behavioral Sciences Core:</td>
<td>9</td>
</tr>
<tr>
<td>a) Select two courses from the following list: ANT 103 or 104, ECO 101 or 102, HEC 101, POL 101, PSY 101, or SOC 101</td>
<td></td>
</tr>
<tr>
<td>b) Select any additional course coded (BC)</td>
<td></td>
</tr>
<tr>
<td>Humanities Core:</td>
<td>9</td>
</tr>
<tr>
<td>One three-credit course from each of the following categories:</td>
<td></td>
</tr>
<tr>
<td>a) History (HIS 101, 102, 105 or 107, 106 or 108, 113)</td>
<td></td>
</tr>
<tr>
<td>b) Literature (ENG 201, 202, 203, 204, 205, 206, 225, 247, 248, 253)</td>
<td></td>
</tr>
<tr>
<td>c) Any additional course coded (HC)</td>
<td></td>
</tr>
<tr>
<td>Science/Math Core:</td>
<td></td>
</tr>
<tr>
<td>a) Science - BIO, CHE, GEO, PHY, or SCI courses with NC advising codes</td>
<td>8</td>
</tr>
<tr>
<td>b) Math - MAT course with NC advising code</td>
<td>3</td>
</tr>
<tr>
<td>Electives (See note below)</td>
<td></td>
</tr>
</tbody>
</table>

Elective requirements in this program can be satisfied by the successful completion of any course coded (A), (BC), (HC), (NC), (BL), (HL), (NL), (L), and (X). No more than 18 credits in any specific subject (such as Chemistry, Psychology, etc.) may be applied toward the degree requirements. In English, however, 18 credits beyond English Composition II may be applied to the degree. You may apply no more than 12 X-coded credits (including a maximum of 4 credits in Leisure Education) toward the Liberal Arts degree.  

TOTAL 60
Liberal Arts/American Studies Option

The Degree: Associate of Arts

The Program: provides a comprehensive overview of American culture for those planning to pursue careers in education, public service, social service, law, advertising, public relations, journalism, library science, and the ministry. The program’s major emphasis is on American literature, history, and government.

Your Next Step: transfer to a four-year college.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101, 103, or 105 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112, 114, or 116 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>ENG 203 and ENG 204 American Literature I and II</td>
<td>6</td>
</tr>
<tr>
<td>SPE 101 Oral Communication: Public Speaking,</td>
<td></td>
</tr>
<tr>
<td>or SPE 121 Oral Communication: Small Group Discussion</td>
<td>3</td>
</tr>
<tr>
<td>HIS 105 History of the American People to 1865</td>
<td>3</td>
</tr>
<tr>
<td>HIS 106 History of the American People since 1865</td>
<td>3</td>
</tr>
<tr>
<td>POL 101 American Politics</td>
<td>3</td>
</tr>
<tr>
<td>Behavioral Science Core</td>
<td>6</td>
</tr>
<tr>
<td>*Science/Math Core</td>
<td>11</td>
</tr>
<tr>
<td>*Elective Choice</td>
<td></td>
</tr>
<tr>
<td>American Studies - any 2 courses from the list below</td>
<td>6</td>
</tr>
<tr>
<td>General Electives</td>
<td>13</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>

Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 253 Valley American Literature</td>
<td>3</td>
</tr>
<tr>
<td>GEO 103 Valley Geology</td>
<td>3</td>
</tr>
<tr>
<td>HIS 217 Valley/American Ethnic Experience</td>
<td>3</td>
</tr>
<tr>
<td>MUS 102 The American Experience in Music</td>
<td>3</td>
</tr>
<tr>
<td>POL 203 American Civil Liberties</td>
<td>3</td>
</tr>
<tr>
<td>POL 205 American Foreign Policy</td>
<td>3</td>
</tr>
<tr>
<td>THE 125 The American Musical Theatre</td>
<td>3</td>
</tr>
<tr>
<td>Appropriate Directed Study (295 or 296)</td>
<td></td>
</tr>
</tbody>
</table>

* See Liberal Arts/General Program for specific requirements.

Program Coordinator: Dr. Joan S. Ibish
Liberal Arts/Art Option

The Degree: Associate in Arts

The Program: provides a broad range of general studies in the behavioral sciences, the natural sciences, and the humanities with an elective emphasis on art.

Your Next Step: transfer to a four-year college as a liberal arts major. Future careers may include art therapy, primary or secondary education, museum or gallery work.

**Required Courses**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101, 103, or 105 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112, 114, or 116 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>SPE 101 Oral Communication: Public Speaking, or SPE 121 Oral Communication: Small Group Discussion</td>
<td>3</td>
</tr>
<tr>
<td>ART 103 or 104 Art History I or II</td>
<td>3</td>
</tr>
<tr>
<td>*Behavioral Science Core</td>
<td>9</td>
</tr>
<tr>
<td>*Humanities Core</td>
<td>6</td>
</tr>
<tr>
<td>*Science/Math Core</td>
<td>11</td>
</tr>
<tr>
<td>*Elective Choice</td>
<td>12</td>
</tr>
<tr>
<td>Art Electives</td>
<td></td>
</tr>
<tr>
<td>(choose 2 courses from Group I and 2 courses from Group II below)</td>
<td>12</td>
</tr>
<tr>
<td>General Elective</td>
<td>3</td>
</tr>
<tr>
<td>Liberal Arts Elective</td>
<td>7</td>
</tr>
</tbody>
</table>

**TOTAL 60**

**Electives**

**Group I (Select two):**

- ART 111 Introduction to Studio,
  - or ART 121 Two-Dimensional Design * 3
- ART 117 Introduction to Drawing,
  - or ART 131 Drawing I ✓ 3
- ART 151 Introduction to Photography ✓ 3

**Group II (Select two):**

- ART 118 Fundamentals of Drawing: Perspective 3
- ART 119 Fundamentals of Drawing: Anatomy & Structure 3
- ART 122 Design and Color 3
- ART 132 Drawing II ✓ 3
- ART 231 Figure Drawing 3
- ART 233 Printmaking I 3
- ART 241 Painting I 3
- ART 251 Photography I 3
- ART 270 Graphic Art Production 3

**NOTE:** No more than 18 credits total may be taken in Art.

* See Liberal Arts/General Program for specific requirements.

Program Coordinator: T. Budge Hyde
Liberal Arts/Classical Humanities Option

The Degree: Associate in Arts
The Program: parallels, as closely as possible, the typical course of study in the first two years of a smaller liberal arts college.
Your Next Step: transfer to a four-year college.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101, 103, or 105 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112, 114, or 116 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>(Recommended: ENG 112)</td>
<td></td>
</tr>
<tr>
<td>ENG 201 Western Literature I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 202 Western Literature II</td>
<td>3</td>
</tr>
<tr>
<td>HIS 101 Western Civilization to 1500 A.D.</td>
<td>3</td>
</tr>
<tr>
<td>HIS 102 Western Civilization since 1500 A.D.</td>
<td>3</td>
</tr>
<tr>
<td>HUM 201 Humanities in the Western World I</td>
<td>3</td>
</tr>
<tr>
<td>HUM 202 Humanities in the Western World II</td>
<td>3</td>
</tr>
<tr>
<td>SPE 101 Oral Communication: Public Speaking, or SPE 121 Oral Communication: Small Group Discussion</td>
<td>3</td>
</tr>
<tr>
<td>*Science/Math Core</td>
<td>11</td>
</tr>
<tr>
<td>(Recommended: lab science plus MAT 107 or higher)</td>
<td></td>
</tr>
<tr>
<td>*Behavioral Science Core</td>
<td>9</td>
</tr>
<tr>
<td>*Electives (Recommended: two or more from each group below)</td>
<td>13</td>
</tr>
<tr>
<td><strong>TOTAL 60</strong></td>
<td></td>
</tr>
</tbody>
</table>

Electives

**Group I (Select two or more):**
- ART 103 Art History I                                               | 3       |
- ART 104 Art History II                                              | 3       |
- MUS 101 An Introduction to Music                                    | 3       |

**Group II (Select two or more):**
- PHI 101 Logic and Scientific Method                                | 3       |
- PHI 103 Introduction to Philosophy                                  | 3       |
- POL 103 Comparative Politics                                       | 3       |
- Foreign Languages                                                   |         |

* See Liberal Arts/General Program for specific requirements.

Program Coordinator: Dr. Joan S. Ibish
 Liberal Arts/Data Processing Option

The Degree: Associate in Arts.

The Program: provides strong general education and background in liberal arts as well as a basic knowledge of computers and programming that you may use in your chosen field of study.

Your Next Step: transfer to a four-year college in any field of liberal arts or computer science.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101, 103, or 105 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112, 114, or 116 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>SPE 101 Oral Communication: Public Speaking,</td>
<td></td>
</tr>
<tr>
<td>or SPE 121 Oral Communication: Small Group Discussion</td>
<td>3</td>
</tr>
<tr>
<td>ENG 123 Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>@MAT 107 College Algebra (or higher level math course)</td>
<td>3</td>
</tr>
<tr>
<td>MAT 114 Probability and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>ADM 106 Keyboarding for Information Processing</td>
<td>1</td>
</tr>
<tr>
<td>DAT 111 Introduction to Computers,</td>
<td></td>
</tr>
<tr>
<td>or DAT 113 Introduction to Business Information Systems,</td>
<td>3</td>
</tr>
<tr>
<td>or DAT 115 Programming Principles and Concepts</td>
<td></td>
</tr>
<tr>
<td>DAT 141 Programming in BASIC,</td>
<td></td>
</tr>
<tr>
<td>or DAT 143 Introduction to ANSI COBOL,</td>
<td></td>
</tr>
<tr>
<td>or DAT 145 FORTRAN Programming,</td>
<td></td>
</tr>
<tr>
<td>or DAT 147 Pascal Programming</td>
<td>3</td>
</tr>
</tbody>
</table>

DAT Electives (5 credits chosen from available courses) 5

*Behavioral Science Core 9
*Humanities Core 9
@ *Science Core 8
General Elective 4

*Elective Choice

TOTAL 60

@ Students planning to transfer to a four-year computer science major should take:

- MAT 201 Calculus I,
- MAT 202 Calculus I
- PHY 111 General Physics I with Calculus,
- PHY 112 General Physics II with Calculus,
- DAT 211 Assembly and Machine Languages,

CHE 111 General Chemistry I and CHE 112 General Chemistry II may be required.

* See Liberal Arts/General Program for specific requirements.

Program Coordinator: Dr. Ira H. Rubenzahl
## Liberal Arts/Education Option

**The Degree:** Associate in Arts  
**The Program:** provides a broad range of general studies in the behavioral sciences, the natural sciences, and the humanities with an elective emphasis on education.  
**Your Next Step:** transfer to a four-year college as a liberal arts major to prepare to teach in the preschool and elementary school.

### Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101, 103, or 105 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112, 114, or 116 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>SPE 101 Oral Communication: Public Speaking or SPE 121 Oral Communication: Group Discussion</td>
<td>3</td>
</tr>
<tr>
<td>Behavioral Science Core</td>
<td></td>
</tr>
<tr>
<td>PSY 101 Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 217 Human Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101 Introduction to Sociology, or ANT 104 Introduction to Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>Humanities Core</td>
<td></td>
</tr>
<tr>
<td>ENG 241 Survey of Children’s Literature</td>
<td>3</td>
</tr>
<tr>
<td>One 3-credit course from each of the following categories coded HC:</td>
<td></td>
</tr>
<tr>
<td>a) History (HIS 101, 103, 105, 106, 107, 108, 113)</td>
<td>3</td>
</tr>
<tr>
<td>b) any one of the following: ENG 201, 202, 203, 204, 205, 206, 225, 247, 248, 253</td>
<td>3</td>
</tr>
<tr>
<td>Science/Math Core</td>
<td></td>
</tr>
<tr>
<td>a) one 3-credit MAT course coded NC</td>
<td>3</td>
</tr>
<tr>
<td>b) Science (courses with BIO, CHE, PHY, or SCI coded NC)</td>
<td>8</td>
</tr>
<tr>
<td>Education Electives Four 3-credit courses coded (X) from the following:</td>
<td></td>
</tr>
<tr>
<td>EDU 101, 102, 103, 121, 201</td>
<td>12</td>
</tr>
<tr>
<td>Electives (Refer to Liberal Arts General Program)</td>
<td>10</td>
</tr>
</tbody>
</table>

**TOTAL 60**

Program Coordinator: Nancy T. Winter

## Liberal Arts/Food Science Option

**The Degree:** Associate in Arts  
**The Program:** provides a strong two-year program in food science or food science engineering, similar to the first two years of a university program in food science.  
**Your Next Step:** transfer without loss of time or credit to a four-year college as a major in food science or food science engineering, or, with slight modification, nutrition.
Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101, 103, or 105 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112, 114, or 116 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>SPE 101 Oral Communication: Public Speaking,</td>
<td></td>
</tr>
<tr>
<td>( \text{or SPE 121 Oral Communication: Small Group Discussion} )</td>
<td>3</td>
</tr>
<tr>
<td>BIO 101 Zoology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 205 Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>CHE 111 General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHE 112 General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHE 201 Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHE 202 Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>MAT 201 Calculus with Analytic Geometry I</td>
<td>4</td>
</tr>
<tr>
<td>MAT 202 Calculus with Analytic Geometry II</td>
<td>4</td>
</tr>
<tr>
<td>PHY 101 General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHY 102 General Physics II</td>
<td>4</td>
</tr>
<tr>
<td>( \ast )Behavioral Science Core</td>
<td>9</td>
</tr>
<tr>
<td>( \ast )Humanities Core</td>
<td>9</td>
</tr>
<tr>
<td><strong>TOTAL</strong> 67</td>
<td></td>
</tr>
</tbody>
</table>

* See Liberal Arts/General Program for specific requirements.

Program Coordinator: Gertrude P. Sheaffer, M.T. (ASCP)

Liberal Arts/Human Ecology Option

The Degree: Associate in Arts

The Program: combines elements of the behavioral and the natural sciences to develop student understanding of ecology and the use of science and technology in solving current problems which are critical to our future.

Your Next Step: transfer to a four-year college with programs in human ecology and related areas of study.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101, 103, or 105 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112, 114, or 116 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>SPE 101 Oral Communication: Public Speaking,</td>
<td></td>
</tr>
<tr>
<td>( \text{or SPE 121 Oral Communication: Small Group Discussion} )</td>
<td>3</td>
</tr>
<tr>
<td>Humanities Core (including 3 credits in History and 3 credits in Literature)</td>
<td>9</td>
</tr>
<tr>
<td>MAT (any appropriate level coded NC)</td>
<td>3</td>
</tr>
<tr>
<td>BIO (any 4-credit option coded NC)</td>
<td>4</td>
</tr>
<tr>
<td>GEO or CHE (any option coded NC)</td>
<td>3-4</td>
</tr>
<tr>
<td>SCI 104 Energy: Issues and Principles</td>
<td>3</td>
</tr>
<tr>
<td>NT 103 Introduction to Physical Anthropology,</td>
<td></td>
</tr>
</tbody>
</table>
or ANT 104 Introduction to Cultural Anthropology 3
HEC 101 Human Ecology: Problems and Solutions 3
HEC 111 Applied Human Ecology: Project TEME 3
HEC 251 Small Group Ecology: Project TEME Planning and Development 3
HEC 252 Small Group Ecology: Project TEME Implementation 6
PSY 101 Principles of Psychology 3
PSY 221 Environmental Psychology 3
SOC 101 Principles of Sociology 3
Any Liberal Arts or General Electives 2-4
**TOTAL 60-63**

Program Coordinators: Daniel F. LaRose
Gregory C. Vouros

Liberal Arts/Math/Science Option

**The Degree:** Associate of Arts

**The Program:** is consistent with the first two years of a university program, and is designed for the student who plans to transfer to a four-year college as a math or science major, or into a pre-professional program.

**Your Next Step:** transfer to a four-year college.

### Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101, 103, or 105 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112, 114, or 116 English Composition II</td>
<td></td>
</tr>
<tr>
<td>SPE 101 Oral Communication: Public Speaking, *</td>
<td>3</td>
</tr>
<tr>
<td>or SPE 121 Oral Communication: Small Group Discussion</td>
<td></td>
</tr>
<tr>
<td>MAT 107, 108, 201, 202 (at least two)</td>
<td>6-8</td>
</tr>
<tr>
<td>*Behavioral Science Core</td>
<td>9</td>
</tr>
<tr>
<td>*Humanities Core</td>
<td>9</td>
</tr>
<tr>
<td>Select at least 8 credits from two or more subject areas:</td>
<td>16</td>
</tr>
<tr>
<td>BIO 101 Zoology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 102 Botany</td>
<td>4</td>
</tr>
<tr>
<td>CHE 111 General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHE 112 General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>GEO 101 Physical Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEO 102 Historical Geology</td>
<td>4</td>
</tr>
<tr>
<td>PHY 101 General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHY 102 General Physics II</td>
<td>4</td>
</tr>
<tr>
<td>PHY 111 General Physics I with Calculus</td>
<td>4</td>
</tr>
<tr>
<td>PHY 112 General Physics II with Calculus</td>
<td>4</td>
</tr>
<tr>
<td>MAT 201 Calculus with Analytic Geometry I</td>
<td>4</td>
</tr>
<tr>
<td>MAT 202 Calculus with Analytic Geometry II</td>
<td>4</td>
</tr>
<tr>
<td>MAT 203 Multivariate Calculus</td>
<td>4</td>
</tr>
<tr>
<td>MAT 204 Elementary Differential Equations</td>
<td>4</td>
</tr>
</tbody>
</table>
Electives

BIO 103 Ecology  
BIO 104 Natural History  
BIO 105 Anatomy and Physiology I  
BIO 106 Anatomy and Physiology II  
BIO 111 Basic Horticulture  
BIO 130 Human Nutrition  
BIO 205 Microbiology  
CHE 201 Organic Chemistry I  
CHE 202 Organic Chemistry II  
DAT 111 Introduction to Computers  
DAT 145 FORTRAN Programming  
DAT 147 Pascal Programming  
GEO 103 Valley Geology  
GEO 104 Introduction to Oceanography  
GEO 107 Geology of Our National Parks  
MAT 112 Finite Mathematics  
MAT 114 Probability and Statistics  
Any course with EGR, ELT, or SCI prefix  

Total 60-62

*See Liberal Arts/General Program for specific requirements

Program Coordinator: Linda M. Cavanaugh

Liberal Arts/Natural Resources

The Degree: Associate in Science

The Program: provides you with a background in natural resources, agriculture, land-use planning, landscaping, horticulture, forestry, wood technology, or wildlife management.

Your Next Step: transfer to a four-year college.

Required Courses

ENG 101, 103, or 105 English Composition I  
ENG 112, 114, or 116 English Composition II  
SPE 101 Oral Communication: Public Speaking;  
  or SPE 121 Oral Communication: Small Group Discussion  
BIO 103 Ecology  
BIO 104 Natural History  
ECO 102 Principles of Microeconomics  
ENV 107 Principles of Land Use  
GEO 101 Physical Geology  
MAT 107 College Algebra (or higher level)  
  MAT 151 Applied Calculus I
SCI 104 Energy: issues and Principles  3
*Behavioral Science Core - Electives  6
**Humanities Core - Literature  3
**Humanities Core - History  3
Humanities Core - Elective  3
Concentration electives to be selected from the list below  15-20
TOTAL  67-72

Electives
BIO 101 Zoology  4
BIO 102 Botany  4
BIO 111 Horticulture  3
CHE 111 General Chemistry  4
CHE 112 General Chemistry II  4
GEO 102 Historical Geology  4
GEO 103 Valley Geology  3
GEO 104 Oceanography  4
MAT 201 Calculus with Analytic Geometry I  4
MAT 202 Calculus with Analytic Geometry II  4
PHY 101 General Physics I  4
PHY 102 General Physics II  4

Some four-year programs may require selected entry level sciences, such as:
BIO 101 Zoology
BIO 102 Botany
CHE 111 General Chemistry I
CHE 112 General Chemistry II
GEO 102 Historical Geology
PHY 101 General Physics I
PHY 102 General Physics II

* See Liberal Arts/General Program for specific requirements. Some four-year programs may require additional behavioral science courses, such as:
ANT 104 Introduction to Cultural Anthropology, or
ECO 101 Principles of Macroeconomics, or
POL 101 American Politics

** See specific requirements in Literature and History as currently in force for Liberal Arts/General Program.

Program Coordinator: Dr. Ira H. Rubenzahl

Liberal Arts/Pioneer Valley Studies

The Degree: Associate in Arts
The Program: examines the culture, history, and environment of the Pioneer Valley in a national context. You will learn to recognize cultural artifacts and become familiar with the rich natural and historical resources of the region.
Your Next Step: transfer to a four-year college in preparation for a career in education, public service, museums, libraries and arts organizations, or journalism.

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101, 103, or 105 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112, 114, or 116 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>SPE 101 Oral Communication: Public Speaking, or SPE 121 Oral Communication: Small Group Discussion</td>
<td>3</td>
</tr>
<tr>
<td>ART 105 Valley/American Art and Architecture I, or ART 106 Valley/American Art and Architecture II</td>
<td>3</td>
</tr>
<tr>
<td>ECO 111 Valley Contemporary Economic Issues</td>
<td>3</td>
</tr>
<tr>
<td>ENG 203 American Literature I, or ENG 204 American Literature II</td>
<td>3</td>
</tr>
<tr>
<td>ENG 253 Valley/American Literature</td>
<td>3</td>
</tr>
<tr>
<td>GEO 103 Valley Geology</td>
<td>3</td>
</tr>
<tr>
<td>HIS 107 Valley/American History I</td>
<td>3</td>
</tr>
<tr>
<td>HIS 108 Valley/American History II</td>
<td>3</td>
</tr>
<tr>
<td>HUM 113 Introduction to the Pioneer Valley</td>
<td>3</td>
</tr>
<tr>
<td>*Behavioral Sciences Core</td>
<td>6</td>
</tr>
<tr>
<td>*Science/Math Core</td>
<td></td>
</tr>
<tr>
<td>a) Science - BIO, CHE, GEO, PHY, or SCI courses with NC advising codes</td>
<td>5</td>
</tr>
<tr>
<td>b) Math - MAT course with NC advising code</td>
<td>3</td>
</tr>
<tr>
<td>*Elective Choices</td>
<td></td>
</tr>
<tr>
<td>General Electives</td>
<td>7</td>
</tr>
<tr>
<td>Valley Studies Electives (chosen from below or from alternatives above)</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL 60</td>
<td></td>
</tr>
</tbody>
</table>

Electives

<table>
<thead>
<tr>
<th>Electives</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 109 Valley Industrial and Economic Development</td>
<td>3</td>
</tr>
<tr>
<td>FLK 219 Valley Folklife</td>
<td>3</td>
</tr>
<tr>
<td>HIS 217 Valley/American Ethnic Experience</td>
<td>3</td>
</tr>
<tr>
<td>HUM 119 Women in the Valley</td>
<td>3</td>
</tr>
</tbody>
</table>

NOTE: No more than 18 credits may be taken in one discipline toward the completion of the Associate of Arts degree.

* See Liberal Arts/General Program for specific requirements.

Program Coordinator: Dr. Joan S. Ibish

**Business Administration Transfer Program**

The Degree: Associate in Arts

The Program: provides the necessary courses for successful transfer to most four-year business administration programs. The program has a core of business
administration courses combined with courses in liberal arts with an emphasis on mathematics. By using electives, you may complete the program of study offered in the first two years of a four-year college.

**Your Next Step:** transfer to a four-year college or university with a major in a business administration field.

### Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101, 103, or 105 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112, 114, or 116 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>SPE 101 Oral Communication: Public Speaking,</td>
<td></td>
</tr>
<tr>
<td>or SPE 121 Oral Communication: Small Group Discussion</td>
<td>3</td>
</tr>
<tr>
<td>ACC 121 Introduction to Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>ACC 122 Introduction to Accounting II</td>
<td>4</td>
</tr>
<tr>
<td>ACC 203 Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ADM 106 Keyboarding for Information Processing</td>
<td>1</td>
</tr>
<tr>
<td>BUS 111 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 205 Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>DAT 113 Introduction to Business Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>DAT 114 Microcomputer Software Tools,</td>
<td></td>
</tr>
<tr>
<td>or DAT 129 Applications of Lotus 1-2-3</td>
<td>1</td>
</tr>
<tr>
<td>ECO 101 Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 102 Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>PSY 101 Principles of Psychology</td>
<td>3</td>
</tr>
<tr>
<td>*Humanities Core</td>
<td>9</td>
</tr>
<tr>
<td>Natural Science with lab component</td>
<td>3</td>
</tr>
<tr>
<td>**Math above 106</td>
<td>6</td>
</tr>
</tbody>
</table>

**Electives**

Program elective

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>or MAT 151 Applied Calculus I,</td>
<td>3</td>
</tr>
<tr>
<td>or MAT 152 Applied Calculus II</td>
<td>3</td>
</tr>
<tr>
<td>Liberal Arts Elective</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL 64**

* See Liberal Arts/General Program for specific requirements/distribution.

** Math courses to be chosen after consultation with faculty advisor and in consideration of the requirements of the transfer institution. A number of four-year schools require MAT 151 and 152 (Applied Calculus I and II).

Program Coordinator: Dr. Robert J. Welsh
CAREER PROGRAMS

Career Programs offer a specialized education, which may include studies in humanities, behavioral science, and natural science, in addition to studies in specific occupational fields, and lead to the Associate in Science degree. We have designed the programs to prepare you for employment in a variety of career areas, as well as, in many cases, to enable you to transfer to baccalaureate degree programs at other institutions. You should work closely with your academic advisor in selecting your courses and, if you are considering transfer to another school, you should contact our Coordinator of Transfer as early as possible.

Most career programs require some elective coursework in liberal arts. In making your liberal arts course selections, you should keep in mind the following guidelines.

1. You may satisfy a **general elective** by completing any credit course offered by the College, except courses with advising codes of “D.”

2. You may satisfy a **liberal arts elective** by completing any credit course offered by the College with any advising code other than “A,” “X,” or “D.”

3. You may satisfy an **elective from a specific subject** area by completing any credit course offered by the College as defined below.

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>Advising Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities elective</td>
<td>HC or HL</td>
</tr>
<tr>
<td>Behavioral Science elective</td>
<td>BC or BL</td>
</tr>
<tr>
<td>Math/Science elective</td>
<td>NC or NL</td>
</tr>
</tbody>
</table>

**Please note:** Some electives in particular career programs are footnoted and specific courses are suggested.

**Accounting**

**The Degree:** Associate in Science

**The Program:** prepares you for work at the para-professional level in industry, retail, and wholesale enterprises, or public accounting offices.

**Your Next Step:** work in entry level positions such as accounts payable clerk, junior accountant in a public accounting firm, or full-charge bookkeeper in a service firm.

**Required Courses**

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
</table>
ACC 111 Basic Accounting I,  
  or ACC 121 Introduction to Accounting I  
  3-4
ACC 112 Basic Accounting II  
  3
ACC 203 Managerial Accounting  
  3
ACC 207 Financial Accounting Systems & Procedures  
  3
ADM 111 Typewriting Development I  
  3
ADM 210 Records Management  
  3
BUS 105 Mathematics for Business  
  3
BUS 107 Introduction to Federal Income Taxes  
  3
BUS 111 Introduction to Business  
  3
BUS 123 Business Communication  
  3
BUS 155 Business Law I  
  3
BUS 205 Principles of Management  
  3
DAT 114 Microcomputer Software Tools  
  3
ENG 101, 103, or 105 English Composition I  
  3
ENG 123 Report Writing,  
  or ENG 112, 114, or 116 English Composition II  
  3
PSY 101 Principles of Psychology  
  3

**Electives**

Liberal Arts Electives  
  (not including (A), (X), or (D) advising codes)  
  12
Program Elective (refers to any course with ACC, ADM, BUS,  
  or DAT prefixes)  
  3

**TOTAL 63-64**

Program Coordinator:  
Dr. Robert J. Welsh

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**Art**

**The Degree:**  
Associate in Science

**The Program:**  
provides a strong foundation in drawing and design, with emphasis on the  
concepts, techniques, and discipline of fine art. You are required to take  
courses in liberal arts and art history, and you may choose an elective  
emphasize in painting, printmaking, photography, or graphic design.

**Your Next Step:**  
transfer as an art major to a four-year college or professional institution.  
Your future career may lie in the area of creative art, art education, arts  
administration, or illustration.

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 103 Art History I</td>
<td>3</td>
</tr>
<tr>
<td>ART 104 Art History II</td>
<td>3</td>
</tr>
<tr>
<td>ART 118 Fundamentals of Drawing: Perspective</td>
<td>3</td>
</tr>
<tr>
<td>ART 119 Fundamentals of Drawing: Anatomy &amp; Structure</td>
<td>3</td>
</tr>
<tr>
<td>ART 121 Two-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 122 Design and Color</td>
<td>3</td>
</tr>
<tr>
<td>ART 131 Drawing I</td>
<td>3</td>
</tr>
</tbody>
</table>
ART 132 Drawing II 3
ART 231 Figure Drawing 3
ART 232 Drawing Problems 3
ENG 101, 103, or 105 English Composition I 3
ENG 112, 114, or 116 English Composition II 3
HUD 113 Job Search Training 1
Behavioral Science Elective 3
Humanities Elective 3
General Elective 3
Liberal Arts Electives 6
Art Studio Electives (12 credits from the list below) 12
TOTAL 64

Electives

ART 151 Introduction to Photography 3
ART 233 Printmaking I 3
ART 234 Printmaking II 3
ART 241 Painting I 3
ART 242 Painting II 3
ART 251 Photography I 3
ART 252 Photography II 3
ART 270 Graphic Art Production 3
ART 271 Graphic Design I 3
ART 272 Graphic Design II 3
ART 295 Directed Study in Art 1-3
ART 296 Directed Study in Art 1-3
ART 297 Cooperative Placement in Art 1-6
ART 298 Cooperative Placement in Art 1-6

Students must complete foundation level studios before taking advanced level studios.

Program Coordinator: T. Budge Hyde

Computer Information Systems

The Degree: Associate in Science
The Program: is designed for students who plan to transfer to a four-year college with a major in computer information systems. Coursework is consistent with the first two years of the model curriculum for CIS, as proposed by the Data Processing Managers Association.

Your Next Step: transfer to a four-year college or work as an entry-level programmer, information center employee, computer operator, sales engineer, or consultant.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADM 106 Keyboarding for Information Processing</td>
<td>1</td>
</tr>
<tr>
<td>DAT 113 Introduction to Business Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>DAT 115 Programming Principles and Concepts</td>
<td>3</td>
</tr>
</tbody>
</table>
DAT 114 Microcomputer Software Tools
  or DAT 129 Applications of Lotus 1-2-3 1 or 3
DAT 141 Programming in BASIC 3
DAT 143 Introduction to ANSI COBOL 3
DAT 201 Systems Analysis and Design 3
ACC 121 Introduction to Accounting I 4
ACC 122 Introduction to Accounting II 4
ACC 203 Managerial Accounting 3
BUS 111 Introduction to Business 3
BUS 155 Business Law I 3
BUS 205 Principles of Management 3
ECO 101 Principles of Macroeconomics 3
ECO 102 Principles of Microeconomics 3
ENG 101, 103, or 105 English Composition I 3
ENG 112, 114, or 116 English Composition II 3
MAT 151 Applied Calculus I 4
MAT 152 Applied Calculus II 3
PSY 101 Principles of Psychology 3
*Electives: Any two 3-credit courses with a number above 100 6

TOTAL 65 or 67

* To be chosen in consultation with the faculty advisor and in consideration of the requirements of the transfer institution.

Program Coordinator: Dr. Robert J. Welsh

Criminal Justice

The Degree: Associate in Science
The Program: provides a broad education in the administration, operations and objectives of the criminal justice system and its component parts: police, courts, and corrections.
Your Next Step: transfer into a four-year program or enter any of several careers within the criminal justice system, including police work, correctional work, the law, or social work.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJ 101 Introduction to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 103 Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 105 Police Process</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 107 Adjudication Process</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 109 Corrections Process</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 121 Criminology</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101, 103, or 105 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112, 114, or 116 English Composition II,</td>
<td></td>
</tr>
<tr>
<td>or ENG 123 Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>POL 101 American Government</td>
<td>3</td>
</tr>
<tr>
<td>PSY 101 Principles of Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>
PSY 213 Psychology of Interpersonal Behavior 3
SOC 101 Principles of Sociology 3
SOC 201 Social Problems 3
SPE 101 Oral Communication: Public Speaking 3
*General Elective 3
*Natural Science/Humanities Electives 9
CRJ Electives (6 credits from the list below) 6

**TOTAL 60

Electives (any two of the following):
CRJ 113 Juvenile Justice Process 3
CRJ 203 Criminal Investigation 3
CRJ 211 Current Issues in Criminal Justice 3
**CRJ 215 Field Experience Practicum 3
CRJ 217 White Collar Organized Crime 3
CRJ 219 Issues in Constitutional Law 3

* Students who wish to take advantage of the Commonwealth Transfer Compact will have to select their electives with those requirements in mind.

** Select with the assistance of the program advisors.

Program Coordinator: Gerard J. Richard

Early Childhood Education

The Degree: Associate in Science

The Program: provides a strong background in early childhood education and liberal arts. The curriculum integrates the academic background along with direct experience and practical skill-building in different early childhood settings.

Your Next Step: work as a professional in various early childhood settings and social service agencies or transfer to a four-year college to prepare for employment in public schools or social service agencies.

Required Courses

EDU 101 Introduction to Early Childhood Education 3
EDU 102 Prepracticum in Early Childhood Education (lab required) 3
EDU 103 Creative Experiences in Art, Music, Drama, and Dance 3
EDU 201 Early Childhood Curriculum 3
EDU 205 Philosophy of Education 3
EDU 215 Student Teaching I 6
EDU 216 Student Teaching II 6
ENG 101, 103, or 105 English Composition I 3
ENG 112, 114, or 116 English Composition II 3
ENG 241 Survey of Children's Literature, or FLK 218 Storytelling 3
PSY 101 Principles of Psychology 3
PSY 217 Human Growth and Development 3
SOC 101 Principles of Sociology,
or ANT 104 Introduction to Cultural Anthropology 3
SPE 101 Oral Communication: Public Speaking 3
EDU Elective 3
General Electives 6
Science/Math Elective 3-4

**TOTAL 60-61**

**Electives**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU 111 Introduction to Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDU 115 Family, School and Community Interaction</td>
<td>3</td>
</tr>
<tr>
<td>EDU 119 Contemporary Parenting</td>
<td>3</td>
</tr>
<tr>
<td>EDU 121 Reading and Language Arts for the Young Child</td>
<td>3</td>
</tr>
<tr>
<td>EDU 123 Educating the Infant and Toddler</td>
<td>3</td>
</tr>
</tbody>
</table>

Program Coordinator: Nancy T. Winter

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**Engineering Science**

**The Degree:** Associate in Science

**The Program:** provides a base of mathematics, science, and engineering fundamentals common to the first two years of a four-year engineering program. Engineering electives provide special courses to suit your particular interest in civil, electrical, mechanical, or chemical engineering. Greenfield Community College participates in the College of Engineering, University of Massachusetts/Amherst Dual Admissions Program. Students who apply to, and are accepted by UMass/Amherst may choose to begin their studies at GCC. This program only applies to civil, electrical, and mechanical engineering.

**Your Next Step:** transfer as an engineering major to a four-year college. In addition to the UMass Dual Admissions Program, GCC also has formal transfer agreements with Western New England College in industrial engineering, electrical engineering, mechanical engineering, and engineering-biomedical option; with Northeastern University in civil engineering, electrical engineering, and mechanical engineering; and with New England College in civil engineering. See Engineering Science Coordinator for details on the specific electives needed for these transfer programs.

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 111 General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHE 112 General Chemistry II, or Technical Elective*</td>
<td>3-4</td>
</tr>
<tr>
<td>DAT 146 FORTRAN Survey for Programmers</td>
<td>1</td>
</tr>
<tr>
<td>DAT 147 PASCAL Programming</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101 Principles of Macroeconomics, or ECO 102 Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>EGR 103 Engineering Orientation</td>
<td>1</td>
</tr>
<tr>
<td>EGR 107 Engineering Graphics I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101, 103, or 105 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 123 Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>MAT 201 Calculus with Analytic Geometry I</td>
<td>4</td>
</tr>
</tbody>
</table>
MAT 202 Calculus with Analytic Geometry II 4
MAT 203 Multivariate Calculus 4
MAT 204 Elementary Differential Equations, or MAT 205 Elementary Linear Algebra 3-4
PHY 111 General Physics I with Calculus 4
PHY 112 General Physics II with Calculus 4
**Liberal Arts Electives (BC or HC advising code) 6
Concentration Electives (choose from the list below) 12-15
TOTAL 65-70

Students must select one of the following engineering majors and fulfill the concentration electives for that major. Special circumstances may warrant some variations.

**Electives**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical Engineering (four courses from the following list)</td>
<td></td>
</tr>
<tr>
<td>EGR 205 Statics</td>
<td>3</td>
</tr>
<tr>
<td>EGR 206 Mechanics of Materials</td>
<td>3</td>
</tr>
<tr>
<td>***ELT 101 Basic Electricity I-DC</td>
<td>4</td>
</tr>
<tr>
<td>***ELT 102 Basic Electricity II-AC</td>
<td>4</td>
</tr>
<tr>
<td>MAT 204 Elementary Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td>Biological Science Elective</td>
<td>3-4</td>
</tr>
</tbody>
</table>

**Civil Engineering** (Included in UMass Dual Admissions Program)

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGR 205 Statics</td>
<td>3</td>
</tr>
<tr>
<td>EGR 206 Mechanics of Materials</td>
<td>3</td>
</tr>
<tr>
<td>Two electives from the following:</td>
<td></td>
</tr>
<tr>
<td>CIV 101 Surveying I</td>
<td>3</td>
</tr>
<tr>
<td>Biological Science Elective (approved by advisor)</td>
<td>3-4</td>
</tr>
<tr>
<td>EGR 208 Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>MAT 205 Elementary Linear Algebra</td>
<td>3</td>
</tr>
</tbody>
</table>

**Mechanical Engineering** (Included in UMass Dual Admissions Program)

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGR 205 Statics</td>
<td>3</td>
</tr>
<tr>
<td>EGR 206 Mechanics of Materials</td>
<td>3</td>
</tr>
<tr>
<td>MAT 205 Elementary Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>One course from the following:</td>
<td></td>
</tr>
<tr>
<td>Biological Science Elective (approved by advisor)</td>
<td>3-4</td>
</tr>
<tr>
<td>EGR 208 Thermodynamics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Chemical Engineering**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 201 Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHE 202 Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>EGR 205 Statics</td>
<td>3</td>
</tr>
<tr>
<td>Biological Science Elective (approved by advisor)</td>
<td>3-4</td>
</tr>
</tbody>
</table>

**Industrial Engineering**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGR 205 Statics</td>
<td>3</td>
</tr>
<tr>
<td>EGR 206 Mechanics of Materials</td>
<td>3</td>
</tr>
<tr>
<td>MAT 204 Elementary Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td>One course from the following:</td>
<td></td>
</tr>
<tr>
<td>Biological Science Elective</td>
<td>3-4</td>
</tr>
<tr>
<td>EGR 208 Thermodynamics</td>
<td>3</td>
</tr>
</tbody>
</table>
Fire Science Technology

The Degree: Associate in Science

The Program: provides technical and legal training in various aspects of fire prevention, fire protection, and hazardous material handling.

Your Next Step: begin your career in municipal fire protection, insurance and building inspection, fire protection work with private firms, or transfer to a four-year college with major emphasis on fire department management or fire science education.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 105 Basic Principles of Chemistry,</td>
<td>3</td>
</tr>
<tr>
<td>or SCI 101 Physical Science I</td>
<td></td>
</tr>
<tr>
<td>ENG 101, 103, or 105 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112, 114, or 116 English Composition II,</td>
<td>3</td>
</tr>
<tr>
<td>or ENG 123 Report Writing</td>
<td></td>
</tr>
<tr>
<td>FST 101 Introduction to Fire Protection</td>
<td>3</td>
</tr>
<tr>
<td>FST 103 Fundamentals of Fire Prevention</td>
<td>3</td>
</tr>
<tr>
<td>FST 109 Hazardous Materials</td>
<td>3</td>
</tr>
<tr>
<td>FST 111 Building Construction</td>
<td>3</td>
</tr>
<tr>
<td>FST 113 Fire Hydraulics with Applied Math</td>
<td>4</td>
</tr>
<tr>
<td>FST 201 Fire Protection Systems and Equipment I</td>
<td>3</td>
</tr>
<tr>
<td>PSY 101 Principles of Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101 Principles of Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SPE 101 Oral Communication: Public Speaking</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>*FST Electives</td>
<td>14</td>
</tr>
<tr>
<td>General Elective</td>
<td>3</td>
</tr>
<tr>
<td>Liberal Arts Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

**TOTAL 60**

*FST electives consist of all courses designated FST not specifically required in the curriculum.
Graphic Design

The Degree: Associate in Science

The Program: provides a background in basic concepts of graphic design and communication, built on a strong foundation of drawing and design. The major includes required courses in liberal arts and art history with elective emphasis in graphic art production, photography, drawing, painting, or printmaking.

Your Next Step: transfer to a four-year college or professional institution as a graphic design major or work as a staff artist, paste-up artist, photographer, or in a similar job requiring a background in the visual arts.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 103</td>
<td>Art History I</td>
<td>3</td>
</tr>
<tr>
<td>ART 104</td>
<td>Art History II</td>
<td>3</td>
</tr>
<tr>
<td>ART 118</td>
<td>Fundamentals of Drawing: Perspective</td>
<td>3</td>
</tr>
<tr>
<td>ART 119</td>
<td>Fundamentals of Drawing: Anatomy and Structure</td>
<td>3</td>
</tr>
<tr>
<td>ART 121</td>
<td>Two-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 122</td>
<td>Design and Color</td>
<td>3</td>
</tr>
<tr>
<td>ART 131</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 132</td>
<td>Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>ART 271</td>
<td>Graphic Design I</td>
<td>3</td>
</tr>
<tr>
<td>ART 272</td>
<td>Graphic Design II</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101, 103, or 105</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112, 114, or 116</td>
<td>English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>HUD 113</td>
<td>Job Search Training</td>
<td>1</td>
</tr>
<tr>
<td>Behavioral Science Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>General Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Liberal Arts Electives</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Art Studio Electives (12 credits from the list below)</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL 64

Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 151</td>
<td>Introduction to Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 231</td>
<td>Figure Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 232</td>
<td>Drawing Problems</td>
<td>3</td>
</tr>
<tr>
<td>ART 233</td>
<td>Printmaking I</td>
<td>3</td>
</tr>
<tr>
<td>ART 234</td>
<td>Printmaking II</td>
<td>3</td>
</tr>
<tr>
<td>ART 241</td>
<td>Painting I</td>
<td>3</td>
</tr>
<tr>
<td>ART 242</td>
<td>Painting II</td>
<td>3</td>
</tr>
<tr>
<td>ART 251</td>
<td>Photography I</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL 36
ART 252 Photography II 3
ART 270 Graphic Art Production 3
ART 295 Directed Study in Art 1-3
ART 296 Directed Study in Art 1-3
ART 297 Cooperative Placement in Art 1-6
ART 298 Cooperative Placement in Art 1-6

NOTE: Students must complete foundation level studios before taking advanced level studios.

Program Coordinator: T. Budge Hyde

Industrial Technology

The Degree: Associate in Science
The Program: provides a strong background in math, physics, and chemistry, with student-elected emphasis on chemical, civil, electronic, computer, or drafting technologies.
Your Next Step: transfer as an engineering technology major to a four-year college, or work as an engineering assistant, engineering technician, or in a similar job requiring technically trained people.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 111 General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHE 112 General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>DAT 147 Pascal Programming</td>
<td>3</td>
</tr>
<tr>
<td>EGR 103 Engineering Orientation</td>
<td>1</td>
</tr>
<tr>
<td>EGR 107 Engineering Graphics I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101, 103, or 105 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 123 Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>MAT 103 Applied Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 104 Applied Mathematics II</td>
<td>3</td>
</tr>
<tr>
<td>MAT 151 Applied Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>PHY 101 General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHY 102 General Physics II</td>
<td>4</td>
</tr>
<tr>
<td>SPE 101 Oral Communication: Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>Behavioral Science/Humanities Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

Concentration Electives 18-22
TOTAL 66-70

Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 201 Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHE 202 Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHE 211 Analytical Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CiV 101 Surveying I</td>
<td>3</td>
</tr>
<tr>
<td>CiV 102 Surveying II</td>
<td>3</td>
</tr>
<tr>
<td>DAT 115 Programming Principles and Concepts</td>
<td>3</td>
</tr>
</tbody>
</table>
DAT 141 Programming in BASIC 3
DAT 145 FORTRAN Programming 3
EGR 108 Engineering Graphics II 3
EGR 110 Engineering Graphics Project 3
EGR 205 Statics 3
EGR 206 Mechanics of Materials 3
ELT 101 Basic Electricity I-DC 4
ELT 102 Basic Electricity II-AC 4
ELT 201 Digital Circuit Theory 3
MAT 114 Probability and Statistics 3
MAT 152 Applied Calculus II 3

This program is currently approved by the Massachusetts Board of Regents as Industrial Technologies Cluster.

Program Coordinator: Carleton P. Stinchfield

Management

The Degree: Associate in Science

The Program: provides occupational and some transfer possibilities. You will be required to take a core of management courses, as well as liberal arts courses and electives that will allow you to transfer or enter the workplace.

Your Next Step: work in entry level management positions in business and public organizations or transfer to a business administration program at a four-year college.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 121 Introduction to Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>ACC 122 Introduction to Accounting II</td>
<td>4</td>
</tr>
<tr>
<td>ACC 203 Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ADM 106 Keyboarding for Information Processing</td>
<td>1</td>
</tr>
<tr>
<td>BUS 103 Introduction to Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BUS 111 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 155 Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 156 Business Law II</td>
<td>3</td>
</tr>
<tr>
<td>BUS 203 Personnel Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 205 Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>DAT 113 Introduction to Business Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>DAT 114 Microcomputer Software Tools, or DAT 129 Applications of Lotus 1-2-3</td>
<td>1 or 3</td>
</tr>
<tr>
<td>ECO 101 Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 102 Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101, 103, or 105 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112, 114, or 116 English Composition II,</td>
<td>3</td>
</tr>
<tr>
<td>or ENG 123 Report Writing</td>
<td></td>
</tr>
<tr>
<td>MAT above 106</td>
<td>3</td>
</tr>
<tr>
<td>PSY 101 Principles of Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>
Program Electives: Any 6 credits in courses with a prefix of ACC, BUS, or DAT, except ACC 111 or ACC 112  
Liberal Arts Electives: Any 3-4 credit course with advising code other than (A), (X), or (D)  
Elective: Any 3 credits with a number above 100  

TOTAL 64 or 66

Program Coordinator: Dr. Robert J. Welsh

Marketing

The Degree: Associate in Science
The Program: is for students interested in careers in marketing or merchandising. Your coursework will include selected liberal arts courses, a core of business administration courses, specialized marketing courses and the opportunity for cooperative placement.
Your Next Step: work in entry level management or sales positions in retail, wholesale, or industrial organizations.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 103 Analysis of Financial Statements</td>
<td>3</td>
</tr>
<tr>
<td>BUS 103 Introduction to Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BUS 105 Mathematics for Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 111 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 125 Principles of Advertising</td>
<td>3</td>
</tr>
<tr>
<td>BUS 155 Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 203 Personnel Management, or BUS 205 Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 213 Personal Selling and Sales Techniques</td>
<td>3</td>
</tr>
<tr>
<td>BUS 214 Retail Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 215 Retail Buying and Merchandising</td>
<td>3</td>
</tr>
<tr>
<td>DAT 114 Microcomputer Software Tools</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101 Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 102 Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101, 103, or 105 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112, 114, or 116 English Composition II, or ENG 123 Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>PSY 101 Principles of Psychology</td>
<td>3</td>
</tr>
<tr>
<td>*Program Elective: Any 3 credits in courses with a prefix of ACC, BUS, or DAT</td>
<td>3</td>
</tr>
<tr>
<td>Liberal Arts Electives: Any 6 credits in courses with codes other than (A), (X), or (D)</td>
<td>6</td>
</tr>
<tr>
<td>General Elective: Any 3 credits above the 100 level</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL 60

*NOTE: Any student considering a four-year degree in the future should consider taking ACC 121 and ACC 122 in place of ACC 103.
Media Communication

The Degree: Associate in Science

The Program: provides a strong background in the design and production of a variety of media, including video, photography, graphics, and audio. You may select from a wide range of elective courses to meet your individual needs and interests.

Your Next Step: transfer as a Media Communication major to a four-year college or work as a media production technician in business, education, or broadcasting.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAT 111 Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101, 103, or 105 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112, 114, or 116 English Composition II (ENG 116 recommended)</td>
<td>3</td>
</tr>
<tr>
<td>ENG 121 Script Writing</td>
<td>3</td>
</tr>
<tr>
<td>MAT/Science Elective, NC or NL</td>
<td>3</td>
</tr>
<tr>
<td>MCM 101 Introduction to Media Communication</td>
<td>3</td>
</tr>
<tr>
<td>MCM 103 Production of Audio-Visual Materials</td>
<td>3</td>
</tr>
<tr>
<td>MCM 109 Television Studio Production</td>
<td>3</td>
</tr>
<tr>
<td>MCM 115 Television Field Production</td>
<td>3</td>
</tr>
<tr>
<td>MCM 205 Photography and Graphics</td>
<td>3</td>
</tr>
<tr>
<td>MCM 213 Careers in Media Communication</td>
<td>3</td>
</tr>
<tr>
<td>MCM 215 Media Communication Technology</td>
<td>3</td>
</tr>
<tr>
<td>SPE 101 Oral Communication: Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>*Liberal Arts Electives</td>
<td>6</td>
</tr>
<tr>
<td>*Behavioral Science Electives</td>
<td>6</td>
</tr>
<tr>
<td>*General Electives</td>
<td>9</td>
</tr>
<tr>
<td><strong>TOTAL</strong> 60</td>
<td></td>
</tr>
</tbody>
</table>

*NOTE: Electives to be selected with advisor to meet student's career goals.

Program Coordinator: Thomas W. Boisvert

Nursing

The Degree: Associate in Science

The Program: prepares you for a career as a registered nurse, who will provide direct and competent bedside care for adults and children in hospitals and nursing homes. You will be required to take a combination of liberal arts and clinical nursing courses in sequence over four semesters.

Your Next Step: take the R.N. licensure examination, and enter the R.N. work force, or continue your education part-time or full-time at a four-year program in
nursing or a related field. Credits earned at GCC are accepted at all four-year colleges.

**Required Courses**

<table>
<thead>
<tr>
<th>Course Details</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 105 Anatomy and Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>BIO 106 Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>BIO 205 Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>ENG 101, 103, or 105 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112, 114, or 116 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>NUR 101 Fundamentals of Nursing</td>
<td>8</td>
</tr>
<tr>
<td>NUR 102 Family-Centered Nursing</td>
<td>7</td>
</tr>
<tr>
<td>NUR 201 Adaptation to Illness I: Medical Surgical Nursing I</td>
<td>8</td>
</tr>
<tr>
<td>NUR 203 Mental Health Nursing</td>
<td>4</td>
</tr>
<tr>
<td>NUR 202 Adaptation to Illness II: Medical Surgical Nursing II</td>
<td>9</td>
</tr>
<tr>
<td>NUR 204 Trends and Issues in Nursing</td>
<td>2</td>
</tr>
<tr>
<td>PSY 101 Principles of Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 217 Human Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101 Principles of Sociology</td>
<td>3</td>
</tr>
<tr>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>68</strong></td>
</tr>
</tbody>
</table>

Program Director: Margaret M. Craig, R.N., M.S.N.

**Office Administration**

**The Degree:** Associate in Science

**The Program:** develops skills needed to work in office occupations. You may choose electives to develop a curriculum that meets your own career goals.

**Your Next Step:** work in executive, legal, medical, or administrative office positions, or in some cases, transfer to a four-year college.

**Required Courses**

<table>
<thead>
<tr>
<th>Course Details</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 111 Basic Accounting I, or ACC 121 Introduction to Accounting I</td>
<td>3-4</td>
</tr>
<tr>
<td>ACC 112 Basic Accounting II, or Program Elective</td>
<td>3</td>
</tr>
<tr>
<td>*ADM 111 or 113 Typewriting Development I or II</td>
<td>3</td>
</tr>
<tr>
<td>*ADM 113 or Program Elective</td>
<td>3</td>
</tr>
<tr>
<td>ADM 119 Business English</td>
<td>3</td>
</tr>
<tr>
<td>ADM 205 Principles of Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>ADM 206 Word Processing/Machine Transcription</td>
<td>3</td>
</tr>
<tr>
<td>ADM 207 Secretarial Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ADM 210 Records Management</td>
<td>3</td>
</tr>
<tr>
<td>ADM 226 Office Internship or Program Elective</td>
<td>3</td>
</tr>
<tr>
<td>BUS 105 Mathematics for Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 111 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 123 Business Communication</td>
<td>3</td>
</tr>
</tbody>
</table>
DAT 114 Microcomputer Software Tools 3
ENG 101, 103, or 105 English Composition I 3
ENG 112, 114, or 116 English Composition II,
or ENG 123 Report Writing 3
SPE 101 Oral Communication: Public Speaking
or SPE 121 Oral Communication: Group Discussion 3
Liberal Arts Electives:
Any 12 credits in courses with an advising code other than
(X), (A), or (D) 12
TOTAL 63

* Students must complete either 6 credit hours of typing or ADM 113 and 3 credit hours in a Program Elective.

Shorthand Option
Substitutions within the proposed requirements for those wishing the Shorthand Option are as follows:
ADM 101 Shorthand I for ADM 119 Business English (Shorthand I includes extensive coverage of English grammar) or Program Elective.
ADM 102 Shorthand II for ACC 111 Basic Accounting I, ACC 112 Basic Accounting II, or Program Elective.
A Program Elective shall be defined as any course with a prefix of ACC, ADM, BUS, or DAT.

Program Coordinator: Dr. Robert J. Welsh

Production Management Technology

The Degree: Associate in Science

The Program: prepares students to work principally, though not exclusively, in manufacturing industries.

Your Next Step: entry level position in production control, quality control, motion and time study, manufacturing supervision, purchasing, drafting and maintenance supervision.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIT 101 Applied CAD/CAM and CNC Technology</td>
<td>20</td>
</tr>
<tr>
<td>BUS 111 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>CHE 105 Basic Principles of Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>DAT 113 Introduction to Business Information Systems, or DAT 147 PASCAL</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101, 103 or 105 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 123 Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>IND 111 Productivity Management, or IND 112 Quality Control, or IND 113 Motion and Time Study</td>
<td>3</td>
</tr>
<tr>
<td>IND 131 Applied Supervision</td>
<td>3</td>
</tr>
<tr>
<td>MAT 103 Applied Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 104 Applied Mathematics II</td>
<td>3</td>
</tr>
</tbody>
</table>
Recreation and Leisure Services

The Degree: Associate in Science

The Program: develops a sound working philosophy and the technical skills of programming and supervision in recreation and leisure services. Offers diverse professional and skill development courses which emphasize learning through experience. Students may concentrate their study in any of several key areas: community recreation, outdoor recreation, elder services, commercial recreation, sports and fitness, and therapeutic recreation.

Your Next Step: Graduates may either elect to transfer directly into a bachelor's degree program or seek immediate employment in agencies such as municipal recreation departments, fitness centers, adult day care programs, outdoor centers, youth-at-risk programs, resorts, senior centers, scouting programs, sporting goods outfitters, corporate fitness centers, and nature/environmental centers.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLS 101 Introduction to Recreation and Leisure Services</td>
<td>3</td>
</tr>
<tr>
<td>RLS 109 Program Planning</td>
<td>4</td>
</tr>
<tr>
<td>RLS 119 Advanced First Aid and CPR</td>
<td>3</td>
</tr>
<tr>
<td>RLS 215 Field Work I</td>
<td>4</td>
</tr>
<tr>
<td>RLS 216 Field Work II</td>
<td>4</td>
</tr>
<tr>
<td>ENG 101, 103, or 105 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112, 114, or 116 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>PSY 101 Principles of Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101 Principles of Sociology,</td>
<td></td>
</tr>
<tr>
<td>or ANT 104 Introduction to Cultural Anthropology,</td>
<td></td>
</tr>
<tr>
<td>or HEC 101 Human Ecology: Problems and Solutions</td>
<td>3</td>
</tr>
<tr>
<td>Natural Science Elective</td>
<td>3-4</td>
</tr>
<tr>
<td>Liberal Arts Core Elective (BC, NC, HC)</td>
<td>3</td>
</tr>
<tr>
<td>Leisure Education Electives</td>
<td>8</td>
</tr>
<tr>
<td>Concentration Electives (to be selected from the list below)</td>
<td>15</td>
</tr>
</tbody>
</table>

TOTAL 62-63

Electives

(to be selected with advisor to meet students’ career goals)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLS 103 Recreational Arts Programming</td>
<td>3</td>
</tr>
<tr>
<td>RLS 104 Introduction to Elder Recreational Services</td>
<td>3</td>
</tr>
</tbody>
</table>
RLS 111 Introduction to Outdoor Recreation 4
RLS 113 Leadership and Group Dynamics 3
RLS 131 Introduction to Therapeutic Recreation 3
RLS 163 Life Fitness & Nutrition 3
RLS 200 Exercise Physiology 3
RLS 207 Recreational Sports Administration 4
RLS 225 Fitness Assessment and Programming 4
RLS 251 Contemporary Trends and Issues 3

Note: Some courses may be offered infrequently depending upon demand.

Leisure Education Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LED 101</td>
<td>Swimming</td>
<td>1</td>
</tr>
<tr>
<td>LED 104</td>
<td>Emergency Water Safety</td>
<td>1</td>
</tr>
<tr>
<td>LED 105</td>
<td>Water Safety Instructor</td>
<td>2</td>
</tr>
<tr>
<td>LED 106</td>
<td>Lifeguard Training</td>
<td>1</td>
</tr>
<tr>
<td>LED 107</td>
<td>Fundamentals of Canoeing</td>
<td>1</td>
</tr>
<tr>
<td>LED 108</td>
<td>Lifeguard Training Instructor</td>
<td>2</td>
</tr>
<tr>
<td>LED 111</td>
<td>Fundamentals of Canoeing Instructor</td>
<td>2</td>
</tr>
<tr>
<td>LED 113</td>
<td>Basic Sailing</td>
<td>1</td>
</tr>
<tr>
<td>LED 115</td>
<td>Sailing Instructor</td>
<td>2</td>
</tr>
<tr>
<td>LED 116</td>
<td>Aquatic Exercise</td>
<td>1</td>
</tr>
<tr>
<td>LED 117</td>
<td>Aquatic Games and Contests</td>
<td>1</td>
</tr>
<tr>
<td>LED 119</td>
<td>Boating</td>
<td>1</td>
</tr>
<tr>
<td>LED 125</td>
<td>Nature Interpretation</td>
<td>1</td>
</tr>
<tr>
<td>LED 127</td>
<td>Outdoor Challenge/Adventure Education</td>
<td>1</td>
</tr>
<tr>
<td>LED 131</td>
<td>Basic Rock Climbing</td>
<td>1</td>
</tr>
<tr>
<td>LED 133</td>
<td>Bicycle Touring</td>
<td>1</td>
</tr>
<tr>
<td>LED 135</td>
<td>Alpine Skiing</td>
<td>1</td>
</tr>
<tr>
<td>LED 137</td>
<td>Cross Country Skiing</td>
<td>1</td>
</tr>
<tr>
<td>LED 139</td>
<td>Hiking and Backpacking</td>
<td>1</td>
</tr>
<tr>
<td>LED 143</td>
<td>Orienteering</td>
<td>1</td>
</tr>
<tr>
<td>LED 151</td>
<td>Archery</td>
<td>1</td>
</tr>
<tr>
<td>LED 153</td>
<td>New Games</td>
<td>1</td>
</tr>
<tr>
<td>LED 155</td>
<td>Badminton</td>
<td>1</td>
</tr>
<tr>
<td>LED 156</td>
<td>Weight Training</td>
<td>1</td>
</tr>
<tr>
<td>LED 157</td>
<td>Aerobics</td>
<td>1</td>
</tr>
<tr>
<td>LED 158</td>
<td>Advanced Aerobics</td>
<td>1</td>
</tr>
<tr>
<td>LED 159</td>
<td>Racquetball</td>
<td>1</td>
</tr>
<tr>
<td>LED 161</td>
<td>Golf</td>
<td>1</td>
</tr>
</tbody>
</table>

LED 164 Racquet Sports 2
LED 165 Tennis 1
LED 166 Advanced Tennis 1
LED 167 Basic Karate I 1
LED 168 Basic Karate II 1
LED 173 Bowling 1
LED 177 Volleyball 1
LED 178 Advanced Volleyball 1
LED 181 Basic Officiating 1
LED 191 Recreational Dance 1
LED 193 Contemporary Food Experience 1
LED 195 Nature Crafts 1
LED 199 Creative Dramatics 1

Note: Some courses may be offered infrequently depending upon demand. Students planning to pursue a baccalaureate program at one of the Massachusetts public colleges or universities should take advantage of the Commonwealth Transfer Compact which requires 6 credits of English Composition, 9 credits of Behavioral Science core, 9 credits of Humanities core, 3 credits of mathematics (NC code), and 8 credits of laboratory science.

Program Coordinator:
Jeanne A. Ashley
CERTIFICATE PROGRAMS

The Certificate Programs consist of specialized education in specific occupational fields, without the general education coursework required for college degrees. We have designed the programs to prepare you for early job entry and/or to update your specific career-oriented skills. You must complete at least 15 credits or two-thirds of the credit hours required for a specific certificate program, whichever is less, in residence at Greenfield Community College.

In most cases, the courses required to complete a certificate program also may be used to fulfill the requirements for an associate degree program in the same field.

We offer certificate degree programs with two types of official approval. The Office Assistant, Outdoor Leadership, and Pioneer Valley Studies certificate programs, sometimes referred to as “board approved certificates,” are approved by the Greenfield Community College Board of Trustees and the Massachusetts Board of Regents of Higher Education and require at least 30 credit hours of coursework. All of the other certificate programs, sometimes referred to as “certificates of completion,” are approved by the Greenfield Community College Board of Trustees and require fewer then thirty credit hours of coursework.

Business Microcomputer Applications

The Degree: Certificate in Business Microcomputer Applications

The Program: provides an introduction to microcomputer use in business and includes hands-on experience with office automation software tools.

Your Next Step: employment in a variety of business offices and data processing settings or continuation in an associate degree program with a business emphasis.

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADM 106 Keyboarding for Information Processing</td>
<td>1</td>
</tr>
<tr>
<td>DAT 113 Introduction to Business Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>DAT 114 Microcomputer Software Tools</td>
<td>3</td>
</tr>
<tr>
<td>ENG 100 College Writing Strategies (or above)</td>
<td>3</td>
</tr>
<tr>
<td>MAT 100 Basic Mathematics Skills (or above)</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL 13</strong></td>
<td></td>
</tr>
</tbody>
</table>

Program Coordinator: Dr. Robert J. Welsh

Computer Aided Drafting

The Degree: Certificate in Computer Aided Drafting

The Program: develops skills in drafting with the assistance of computers, as well as related mathematical and written communication skills.

Your Next Step: work in an entry level position in computer-aided drafting or integrate some of the courses into the college’s industrial technology or engineering science degrees.
Required Courses

ADM 106 Keyboarding for Information Processing 1
DAT 111 Introduction to Computers,
or DAT 145 FORTRAN Programming,
or DAT 147 Pascal Programming 3
DAT 133 Graphics Applications 1
EGR 107 Engineering Graphics I 3
EGR 108 Engineering Graphics II 3
EGR 110 Engineering Graphics Project 3
ENG 101, 103, or 105 English Composition I 3
ENG 123 Report Writing 3
MAT 103 Applied Mathematics I
and MAT 104 Applied Mathematics II,
or MAT 105 Algebra and Coordinate Geometry I
and MAT 106 Algebra and Coordinate Geometry II 6

Total 26

Program Coordinator: Dr. Lee A Webster

Computer Assisted Bookkeeping

The Degree: Certificate in Computer Assisted Bookkeeping
The Program: develops business math and English skills, provides an understanding of business organization and practices, and includes extensive hands-on experience with manual and computerized bookkeeping.
Your Next Step: This two-semester program is designed to prepare students for entry-level bookkeeping positions with local businesses, professional offices, or CPA firms.

Required Courses

ACC 111 Basic Accounting I 3
ACC 112 Basic Accounting II 3
ADM 106 Keyboarding for Information Processing 1
BUS 105 Mathematics for Business 3
BUS 111 Introduction to Business 3
BUS 123 Business Communication 3
DAT 114 Microcomputer Software Tools 3
ENG 100 College Writing Strategies 3
ENG 101, 103, or 105 English Composition I 3

Total 25

Program Coordinator: Dr. Robert J. Welsh
Fire Science Technology

The Degree: Certificate in Fire Science Technology
The Program: provides maximum technical training in fire protection, fire prevention, and hazardous materials handling in a minimum amount of time.
Your Next Step: complete additional courses to earn an associate degree in Fire Science Technology or transfer to a four-year college to complete a program with emphasis on fire department management or fire science education.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 105 Basic Principles of Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>FST 101 Introduction to Fire Protection</td>
<td>3</td>
</tr>
<tr>
<td>FST 103 Fundamentals of Fire Prevention</td>
<td>3</td>
</tr>
<tr>
<td>FST 109 Hazardous Materials</td>
<td>3</td>
</tr>
<tr>
<td>FST 113 Fire Hydraulics with Applied Math</td>
<td>4</td>
</tr>
<tr>
<td>FST 201 Fire Protection Systems and Equipment I</td>
<td>3</td>
</tr>
<tr>
<td>FST Electives</td>
<td>5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>24</strong></td>
</tr>
</tbody>
</table>

Program Coordinator: Carleton P. Stinchfield

Early Childhood Educators

The Degree: Certificate for Early Childhood Educators
The Program: provides the courses required by the Massachusetts Office for Children for those seeking licensure as head teachers in preschool settings. These five required courses in combination with 27 months of classroom experience qualify you for licensure. It is recommended for those who are now working as aides, or who are interested in working with young children.
Your Next Step: work in preschools or enter an associate degree program in early childhood education or other fields.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU 101 Introduction to Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>EDU 103 Creative Experiences in Art, Music, Drama, and Dance</td>
<td>3</td>
</tr>
<tr>
<td>EDU 201 Early Childhood Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>PSY 101 Principles of Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 217 Human Growth and Development</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

Program Coordinator: Nancy T. Winter
# Office Assistant

**The Degree:** Office Assistant Certificate

**The Program:** provides students with basic office skills in a minimal amount of time.

**Your Next Step:** enter the office workplace in such positions as entry-level secretary or clerk-typist.

## Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 111 Basic Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>*ADM 111 Typewriting Development I</td>
<td>3</td>
</tr>
<tr>
<td>*ADM 113 Typewriting Development II</td>
<td>3</td>
</tr>
<tr>
<td>ADM 119 Business English</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101, 103, or 105 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>PSY 101 Principles of Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SPE 101 Oral Communication: Public Speaking</td>
<td>3</td>
</tr>
</tbody>
</table>

**Program Electives**

**TOTAL** 30

## Electives (Select three courses from the following)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>**ACC 112 Basic Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ADM 101 Shorthand I</td>
<td>3</td>
</tr>
<tr>
<td>**ADM 102 Shorthand II</td>
<td>3</td>
</tr>
<tr>
<td>**ADM 205 Principles of Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>**ADM 206 Word Processing/Machine Transcription</td>
<td>3</td>
</tr>
<tr>
<td>ADM 209 Office Management</td>
<td>3</td>
</tr>
<tr>
<td>ADM 210 Records Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 105 Mathematics for Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 123 Business Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

* Typing course entry level to be determined at the time of enrollment.

** These courses have prerequisites which must be met. Please consult the catalogue course descriptions.

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**Program Coordinator:**

Dr. Robert J. Welsh

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# Outdoor Leadership

**The Degree:** Certificate in Outdoor Leadership

**The Program:** provides students with the skills and knowledge needed to lead outdoor-oriented programs and services. You will learn by doing in the OLP program, and activities are primarily field-oriented with theoretical and informational aspects carefully integrated with hands-on training. You may select from one of two emphases: Challenge/Adventure or Environmental Education/Interpretation. The Challenge/Adventure emphasis prepares you to lead in outing sports such as rock climbing, flat and white water canoeing, cross-country skiing, and survival, and in adventure programs such as ropes courses and wilderness mountaineering. The Environmental Education/Interpretation focuses on the natural and cultural environment, and activities and strategies of sharing it with others.
Your Next Step: If you choose the Adventure Emphasis, you will be prepared to work in outdoor pursuits centers, adventure-based counseling programs, and general adventure programs such as Outward Bound schools. If you choose the Environmental Emphasis, your employment options will include work in outdoor environmental education centers, environmental action agencies, and with national environmental organizations such as the National Park Service. You may also choose to continue your education in recreation/leisure services, human services or education. Many graduates attend more advanced training programs in specialized environmental training, or prepare for jobs such as wilderness emergency medical technician.

All Outdoor Leadership Program courses are graded on a CR/NC basis with letter grade option available.

<table>
<thead>
<tr>
<th>Required Courses for all Outdoor Leadership Students</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OLP 112 Counseling and Human Services for Outdoor Leaders</td>
<td>3</td>
</tr>
<tr>
<td>OLP 116 Field Experience in Outdoor Leadership I</td>
<td>4</td>
</tr>
<tr>
<td>OLP 120 Backcountry Medicine and Emergency Care</td>
<td>3</td>
</tr>
<tr>
<td>OLP 201 Individual Project in Outdoor Leadership I</td>
<td>1</td>
</tr>
<tr>
<td>OLP 202 Individual Project in Outdoor Leadership II</td>
<td>2</td>
</tr>
<tr>
<td>OLP 216 Field Experience in Outdoor Leadership II</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong> 17</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Required Courses for Outdoor Leadership Adventure Emphasis</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OLP 111 Introduction to Outdoor Adventure Programs &amp; Services</td>
<td>3</td>
</tr>
<tr>
<td>OLP 124 Environmental Interpretation</td>
<td>3</td>
</tr>
<tr>
<td>OLP 127 Outdoor Adventure Methods and Materials</td>
<td>3</td>
</tr>
<tr>
<td>*OLP 140 Rock Climbing</td>
<td>1</td>
</tr>
<tr>
<td>*OLP 141 Flat Water Canoeing</td>
<td>1</td>
</tr>
<tr>
<td>*OLP 142 Cross Country Skiing</td>
<td>1</td>
</tr>
<tr>
<td>*OLP 143 Winter Camping</td>
<td>1</td>
</tr>
<tr>
<td>*OLP 144 Survival Education</td>
<td>1</td>
</tr>
<tr>
<td>*OLP 145 White Water Canoeing</td>
<td>1</td>
</tr>
<tr>
<td>OLP 205 Outdoor Leadership Seminar</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong> 33</td>
<td></td>
</tr>
</tbody>
</table>

* Minimum requirement is 4 of the 6 outing sports (OLP 140-145)

<table>
<thead>
<tr>
<th>Required Courses for Outdoor Leadership Environmental Emphasis</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUM 113 Introduction to the Pioneer Valley</td>
<td>3</td>
</tr>
<tr>
<td>OLP 151 Introduction to Environmental Programs and Services</td>
<td>3</td>
</tr>
<tr>
<td>OLP 155 Environmental Field Studies I</td>
<td>3</td>
</tr>
<tr>
<td>OLP 156 Environmental Field Studies II</td>
<td>3</td>
</tr>
<tr>
<td>OLP 157 Environmental Education/Interpretation Methods &amp; Materials</td>
<td>3</td>
</tr>
<tr>
<td>OLP 206 Seminar in Environmental Issues</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong> 35</td>
<td></td>
</tr>
</tbody>
</table>

Program Coordinator: Katherine P. Douglas
Advanced Outdoor Leadership

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OLP 211 Advanced Outdoor Programs and Services</td>
<td>3</td>
</tr>
<tr>
<td>OLP 212 Counseling and Human Services for Outdoor Leaders II</td>
<td>3</td>
</tr>
<tr>
<td>OLP 217 Field Experience in Outdoor Leadership III</td>
<td>4</td>
</tr>
<tr>
<td>OLP 218 Field Experience in Outdoor Leadership IV</td>
<td>4</td>
</tr>
<tr>
<td>OLP 220 Intermediate and Advanced Wilderness First Aid and Emergency Care</td>
<td>3</td>
</tr>
<tr>
<td>OLP 224 Environmental Interpretation II</td>
<td>3</td>
</tr>
<tr>
<td>OLP 227 Advanced Outdoor Adventure Methods and Materials</td>
<td>3</td>
</tr>
<tr>
<td>*OLP 240 Intermediate and Advanced Rock Climbing</td>
<td>1</td>
</tr>
<tr>
<td>*OLP 241 Intermediate and Advanced Flat Water Canoeing</td>
<td>1</td>
</tr>
<tr>
<td>*OLP 242 Intermediate and Advanced Cross Country Skiing</td>
<td>1</td>
</tr>
<tr>
<td>*OLP 243 Intermediate and Advanced Winter Camping</td>
<td>1</td>
</tr>
<tr>
<td>*OLP 244 Intermediate and Advanced Survival Education</td>
<td>1</td>
</tr>
<tr>
<td>*OLP 245 Intermediate and Advanced White Water Canoeing</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL 27-29</strong></td>
<td></td>
</tr>
</tbody>
</table>

* Minimum requirement is 4 of the 6 outing sports (OLP 240-245)

Program Coordinator: Katherine P. Douglas

Physical Fitness

The Degree: Certificate in Physical Fitness

The Program: establishes competence in fitness testing and personalized fitness programming. Courses concentrate on anatomy, exercise physiology, nutrition, and the planning and administration of fitness programs and services.

Your Next Step: begin a career as a commercial or corporate fitness specialist, continue in the RLS Associate Degree Program, and/or transfer to a four-year college that offers advanced degrees in exercise science.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 105 Anatomy and Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>RLS 109 Program Planning</td>
<td>3</td>
</tr>
<tr>
<td>RLS 119 Advanced First Aid and CPR</td>
<td>3</td>
</tr>
<tr>
<td>RLS 163 Life Fitness and Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>RLS 200 Exercise Physiology</td>
<td>3</td>
</tr>
<tr>
<td>RLS 207 Recreational Sports Administration</td>
<td>4</td>
</tr>
<tr>
<td>RLS 215 Field Work I</td>
<td>4</td>
</tr>
<tr>
<td>RLS 225 Fitness Assessment and Programming</td>
<td>4</td>
</tr>
<tr>
<td><strong>TOTAL 29</strong></td>
<td></td>
</tr>
</tbody>
</table>

Program Coordinator: Joanne A. Ashley
Physical Science Technician

The Degree: Physical Science Technician Certificate
The Program: offers a required core of 12 credits in English, report writing, and math, and 15 credits in student-elected courses in the physical sciences: chemistry, physics, and electronics.
Your Next Step: work as a technical assistant, or transfer to another institution in a program leading to the associate degree in one of the technologies.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101, 103, or 105 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 123 Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>*MAT 103 Applied Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td>*MAT 104 Applied Mathematics II</td>
<td>3</td>
</tr>
<tr>
<td>Electives (Choose 15 credits from the list below)</td>
<td>15</td>
</tr>
<tr>
<td>TOTAL</td>
<td>27</td>
</tr>
</tbody>
</table>

Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 105 Basic Principles of Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>ELT 101 Basic Electricity I-DC</td>
<td>4</td>
</tr>
<tr>
<td>ELT 102 Basic Electricity II-AC</td>
<td>4</td>
</tr>
<tr>
<td>ELT 110 Electronics Fabrication</td>
<td>3</td>
</tr>
<tr>
<td>PHY 101 General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHY 102 General Physics II</td>
<td>4</td>
</tr>
</tbody>
</table>

* MAT 107 and MAT 108 may be substituted. Generally, any similar higher level course may be substituted for the one specified: (for example, CHE 111 General Chemistry I in lieu of CHE 105).

Program Coordinator: Dr. Ira Rubenzahl

Pioneer Valley Studies

The Degree: Pioneer Valley Studies Certificate
The Program: is designed for those interested in increasing their knowledge of the historical and cultural resources of the Pioneer Valley, and in learning to recognize, understand, and preserve cultural artifacts.
Your Next Step: completion of the associate degree program in Pioneer Valley Studies.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS 107 Valley/American History I</td>
<td>3</td>
</tr>
<tr>
<td>HIS 108 Valley/American History II</td>
<td>3</td>
</tr>
<tr>
<td>HUM 113 Introduction to the Pioneer Valley</td>
<td>3</td>
</tr>
<tr>
<td>ECO 111 Valley Contemporary Economic Issues</td>
<td>3</td>
</tr>
<tr>
<td>Electives (Choose 18 credits from the list below)</td>
<td>18</td>
</tr>
<tr>
<td>TOTAL</td>
<td>30</td>
</tr>
</tbody>
</table>
Electives

ART 105 Valley/American Art & Architecture I  3
ART 106 Valley/American Art & Architecture II  3
ECO 109 Valley Industrial & Economic Development  3
ENG 203 American Literature I  3
ENG 204 American Literature II  3
ENG 253 Valley/American Literature  3
FLK 219 Valley Folklife  3
GEO 103 Valley Geology  3
HIS 217 Valley/American Ethnic Experience  3
HUM 119 Women in the Valley  3

NOTE: 3 credits each are required in literature and art.

Program Coordinator:  Dr. Joan Ibish

Real Estate

The Degree:  Certificate in Real Estate
The Program:  is designed for students desiring to enter the real estate field as licensed salespersons. Students are prepared to take the state licensing exam after the first semester. Selling and business communication skills, business computer usage, and daily operations of a real estate business are emphasized. Students are expected to possess basic touch keyboarding skills equivalent to ADM 106 upon entrance into this program.

Your Next Step:  find employment in the real estate field.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 105 Mathematics for Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 111 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 119 Principles of Real Estate</td>
<td>3</td>
</tr>
<tr>
<td>BUS 121 Real Estate Practices</td>
<td>3</td>
</tr>
<tr>
<td>BUS 123 Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>BUS 125 Principles of Advertising</td>
<td>3</td>
</tr>
<tr>
<td>BUS 155 Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 213 Personal Selling and Sales Techniques</td>
<td>3</td>
</tr>
<tr>
<td>DAT 114 Microcomputer Software Tools</td>
<td>3</td>
</tr>
</tbody>
</table>

Total 27

Program Coordinator:  Dr. Robert J. Welsh
Word Processing

The Degree: Certificate in Word Processing

The Program: is designed for administrative assistants, secretaries, typists, and clerks seeking advanced word processing skills.

Your Next Step: continue or upgrade your employment in office occupations.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADM 113 Typewriting Development II</td>
<td>3</td>
</tr>
<tr>
<td>ADM 119 Business English</td>
<td>3</td>
</tr>
<tr>
<td>ADM 205 Principles of Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>ADM 206 Word Processing/Machine Transcription</td>
<td>3</td>
</tr>
<tr>
<td>BUS 123 Business Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL 15**

Program Coordinator: Dr. Robert J. Welsh
LEARNING ASSISTANCE PROGRAMS

The Learning Assistance Programs provide counseling, tutoring, and instruction aimed at building student skills and confidence. In addition to the activities described below, Learning Assistance staff work closely with the Developmental Studies Courses, coordinate Placement Testing, and conduct research on student needs.

Tutoring

Tutoring is available for all students who wish to improve their academic skills. This academic assistance includes tutoring in most subjects, special reading and writing assistance, and instruction in study skills. All programs are free of charge to students.

Personal Counseling

The Counseling staff assists students in exploring their growth potential and any personal concerns encountered while in college. All meetings are strictly confidential and are at the student's convenience.

Career Counseling

The Career Counselors help students to identify career and educational goals. In one-to-one meetings, or in a group (HUD 109, 2 credits), each student assesses his or her interests and abilities, explores possible occupations, and learns good decision-making skills.

Human Development Courses

These courses focus on improving students' personal skills. Issues covered include career planning, stress management, interpersonal communication, confidence, and motivation.

Courses Available

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUD 101</td>
<td>Study Skills</td>
<td>1</td>
</tr>
<tr>
<td>HUD 103</td>
<td>The 24-Hour Personal Growth Experience</td>
<td>1</td>
</tr>
<tr>
<td>HUD 109</td>
<td>Career Decision-Making and Planning</td>
<td>2</td>
</tr>
<tr>
<td>HUD 112</td>
<td>Assertiveness Training</td>
<td>1</td>
</tr>
<tr>
<td>HUD 113</td>
<td>Job Search Training</td>
<td>1</td>
</tr>
<tr>
<td>HUD 117</td>
<td>Managing Stress</td>
<td>2</td>
</tr>
<tr>
<td>HUD 120</td>
<td>Health Lecture Series</td>
<td>2</td>
</tr>
</tbody>
</table>

Counselor/Coordinator: Jane E. Lerner

Tutor Coordinator/Counselor: Dr. Michael Bathory
COURSE DESCRIPTIONS

All credit courses and a few non-credit courses which the College may offer are described on the following pages. Non-credit courses use numbers 000-099. Introductory level and first year credit courses use numbers 100-199. Intermediate level and advanced credit courses use numbers 200-299. Courses to be taken in a two semester sequence use consecutive numbers, with the first course using an odd number and the second course using an even number. Otherwise courses normally use odd numbers.

Please note: we do not offer all courses described on the following pages each semester. You should refer to the appropriate semester class schedule for those courses which we will offer that semester.

ADVISING CODES

An advising code appears in parentheses at the end of each course title. You should refer to this code in selecting appropriate courses to fulfill your particular program requirements, and to fulfill the requirements of the Commonwealth Transfer Compact. These codes are as follows:

A Career courses that may be used as liberal arts electives in programs of study leading to the Associate in Arts degree (Liberal Arts and Business Administration Transfer), but not as liberal arts electives in any other programs. These courses provide theoretical foundations for career fields; but, by the breadth of their course materials, they also serve to increase students' knowledge of, and appreciation for, contemporary culture.

B Behavioral science/social science courses (anthropology, economics, human ecology, political science, psychology, sociology).

C Liberal arts courses that may be used to fulfill core requirements for the Associate in Arts degree or as liberal arts electives in any other program. Such courses provide comprehensive, non-specialized study within the typical liberal arts disciplines: the humanities, the behavioral and social sciences, and mathematics and the natural sciences.

D Courses emphasizing the improvement of basic reading, writing, mathematical, and study skills. These courses may not be used to fulfill associate degree requirements. A final grade of "D" will not be awarded in these courses (i.e., A, A-, B+, B, B-, C+, C, C-, and F are grades awarded).

E English Composition I (ENG 101, 103, 105) and English Composition II (ENG 112, 114, 116).

H Humanities/fine arts courses (art, English, folklore, foreign languages, history, humanities, journalism, music, philosophy, speech, theatre).

L Liberal arts courses that may be used as liberal arts electives in any program, but not as core courses for the Associate in Arts degree. These courses provide focused, concentrated study within a typical liberal arts discipline. ("Liberal Arts" comprises those areas of study subsumed under the general categories of the humanities, the behavioral and social sciences, and mathematics and the natural sciences, as opposed to the study of professional or technical subjects).

N Natural science/math courses (biology, chemistry, environmental science, geology, mathematics, physics, science).

S SPE 101, Oral Communication: Public Speaking and SPE 121, Oral Communication: Group Discussion

X Courses whose subject matter emphasizes technical career skills, personal growth, or leisure education. They may be used as general electives in any program. A maximum of 12 "X" credits (including a maximum of 4 in leisure education) is allowed toward the credits required for the Associate in Arts degree.
ACCOUNTING

ACC 103 Analysis of Financial Statements (X) 3 credits
Interpretation and analysis of financial statements; cost allocation procedures, breakeven analysis, the budgeting process, preparation of flexible and rolling budgets.
Prereq: None

ACC 111 Basic Accounting I (X) 3 credits
Prereq: None

ACC 112 Basic Accounting II (X) 3 credits
Continuation of Basic Accounting I. Emphasis on preparation of financial records, forms, and documents common to business. Payroll, tax procedures and preparation of financial reports also included. Microcomputers will be used to accomplish many of the general ledger accounting functions.
Prereq: ACC 111 or ACC 121

ACC 121 Introduction to Accounting I (X) 4 credits
Business transactions and their relationship to financial statements; procedures and techniques of recording business transactions; consideration of end-of-period adjustments; determination of periodic income and financial condition; preparation of work sheet and financial statements; analysis of basic elements of the balance sheet; completion of practical exercise for sole proprietorship.
Prereq: None

ACC 122 Introduction to Accounting II (X) 4 credits
Continuation of Introduction to Accounting I. Topics include special techniques of accounting for inventories, plant and equipment, payroll, and a review of basic accounting principles and concepts. The second part of this course looks at the problems of accounting for equity in partnerships and corporations, and bond, leases, and other liabilities. The third part of the course deals with the preparation and use of statements of change in financial position and the analysis and interpretation of financial statements.
Prereq: ACC 121

ACC 203 Managerial Accounting (X) 3 credits
Introduces the process of gathering and analyzing accounting data for use by management in planning, decision-making, and controlling. Basic cost accounting concepts, cost-volume-profit relationships, capital investment decisions, and budgeting are studied. Use of Lotus 1-2-3 is included.
Prereq: ACC 112 or ACC 122

ACC 205 Cost Accounting (X) 3 credits
Basic techniques of cost accounting including job order, process costing, establishing overhead rates, analysis of overhead variances, and development of standard costs. Use of Lotus 1-2-3 is included.
Prereq: ACC 203

ACC 207 Financial Accounting Systems & Procedures (X) 3 credits
Designed as a final course in Financial Accounting for Accounting Associate majors. The course will emphasize internal control concepts and techniques as they apply to small and medium sized financial accounting systems. Topics to be covered include: an overview of flowcharting and basic internal controls in an Accounting System, creation and indexing of work papers, complexities of Bank Reconciliations, using work sheets as a general ledger, conversion of a trial balance from a cash basis to the accrual basis, depreciation - schedules and controls, an overview of payroll accounting systems, and the completion of tax forms. Completion of two practice sets required.
Prereq: ACC 112 or ACC 122

ACC 251 Cooperative Work Experience in Accounting (X) 3 credits
Supervised employment in either a cost accounting department of a local industrial concern or public accounting office, combined with a seminar coordinating the employment situation with classroom education experience.
Prereq: Completion of ACC 203 with a grade of B- or above and simultaneous enrollment in ACC 205

OFFICE ADMINISTRATION

ADM 101 Shorthand I (X) 3 credits
Gregg Shorthand, Series 90, daily drill for mastery of outlines, brief forms, phrasing, other abbreviating principles; pretranscription training including attention to spelling, grammar and punctuation.
Prereq: None

ADM 102 Shorthand II (X) 3 credits
Review of Gregg Shorthand, Series 90, with emphasis on vocabulary building and speed building through dictation. Minimal standards set at 80 wpm for threeminutes.
Prereq: ADM 101 or equivalent

ADM 106 Keyboarding for Information Processing (X) 1 credit
Designed to develop basic touch keyboarding skill; input alphanumeric, numeric, and symbol information quickly and accurately; emphasizes the basic vocabulary and concepts used in keyboarding operations for inputting and retrieving information. Labatory suggested. This course is graded on a Credit/No Credit basis.
Prereq: None

ADM 111 Typewriting Development I (X) 3 credits
The keyboard, accuracy, and speed; parts of the machine and preventive maintenance; centering, horizontal and vertical typing; business letters. Laboratory required.
Prereq: None

ADM 113 Typewriting Development II (X) 3 credits
Skill building through daily accuracy and speed drills; timed writings, business letters and forms; tabulations, manuscripts; rough drafts. Laboratory required.
Prereq: ADM 111 or permission of instructor

ADM 119 Business English (X) 3 credits
A study of grammar, word usage, conciseness, clarity, punctuation, spelling, numbers, capitalization, and proofreading for business writing.
Prereq: None

ADM 205 Principles of Word Processing (X) 3 credits
Introduction to the basic concepts and applications of word processing, focusing on developing the skills necessary to function as a word processor in the modern office system.
Prereq: ADM 113 or permission of instructor

ADM 206 Word Processing/Machine Transcription (X) 3 credits
Develops proficiency in transcribing dictation from tapes to machine copy. Emphasis is on application of language arts skills in the production of written communications. Utilizes transcription and word processing equipment. Students should expect to spend time outside of normal class hours in the word processing lab.
Prereq: ADM 205 or permission of instructor
ADM 207 Secretarial Office Procedures (X) 3 credits
Students assume the role of administrative secretary and apply skills and knowledge to a variety of activities under realistic conditions. Self-direction and resourcefulness are emphasized.
Prereq: ADM 205 or permission of instructor

ADM 209 Office Management (X) 3 credits
The role of the office administrator as a manager of information. The tools of management science, human relations, and cost control are logically integrated throughout the course.
Prereq: None

ADM 210 Records Management (X) 3 credits
Provides a foundation in business information maintenance. Topics include classification systems, retention and disposition procedures, micrographics, automated systems, and other relevant issues related to records management. Use of a microcomputer data base management system is required.
Prereq: None

ADM 226 Office Internship (X) 3 credits
A work-experience opportunity for qualified students in cooperating offices in the community to observe and obtain on-the-job experience in an office environment. Available only to advanced student in the Office Administration program.
Prereq: ADM 113 or permission of instructor

ALT 101 Applied CAD/CAM and CNC Technology 20 credits
Designed to apply mathematics to machine processes, to examine machine science theory and production techniques, to introduce and develop skills and concepts in blueprint reading and drafting, and to develop skills and concepts in Computer-Assisted Design, Computer-Assisted Machining, and Computer Numeric Control machine technology. Credit will be granted only upon successful completion of this certified course sequence taught at Smith Vocational School, and 15 in-residence credits in the GCC Production Management Technology curriculum.
Prereq: None

ANTHROPOLOGY

ANT 101 Introduction to Anthropology (BC) 3 credits
Theory and method in relation to prehistory, evolution, and the nature of culture. Concentration on cross-societal comparisons, technology and economics, social and political organization, art, religion, and ideology.
Prereq: None

ANT 103 Introduction to Physical Anthropology (BC) 3 credits
The human species’ place in nature from an evolutionary and ecological perspective; the interaction between biology, culture, and environment in shaping human evolution and human adaptive patterns; the significance of racial classifications and modern theories of variation.
Prereq: None

ANT 104 Introduction to Cultural Anthropology (BC) 3 credits
The comparative study of contemporary human populations; analysis of variations in social and political organizations, economic systems, religion, myth and ritual; the dynamics of culture change and the role of the anthropologist.
Prereq: None

ART

ART 101 Introduction to the Visual Arts (HC) 3 credits
A study of the elements and principles of art, the materials and techniques, development of style and the role of the artist in society are studied as a means of understanding art. Field trips are required. Not available for credit to Art majors.
Prereq: None

ART 103 Art History I (HC) 3 credits
The vocabulary of art introduced through the study of contemporary art forms. Art of pre-history through the Gothic period is studied in traditional chronology. Emphasizes on visual awareness of formal elements, aesthetics, and components of style; causal factors of change; and the role of the artist. Field trips are required. Required for Art and Graphic Design majors.
Prereq: None

ART 104 Art History II (HC) 3 credits
History of Western art from Renaissance to contemporary art, introduced by a review of the elements of style in Gothic architecture. Field trips are required. Required for Art and Graphic Design majors.
Prereq: ART 103 or permission of instructor

ART 105 Valley/American Art and Architecture I (HC) 3 credits
A survey of American art and architecture from 1600 to 1860; the course will be supplemented by correlated examples from the Pioneer Valley. The study will include decorative and functional arts. Field trips and independent study are required.
Prereq: None

ART 106 Valley/American Art and Architecture II (HC) 3 credits
A comprehensive survey of American art and architecture from 1660 to the present; the course will include appropriate examples of work created or presently existing in the Pioneer Valley. Field trips are required.
Prereq: None

ART 107 History of Modern Art (HC) 3 credits
A survey of modern visual art from Post-Impressionism to the present. Although the emphasis is on the art of painting, major expressions in sculpture and architecture are also studied. Field trips are required.
Prereq: None

ART 111 Introduction to Studio (HL) 3 credits
An introduction to the elements of design, visual organization, and color for the non-Art major.
Prereq: None. Cannot be taken concurrently with ART 117.

ART 117 Introduction to Drawing (HL) 3 credits
An introduction to basic drawing principles, materials, and techniques for non-Art majors.
Prereq: None. Cannot be taken concurrently with ART 111.

ART 118 Fundamentals of Drawing: Perspective (HL) 3 credits
An introduction to the mechanics and use of perspective in drawing. Required course for Art and Graphic Design majors.
Prereq: ART 131 or concurrently with ART 131

ART 119 Fundamentals of Drawing: Anatomy and Structure (HL) 3 credits
An introduction to figure drawing with emphasis on the skeletal and muscular anatomy and the structure of the human form. Contour and gesture drawing from the model. Required course for Art and Graphic Design majors.
Prereq: ART 131 or concurrently with ART 131
ART 121 Two-Dimensional Design (HL) 3 credits
An investigation into the nature of two-dimensional order. Specific problems with field, line, shape, negative space, value, texture, and color. Required course for Art and Graphic Design majors.
Prereq: None

ART 122 Design and Color (HL) 3 credits
A continuation of Two-Dimensional Design, with an emphasis on the physical structure of color as well as its interaction in application. Required course for Art and Graphic Design majors.
Prereq: ART 121 or permission of instructor

ART 121 Drawing I (HL) 3 credits
A series of problems designed to acquaint the student with perceptual and inventive skills in drawing. Introduction to drawing materials and techniques while examining ways of implying space on a two-dimensional surface. Required course for Art and Graphic Design majors.
Prereq: None

ART 132 Drawing II (HL) 3 credits
A continuation of Drawing I with emphasis on perceptual and inventive skills. Required course for Art and Graphic Design majors.
Prereq: ART 131 or permission of instructor

ART 151 Introduction to Photography (HL) 3 credits
Introduction to basic camera operation, processing, and printing. Students must provide their own cameras, film, and paper. Processing and darkroom equipment furnished.
Prereq: None

ART 231 Figure Drawing (HL) 3 credits
Drawing from the model with special attention to the analysis of form, anatomy, and structure. Required course for Art majors.
Prereq: ART 115 and second year standing in Art or Graphic Design or permission of instructor

ART 232 Drawing Problems (HL) 3 credits
Structure, organization, approach, problem-solving, and expressive concerns in drawing. Emphasis on thematic development.
Prereq: Second year standing in Art or Graphic Design or permission of instructor

ART 233 Printmaking I (HL) 3 credits
An introduction to the materials, processes, and aesthetic considerations peculiar to each of the graphic media: woodcut, lithography, and intaglio.
Prereq: ART 118 and 131, or permission of instructor

ART 234 Printmaking II (HL) 3 credits
Continuation of Printmaking I, with concentration on lithography or intaglio. Emphasis on image development.
Prereq: ART 233 or permission of instructor

ART 241 Painting I (HL) 3 credits
An introduction to the technique of oil painting, composition, and construction. Emphasis on the properties of the materials and the approaches to representational and non-representational forms.
Prereq: ART 121 and 131 or permission of instructor

ART 242 Painting II (HL) 3 credits
A continuation of the disciplines of painting in oils and acrylics. Expression through exploration of the continuing problems of painting. Work from the model and a variety of sources.
Prereq: ART 241 or permission of instructor

ART 251 Photography I (HL) 3 credits
Emphasis on the quality and range possibilities in photography. Students will explore their interests through project orientation. Issues and methodologies that concern the contemporary photographer will be discussed in relation to the projects chosen.
Prereq: ART 151 or permission of instructor

ART 252 Photography II (HL) 3 credits
Weekly shooting and lab work assignments. Focus is on learning new craft skills and exploration of the different uses of the photographic medium: basic skills introduction of black and white direct positive slides, use of the view camera, graphic arts film, and non-silver printing techniques.
Prereq: ART 251 or permission of instructor

ART 270 Graphic Art Production (X) 3 credits
Preparation of art and typography for printing reproduction. Course material examines technical drawing, typesetting, computer applications, comprehensive layouts, and image processing.
Prereq: Recommended for second year students or permission of instructor

ART 271 Graphic Design I (X) 3 credits
Examination of graphic design processes with emphasis on typographical elements and their applications for the printed page. Problems in typographical structures, arrangements, sequence, and communications. Investigations based on visual principles.
Prereq: Second year standing in Art or Graphic Design or permission of instructor

ART 272 Graphic Design II (X) 3 credits
Significant problems in graphic design, requiring practical solutions with aesthetic integrity. Psychological, sociological factors in the mass market are considered. Application of grid systems, symbol design, and information systems.
Prereq: ART 271 or permission of instructor

BIOLOGY

BIO 101 Zoology (NC) 4 credits
The animal kingdom, with emphasis on comparative structure and function of the organ systems and evolutionary relationships. Lab required.
Prereq: None

BIO 102 Botany (NC) 4 credits
Structure, function, and the inheritance of seed-bearing plants. Classification of major plant types and some basic plant ecology. Lab required.
Prereq: None

BIO 103 Ecology (NC) 4 credits
Environmental studies with emphasis on concepts of ecology, conservation of natural resources and their relationship to the quality of life. Lab sessions will focus on forest, field, stream, and pond habitats, reinforced by field trips to local sites.
Prereq: None

BIO 104 Natural History (NC) 4 credits
Environmental studies with emphasis on natural history, climate, life zones, and conservation of natural resources. Lab required.
Prereq: None

BIO 105 Anatomy and Physiology I (NC) 4 credits
Mammalian anatomy and physiology with emphasis on anatomy. Lab required.
Prereq: High School chemistry within past ten years or permission of instructor

BIO 106 Anatomy and Physiology II (NC) 4 credits
Mammalian anatomy and physiology with emphasis on physiology. Lab required.
Prereq: High School chemistry within past ten years and BIO 105

**BIO 111 Basic Horticulture (NC)** 3 credits
Theory and practice of plant propagation and cultivation, including care of house plants and preparation of gardens.
Prereq: None

**BIO 130 Human Nutrition (NL)** 3 credits
The study of nutrition and its application to good health and a sense of well being. Applications of nutrition to physical fitness, preventive medicine, and health care.
Prereq: None

**BIO 205 Microbiology (NC)** 4 credits
Introduction to the biology of microorganisms with emphasis on the properties of microorganisms and their relation to disease. Lab required.
Prereq: BIO 101, 105, or 114

**BIO 281 Interpretation of Diagnostic Laboratory Tests (NL)** 3 credits
The study of current information on commonly ordered laboratory tests. Includes normal values, background, test explanation, and clinical information. This course is intended for practitioners and students in the health care areas.
Prereq: BIO 106

**BUSINESS**

**BUS 103 Introduction to Marketing (A)** 3 credits
The distribution of goods and services from producer to consumer. Structure of marketing institutions, price determination and policies; consumer and industrial marketing, market research; legislation affecting marketing.
Prereq: None

**BUS 105 Mathematics for Business (X)** 3 credits
Designed to meet the needs of business students. Aims to provide the mathematical background for success in the study of finance, accounting, and other business subjects.
Prereq: None

**BUS 107 Introduction to Federal Income Taxes (X)** 3 credits
Designed to acquaint the student with the Federal Income Tax System. Emphasis is on the basic concepts of income recognition, deductible business and non-business expenses, and special tax calculations. Identification of the tax issue and proper research techniques for solving tax problems will also be stressed.
Prereq: ACC 112 or ACC 122

**BUS 111 Introduction to Business (A)** 3 credits
Introduces students to management, marketing, and financial considerations of business. Establishes economic and historical perspectives, as well as daily operation of a business.
Prereq: None

**BUS 115 Labor-Management Relations (A)** 3 credits
History and growth of the American labor movement, union policies and practices; collective bargaining and union security; and state and federal labor legislation.
Prereq: None

**BUS 119 Principles of Real Estate (X)** 3 credits
Surveys the principles of real estate. Designed for those who want to know more about the field for personal knowledge or for possible employment. Of help to those who intend to take a state real estate examination. Includes the legal, financial, brokerage, marketing, and other important aspects of the real estate business.
Prereq: None

**BUS 121 Real Estate Practices (X)** 3 credits
This course is designed to expand and build on Principles of Real Estate (BUS 119). Topics include obtaining listing property, appraisals, ethics and arbitration, advertising, legal aspects of real estate practices, and the daily operation of a real estate firm.
Prereq: BUS 119 or permission of instructor

**BUS 123 Business Communication (X)** 3 credits
Designed to familiarize students with the principles of effective communication. Emphasis is on planning, organizing, and writing a variety of business letters. Oral communication and basic telephone techniques also covered.
Prereq: None

**BUS 125 Principles of Advertising (X)** 3 credits
An introduction to the field of advertising. Intended for those interested in the role of advertising in our business and economic structure. Emphasis on how a mass communication program should be developed.
Prereq: None

**BUS 155 Business Law I (A)** 3 credits
An introduction to the law as it pertains to transactions in business and commercial fields. Laws of contracts, social forces, and legal rights, bailments, and personal property transactions.
Prereq: None

**BUS 156 Business Law II (A)** 3 credits
Operation of the law in business and commerce with emphasis on: laws of partnerships; corporation, insurance, agency, commercial paper, and bankruptcy.
Prereq: BUS 155 or permission of instructor

**BUS 203 Personnel Management (A)** 3 credits
Personnel management, with practical emphasis on the major tasks of recruiting, training, maintaining, and using an effective work force.
Prereq: BUS 111

**BUS 205 Principles of Management (A)** 3 credits
Fundamentals of the management of organizations. Introduces students to the process of management, including decision making and the role of the individual. Emphasis on the functions of management.
Prereq: BUS 111; Recom: PSY 101

**BUS 213 Personal Selling and Sales Techniques (X)** 3 credits
Equips the student with a firm foundation for a sales career. Attention to general principles of selling and to building skills essential in the workplace. Emphasis on the selling cycles.
Prereq: BUS 103 or permission of instructor

**BUS 214 Retail Management (X)** 3 credits
A practical approach to managing a retailing organization. Emphasis on current practices and trends, computer technology, and analyzing successful retailing operations.
Prereq: BUS 103, BUS 111, or permission of instructor

**BUS 215 Retail Buying and Merchandising (X)** 3 credits
Practical methods for selecting and purchasing goods for retail merchandising. Also, developing plans for seasonal selling and pricing strategies.
Prereq: BUS 103, BUS 105, BUS 111 or permission of instructor

BUS 223 Marketing Problems (X) 3 credits
Designed as a capstone to the program. Emphasizes statistics applied to marketing; practical application of primary and secondary data and projects related to the student's individual work experiences.
Prereq: BUS 211 or 213

BUS 251 Cooperative Work Experience in Marketing I (X) 3 credits
Supervised employment in the various channels of distribution combined with a seminar coordinating the employment situation with educational experience.
Prereq: Completion of one academic year in the Marketing Program

BUS 252 Cooperative Work Experience in Marketing II (X) 3 credits
Supervised employment in the various channels of distribution combined with a seminar coordinating the employment situation with educational experience.
Prereq: BUS 251

CHEMISTRY

CHE 001 Chemical Calculations Workshop 0 credits
Applications of elementary mathematics to chemical calculations.
Prereq: CHE 111 concurrently

CHE 105 Basic Principles of Chemistry (NC) 3 credits
A survey course for students interested in the basics of chemistry from a descriptive point of view. Includes matter, properties of families of elements and their characteristic compounds, mixtures, acids and bases, chemical reactions, introductory biochemistry. Could be the basis for coursework in selected technical areas, but not intended as a substitute for CHE 111, 112 -General Chemistry I and II.
Prereq: None

CHE 111 General Chemistry I (NC) 4 credits
Interrelated theoretical and descriptive topics of chemistry, including nature of matter, atomic and molecular structure, the periodic properties of the elements, chemical bonding, nomenclature, the gaseous state, the liquid state, the solid state, water, and solutions. Lab required.
Prereq: High School math through Algebra II or equivalent or CHE 001 concurrently

CHE 112 General Chemistry II (NC) 4 credits
Interrelated descriptive and theoretical topics of chemistry, including chemical kinetics, chemical equilibrium, acids and bases, solubility equilibria, chemistry of natural waters, free energy, entropy, equilibrium and free energy, electrochemistry, nuclear phenomena, metals and nonmetallic elements, transition elements, organic chemistry, chemistry of life, and natural resources. Includes qualitative analysis. Lab required.
Prereq: CHE 111 or CHE 103 with permission of instructor

CHE 201 Organic Chemistry I (NC) 4 credits
Introduction to the chemistry of carbon compounds. In-depth study of the structure, physical properties, and reactivity of alkanes, cycloalkanes, alkenes, alkynes, and conjugated unsaturated systems. Special topics integrated into the survey include conformational analysis, nucleophilic substitution, elimination reactions, electrophilic addition, and stereochemistry of chiral molecules. Lab required.
Prereq: CHE 112

CHE 202 Organic Chemistry II (NC) 4 credits
In-depth study of aromatic compounds, physical methods of structure determination, organic halides, organometallic compounds, alcohols, phenols, ethers, aldehydes, ketones, carboxylic acids, carboxylic acid derivatives, amines, and amides. Examination of various classes of natural products. Introduction to biochemistry. Polymers and polymerization. Lab required.
Prereq: CHE 201

CHE 221 Chemical Processes (X) 3 credits
Survey of unit operations, refining, fermentation, isolation of natural products, forest products, pulp and papermaking, polymerization, heavy chemicals, organic syntheses, specialty chemicals, and formulations. Manufacturing control, material balance, and plant safety.
Prereq: CHE 111, 112, and 201

CHE 250 Introductory Organic Chemistry (NC) 4 credits
Introduction to the chemistry of carbon compounds with emphasis on the relationships between molecular structure and chemical properties. Systematic study of the various classes of organic compounds and the functionality of each including polymer chemistry. Survey of elementary biochemistry. Lab required.
Prereq: CHE 105, or CHE 111 and 112, or permission of instructor

CIVIL ENGINEERING

CIV 101 Surveying I (X) 3 credits
Elements of plane surveying, taping, theory and use of instruments, leveling, traversing, and computation. Lab required.
Prereq: MAT 103 may be taken concurrently, or equivalent

CIV 102 Surveying II (X) 3 credits
Latitude, topographic surveying, mapping, Instrument adjustment, photogrammetry, simple curves, office computations using topographic maps.
Prereq: CIV 101, MAT 104 may be taken concurrently

CRIMINAL JUSTICE

CRJ 101 Introduction to Criminal Justice (A) 3 credits
Agencies and processes involved in the criminal justice system including the legislature, the police, the prosecutor, the public defender, the courts, and corrections. An analysis of the roles and problems of the criminal justice system in a democratic society with an emphasis upon inter-agency relations and checks and balances.
Prereq: None

CRJ 103 Criminal Law (A) 3 credits
The legal definition of crime and defenses; purposes and functions of the substantive criminal law; historical foundations; the limits of the criminal law.
Prereq: None

CRJ 105 Police Process (X) 3 credits
Social and historical perspectives on the police; police role and career; police discretion; police values and cultures; police organization and control.
Prereq: CRJ 101 or permission of instructor

CRJ 107 Adjudication Process (X) 3 credits
Role and structure of prosecution; public defense and the courts; basic elements of the substantive criminal law; procedural law and its relation to constitutional guarantees.
Prereq: CRJ 101 and 103, or permission of instructor

CRJ 109 Corrections Process (X) 3 credits
Post conviction correction process; the development of correctional philo-
phy, theory and practice; a description of institutional operation, programming and management; community based correctional probation and parole. Field trips required.  
Prereq: CRJ 101 or permission of instructor

CRJ 113 Juvenile Justice Process (A) 3 credits  
Definition of delinquent behavior, contributing social problems; adolescence as a subculture; the adjudication process of juveniles; philosophy and practice; treatment procedures.  
Prereq: CRJ 101 or permission of instructor

CRJ 121 Criminology (A) 3 credits  
Deviant behavior as it relates to the definition of crime; crime statistics; theories of crime causation; crime typologies.  
Prereq: None

CRJ 203 Criminal Investigation (X) 3 credits  
Fundamentals of investigation; crime scene search and recording, collection and preservation of physical evidence; scientific aids; modus operandi; sources of information; interview and interrogation; follow-up and case preparation.  
Prereq: CRJ 101, 105, or permission of instructor

CRJ 211 Current Issues in Criminal Justice (X) 3 credits  
A review of current administrative and operational concerns of the components of the criminal justice system which are influencing both the system itself and the quality of justice being rendered to the public.  
Prereq: None

CRJ 215 Field Experience (X) 3 credits  
An optional supervised field experience with an approved agency within the criminal justice system. The integration of classroom theory with practical experience. Intern placements are made at the discretion of the Criminal Justice faculty consistent with the policies of cooperating agencies.  
Prereq: CRJ 101, 103, or permission of instructor

CRJ 217 White Collar/Organized Crime (X) 3 credits  
An analysis of white collar crime and organized crime in contemporary America with emphasis placed on the structure and impact of each.  
Prereq: None

CRJ 219 Issues in Constitutional Law (X) 3 credits  
An examination of those provisions of the Constitution which directly relate to both federal and state law enforcement, and limitations placed on the enforcement activity through constitutional interpretation.  
Prereq: CRJ 101, 103, or permission of instructor

BASIC language also included. Students will need to spend time, outside of class time, in the computer lab.  
Prereq: MAT 105 or equivalent

DAT 111 Introduction to Business Information Systems (A) 3 credits  
The application of computers to business and like organizations. Topics include: Data Processing systems, computer concepts, teleprocessing, business data base systems, distributed processing. The emphasis of the course is on the use of microcomputers in business. Students will complete hands-on exercises using current word processing, spreadsheet, and database software. This course examines the role of management and the user in the development and operation of business computer systems. This is an appropriate beginning course for those contemplating careers in computing and business as well as those wishing to use the computer as a business tool.  
Prereq: MAT 105 or equivalent

DAT 114 Microcomputer Software Tools (A) 3 credits  
Provides students with an introduction to the three major “productivity” programs used on microcomputers. Topics include the IBM operating system, CP/DOS, word processing with WordStar and/or WordPerfect; electronic spreadsheet management and graph production with a Lotus 1-2-3; and database management with dBASE III Plus. The course combines a classroom-based introduction to the concepts behind each program, and hands-on experience using the programs to solve real business, personal, and professional problems. No previous experience with computers is required; however, basic algebra skills (MAT 105 or higher) are a necessity. Students taking this course should anticipate the need to spend three hours per week working with these programs in the GCC computer lab.  
Prereq: MAT 105 or equivalent, or permission of instructor

DAT 115 Programming Principles and Concepts (A) 3 credits  
A course in computer problem-solving principles and techniques for students contemplating a career in computer programming, or Computer Information Systems. Structured problem-solving methods are introduced, including techniques for decomposing complex problems, and expressing the problem solutions in terms which can be expressed in any computer programming language.  
Prereq: MAT 106 or equivalent and completion of, or concurrent enrollment in English Composition I

DAT 121 Data Base Applications (A) 1 credit  
A non-technical view of data base management systems, with a survey of possible applications. The course includes hands-on use of microcomputer data base management systems, with discussions of their relative effectiveness.  
Prereq: None; Recom: DAT 111 or 113

DAT 129 Applications of Lotus 1-2-3 (A) 1 credit  
Prereq: None

DAT 131 Word Processing on Microcomputers (L) 1 credit  
Using text editor programs, this course explores the facilities available on standard editor programs, along with giving the student a facility for using such programs in research paper writing, and other applications according to the needs and wishes of the students.  
Prereq: ADM 106 or permission of instructor

DAT 133 Graphics Applications (L) 1 credit  
A non-technical view of computer graphics and survey of applications. The course includes hands-on use of microcomputer-based graphics and plotting systems, input and output devices.
DAT 141 Programming in BASIC (A) 3 credits  
A continuation of the fundamental concepts of computer programming, as taught in both of the two introductory courses, using the BASIC language. Structured methodologies are emphasized, with instruction in flowcharting, pseudocode, file processing, hierarchy charting, and program testing.  
Prereq: DAT 115

DAT 143 Introduction to ANSI COBOL (A) 3 credits  
A detailed study of the computer programming language most widely used in the business environment. Problem analysis, flowcharting, source coding, and documentation techniques are learned through hands-on use of interactive terminals.  
Prereq: DAT 115

DAT 145 FORTRAN Programming (A) 3 credits  
Introduction to a computer programming language with wide scientific and general-purpose application. Student facility in using the computer as a problem-solving tool is emphasized through extensive program assignments and direct contact with computer terminals.  
Prereq: MAT 106 or equivalent, or permission of instructor

DAT 146 FORTRAN Survey for Programmers (A) 1 credit  
A survey of the fundamentals of the FORTRAN programming language with emphasis on problem solving in mathematical, scientific, and engineering environments. Designed for students who already have completed a full course in a high-level computer language. Extensive program assignments will utilize a minicomputer system.  
Prereq: DAT 141, 143, or 147, or permission of instructor

DAT 147 Pascal Programming (A) 3 credits  
Introduction to a structured computer programming language lending itself well to modern programming techniques. Student facility in programming is emphasized by direct interaction with the computer. A number of problems are assigned to be solved.  
Prereq: MAT 106 or equivalent, or permission of instructor

DAT 149 Database Program Development (X) 3 credits  
Introduction to application program development in a microcomputer database environment. Emphasis on accessing, querying, modifying, and programming a database. Database principles and concepts are demonstrated and applied using RBase 5000 and dBase III Plus as host languages. Database environments. Topics include data structures; indexed and direct file organization; hierarchical, network, and relational data models; data administration, analysis, design and implementation; and 4th generation programming and data management tools. The course is designed to meet criteria for course CIS-6 as described in the Data Processing Management Association Model Curriculum guidelines.  
Prereq: DAT 111, 113, 114, or 115

DAT 163 Computer Graphics (A) 1 credit  
An introduction to the uses to which computer graphics may be put, both in the area of computer-assisted design and in management systems, together with programming instruction using the BASIC language. The course covers the basic graphics techniques, and both output and input devices for graphics.  
Prereq: DAT 111 or 113; Recom: DAT 141

DAT 165 Documentation Writing (A) 1 credit  
An analysis of the ingredients of good documentation writing, with an emphasis on communicating technical matters in simple, forthright, effective language. The course focuses on the process of describing in detail the specific facts necessary to communicate what has been produced during every phase of the programming cycle. Emphasis is placed on documenting programs and systems in a business setting.

DAT 201 Systems Analysis and Design (X) 3 credits  
An investigation of the methods and techniques used by the systems analyst in analyzing present systems, whether manual or automated. The systems development life cycle is followed, from feasibility study through implementation. A major portion of the course is a case study involving the design of a microcomputer-based system for inventory and accounts receivable for a small business.  
Prereq: DAT 113 or 115

DAT 251 Cooperative Work Experience in Data Processing (X) 1 to 3 credits  
Supervised employment in a local organization which employs a computer in performing some tasks, combined with a seminar coordinating the employment situation with educational experience.  
Prereq: Accumulation of at least 9 credits in DAT courses

ECONOMICS

ECO 101 Principles of Macroeconomics (BC) 3 credits  
Prereq: None

ECO 102 Principles of Microeconomics (BC) 3 credits  
Economics of the firm, the consumer, and their interaction in the marketplace. Resource allocation, supply and demand, market structure, labor, and an economic perspective of current issues facing business and society.  
Prereq: None

ECO 107 Consumer Economics (L) 3 credits  
The individual living in this complex world; determination of personal goals and values; planning and budgets. An examination of the choices available to the consumer and the need to recognize a consumer trap. Topics include: wise buying, credit, advertising, housing, insurance, investing, and the high costs of living and dying.  
Prereq: None

ECO 109 Valley Economic & Industrial Development (BC) 3 credits  
A survey of the economic and industrial development of the Pioneer Valley from the 17th century to the present; growth of small and large industries in the Valley; interrelationships between business and cultural activities; economic trends and expected developments.  
Prereq: None

ECO 111 Valley Contemporary Economic Issues (BC) 3 credits  
Current economic concerns which affect life in the Valley; political structures, demography, resource and land use and their impact on the present economy and future economic growth and to the relationship between economic health and cultural life in the Valley.  
Prereq: None

EDUCATION

EDU 101 Introduction to Early Childhood Education (A) 3 credits  
Purposes of early childhood education and the role of the teacher. Considers the developmental needs of young children. Attention to physical environ-
ment, recording and reporting progress and administration.
Prereq: None

EDU 102 Prepracticum in Early Childhood Education (EDU Lab) (X) 4 credits
Work experience in area preschools, day cares, and public schools. Prereq: EDU 101 (concurrent or prior enrollment); ECE major

EDU 103 Creative Experiences in Art, Music, Drama, and Dance (X) 3 credits
A survey course dealing with the methods, materials, content, and theory of the arts. Concentration on rationale, leadership, attitude, and exposure. Credit will be granted for RLS 102 or EDU 103, but not for both. Prereq: ECE or RLS major or permission of instructor

EDU 111 Introduction to Special Education (L) 3 credits
Overview of development, physical, and behavioral disabilities; basic principles of intervention techniques; overview of legislation (Chapter 766) and its implications for the young child. Prereq: None

EDU 113 Screening and Assessment Techniques for Young Children (X) 3 credits
Principles of screening and assessment for teachers of young children; description of a variety of assessment and evaluation techniques (medical, intellectual/cognitive, perceptual, motor, and educational). Discussion of the intervention process, including individual program planning and evaluation. Prereq: None

EDU 117 Program Options for Children with Special Needs (X) 3 credits
Discussion of the definition and rationale for early intervention, as well as the implications of current legislation. Early program options for children with a wide range of handicapping conditions will be explored. Program options evaluation tools will be utilized in critiquing programs. Prereq: None

EDU 119 Contemporary Parenting (X) 3 credits
Explores the biological and psychological aspects of childrearing during each stage of development from birth through adolescence. Discussion of various current social, legal, and political developments in the United States which affect parents' relationships with their children. Prereq: None

EDU 121 Reading and Language for the Young Child (X) 3 credits
This course emphasizes the importance of effective communication and implements the belief that skills, abilities, and attitudes needed for such communication are identifiable and teachable. The integration of all the language arts into a curriculum for young children is stressed. Prereq: EDU 101 and/or PSY 101, or permission of instructor

EDU 123 Educating the Infant and Toddler (X) 3 credits
The emphasis in this course is directed toward the education of the child from infancy to two years nine months in group and home settings. Participants will learn about early development, physical space, selection, and presentation of materials and activities, schedules, and strategies of child care for the very young child. Prereq: None

EDU 201 Early Childhood Curriculum (X) 3 credits
Organization of curriculum including the research, theory, methods, and materials necessary in a classroom of young children. Emphasis on reading readiness and language skills. Prereq: EDU 101 or permission of instructor

EDU 205 Philosophy of Education (A) 3 credits
The course examines the role of school in society, the organization and history of American education, the historical foundations of education and its theorists. The relationship between theoretical perspectives and current issues will be emphasized. Prereq: EDU 101 or permission of instructor

EDU 215 Student Teaching I (X) 6 credits
Work experience in an early childhood setting with responsibility for setting up a safe and healthy environment, providing for social and emotional development in children, and becoming a professional. Prereq: EDU 102

EDU 216 Student Teaching II (X) 6 credits
Work experience in an early childhood setting with extensive responsibility for the total management of a classroom, experience working with families and providing an environment which promotes physical and intellectual competence in children. Prereq: EDU 215

EDU 217 Cooperative Placement in Human Services (X) 3 credits
This is a one-semester practicum designed for students who are interested in gaining experience in the human service field. Emphasis is placed on a developmental approach to beginning and ending helping relationships. Issues of confidentiality, planned intervention, professional conduct, and case responsibility will be integral to the seminar. An interview with instructor is required prior to enrollment. Prereq: PSY 101 and permission of instructor or Division Chair

ELECTRONICS

ELT 101 Basic Electricity I-DC (X) 4 credits
Basic theory and principles upon which subsequent courses in electricity and electronics technology are dependent. Topics include: electrical nature of matter; current; voltage; sources of e.m.f.; resistance; work; power and energy; series; parallel; and series-parallel resistive circuits; capacitance; magnetism; inductance. Lab required. Prereq: MAT 103 or equivalent concurrently

ELT 102 Basic Electricity II-AC (X) 4 credits
A continuation of Basic Electricity I, but dealing with alternative current phenomenon. Topics include but are not limited to: A.C. generation; reactance; impedance; impedance networks; power in A.C. circuits; resonance; coupled circuits; harmonics; A.C. machines and devices; A.C. measurement techniques. Lab required. Prereq: ELT 101 and MAT 104 or equivalent concurrently

ELT 110 Electronics Fabrication (X) 3 credits
An activity-oriented course (lab-lecture) dealing with the materials, techniques, tools, and skills encountered in the assembly, maintenance, and repair of electronic circuits and devices. Topics include but are not limited to: sheet metal tools and operations, printed circuit boards and wire boards, printed circuit board layout and artwork, printed circuit board fabrication, circuit board assembly, soldering, component removal, wire board fabrication, chassis assembly and wiring, power supply testing and troubleshooting, special component handling, storage, and assembly techniques. Prereq: None

ELT 201 Digital Circuit Theory (X) 3 credits
Binary numbers; logic gates, AND, OR, NAND, NOR, ADD; Boolean algebra; logic circuits, DLT, TTL, ECL, flip-flop circuits; counters; registers; displays; memory circuits; applications. Lab required. Prereq: ELT 102 or PHY 112
ELT 203 Microprocessor Fundamentals (X) 3 credits
A first course in microprocessor fundamentals centered in the 6800 CPU and its family of support devices. The course covers the general topics of (1) number systems, (2) computer architecture, and (3) programming techniques. Two hours lecture, two hours lab per week.
Prereq: ELT 201 or permission of instructor

ENGINEERING

EGR 101 Engineering Drawing I (X) 3 credits
Introduction to drafting techniques. Orthographic projection and isometric drawing; use of engineering standards and handbooks, dimensioning, sectional views, oblique and perspective systems drafting, skill in freehand sketching.
Prereq: None

EGR 102 Civil and Architectural Drawing (X) 3 credits
Introduction to architectural drafting, including foundation plans, floor plans, elevation, sections, details, schedules, architectural terminology and symbols.
Prereq: EGR 101 or equivalent; Recom: MAT 103

EGR 103 Engineering Orientation (X) 1 credit
An introduction to the field of engineering. The work of the technician and his relationship to the engineer. Typical engineering projects.
Prereq: None

EGR 106 Engineering Drawing II (X) 3 credits
Introduction to descriptive geometry; auxiliary views; surface developments and intersections; graphical methods for engineering communication; design and communications drawing in specialized fields.
Prereq: EGR 101 or equivalent

EGR 107 Engineering Graphics I (X) 3 credits
Introduction to engineering graphics concepts and applications. Lettering, scaling, orthographic projection, pictorial views, sections, auxiliary views, dimensioning, tolerances, fasteners. Sketching and some instrument work employed. Introduction to computer-aided drafting included.
Prereq: None; Recom: Understanding of coordinate geometry

EGR 108 Engineering Graphics II (X) 3 credits
Development of skills with manual instruments, drafting machines, and computers in the production of working drawings. Descriptive geometry, developments and intersection, graphical math. Engineering graphics for specific disciplines. Project work and CAD.
Prereq: EGR 107 or equivalent

EGR 110 Engineering Graphics Project (X) 3 credits
Preparation of complete working drawings for selected engineering disciplines. Emphasis on developing a high level of manual and CAD skills.
Prereq: Corequisite EGR 108 and enrollment in Computer-Aided Drafting Certificate Program, or permission of instructor

EGR 205 Statics (X) 3 credits
Prereq: PHY 101 or 111; MAT 151 or 201 concurrently

EGR 206 Mechanics of Materials (X) 3 credits
Axial and shear stress and strain, torsion, bending, shear and moment diagrams. Deflection, columns, connections, indeterminate beams.
Prereq: EGR 205

EGR 207 Dynamics (X) 3 credits
Prereq: EGR 205; MAT 151 or 202 concurrently

EGR 208 Thermodynamics (X) 3 credits
Heat theory and equipment; gas laws; first and second laws of thermodynamics; heat exchangers; Rankine and Carnot cycles.
Prereq: MAT 202 and PHY 112

EGR 211 Circuit Analysis I (X) 4 credits
Circuit elements, Ohm's Law, Kirchhoff's Laws, writing and solving circuit equations. Important circuit concepts, operational amplifiers, and energy storage elements. First-order and second-order circuits; state-variable analysis, including numerical solution of the state equations. Lab required.
Prereq: MAT 202 and PHY 112

EGR 212 Circuit Analysis II (X) 4 credits
Time domain analysis, complex numbers, frequency domain analysis, and the sinusoidal function. Introduction to power and power measurements. Important AC concepts. Transformers and two-port networks. Fourier series. Lab required.
Prereq: EGR 211

EGR 214 Digital Electronics (X) 3 credits
Device physics and models for p-n junction and Zener, diodes, bipolar junction transistors and field effect transistors. Transistor-transistor logic families, emitter-coupled logic (ECL), integrated logic and metal-oxide silicon digital technologies. Semiconductor memories. Power transistors for output drivers.
Prereq: EGR 211

EGR 215 Contracts, Specifications, and Estimating (X) 3 credits
Basic principles of contract law. Specifications relating to materials and workmanship. Estimating quantities and costs for labor, materials, and equipment. Basic concepts of overhead and profit and their relationship to project costs.
Prereq: None

EGR 216 Materials Laboratory Course (X) 1 credit
A laboratory course involving tension, compression, flexure, and deflection tests and demonstrations.
Coreq: EGR 205

ENGLISH

ENG 100 College Writing Strategies (D) 3 credits
Intensive study of the structure of the English sentence and of paragraph building. Exercises in grammar and in sentence combining. Closely supervised practice in writing the paragraph, leading to experience in using library resources for paragraph detail. NOTE: This course does not satisfy the English Composition requirements of the College, and may not be used to fulfill associate degree credit requirements. A final grade of "D" will not be awarded in this course.
Prereq: None

COL 100 College Reading Strategies (D) 3 credits
Development of reading study skills for comprehension, vocabulary building, and critical reading. Techniques for effectively and efficiently obtaining information from reading materials, especially textbooks. This course may not be used to fulfill associate degree credit requirements; a final grade of "D" will not be awarded.
Prereq: None
COL 101 College Writing and Reading Strategies (D) 3 credits
Improvement of writing and reading skills, using each to reinforce the development of the other. This course is designed as a "bridge" between the ENG/COL 100 courses and college-level courses, although enrollment is not limited to people who have taken developmental courses. Focus on analysis and comprehension of reading using textbooks from other courses and extensive practice writing essays, summaries, personal responses, and answers to essay questions. Grammar review. Individualized instruction. In-class tutors. This course may not be used to fulfill associate degree credit requirements; a final grade of "D" will not be awarded.
Prereq: None

English Composition I

Study of various aspects of reading and writing expository prose, including clear and effective organization of ideas, convincing expression of ideas in writing, and analysis of prose samples. Three options are available; students may receive credit for only one.

ENG 101 English Composition I: Structure for Composition (E) 3 credits
Introductory study of expository writing from the point of view of structures for the organization of material. Chronological and logical structures with emphasis on patterns of development appropriate to papers and examinations for various college courses.
Prereq: ENG 100 and COL 100, or satisfactory placement test score, or permission of the English department

ENG 103 English Composition I: Purposes and Techniques of Prose (E) 3 credits
An analytic approach to the study of expository writing for students who feel confident of their compositional skills. Readings provide models for writing assignments, but the subjects are chosen by the student.
Prereq: Satisfactory placement test score

ENG 105 English Composition I: The Impact of Language (E) 3 credits
Creative and persuasive approach to writing, with an emphasis on the use of the written language for the expression of personal ideas and feelings.
Prereq: Satisfactory placement test score

English Composition II

Study of the imaginative and symbolic use of language. Emphasis on development of critical standards and written responses to fiction, poetry, and drama. Three options are available; students may receive credit for only one.

ENG 112 English Composition II: Exploring Literature and Analytical Writing (E) 3 credits
Examination and analysis of a variety of literary works, including the short story, poetry, and drama. Writing assignments emphasizing the formal critical paper but including options for more personal and creative responses.
Prereq: ENG 101, 103, or 105

ENG 114 English Composition II: Literature and Creative Writing (E) 3 credits
Examination of the creative modes of writing: short fiction, poetry, drama, and song. Writing assignments include creative experiments and literary analysis.
Prereq: ENG 101, 103, or 105 and permission of instructor

ENG 116 English Composition II: Analysis of Literature and Film (E) 3 credits
Study of film as well as short stories, poetry, and drama. Some exploration of other media, including song and television. Film critiques as well as critical evaluation of written works.
Prereq: ENG 101, 103, or 105

ENG 121 Script Writing (L) 3 credits
The study and practice of writing scripts to communicate information, knowledge, and appreciation. Scripts will be written for slide-tape and television media formats. This course is designed for individuals who may be responsible for disseminating information in business, industry, or education.
Prereq: ENG 112, 114, 116, or permission of Instructor

ENG 123 Report Writing (L) 3 credits
Intense study and practice in the writing of letters, memos, and reports (proposals or feasibility studies) related to specific technical and service occupations. Instruction in persuasive writing, presentation techniques, resume writing, use of graphics, research, and documentation. Term project required.
Prereq: ENG 101, 103, or 105

ENG 201 Western Literature I (HC) 3 credits
Reading and critical analysis of selected literary masterpieces from Homer to Shakespeare.
Prereq: ENG 112, 114, or 116

ENG 202 Western Literature II (HC) 3 credits
Reading and critical analysis of selected literary masterpieces from Shakespeare to Frost.
Prereq: ENG 112, 114, or 116

ENG 203 American Literature I (HC) 3 credits
Critical study of significant achievements in American literature from the Puritan period through the period of the Reconstruction. Emphasis on the growth of an American literature, its modes and purposes.
Prereq: ENG 112, 114, or 116

ENG 204 American Literature II (HC) 3 credits
Critical study of significant achievements in American literature from the late 19th century to the present. Emphasis on literary modes and thought as they reflect the modern society.
Prereq: ENG 112, 114, or 116

ENG 205 English Literature I (HC) 3 credits
Readings in English literature from the Anglo-Saxon period to the late 17th century. Major emphasis on Chaucer and Shakespeare.
Prereq: ENG 112, 114, or 116

ENG 206 English Literature II (HC) 3 credits
Readings in English literature from the late 17th century to the present.
Prereq: ENG 312, 114, or 116

ENG 207 Advanced Creative Writing I (HC) 3 credits
Techniques and approaches in narrative, lyric, and dramatic forms of writing.
Prereq: ENG 112, 114, or 116
Note: This course does not fulfill the Liberal Arts literature requirement.

ENG 208 Advanced Creative Writing II (HC) 3 credits
Techniques in narrative, lyric and dramatic forms of writing. This course is for students who have completed ENG 207 and wish to continue exploring the problems of creative writing.
Prereq: ENG 112, 114, or 116 and ENG 207 Note: This course does not meet the Liberal Arts literature requirement.

ENG 211 Modern Novel (HC) 3 credits
Themes and methods of novelists of the modern western world. Exploration of such typically modern themes as alienation and the failure of communication. Attention given to modern experiments in point of view, structure, and style.

Prereq: ENG 112, 114, or 118

Note: This course does not fulfill the Liberal Arts Literature requirement.

ENG 221 Shakespeare (HC) 3 credits
A selected group of plays by Shakespeare, approached by theme, with consideration of contemporary presentations or adaptations. Field trips to film and/or theatre performances.

Prereq: ENG 112, 114, or 116

Note: This course does not fulfill the Liberal Arts Literature requirement.

ENG 225 Satirical Fiction (HC) 3 credits
A survey of absurdist and political satire in fiction. Attention will be given to representative 19th and 20th century writers. Ultimate focus will be on Kurt Vonnegut and Flannery O’Connor, developing an analysis of their differing responses to the contemporary world.

Prereq: ENG 112, 114, or 116

ENG 241 Survey of Children's Literature (HC) 3 credits
Wide reading of classic and current children's literature, including the history and development of the various genre. Criteria for judging children's books. Classroom techniques in Early Childhood Education.

Prereq: ENG 112, 114, or 116

Note: This course does not fulfill the Liberal Arts Literature requirement.

ENG 247 Women in Literature I (HC) 3 credits
A study of poems, short stories, and novels of the 19th century and earlier. These works, by and about women deal specifically with the following areas of concern: growing up as a female, roles and their consequences, female creativity, the search for wholeness. Attention will be paid to style and writing techniques.

Prereq: ENG 112, 114, 116, or permission of instructor

ENG 248 Women in Literature II (HC) 3 credits
A study of poems, short stories, and novels of the 20th century. These works, by and about women deal specifically with the following areas of concern: growing up as a female, roles and their consequences, female creativity, the search for wholeness, how our own situations have derived from the experience of those just before us, and how contemporary writers express our experience.

Prereq: ENG 112, 114, 116, or permission of instructor

ENG 253 Valley/American Literature (HC) 3 credits
Critical study of American literature from the Puritan period to the present with focus on the significant achievements of Valley writers. Exploration of the effects on their works of the geographical, social, and cultural environment of the Pioneer Valley. Writers studied include Jonathan Edwards, Emily Dickinson, Mark Twain, Robert Frost, and Archibald MacLeish among others.

Prereq: ENG 112, 114, 116, or permission of instructor

ENGLISH AS A FOREIGN LANGUAGE

EFL 101 Writing and Reading - Beginning Level (X) 3 credits
Introduction to the English language and American culture through the systematic study of grammar, vocabulary, reading, and writing. Individualized programs as needed. Students in EFL 101 may enroll in other beginning-level EFL courses. Laboratory required. Graded CR/NC basis.

Prereq: Placement by examination

EFL 102 Writing and Reading - Advanced Beginners (X) 3 credits

Focus on reading and writing skills needed for successful participation in American communities. Advanced study of vocabulary, grammar, and sentence structure. Students in EFL 102 may enroll in other appropriate EFL courses. Laboratory required. Graded CR/NC basis.

Prereq: Placement by examination

EFL 103 Written English - Intermediate Level (X) 3 credits
Refinement of writing skills essential to academic success. Weekly writing assignments; frequent drills in grammar and other compositional skills. Enrollment in courses other than appropriate EFL offerings should be undertaken only with advisor's approval. Laboratory required. Graded CR/NC basis.

Prereq: Placement by examination

EFL 104 Written English - Advanced Level (X) 3 credits
Emphasis on advanced writing skills as preparation for beginning level college courses and the TOEFL examination. Weekly writing assignments. Students in EFL 104 may enroll in 100- and 101-level courses for credit on recommendation of academic advisor. Laboratory required. Graded CR/NC basis.

Prereq: Placement by examination

EFL 111 Spoken English - Beginning Level (X) 3 credits
Introduction to standard American speech patterns. Exercises designed to teach conversational skills and correct pronunciation. EFL 101 vocabulary and other language elements put into practice. Laboratory required. Graded CR/NC basis.

Prereq: Placement by examination

EFL 112 Spoken English - Advanced Beginners (X) 3 credits
Continuation of EFL 111 with emphasis on the development of listening and speaking skills needed in normal social interactions: school, job, etc. Laboratory required. Graded CR/NC basis.

Prereq: Placement by examination

EFL 113 Spoken English - Intermediate Level (X) 3 credits
Development of skills in group discussion, role playing, oral presentation, and listening comprehension. Vocabulary, pronunciation, and other language elements put into practice. Laboratory required. Graded CR/NC basis.

Prereq: Placement by examination

EFL 114 Spoken English - Advanced Level (X) 3 credits
Emphasis on development and critical analysis of formal speeches and debates. Comprehension of classroom lectures. Vocabulary, pronunciation, and other English language elements put into practice. Laboratory required. Graded CR/NC basis.

Prereq: Placement by examination

EFL 123 Reading, Vocabulary, and Test-Taking Skills I (X) 3 credits
Emphasis on helping students improve their level of proficiency in reading, vocabulary, note-taking, and test-taking strategies for success in college course work. Materials drawn from university-level textbooks and tests, including the TOEFL.

Prereq: Placement by examination

EFL 124 Reading, Vocabulary, and Test-Taking Skills II (X) 3 credits
Intense study and practice in reading university-level textbooks, American literature, and many kinds of college tests. Attention given to vocabulary development and test-taking strategies in preparation for the TOEFL test.

Prereq: Placement by examination

ENVIRONMENTAL SCIENCE
ENV 107  Principles of Land Use (NL)  3 credits
Historical and legal aspects of land ownership, property rights and land use; urban geography; ecological and social considerations influencing community and regional planning.
Prereq: None

FIRE SCIENCE TECHNOLOGY

FST 101  Introduction to Fire Protection (X)  3 credits
Philosophy and history of fire protection; history of loss of life and property by fire. Municipal fire defenses; organization and function of federal, state, county, and private fire protection agencies. Professional fire protection career opportunities.
Prereq: None

FST 103  Fundamentals of Fire Prevention (X)  3 credits
Organization and function of fire prevention. Organization, inspection, surveying and mapping procedures, recognition of fire hazard, engineering as a solution to the hazard, enforcement of the solution. Public relations as affected by fire prevention.
Prereq: None

FST 105  Organization and Management of Fire Departments (X)  3 credits
The fire administrator's responsibility for the total community fire problem. Insurance and fire defense, personnel and equipment; water supply; departmental functions, administrative problems.
Prereq: None

FST 109  Hazardous Materials (X)  3 credits
Review of basic chemistry. Storage and handling of hazardous materials. Laws, standards, and fire fighting practices within extreme fire hazard areas.
Prereq: FST 101, 103, CHE 105 or equivalent

FST 111  Building Construction (X)  3 credits
Exploration of building construction and design with emphasis on fire protection concerns. Review of statutory and suggested local; state, and national guidelines.
Prereq: None

FST 113  Fire Hydraulics with Applied Math (X)  3 credits
Hydraulic laws and formulas as applied to fire science. Application of formulas and mental calculations to hydraulic problems; water supply problems; underwriters' requirements for pumps. Math components included.
Prereq: None

FST 201  Fire Protection Systems and Equipment I (X)  3 credits
Basic plant organization for fire safety and inspection in domestic, industrial, and public enterprises; introduction to protection systems.
Prereq: FST 109

FST 202  Fire Protection Systems and Equipment II (X)  3 credits
Advanced considerations in plant organization for fire safety and inspection, standard and specialized protection systems. Case studies and problems.
Prereq: FST 201

FST 203  Fire Fighting Tactics (X)  3 credits
Review of fire chemistry, equipment, and manpower. Basic fire fighting tactics and strategy; methods of attack; pre-planning fire problems. Fire situations for analysis and study.
Prereq: FST 101, 103, and 113

FST 205  Legal Aspects of Fire Administration (X)  3 credits
Fire and arson laws and the origin of fires. Locating witnesses, conducting investigations, libel and slander, arson motives, interviewing witnesses, interrogating suspects, criminal confessions, searching the fire scene, evidence, and photography; methods of establishing the corpus delicti in an arson fire.
Prereq: FST 101 and 103

FST 207  Fire Codes and Ordinances (X)  3 credits
National, state, and local laws and ordinances which influence the field of fire protection. Emphasis on local situations.
Prereq: FST 101 and 103

FST 275  Emergency Medical Technology (X)  6 credits
A 110-hour course in the emergency primary care of injuries, acute illnesses, birth, and people under stress. Rescue extraction, transportation, communication; legal implications; anatomy and physiology; M.D. participation, ambulance training and CPR. Lectures, slides, demonstrations, and practice. Students completing the course will be able to take the National Registry Examination at the College.
Prereq: None

FOLKLORE

FLK 217  American Folklore (HC)  3 credits
An introduction to the materials and methods of the study of American folklore, with emphasis on its appreciation, on its relevance to the development of literature, and its relationship to lifestyles. Folklore and Folk Literature of the southern Appalachian will serve as models for study.
Prereq: ENG 112, 114, or 116

FLK 218  Storytelling (HC)  3 credits
Folktales from American, European, and other ethnic folklore traditions are examined from a contemporary perspective. Attention will be given to structure, content, language, literary and social issues, and techniques. Students will learn to tell the folktales within the context of their own cultural experiences.
Prereq: ENG 112, 114, or 116

FLK 219  Valley Folklore (HC)  3 credits
An introduction to the materials and methods of American Folklore studies with emphasis on specific areas of Valley folklore as evidenced in music, story, art, architecture, dance, customs and festivals, as well as in other manifestations or oral, customary, and material folk traditions. Students will work on a class project examining a unique aspect of Valley folklore. Credit will be granted for FLK 217 or FLK 219 but not for both.
Prereq: None

FRENCH

FRE 101  Elementary French I (HC)  3 credits
Introduction to the language using a video-based immersion program. Emphasis on practical speaking skills. Include a systematic and practical study of French structures. For beginners and for students who have not successfully completed one year of high school French.
Prereq: None

FRE 102  Elementary French II (HC)  3 credits
Continuation of the study of French using a video-based immersion method. Appropriate for students who have successfully completed one year of high school French.

**FRE 201 Intermediate French I (HC)** 3 credits
Intermediate study of French using a video-based immersion program supplemented by a variety of target language readings. Continued emphasis on speaking the language and mastering French structures. The class is conducted in French.

**FRE 202 Intermediate French II (HC)** 3 credits
Conclusion of the intermediate study of French through immersion supplemented by a variety of target language readings. The class is conducted in French.

**FRE 251 French Composition and Conversation (HC)** 3 credits
Development of advanced writing and speaking skills. Representative works of Francophone literature, available periodicals, and films are the subjects of 58 class discussion and of oral and written assignments.

**GEO 101 Physical Geology (NC)** 4 credits
Nature and origin of the landscape; features of the earth's surface; common rocks and minerals; agents of erosion; role of earthquakes, volcanoes, and the mountain building process. Particular attention to regional geology. Lab and field trips required.

**GEO 102 Historical Geology (NC)** 4 credits
An introduction to the origin and development of the earth, with emphasis on the Eastern United States. Topics include geologic time, myths and science of creation, meaning and interpretation of rocks and fossils. Lab and field trips required.

**GEO 103 Valley Geology (NC)** 3 credits
An introduction to the unique geology and geohistory of our region. Topics include: rocks, minerals, fivers, glaciers, dinosaurs, continental drift, resources, and geologic hazards. Field trips. Credit will be granted for GEO 103 or 106, but not for both.

**GEO 104 Introduction to Oceanography (NC)** 4 credits
The nature of the ocean realm—its physical, chemical, biologic and geologic characteristics and importance. Topics to be discussed: origin and characteristics of ocean basins, physical and chemical nature of sea water, origin and movement of water masses, importance of the oceans to man and life on earth. Lab and field trips required. Credit will be granted for GEO 104 or 105 but not for both.

**GEO 105 Survey of Oceanography (NC)** 3 credits
Introduction to ocean science. Deals with how the oceans affect man and the earth, and how man is affecting the oceans. Topics include: ocean life and ecosystem, origin of sea water and ocean basins, coastal zones, mineral and fishery resources. Field trips. No lab. Credit will be granted for GEO 104 or 105 but not for both.

**GEO 107 Geology of our National Parks (NC)** 4 credits
Geographical settings of our national parks and geological processes which carved out or built up their outstanding landforms. Current environmental hazards and pressures. Lab and field trips required.

**HISTORY**

**HIS 101 Western Civilization to 1500 A.D. (HC)** 3 credits
The major ideas, institutions, and developments of Western Civilization from ancient times to the Renaissance. Themes include the nature of humankind; relationship of the individual to society and the universe; the role of religion; the individual in history; the tradition to modern modes of life and thought.

**HIS 102 Western Civilization Since 1500 A.D. (HC)** 3 credits
Analysis of ideas, attitudes, and developments of Western Civilization from the dawn of the modern age to the present. Topics include the scientific and industrial revolutions; the rise and triumph of nation states; the French and Russian revolutions; European imperialism in Asia and Africa; socialism, communism, and fascism; dictatorships and World War II; challenge of the non-western world.

**HIS 105 History of the American People to 1865 (HC)** 3 credits
Economic, social, and cultural development of the American people prior to the Civil War. Utopianism; the Revolutionary Era; the development of national consciousness; consensus and conflicts; constitutionalism; the roots of American foreign policy; race relations; slavery and war. Credit will be granted for HIS 105 or 107 but not for both.

**HIS 106 History of the American People Since 1865 (HC)** 3 credits
Reconstruction; industrialism and triumphant capitalism; the capitalist model of society; business and the protestant ethic; labor; populism, and dissent; imperial expansion and the progressive politics; crisis in the American Dream; The Great Depression and the New Deal; minorities and change; the roots of contemporary American foreign policy to Vietnam. Credit will be granted for HIS 106 or 108 but not for both.

**HIS 107 Valley/American History I (HC)** 3 credits
Analysis and examination of major developments—political, social, economic—in American history from colonial times to the Civil War period with the focus on the local and national levels. Emphasis on local resources. Credit will be granted for HIS 105 or 107 but not for both.

**HIS 108 Valley/American History II (HC)** 3 credits
Analysis and examination of major developments—political, social, economic—in American history from the latter part of the 19th century to the present with the focus on the local and national levels. Emphasis on local resources. Credit will be granted for HIS 106 or 108 but not for both.

**HIS 113 Modern East Asia (HC)** 3 credits
The major social, political, and cultural developments taking place in China and Japan from the mid-19th century to the present. Examination through visual and textual materials of the transformation of traditional societies as they struggle to modernize. Comparisons between the respective experiences of China and Japan.

**Prereq: None**
HIS 217 Valley/American Ethnic Experience (HL) 3 credits
An exploration of the significant contributions to the cultural, social, and historic development of Valley/American life by the people of diverse ethnic and minority backgrounds. A variety of approaches will be pursued in the investigations, including texts, readings, and field research. The course calls for people with an interest in a component of history too long neglected, the human element.
Prereq: HIS 105, 106, 107, 108, or permission of instructor.

HONORS SEMINARS I/II/III (L) 3 credits
The Honors Seminars provide students whose academic performance is superior with an opportunity to explore in depth a selected topic of academic interest in a small class largely dependent on considerable student interaction. Admission requires approval of the Honors Committee. A major paper is required. First-time seminar participants will register for HSM 101; participants who are accepted into subsequent seminars will register for HSM 103 and then HSM 105. Seminar topics change each semester, but reflect the scholarship of the three major academic groupings of the College: Behavioral Sciences, Human services and Learning Assistance Programs; Humanities, English, Art and Media Programs; and Business, Mathematics, Science, Technologies, and Nursing Programs.
Prereq: 101: Approval of Honors Committee
103: HSM 101 and approval of Honors Committee
105: HSM 103 and approval of Honors Committee

HUMAN DEVELOPMENT

HUD 101 Study Skills (D) 1 credit
Teaches academic success skills, including techniques for effective reading and remembering, class involvement, preparation for tests, taking lecture notes, and managing time. This course may not be used to fulfill associate degree requirements.
Prereq: None

HUD 103 The 24-Hour Outdoor Personal Growth Experience (X) 1 credit
The in-class session and central 24-hour wilderness experience focus on the expansion of the individual’s awareness and sensitivity to his or her relationship with the environment through interpretation and participation in its cyclic rhythms.
Prereq: None

HUD 109 Career Decision-Making and Planning (X) 2 credits
An individualized introduction to the career/life planning process. Covers seven major steps in decision-making: commitment to planning, self-assessment, generating options, information seeking, choosing, planning, and taking action. Specific career plans will be developed as a result of this course.
Prereq: None

HUD 112 Assertiveness Training (X) 1 credit
Skills training in behavior which allows individuals the opportunity to express their own opinions, feelings, needs, and preferences, without unnecessary anxiety and in a way that is not threatening to others.
Prereq: None

HUD 113 Job Search Training (X) 1 credit
An introduction to the techniques used in effective job search. Specific attention is paid to helping each student to match his/her skills, needs, and values to specific types of jobs. The course content emphasizes informational interviewing, resume development, formal job interviewing, and job contract negotiations.
Prereq: None

HUD 117 Managing Stress (X) 2 credits
Designed to transmit basic information about how stress works to help students isolate their own stress responses, and to help them find appropriate stress reduction techniques within a lab setting.
Prereq: None

HUD 120 Health Lecture Series (X) 1 credit
A series of seminars, lectures, and workshops designed to provide current information related to health and lifestyle concerns. Topics/content will be selected from such areas as physical fitness, nutrition, wellness, preventive medicine, sexuality, and stress. Graded CR/NC basis.
Prereq: None

HUD 121 Applied Leadership Training (X) 1 credit
Fundamental leadership skills, problem-solving, decision-making techniques, and group process; college governance structure, principles of the planning process and budget preparation. Maximum two graded credits.
Prereq: Offered only to GCC Student Senators elected by the GCC student body.

HUMAN ECOLOGY

HEC 101 Human Ecology: Problems and Solutions (BC) 3 credits
An introduction to basic concepts and principles in ecology including ecosystems, population, food production, energy, pollution, technology, and resource depletion. This course focuses on man's impact on the natural environment emphasizing current problems and alternative solutions to them.
Prereq: None

HEC 111 Applied Human Ecology: TEME (BL) 2 credits
This course is designed to introduce students to the applications of basic ecological principles and effective group process, the nature of totally enclosed modular environments and their relevance for the future, the NASA/ESA space flight programs, and the applications of high technology including computers, aerospace, and advanced communications. Students are trained as flight crew and ground control personnel in the implementation of the annual TEME Space Shuttle Simulation.
Prereq: None

HEC 251 Small Group Ecology: TEME Planning and Development (BL) 3 credits
Training in the use of ecological concepts and principles in the planning and development of the annual TEME event schedule; instruction in group theory and participation in experiential learning activities to develop an understanding of group dynamics and effective group skills, i.e., goal setting, leadership, decision-making, problem-solving, resource utilization.
Prereq: HEC 101 and one of the following: ANT 103, 104, PSY 101, SOC 101, or permission of instructor.

HEC 252 Small Group Ecology: TEME Implementation (BL) 6 credits
Application of ecological concepts and principles in the implementation of the annual TEME event schedule; instruction in group theory and participation in experiential learning activities to develop an understanding of group dynamics and effective group skills, i.e., goal setting, leadership decision-making, problem-solving, resource utilization.
Prereq: HEC 251 or permission of instructor
HUMANITIES

HUM 113 Introduction to the Pioneer Valley (HL)  3 credits
Overview of the geography, geology, history, and culture of the Pioneer Valley, with instruction in methods of research, including oral history and work in libraries, newspaper files, and museums. Field trips in the local area.
Prereq: None

HUM 119 Women in the Pioneer Valley I (HL)  3 credits
In this course, students, through historical and literary readings and original research, explore the experience of women of the Pioneer Valley. Letters, diaries, journals, oral histories, fictional works, and other similar sources will be examined.
Prereq: None

HUM 201 Humanities in the Western World I (HC)  3 credits
Illustrates the relationships among the literature, music, visual arts, history, and ideas of the Western World, with emphasis on the texts of certain literary classics. Concentrates on the Classical World, the Middle Ages, and the early Renaissance.
Prereq: English Composition II (or concurrently), or permission of instructor

HUM 202 Humanities in the Western World II (HC)  3 credits
Continuation of HUM 201. This course concentrates on the late Renaissance, Baroque, Romantic, and Modern periods.
Prereq: English Composition II (or concurrently), or permission of instructor

INDUSTRIAL ENGINEERING

IND 101 Machine Processes (X)  3 credits
Prereq: None

IND 111 Productivity Management (X)  3 credits
Industrial organization, job evaluation. Production control functions. Scheduling and dispatching.
Prereq: None; Recom: BUS 101 and IND 101

IND 112 Quality Control (X)  3 credits
Scheduling, inventory control. Statistical concepts. Sampling.
Prereq: IND 111 or permission of instructor

IND 113 Motion and Time Study (X)  3 credits
Prereq: IND 111 or permission of instructor

IND 131 Applied Supervision (X)  3 credits
Designed to examine and improve relations and supervisory skills in the world of work. Including planning, leading, motivating, problem analyzing, lowering cost, developing employees, counseling, working with unions, handling employment activities and affirmative action situations, and achieving team effort. For present and potential supervisors.
Prereq: None

IND 175 Industrial Fire Protection and Safety (X)  3 credits
Introduction to fire risk management, fire suppression and detection systems and devices; industrial storage and housekeeping practices; fire hazard control; OSHA Regulations (Subpart L).
Prereq: None

IND 204 Facilities Engineering (X)  3 credits
Plant layout. Heating; ventilating; air conditioning, safety; OSHA Regulations; materials handling; maintenance.
Prereq: IND 111 or permission of instructor

JOURNALISM

JOU 103 Newspaper Journalism (HL)  3 credits
An introductory course for students interested in careers in journalism or who wish to improve their writing skills. Emphasis is on news writing, but all aspects of newspaper production will be covered, including layout and design.
Prereq: ENG 101, 103, or 105 or concurrent enrollment; Recom: Recommended for student working on the student newspaper

LEISURE EDUCATION

All 1-credit LED courses are graded on a credit/no credit basis. All 2- and 3-credit LED courses are graded with letter grades.

LED 101 Swimming (X)  1 credit
The art of swimming; emphasis on skill development and complementary water safety techniques. Course is available to all students regardless of their present swimming ability. Approved for American National Red Cross certificate.
Prereq: None

LED 104 Emergency Water Safety (X)  1 credit
Designed to develop competence in water safety practices and skills for responding to water emergencies. Leads to American National Red Cross certifications and is a prerequisite for Water Safety Instructor.
Prereq: Successful completion of ANRC Competency Test

LED 105 Water Safety Instructor (X)  2 credits
Designed to train and certify American National Red Cross Water Safety Instructors. Provides students with knowledge, judgment, and teaching skills for training others in swimming, rescue, and water safety.
Prereq: Successful completion of LED 104

LED 106 Lifeguard Training (X)  1 credit
Designed to develop the skills and knowledge required to assume the responsibilities of a lifeguard at a swimming pool or a protected (non-swim) open-water beach. Leads to American National Red Cross certification.
Prereq: Successful completion of ANRC Competency Test

LED 107 Fundamentals of Canoeing (X)  1 credit
Skills and strategies of modern flat water canoeing; emphasis on safety and skills development in solo and tandem paddling. Approved for American National Red Cross Basic Canoeing certification. Field trips required.
Prereq: None

LED 108 Lifeguard Training Instructor (X)  2 credits
Designed to prepare students to teach the American National Red Cross Lifeguard Training course. Leads to ANRC certifications as lifeguard training instructor and in health services education.
Prereq: Current ANRC certification in lifeguard training

LED 111 Fundamentals of Canoeing Instructor (X)  2 credits
Designed to train and certify American Red Cross Canoeing Instructors; provides people with the knowledge, judgment, and teaching skills for training others in basic flat water canoeing. Field trips required.
Prereq: Current ANRC certification in fundamentals of canoeing
LED 113 Basic Sailing (X) 1 credit
Designed to teach the fundamentals of recreational sailing with an emphasis on safety and enjoyment of the sport. Approved for American National Red Cross certification in Basic Sailing. Field trips required.
Prereq: None

LED 115 Sailing Instructor (X) 2 credits
Designed to train and certify American National Red Cross Sailing Instructors; provides the knowledge, judgment, and teaching skills for training others in basic sailing. Field trips required.
Prereq: Current American National Red Cross Basic Sailing Certificate

LED 116 Aquatic Exercise (X) 1 credit
Various forms of recreational swimming and conditioning programs designed as a means of attaining and maintaining physical fitness. Students will develop the skills and knowledge necessary to develop, organize, administer, and instruct programs for all age groups.
Prereq: None

LED 117 Aquatic Games and Contests (X) 1 credit
Aquatic games and contests, categorized and presented consistent with the respective swimming ability groups; emphasis on expansion and development of fundamental skills through fun.
Prereq: American National Red Cross Swimmer Certification

LED 119 Boating (X) 1 credit
Skills of rowing and outboard motor use; emphasis on safety, skills development, and enjoyment in the use of rowboats and small motor boats. Course is taught in conjunction with the LED sailing courses (LED 113, 115). Field trips required.
Prereq: None

LED 125 Nature Interpretation (X) 1 credit
An introduction to the interpretation of the natural and cultural environment, including specific leadership techniques and related methods and materials of nature interpretation. A problem-centered course with direct experience in the field. Field trips required.
Prereq: None

LED 127 Outdoor Challenge/Adventure Education (X) 1 credit
An introduction to the basic challenge/adventure outdoor activities. Focus on physical, mental, and social challenges as a vehicle to individual confidence, group cooperation, and environmental understanding. Activities and experiences include the philosophy of challenge/adventure, as well as experiential learning through ropes courses, initiative problems, rock climbing, river crossing, solo experience, and group problem-solving. Field trips required.
Prereq: None

LED 131 Basic Rock Climbing (X) 1 credit
An introduction to the philosophy, skills, and techniques of basic rock climbing. Laboratory sessions will stress the activities of bouldering, toprope climbing, and rappelling. Participants will gain adequate experience to use the sport of rock climbing as a leisure time activity. Field trips required.
Prereq: None

LED 133 Bicycle Touring (X) 1 credit
Introduction to bicycling and bicycle touring. Focus upon the philosophy, skills, and techniques of lightweight bicycling and touring. Direct experience laboratory sessions will focus upon the selection of equipment, bicycling skills and techniques, physical conditioning, lightweight bicycle touring (camping) and personal first aid safety. Participants must provide their own equipment. Field trips required.
Prereq: None

LED 135 Alpine Skiing (X) 1 credit
The challenge/adventure activity of alpine skiing for the beginner through intermediate skier. Includes equipment selection, pre-skiing preparation, skills development and refinement, and the psychological obstacles which must be overcome to master the sport. Field trips required.
Prereq: None

LED 137 Cross Country Skiing (X) 1 credit
Beginning, intermediate, and advanced instruction in the philosophy, skills, and techniques of cross country skiing and ski touring. Laboratory sessions stress consumer ski equipment, physical conditioning, care and repair of equipment, waxing, style and technique, winter personal safety, and first aid. Field trips required.
Prereq: None

LED 139 Hiking and Backpacking (X) 1 credit
An introduction to the basic skills and techniques of hiking and backpacking. Focus will be on the proper use and selection of backpacking equipment, camp cookery, first aid and safety, tool craft, orienteering (map and compass), and wilderness survival. The course will stress skills for personal leisure activities and outdoor leadership, as well as concerns for environmental awareness and understanding. Laboratory sessions will take place in the backcountry of Franklin County, and there will be a four-day backpacking trip to the White Mountain National Forest in New Hampshire. Field trips required.
Prereq: None

LED 143 Orienteering (X) 1 credit
Provides the student with the skills of map reading and compass use. Hands-on training emphasized. Introduction to orienteering as a sport. Field trips required.
Prereq: None

LED 151 Archery (X) 1 credit
The basic skills and techniques involved in recreational archery. Emphasis on skill development and safety. Introduction to field archery, competition, and bow hunting. Field trips required.
Prereq: None

LED 153 New Games (X) 1 credit
An introduction to the fundamentals of a unique play program emphasizing "playing hard," "playing fair," "nobody hurt." The course takes a leadership development approach teaching the skills and concepts necessary to allow new games to happen. Field trips required.
Prereq: None

LED 155 Badminton (X) 1 credit
The basic skills and techniques of recreational badminton. Rules, terminology, and strategy used in singles and doubles play are covered.
Prereq: None

LED 156 Principles of Weight Training (X) 1 credit
Covers the basic training principles involved in the development of muscle strength and endurance. Includes guidelines concerning isometric, isotonic, and isokinetic progressive resistance exercises. The value of muscle strength and endurance as a lifetime physical fitness goal emphasized.
Prereq: None

LED 157 Aerobics (X) 1 credit
Physical fitness exercises and techniques aimed at the development of the cardiovascular system. Exercises combined to promote flexibility, strength, and cardiorespiratory endurance through systematic approaches. Individual cardiovascular evaluation required and individual programs planned.
Prereq: None

LED 158 Advanced Aerobics (X) 1 credit
Advanced physical fitness exercises and techniques aimed at the development of the cardiovascular system. Introduction of more advanced exercises
that promote flexibility, strength, and cardiorespiratory endurance through systematic approaches.
Prereq: LED 157 or permission of instructor and a cardiovascular evaluation

LED 158 Racquetball (X) 1 credit
The basic skills and techniques essential to recreational racquetball. Covers the rules, terminology, and strategy used during singles and doubles play. The value of racquetball and other racquet sports as a lifetime recreational activity.
Prereq: None

LED 161 Golf (X) 1 credit
The basic skills of recreational golf. Students will advance at their own pace. Golf etiquette and strategy will be explained. Field trips required.
Prereq: None

LED 164 Introduction to Racquet Sports (X) 2 credits
A survey of basic skills and techniques in a variety of racquet sports and games. Emphasis on rules, terminology, and strategy used during singles and doubles play. The value of racquetball, tennis, and other racquet sports as lifetime recreational skills emphasized.
Prereq: None

LED 165 Tennis (X) 1 credit
Basic tennis instruction, emphasis upon the proper development of different strokes. Rules and strategies of singles and doubles will be covered. Field trips required.
Prereq: None

LED 166 Advanced Tennis (X) 1 credit
Advanced tennis instruction, emphasis upon individual practice and refinement of skills. Control and strategic use of slice and top spin. Field trips required.
Prereq: LED 165 or permission of instructor

LED 167 Basic Karate I (X) 1 credit
A basic introduction to the Korean Martial Arts. Emphasis on blocking and kicking, techniques, self-defense, and the philosophy of Tai Kwon Do.
Prereq: None

LED 168 Basic Karate II (X) 1 credit
Intermediate level skills and techniques of the Korean Martial Arts. Refinement of basic techniques and introduction of more advanced skills and exercises.
Prereq: LED 167 or permission of instructor

LED 173 Bowling (X) 1 credit
The skills and techniques needed to bowl with proficiency and enjoyment. The history of bowling, its present status, and its value as a lifetime sport.
Prereq: None

LED 177 Volleyball (X) 1 credit
The basic skills and techniques of modern power volleyball. Strategies of team play are emphasized.
Prereq: None

LED 178 Advanced Volleyball (X) 1 credit
Advanced training in the skills of power volleyball. Emphasis is placed upon the understanding of the 6-1 offense and defense, and the evaluation of advanced skills.
Prereq: LED 177 or permission of instructor

LED 181 Basic Officiating (X) 1 credit
Provides the basic rules and procedures needed for officiating within informal settings. Includes basketball, volleyball, softball, baseball, soccer, tennis, and racquetball. Suitable for use on playgrounds, in YMCA's, etc.
Prereq: None

MATHEMATICS

MAT 100 Basic Mathematics Skills (D) 3 credits
Designed for students who have been away from mathematics for a long time or who have a weak math background. A basic premise of the course is that everyone can learn mathematics. Basic skills are stressed and rules developed which make sense to the students. The issue of math anxiety is discussed and overcome. The process of mathematical discovery is emphasized with the goal of enabling students to analyze and solve new problems using general techniques of mathematical reasoning. This course is a useful foundation for other mathematics or science courses or for basic math skills necessary for job situations. This course may not be used to fulfill associate degree credit requirements; a final grade of "D" will not be awarded.
Prereq: None

MAT 103 Applied Mathematics I (NC) 3 credits
Applied mathematics with emphasis on developing general mathematical understanding and problem-solving skills. Brief review of fundamental algebraic concepts, calculator use, functions and graphs, trigonometric functions and applications, systems of linear equations, factoring and fractions, quadratic equations, and exponents and radicals. Solution of word problems an important component of course. The computer program MathCAD will be used to enhance the study of mathematics.
Prereq: Successful completion of at least two years of college preparatory secondary school mathematics, or MAT 106 or equivalent

MAT 104 Applied Mathematics II (NC) 3 credits
Applied mathematics with emphasis on developing general mathematical understanding and problem-solving skills. Oblique triangle trigonometry, graphs of trigonometric functions, complex numbers and polar forms, inequalities, conic section analytic geometry, and equations of higher degree. Solution of word problems an important component of course. The computer program MathCAD will be used to enhance the study of mathematics.
Prereq: MAT 103 or equivalent

MAT 105 Algebra and Coordinate Geometry I (D) 3 credits
A beginning course in algebra. Modern notation and language of algebra,
signed numbers, exponents and radicals, factoring, and fundamental operations with rational expressions. First-degree equations with applications. This course may not be used to fulfill associate degree requirements; a final grade of "D" will not be awarded.

Prereq: MAT 100 or placement by examination

MAT 106 Algebra and Coordinate Geometry II (D) 3 credits
A course in the techniques and application of algebra. Topics include linear equations and inequalities, simultaneous equations, the Cartesian coordinate system, properties of polynomials, exponents and radicals, quadratic equations and their applications. This course may not be used to fulfill associate degree requirements; a final grade of "D" will not be awarded.

Prereq: MAT 105 or permission of instructor

MAT 107 College Algebra (NC) 3 credits
This course presents topics needed for further study of mathematics. Included are: a short review of algebra; the concept of function, with particular attention to algebraic, exponential, and logarithmic functions; and triangle trigonometry. The computer program MathCAD will be used to enhance the study of mathematics.

Prereq: MAT 106 or placement by examination or equivalent.

MAT 108 Elementary Functions (NC) 3 credits
Preparation for calculus and physical sciences. The principles and properties of functions and their graphs. Applications of functions. Inverses and composition of functions. Polynomial, rational, circular, exponential, and logarithmic functions. Topics from analytic geometry. The computer program MathCAD will be used to enhance the study of mathematics.

Prereq: MAT 107 or equivalent

MAT 114 Probability and Statistics (NC) 3 credits
The organization, presentation, and interpretation of data; measures of central tendency and dispersion; probability theory; distribution of measurements; binomial and normal probability distributions; statistical inference and hypothesis testing, linear regression and correlation. The computer program MathCAD may be used to enhance the study of mathematics.

Prereq: MAT 107 or permission of instructor

MAT 119 Quick Technical Math (NL) 3 credits
A one semester course in scientific math for the student who needs immediate command of certain mathematical concepts and skills which are typically encountered in physical science courses such as chemistry, physics, electronics, and, generally, other math-based courses. Such topics would normally be dealt with more fully in courses such as MAT 103, 104, 105, 106, 107, 108. Not intended to replace the normal math sequences, but merely to expedite and facilitate mathematical progress in the sciences until such time that the normal math deficiencies or prerequisites can be satisfied.

Prereq: Math through high school Algebra I or permission of instructor

MAT 151 Applied Calculus I (NC) 4 credits
An intuitive introduction to some of the basic tools and methods of calculus. Models and applications from many fields. Functions and their graphs, limits, the derivative with applications, and the integral with applications. The computer program MathCAD will be used to enhance the study of mathematics.

Prereq: MAT 104 or 107 or equivalent

MAT 152 Applied Calculus II (NC) 3 credits
A continuation of MAT 151. Logarithmic and exponential functions and their applications, techniques of integration, functions of several variables, and optimization problems using Lagrange multipliers. The computer program MathCAD may be used to enhance the study of mathematics.

Prereq: MAT 151

MAT 201 Calculus with Analytic Geometry I (NC) 4 credits
Limits and continuity. Derivatives of algebraic and trigonometric functions. Applications of the derivative. Ant-differentiation and definite integral. The Fundamental Theorem of Calculus. The computer program MathCAD will be used to enhance the study of mathematics.

Prereq: MAT 104, 108, or equivalent

MAT 202 Calculus with Analytic Geometry II (NC) 4 credits
Inverse functions and their derivatives: exponential and logarithmic functions with applications. Techniques of integration. Polar coordinates. Improper integrals. Infinite series and tests of convergence. Taylor series. The computer program MathCAD will be used to enhance the study of mathematics.

Prereq: MAT 201

MAT 203 Multivariate Calculus (NC) 4 credits
Vectors and solid analytic geometry. Functions of several variables. Partial derivatives with applications. Multiple integrals with applications. Line integrals. Green's Theorem. The computer program MathCAD may be used to enhance the study of mathematics.

Prereq: MAT 202

MAT 204 Elementary Differential Equations (NC) 4 credits
Topics in ordinary differential equations to be considered include separation of variables, homogeneous equations, exact equations, differential operators, series solutions, and solution by Laplace transforms. The methods will be applied to problems in engineering, physics, and chemistry. The computer program MathCAD may be used to enhance the study of mathematics.

Prereq: MAT 202

MAT 205 Elementary Linear Algebra (NC) 3 credits
Vector space and subspaces, bases and dimension. Algebra of matrices. Linear transformations. Determinants. Applications to linear systems. The computer program MathCAD may be used to enhance the study of mathematics.

Prereq: MAT 202 or permission of instructor

MEDIA COMMUNICATION

MCM 101 Introduction to Media Communication (A) 3 credits
An entry level course designed to acquaint and familiarize the student with the theoretical and practical characteristics, applications, and implications of communication media used in instruction and training. Involves the student in extensive work with audiovisual equipment.

Prereq: Completion of, or concurrent enrollment in ENG 101, 103, or 105

MCM 103 Production of Audio-Visual Materials (A) 3 credits
An introduction to basic audio and visual production techniques. Provides practical learning experiences in the fundamentals of photographic, graphic, and audio production. Students must provide some of their own materials; equipment is furnished.

Prereq: None

MCM 109 Television Studio Production (A) 3 credits
Television production in a studio setting. Students learn how to direct, serve as technical crew and serve as on-camera talent for in-class productions. The emphasis is on program direction and equipment operation.

Prereq: None

MCM 115 Television Field Production (A) 3 credits
An electronic field production course designed to develop skills in electronic editing, location shooting, and using EFP equipment. Substantial amount of time outside of class required, both at remote locations and at the College's electronic editing facility.

Prereq: None; Recomm: MCM 109

MCM 121 Cinema Survey (L) 3 credits
Surveys the development of commercial motion picture production through extensive viewings of the landmarks of the world of motion pictures. Includes discussion of the historical development of the industry, and an analysis of film types (short subjects, animation, nature, industrial/business, propaganda, documentary, etc.) as a major area of study.

**MCM 123 Motion Pictures & Television: Techniques & Technology (L)** 3 credits
An overview of the people, processes, and equipment that are a part of motion picture and television production. Lectures will feature many examples on film of motion picture and television crews at work. Topics include: the producer; the director; the writer; the actor; the editor; the camera person; etc. Also included is discussion of the legal aspects of film and television production.

**Prereq:** None

**MCM 205 Photography and Graphics (X)** 3 credits
Photography and graphics techniques used in production of motion pictures, television, slide presentations, overhead transparencies, displays and publications for business, industry, and education.

**Prereq:** MCM 103

**MCM 211 Advanced Media Production (X)** 3 credits
A culminating experience in planning, design, and production of media for communication. Requires the student to combine skills in television, audio, photography, and graphics to produce two creative and effective major projects. Projects are produced for outside clients, the instructor, and/or the student portfolio.

**Prereq:** MCM 205, 209, and ENG 121

**MCM 213 Careers in Media Communication (X)** 3 credits
A series of explorations and exercises designed to prepare the student to evaluate, select, and find work in the media and communication field. Content includes job search training, extensive site visitations, and portfolio preparation. Field trips required.

**Prereq:** MCM 101, 103, and 106; **Recom:** Media majors only

**MCM 215 Media Communication Technology (X)** 3 credits
Theory and practice in the electronics related to media, maintenance, and care of equipment.

**Prereq:** MCM 101 or permission of instructor

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**MUSIC**

A maximum of 8 credits may be earned toward graduation requirements in music courses coded HL.

**MUS 101 An Introduction to Music (HC)** 3 credits
A survey of musical styles from the Baroque era into the 20th century. Musical forms, elements of music, the orchestra, and great composers are discussed in conjunction with critical listening of recorded examples and live performances.

**Prereq:** None

**MUS 102 The American Experience in Music (HC)** 3 credits
A survey of the currents in American music from native American and early Colonial sources to Jazz and the Big Bands. Recordings, films, and live performances illustrate aspects of the musical language.

**Prereq:** None

**MUS 103 Fundamentals of Music (HC)** 3 credits
Elementary theory for the student with little or no musical background. Music structure and the handling of musical materials. Includes notation, scales, melody construction, elementary theoretical concepts.

**Prereq:** None

**MUS 107 Music Theory I (HC)** 3 credits
Basic chordal structures, voice leading, inversions, figured bass, harmonic progressions, and non-harmonic tones. Harmonic analysis of great composers' works. Keyboard harmony and ear training.

**Prereq:** MUS 103 or permission of instructor

**MUS 108 Music Theory II (HC)** 3 credits
Dominant seventh and extended chords in root position and inversions. Modulation to closely related keys. Harmonic analysis of great composers' works. Keyboard harmony and ear training.

**Prereq:** MUS 107 or permission of instructor

**MUS 110 Ear Training and Dictation (HL)** 1 credit
A series of exercises and drills designed to develop aural recognition and understanding of basic music structures. Scale structures, intervals, triads and inversion, seventh chords and inversions, identification of parts in choral style and various rhythmic patterns in simple and compound meters are presented in graded exercises and drills. This course may be repeated to a maximum of 3 credits.

**Prereq:** MUS 103 or permission of instructor; **Recom:** Concurrent enrollment in MUS 107 or 108

**MUS 111 Chorus (HL)** 1 credit per semester
Performance of choral works from the various style periods, folk music, and popular repertoire. Choral techniques. Required of the potential music major whose performance field is voice, keyboard, or guitar. Available as an elective to qualified non-music majors. Also open for participation, without credit, to qualified members of the College staff and the community.

**Prereq:** None

**MUS 112 Concert Previews (HL)** 2 credits
Analysis of the major forms of symphonic music from the 17th to the 20th century, including music the Pioneer Valley Symphony Orchestra will perform in this year's concert season. Active listening skills will be stressed as well as the stylistic and historical context of the music.

**Prereq:** None

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**Applied Music**

Individual instruction on an instrument or voice. Emphasis on technique, repertoire, memory, and interpretation. A fee for lessons is charged by the instructor in addition to regular College fees and tuition. 2-credit courses are weekly 1-hour lessons.

**MUS 114 Applied Music: Beginning Level (HL)** 1 credit
Individual instruction on an instrument or voice. Emphasis on technique, repertoire, memory, and interpretation. A fee for lessons is charged by the instructor in addition to regular College fees and tuition. Fifteen 1/2-hour lessons = 1 credit.

**Prereq:** None

**MUS 115 Applied Music: Intermediate Level (HL)** 1 credit
Fifteen 1/2-hour lessons = 1 credit.

**Prereq:** MUS 114 or 124 in same instrument or permission of Music Coordinator

**MUS 116 Applied Music: Advanced Level (HL)** 1 credit
Fifteen 1/2-hour lessons = 1 credit.

**Prereq:** MUS 115 or 125 in same instrument or permission of Music Coordinator

**MUS 117 Class Piano: Beginning Level (HL)** 1 credit
Especially designed for students with no background in piano, this course is taught on electronic pianos where each student has a keyboard. Students learn to read music and play familiar melodies with chords. Each class
section is limited to 6 students.

Prereq: None

MUS 118 Class Piano: Intermediate Level (HL) 1 credit
Designed for student who have some basic piano skills, this course is taught on electronic pianos where each student has a keyboard. Students learn to read and play expanded melodies, harmonies, and transposition. Literature includes solos and duets. Each class section is limited to 6 students.
Prereq: MUS 117 or permission of instructor

MUS 119 Class Piano: Advanced Level (HL) 1 credit
For intermediate/advanced students. Development of techniques, sight reading, melody harmonization, solo and ensemble literature. Special emphasis will be given to technique and interpretation.
Prereq: MUS 118 or permission of instructor

MUS 123 Instrumental Ensemble (HL) 1 credit per semester
Study and performance of chamber music literature for orchestral instruments. Literature includes duos, trios, quartets from the various historical periods.
Prereq: Permission of instructor

MUS 124 Applied Music: Beginning Level (HL) 2 credits
Fifteen 1-hour lessons = 2 credits.
Prereq: None

MUS 125 Applied Music: Intermediate Level (HL) 2 credits
Fifteen 1-hour lessons = 2 credits.
Prereq: MUS 114 or 124 in same instrument or permission of instructor

MUS 126 Applied Music: Advanced Level (HL) 2 credits
Fifteen 1-hour lessons = 2 credits.
Prereq: MUS 115 or 125 in same instrument or permission of instructor

MUS 133 Band (HL) 1 credit
Study and performance of music arranged and scored for band instruments. Music covers various styles: Jazz, Dixieland, popular, and rock. Includes some improvisation.
Prereq: Permission of instructor

NUR 111 Introduction to Professional Nursing and the Nursing Process (X) 1 credit
This course is designed to introduce the adaptation theory of nursing and the nursing process as a foundation for professional nursing practice. Licensed practical nurses are provided with the opportunity to assess patients' physiological and psycho-social status and to utilize appropriate nursing diagnosis. The course provides opportunity to discuss the role of the professional nurse. Graded on CRINC basis. Successful completion of NUR 111 and NUR 102 results in the award of 7 credits by examination for NUR 101.
Prereq: Acceptance into the nursing program. Eligibility to take the LPN Challenge Exam for NUR 101. Successful completion of the theoretical and clinical components of the LPN Challenge Exam for NUR 101

NUR 115 Nursing Preceptorship (X) 6 credits
This elective course is designed for nursing students who have completed the first year of Greenfield Community College's Nursing Program. For six weeks students will work directly with a registered nurse preceptor in an area hospital to perfect nursing and communication skills, gain confidence, and explore the nursing role. Within the six four-day week students will work directly with their assigned nurse preceptor, do library research, and attend seminars and conferences with a nursing instructor. Enrollment limited to 16.
Prereq: NUR 101 and 102, and BIO 105 and 106, and permission of instructor

NUR 201 Adaptation to Illness: Medical-Surgical Nursing I (X) 8 credits
Designed to provide correlation between nursing theory and clinical practice. Emphasis is placed upon assessment of the level of adaptation and the nursing process. Individual needs of patients located at some point on the health-illness continuum form a basis for the integration of pharmacology, nutrition, diet therapy, and interpersonal relationships into a developing framework of knowledge.
Prereq: NUR 101 and 102

NUR 202 Adaptation to Illness: Medical-Surgical Nursing II (X) 9 credits
A continuation of NUR 201. Additional depth and breadth is provided, focusing on pathophysiology. Emphasis is placed upon the mechanisms of adaptation and the use of the nursing process. In addition, concepts of rehabilitation, the teaching/learning process, family and community psychodynamics, and nursing leadership are presented to provide the student with a more comprehensive view of the nursing process and the ability to promote patient adaptation.
Prereq: NUR 201

NUR 203 Mental Health Nursing (X) 4 credits
Focuses on mental health nursing principles in the formulation of a therapeutic approach to patient care. People are viewed holistically as complex organisms in constant interaction with physiological and psycho-social stresses. The nurse is viewed as a facilitator of adaptation, using the nursing process to establish a plan of care based on an understanding of the individual, family, and society.
Prereq: NUR 101 and 102

NUR 204 Trends and Issues in Nursing (X) 2 credits
Focuses on the political, social, economic, and legal issues that influence the nursing profession. The history of nursing, professional organizations, educational and employment opportunities in nursing are considered. Nursing is viewed as an integrative profession in which the nurse is a facilitator of adaptation to the changes which result from constant interaction with socioeconomic and political/legislative forces in our health care delivery system.
Prereq: NUR 101, 102, 201, 203
OUTDOOR LEADERSHIP

All OLP courses are graded on a CR/NC basis.

OLP 111 Introduction to Outdoor Adventure Programs & Services (X) 3 credits
Provides the information and training needed for planning and implementing outdoor leadership and challenge adventure programs. Includes the philosophy, content, and methods of outdoor programs. Emphasis on the adaptation to different sets of circumstances and the needs of special populations. Students are required to meet specific performance criteria as a demonstration of competence. Field trips required.
Prereq: OLP participants only

OLP 112 Counseling and Human Services for Outdoor Leaders (X) 3 credits
An introduction to the basic concepts and techniques of interpersonal counseling, environmental psychology, and special needs populations. The course emphasizes the mastery of techniques through problem-solving and field applications. Incorporation of the skills and knowledge into outdoor activities is stressed.
Prereq: OLP participants only

OLP 116 Field Work Experience in Outdoor Leadership I (X) 4 credits
Field experience in the basic stages of planning, organizing, and evaluating outdoor leadership and challenge/adventure programs. Settings will vary to permit exposure to different circumstances and the needs of different populations. Field trips required.
Prereq: OLP participants only

OLP 120 Backcountry Medicine & Emergency Care (X) 3 credits
Course based on American Red Cross Advanced First Aid and National First Responder Certifications. Special emphasis on the skills and abilities required of outdoor leaders for the prevention and care of backcountry emergencies. Competency assessment and in-the-field practical simulations.
Prereq: OLP participants only

OLP 124 Environmental Interpretation (X) 3 credits
An introduction to the interpretation of the natural and cultural environments. Focus upon specific taxonomical understanding of environments. The development of specific leadership techniques and related methods and materials of interpretation. Field-oriented in design and structure. Course emphasizes the incorporation of interpretation aspects into outdoor programs.
Prereq: OLP participants only

OLP 127 Outdoor Adventure, Methods, and Materials (X) 3 credits
An introduction to challenge/adventure and outdoor activities. Presents these activities as vehicles for promoting individual confidence, group cooperation, and environmental understanding. Students must meet certain performance criteria to demonstrate acquired competencies.
Prereq: OLP participants only

OLP 140 Rock Climbing (X) 1 credit
An introduction to the philosophy, skills, and techniques of basic rock climbing. Lab sessions will stress the activities of bouldering, top rope climbing, and rappelling. Participants will gain adequate experience to use the sport of rock climbing as a leisure time activity and as an assistant outdoor leader. Field trips required.
Prereq: OLP majors and/or permission of instructor

OLP 141 Flat Water Canoeing (X) 1 credit
An introduction to the philosophy, skills, and techniques of basic rock climbing. Lab sessions will stress the activities of bouldering, top rope climbing, and rappelling. Participants will gain adequate experience to use the sport of rock climbing as a leisure time activity and as an assistant outdoor leader. Field trips required.
Prereq: OLP majors and/or permission of instructor

OLP 142 Cross Country Skiing (X) 1 credit
Beginning, intermediate, and advanced instruction in the philosophy, skill, and technique of cross country skiing and ski touring. Skill lab sessions stress consumer ski equipment; physical conditioning, care and repair of equipment; waxing; style and technique; and winter personal safety and first aid. Field trips required.
Prereq: OLP major and/or permission of instructor

OLP 143 Winter Camping (X) 1 credit
Introduction to skills, philosophy, and techniques of winter camping and cold weather travel. Emphasis on safety, winter hiking and camping techniques, shelter construction, and leadership considerations. Field trips required.
Prereq: OLP major and/or permission of instructor

OLP 144 Survival Education (X) 1 credit
Introduction to the skills and abilities of survival in the wilderness and the built environment. Focus upon shelter, food, direction finding, signalling, and the psychology of survival. Simulated survival situation in the backcountry. Field trips required.
Prereq: OLP major and/or permission of instructor

OLP 145 White Water Canoeing (X) 1 credit
Introduction to the skills, philosophy, and techniques of white water canoeing. Emphasis on safety, equipment selection and use, skill development, and fun in basic, intermediate, and solo canoeing in Class II and III rivers. Field trips required.
Prereq: OLP major and/or permission of instructor

OLP 151 Introduction to Environmental Programs & Services (X) 3 credits
Provides the information and training needed for planning and implementing Environmental Education and Environmental Interpretation programs and services. Includes philosophy, content, and methods of environmental-oriented programs. Emphasis placed upon different environmental program settings and the needs and expectations of a range of program participants.
Prereq: OLP major and/or permission of instructor

OLP 155 Environmental Field Studies I (X) 3 credits
In-the-field studies of the basic ecology of natural and cultural features of the New England landscape. Focus upon trees and shrubs, mammals, geology, weather, limnology, forest successions, New England landuse history, and other concepts. Field studies will take place in selected settings including rural, farmland, backcountry, mountains, Atlantic sea coast, and urban/suburban landscapes.
Prereq: OLP major and/or permission of instructor

OLP 156 Environmental Field Studies II (X) 3 credits
A continuation of Environmental Field Studies I with an intermediate-level focus upon natural and cultural history of specific in-the-field sites. Plot study techniques for winter and spring field study and environmental pollution assessment. Special field studies of winter ecology, North American mammals, forestry practices, and the Great Smoky Mountains National Forest. Introduction to modern field study curricula and the use of media equipment and techniques. Each student conducts a specific field plot study.
Prereq: OLP major and/or permission of instructor

OLP 157 Environmental Education/Interpretation Methods & Materials (X) 3 credits
A survey of the methods, techniques, and approaches used in Environmental Education and Interpretation. Focus upon competencies central to the communication of environment-oriented philosophy and content to program
OLP 175 Outdoor Adventure Education (X) 3 credits
Focusing upon the philosophy, skills, and techniques of outdoor adventure activities and experiences, and using physical, mental, and social challenges as vehicles for individual confidence, group cooperation, and environmental awareness, the course will include a range of activities including orienteering, ropes course, rock climbing, backpacking, 24-hour experience, environmental interpretation, nature-oriented activities, and outdoor education. The majority of the course will take place in the field with “hands-on experiences.” Participants can select from one of three concentrations: camp counselor/outdoor leader; teacher/human service personnel; parents/interested citizens.
Prereq: None

OLP 176 Winter Outdoor Adventure Education (X) 3 credits
Focusing upon the philosophy, skills, and techniques of winter outdoor adventure activities and experiences, and using physical, mental, and social challenges as vehicles for individual confidence, group cooperation, and environmental awareness, the course will include a range of activities including cross-country skiing, snowshoeing, winter camping, first aid and safety, winter ecology, nature-oriented activities, tracking, group building, and winter environmental interpretation. The majority of the course will take place in the field with “hands-on experiences.” Sequel to the Summer Adventure Education course. The strenuousness of the course will be determined by the experience, interest, and needs of the participants.
Prereq: Permission of Instructor

OLP 201 Individual Project in Outdoor Leadership I (X) 1 credit
A self-directed learning project focused upon student-identified content, methods, and materials. Content specific to student’s career goals and training priorities. Combination of Outdoor Leadership theory and practice.
Prereq: OLP major and/or permission of instructor

OLP 202 Individual Project in Outdoor Leadership II (X) 2 credits
A continuation of OLP 201, with a more in-depth study of the student-selected theory and/or practice topic of Outdoor Leadership.
Prereq: OLP major and/or permission of instructor

OLP 205 Outdoor Leadership Seminar (X) 3 credits
A survey of the major philosophical outlooks and practical applications that relate to outdoor and adventure educational programs. The course format will focus on fieldwork and job settings the students have experienced. Particular attention will be paid to changing trends and the needs of particular populations.
Prereq: OLP majors only

OLP 206 Seminar in Environmental Issues (X) 3 credits
A survey of the major environmental issues facing the world community: pollution, wildlife, farmland, conservation, hazardous waste, energy, and other contemporary topics. Seminar will include field trips, guest speakers, and conference attendance.
Prereq: OLP major and/or permission of instructor

OLP 211 Advanced Outdoor Adventure Programs & Services (X) 3 credits
Provides advanced information and training for planning and implementing outdoor leadership and challenge/adventure programs. Includes the philosophy, content, and methods of outdoor programs. Emphasis on the adaptation to different sets of circumstances and the needs of special populations. Students are required to meet specific performance criteria as a demonstration of competence. Continuation of OLP 111.
Prereq: OLP majors only

OLP 212 Counseling & Human Services for Outdoor Leaders I (X) 3 credits
In-depth study of the concepts and techniques of interpersonal counseling, environmental psychology, and special needs populations. The course emphasizes the mastery of techniques through problem-solving and field applications. Incorporation of the skills and knowledge into outdoor activities is stressed. Application to the concepts to the field.
Prereq: OLP majors only

OLP 216 Field Work Experience in Outdoor Leadership II (X) 4 credits
Field experience in the advanced stages of planning, organizing, and evaluating outdoor leadership and challenge/adventure programs. Emphasis will be given to fashioning and modifying the design of programs to suit particular agency and population requirements. Field trips required.
Prereq: OLP majors only

OLP 217 Field Work Experience in Outdoor Leadership III (X) 4 credits
Field experience in the intermediate stages of planning, organizing, and evaluating outdoor leadership and challenge/adventure programs. Settings will vary to permit exposure to different circumstances and the needs of different populations. Work in selected public/private agencies.
Prereq: OLP majors only

OLP 218 Field Work Experience in Outdoor Leadership IV (X) 4 credits
Field experience in the advanced stages of planning, organizing, and evaluating outdoor leadership and challenge/adventure programs. Emphasis will be given to fashioning and modifying the design of programs to suit particular agency and population requirements. Optional Agency Internship. Work in selected public/private agencies.
Prereq: OLP majors only

OLP 220 Intermediate & Advanced Wilderness First Aid & Emergency Care (X) 3 credits
Prevention and care of wilderness emergencies. Advanced skills and abilities. Special focus upon Wilderness Emergency Medical Technician (WEMT) and First Aid Advanced First Aid Instructor. In-the-field leadership and instructorship highly recommended.
Prereq: OLP major or permission of instructor

OLP 224 Environmental Interpretation II (X) 3 credits
Interpretation of the natural and cultural environments. Focus upon specific taxonomical understanding of environments. The development of specific leadership techniques and related methods and materials of interpretation. Field-oriented in design and structure. Course emphasizes the incorporation of interpretation aspects into outdoor programs and leadership function.
Prereq: OLP majors only

OLP 227 Advanced Outdoor Adventure Methods & Materials (X) 3 credits
Intermediate and advanced study to challenge/adventure and outdoor activities. Presents these activities as vehicles for promoting individual confidence, group cooperation and environmental understanding. Students must meet certain performance criteria to demonstrate acquired competencies.
Prereq: OLP majors only

OLP 240 Intermediate & Advanced Rock Climbing (X) 1 credit
The philosophy, skills, and techniques of intermediate rock climbing. Lab sessions will stress the activities of bouldering, top rope climbing, and rappelling. Participants will gain adequate experience to use the sport of rock climbing as a leisure time activity and as an assistant outdoor leader. Optional Rock Climbing Instructor Certification.
Prereq: OLP major and/or permission of instructor
OLP 241 Intermediate & Advanced Flat Water Canoeing (X) 1 credit
Intermediate and advanced skills and techniques of modern flat water canoeing. Emphasis on safety and skill development for both tandem and solo paddling. Introduction to canoe tripping and transition skills for white water canoeing. Approved for American National Red Cross Basic Canoeing Certification. Optional Flatwater Canoe Instructor Certification. Prerequisite: OLP major and/or permission of instructor.

OLP 242 Cross Country Skiing (X) 1 credit
Intermediate and advanced instruction in the philosophy, skills, and techniques of cross country skiing and ski touring. Skill lab sessions stress consumer ski equipment, physical conditioning, care and repair of equipment, waxing, style and technique, and winter personal safety and first aid. Optional Nordic Ski Patrol Membership. Prerequisite: OLP major and/or permission of instructor.

OLP 243 Intermediate & Advanced Winter Camping (X) 1 credit
The skills, philosophy, and techniques of winter camping and cold weather travel. Emphasis on safety, winter hiking and camping techniques, shelter construction, and leadership considerations. Emphasis on winter mountain-eering skills. Prerequisite: OLP major and/or permission of instructor.

OLP 244 Intermediate & Advanced Survival Education (X) 1 credit
The skills and abilities of survival in the wilderness and the built environment. Focus upon shelter, food, direction finding, signalling, and the psychology of survival. Simulated solo survival situation in the backcountry. Prerequisite: OLP major and/or permission of instructor.

OLP 245 Intermediate & Advanced White Water Canoeing (X) 1 credit
The skills, philosophy, and techniques of intermediate and advanced white water canoeing. Emphasis on safety, equipment selection and use, skill development, and fun in basic, intermediate, and solo canoeing in Class II and III rivers. Optional American Canoe Association White Water Instructor Certification. Prerequisite: OLP major and/or permission of instructor.

PHYSICS

PHY 101 General Physics I (NC) 4 credits
A non-calculus study of mechanics, heat, and sound for students without a calculus background, but who anticipate continued study in the field of science, mathematics, engineering, or related fields. Lab required. Prerequisite: Trigonometry, concurrent math, or permission of instructor.

PHY 102 General Physics II (NC) 4 credits
A continuation of PHY 101, non-calculus treatment of the fields of light, electricity, and magnetism, and atomic and nuclear physics with some topics from modern physics. Lab required. Prerequisite: PHY 101, concurrent math, or permission of instructor.

PHY 111 General Physics I with Calculus (NC) 4 credits
A calculus-based physics course intended primarily for those students who are preparing for careers in science, mathematics, or engineering. Includes kinematics, mechanics of particles and rigid bodies, and conservation laws. Heavy emphasis is placed on the use of concepts to solve programs. Lab required. Prerequisite: PHY 111 or equivalent; Coreq: MAT 201, or permission of instructor.

POLITICAL SCIENCE

POL 101 American Politics (BC) 3 credits
American national government and politics. The principles, processes, and institutions which make up the American political system: constitutional framework; federalism; interest groups, parties, elections; Congress; the Presidency; the judicial system. Policy-making and contemporary problems. Prerequisite: None.

POL 103 Comparative Politics (BC) 3 credits
Comparative institutions and processes in Great Britain, France, Germany, and the U.S.S.R. Selective comparisons with non-European political systems. Prerequisite: None.

POL 105 International Politics (BC) 3 credits
A study of international relations and emerging new problems from a political perspective—population, environment, energy, natural resources, economic interdependence, rapid technological change. Provides a global context for dealing with new and developing international considerations. Prerequisite: None.

POL 203 American Civil Liberties (BC) 3 credits
Freedom of expression in history and in contemporary America; the role of the Supreme Court in the maintenance of civil liberties; the influence of official and popular pressures. Includes consideration of religion, assembly, the press and speech, as well as the rights of the accused and constitutional standards of equality. Prerequisite: None.

POL 205 American Foreign Policy (BC) 3 credits
An introduction to America's role in world affairs, especially since World War II. Attention is given to the underlying principles of American foreign relations to the American foreign policy process; to the instruments of modern foreign policy; and to the contemporary foreign policy environment. Soviet-American
relations, Western Europe, the Middle East, Africa, Latin America, and the Far East.
Prereq: None; Coreq: POL 101

PSYCHOLOGY

PSY 101 Principles of Psychology (BC) 3 credits
Introduction to the study of human behavior. Considers such topics as perception, motivation, learning, personality development, and the dynamics of maladaptive behavior.
Prereq: None

PSY 209 Abnormal Psychology (BC) 3 credits
Dynamics and symptomatology consistent with major organic and non-organic based problem behaviors including psychooses, neuroses, personality disorder, retardation, and brain damage.
Prereq: PSY 101

PSY 213 Psychology of Interpersonal Behavior (BC) 3 credits
Interpersonal determinants of human behavior. Theoretical models by Adler, Hornsey, Fromm, and Berne. Major emphasis on transactional analysis as developed by Berne.
Prereq: PSY 101

PSY 215 Theories of Personality (BC) 3 credits
An examination of the three major schools of psychology and their related personality theories. Psychoanalytic behavioristic and humanistic theory will be viewed through the works of Freud, Jung, Skinner, Rogers, and Maslow.
Prereq: PSY 101

PSY 217 Human Growth & Development (BC) 3 credits
A survey of human physical, psychological, and social development from birth through death. Framework for the study of the individual's cumulative, integrative growth experience. Theories of development and their applications.
Prereq: PSY 101 or permission of instructor

PSY 221 Environmental Psychology (BC) 3 credits
Examines the relationship between built and natural environments and human behavior. Explores research methods, small group ecology, large group ecology, architectural design, social ecological design, future environments. Group projects and field trips required.
Prereq: PSY 101 or permission of instructor

PSY 223 Adult Development (BC) 3 credits
An exploration of the major issues in the adult life cycle (from late adolescence through old age) that shape the character of developmental change. Topics for investigation are: the sequence of transitions and psycho-social crises, the processes of identity change, adaptation to life-events that precipitate change, and the metamorphosis of aging.
Prereq: PSY 101

PSY 225 Psychology of Women (BC) 3 credits
An exploration into the behavior and personality of women as seen through their own eyes. Topics for investigation are: dispelling the myths and mysteries about the development of women, significant gender differences, the quest for a separate identity, transitional changes and adaptation, and the possibilities for a more generative view of the human life cycle.
Prereq: PSY 101 or SCC 101 or ANT 104 or permission of instructor

PSY 277 Psychology of Death and Dying (BL) 3 credits
Designed to be both experiential and didactic, this course will enhance students' understanding of death and dying processes both personally and professionally. Topics covered include cultural attitudes toward death and dying, origins of death anxiety, processes involved in dying, grieving and mourning, children and death, the helping relationship and the caregiver, suicide, euthanasia, burial and cremation, organ and body donations, and community resources.
Prereq: None

RECREATION AND LEISURE SERVICES

RLS 101 Introduction to Recreation & Leisure Services (A) 3 credits
Considers the growing field of recreation and leisure services, including its history, philosophy, and principles as well as its role in contemporary and future society. Designed to help the student to develop a personal leisure philosophy, the ability to articulate important concepts, and create an awareness of the career opportunities in the profession of recreation and leisure services.
Prereq: None

RLS 103 Recreational Arts Programming (X) 3 credits
A survey course dealing with the methods, materials, content, and theory of the arts: crafts, music, creative dramatics, and dance. Emphasis on rationale, leadership, attitude, values, and exposure. Credit will be granted for RLS 103 or EDU 103, but not for both. Field trips required.
Prereq: RLS or EDU major or permission of instructor

RLS 104 Introduction to Elder Recreational Services (X) 3 credits
The course is designed to provide students with practical and technical programming skills and the knowledge required to work with elder populations. Course has been approved by the Massachusetts Long Term Care Foundation, Council of Activity Professionals. Successful completion of this course meets one of the criteria required for certification as an Activity Assistant or consultant.
Prereq: None

RLS 109 Program Planning (X) 4 credits
A comprehensive process-oriented course covering principles and methods of program development in the Recreation and Leisure Services field. Development of leadership/teaching skills and techniques facilitating leisure behavior theories of program development and provision of services. Field trips required.
Prereq: None

RLS 111 Introduction to Outdoor Recreation (X) 4 credits
The meaning and significance of outdoor recreation in contemporary society. Emphasizes planning, organizing, conducting, and evaluating programs and activities of outdoor recreation, outdoor education, and environmental education. Special concern for practical activities and experiences in the outdoors. Provides lab experiences, field trips, and leadership practice in the areas of nature-oriented activities, outing sports, and environmental education. Field trips and outings in the Connecticut River Valley and Central New England. Field trips required.
Prereq: None

RLS 113 Leadership & Group Dynamics (X) 3 credits
Designed to develop the ability and skills to work with small groups primarily in recreation and leisure settings and agencies. Enhancing abilities of group leadership and group membership are emphasized. The group process, leadership techniques and styles, and theories of leadership are among the key topics covered.
Prereq: None
RLS 119 Advanced First Aid & CPR (X) 3 credits
A course based upon the American National Red Cross Advanced First Aid and Emergency Care and Cardiopulmonary Resuscitation program which focuses upon the information necessary for the development of the student's first aid knowledge, skill ability, and personal judgment. Successful completion of the course can lead to Red Cross Certification in Advanced First Aid and CPR. Field trips required.
Prereq: None

RLS 130 Nutrition & Weight Management (X) 3 credits
This course will introduce the student to the study of human nutrition. Effective weight management must be predicated on an understanding of the scientific principles of nutrition, energy, metabolism, exercise, and the various components of body composition. Students will learn the intelligent application of nutritional information based on individual needs. The course is designed to help the student to succeed in implementing good nutrition in their own lives.
Prereq: None; Recom: RLS or PFC major or permission of instructor

RLS 131 Introduction to Therapeutic Recreation (X) 3 credits
Designed to provide the student with a basic understanding of the philosophy and principles of therapeutic recreation. Includes the theoretical rationale for the development of Therapeutic Recreation Services for such groups as physically handicapped, mentally ill, mentally retarded, the dependent aging, and socially deviant. Offers practical guidelines for the operation of such programs. Field trips required.
Prereq: None

RLS 163 Life Fitness & Nutrition (X) 3 credits
Introduces the principles of exercise and theories of conditioning. Provides the student with a personalized physical fitness program. Includes a physiological pre-program evaluation, lectures on fitness and related topics, individualized exercises, and a physiological post-program evaluation will all be included. Designed to improve the student's level of physical fitness through a wide variety of activities. The goal is to provide a foundation of knowledge and a positive commitment regarding physical fitness.
Prereq: None

RLS 200 Exercise Physiology (X) 3 credits
This course is designed to enhance the student's understanding of those aspects of anatomy and physiology that are most important to physical fitness and health. Study will focus on the structure and function of the cardiovascular, pulmonary, muscular, skeletal, and nervous systems and the role they play in physical performance.
Prereq: BIO 105

RLS 205 Recreation Seminar (X) 3 credits
A seminar in contemporary trends and issues in recreation and leisure services—designed to encourage personal and professional growth. Includes particular emphasis on such subjects as self-assessment, the job search, the work environment and related understandings, leisure counseling, changing concepts in recreation, resource analysis, and new dimensions in recreation programming. Field trips required.
Prereq: RLS 101 and 109

RLS 207 Recreational Sports Administration (X) 4 credits
Designed to develop programming and administrative competence in physical recreation/fitness/sports. Emphasis on organizing and conducting a comprehensive community sports program. Content includes: informal sport, club sport, competitive sport, guidance, supervision, planning, budgeting, marketing, public relations, risk management and liability, and evaluation. Field trips required.
Prereq: RLS major or permission of instructor

RLS 215 Field Work I (X) 4 credits
Combined seminar and experience in planning, organizing, conducting, and evaluating recreation programs in a local agency. Individual field placement. Prereq: RLS 109 or permission of instructor

RLS 216 Field Work II (X) 4 credits
Continuation of Field Work I. Advanced application of programming process. Field trips required. Prereq: RLS 215 or permission of instructor

RLS 225 Fitness Assessment & Programming (X) 4 credits
Focuses on the theories and applied principles of fitness and programming. Geared to develop competencies in the evaluation of the components of fitness: cardiovascular, muscle strength and endurance, body composition, nutrition and flexibility. The practical application of the evaluation results to the development of personalized fitness programming will be emphasized. Prereq: RLS 163 and RLS 200

RLS 251 Contemporary Trends & Issues Seminar (X) 3 credits
A seminar in contemporary trends and issues in recreation and leisure services. Designed to encourage personal and professional growth. Includes particular emphasis on such subjects as self-assessment, the job search, the work environment and related understandings, leisure counseling, changing concepts in recreation, resource analysis, and new dimensions in recreation programming. Field trips required.
Prereq: RLS 101 and RLS 109

SCIENCE

SCI 103 Astronomy (NC) 3 credits
Topics to be covered include: the celestial sphere and the Copernican Revolution, stellar evolution, stellar observation and measurement, the HR diagram, Novae, Pulsars, Black Holes and the Big Bang, relativity and the shape of the universe. Mathematics content will be minimal.
Prereq: None

SCI 104 Energy: Issues & Principles (NC) 3 credits
An energy course, covering both the technical and economic aspects, designed on a need-to-know basis primarily for the non-science-oriented student who feels the need to be informed about this field of critical importance to the survival of modern civilization.
Prereq: None

SCI 106 Science Through the Ages (L) 3 credits
Landmark discoveries and the evolution of scientific thought are traced through the pages of history in an attempt to gain an understanding of how the major achievements in science have helped shape human destiny, and what promise and threat they may hold for the future. Areas of study include: Ancient Science, Middle Ages, the Renaissance, the Age of Newton, contributions from the 17th, 18th, 19th, and 20th centuries. The course presents an opportunity to learn about some major scientific concepts and discoveries in a historical context apart from their technical rigor.
Prereq: None

SOCIOLGY

SOC 101 Principles of Sociology (BC) 3 credits
The study of society through basic concepts and scientific methodology. Examines culture, social systems, institutions, status, role, norms, interaction, deviance, small groups, and social stratifications.
Prereq: None

SOC 201 Social Problems (BC) 3 credits
Major types of deviant behavior in American society; description, theories of causation, and ramifications for the future.

Prereq: SOC 101

SOC 203 Sociology of the Family (BC) 3 credits
Historical background and cross-cultural factors. Attention to the cycle of courtship, marriage, child raising, and marital dissolution. Contemporary trends and the future of the family in society.

Prereq: SOC 101

SPANISH

SPA 101 Elementary Spanish I (HC) 3 credits
Introduction to the language through immersion. Emphasis on practical speaking skills. Includes a systematic and practical study of Spanish structures. For beginners and for students who have not successfully completed one year of high school Spanish.

Prereq: None

SPA 102 Elementary Spanish II (HC) 3 credits
Continuation of the study of Spanish through immersion, stressing communicative proficiency. Appropriate for students who have successfully completed one year of high school Spanish.

Prereq: SPA 101 or equivalent, or permission of instructor

SPA 201 Intermediate Spanish I (HC) 3 credits
Intermediate study of Spanish through immersion, emphasizing mastery of idioms and linguistic structures. Selected readings in Hispanic literature supplement the text. The class is conducted in Spanish.

Prereq: SPA 102 or equivalent, or permission of instructor

SPA 202 Intermediate Spanish II (HC) 3 credits
Conclusion of the intermediate study of Spanish through immersion. Advanced readings in Hispanic literature and a video program supplement the text. The class is conducted in Spanish.

Prereq: SPA 201 or equivalent, or permission of instructor

SPA 251 Spanish Composition & Conversation (HC) 3 credits
Development of advanced writing and speaking skills. Representative works of Hispanic literature, available periodicals, and films are the subjects of class discussion and of oral and written assignments.

Prereq: SPA 202 or equivalent, or permission of instructor

SPEECH

SPE 101 Oral Communication: Public Speaking (SHL) 3 credits
Principles of oral communication, stressing the role of the speaker in the communication process. Emphasis will be on the proper preparation and delivery of speeches. The student will give two or three speeches and participate in a small group activity. Credit will be given for SPE 101 or SPE 121, but not for both.

Prereq: None

SPE 121 Oral Communication: Small Group Discussion (HL) 3 credits
Principles of oral communication, stressing the role of the leader/participant in small group discussion. Emphasis will be on proper preparation for group learning, problem-solving, and meeting management. Role playing exercises will be based on community and industrial models. Credit will be given for SPE 101 or SPE 121, but not for both.

Prereq: None

SPE 203 Argumentation & Debate (HL) 3 credits
An introduction to the essential elements of debate with emphasis on preparation and presentation.

Prereq: SPE 101 or permission of instructor

THEATRE

THE 103 Introduction to the Theatre (HC) 3 credits
Play reading and analysis, drama criticism, theatre history, forms of drama and process of play production studied with the aim of increasing appreciation of the theatre and enjoyment of the dramatic experience. Participation in some aspect of the College's current theatrical production is encouraged but not required.

Prereq: None

THE 105 Oral Interpretation of Literature (HL) 3 credits
Oral interpretation of the poem, essay, short story, and play; emphasis on literary analysis as the foundation of performance. Workshop method: small group preparation of individual selections.

Prereq: None

THE 113 Fundamentals of Acting (HL) 3 credits
An introduction to the art of acting with emphasis on characterization, voice, and movement, as well as varieties of acting techniques, script analysis, improvisation, and theatre exercises will be used to prepare monologues, duel scenes and one-act plays. Additional emphasis explores the uses of acting to improve self-presentation and self-development.

Prereq: None

THE 115 Summer Theatre Workshop (HL) 3 credits
Intensive training in theatrical production, rehearsal, and performance. Registration in advance required.

Prereq: Permission of instructor

THE 125 The American Musical Theatre (HL) 3 credits
An examination of the development of the "musical comedy" from the early '40s to the present. Representative examples from the works of major composers, lyricists, etc., are fundamental components of the course.

Prereq: None

THE 133 College Theatre Workshop (HL) 1 credit/semester; maximum 4
Practical experiences in acting, house management, public relations, publicity, shop and production crews. No more than one credit may be earned in any given semester. Work on the major production for the semester is required.

Prereq: None

THE 207 Play Production (HL) 3 credits
Production of a full-scale play, including acting, directing, lighting, costuming, stage craft, make-up, publicity, box office, and performance.

Prereq: THE 113, THE 103 or 105, plus at least one credit in THE 133, or permission of instructor

THE 213 Advanced Acting (HL) 3 credits
The actor's use of improvisation, abstraction, and development of motivational devices in character through internalization and externalization techniques. Concentration on scene and character development through class performances.

Prereq: THE 113 or permission of instructor
WOMEN'S STUDIES

WST 115 Introduction to Women's Studies (L) 3 credits
Introduction to women's studies as a basis for understanding human development, social systems, and the historical and biological perspectives that affect women's personal and public lives in the twentieth century.
Prereq: ENG 101 and either ANT 104 or PSY 101 or SOC 101
Thu-Fri Aug 29-30 .............................................. Final registration/orientation
Mon Sep 2 ...................................................... Labor Day / no classes
Tue Sep 3 .............................................................. Professional day
Wed Sep 4 .............................................................. First day of classes
Wed Sep 11 ............................................................ Last day to add classes
Wed Oct 2 .......................................................... IN grades converted to F
Tue Oct 8 ............................................................ Last day to withdraw/no record
Mon Oct 14 ......................................................... Columbus Day / no classes
Wed Oct 23 .......................................................... Deficiency notices due
Mon Nov 11 ......................................................... Veterans Day / no classes
Mon Nov 18 .......................................................... Spring registration for current students begins
Thu Nov 14 .......................................................... Last day to withdraw from classes
Thu-Fri Nov 28-29 ............................................... Thanksgiving recess / no classes
Mon Dec 16 .......................................................... Last day of classes
Tue-Fri Dec 17-20 .................................................. Final exams

Spring Semester 1992

Tue-Wed Jan 21-22 .............................................. Final registration/orientation
Thu Jan 23 .............................................................. Professional day
Fri Jan 24 .............................................................. First day of classes
Fri Jan 31 ............................................................ Last day to add classes
Mon Feb 17 .......................................................... Presidents Holiday / no classes
Fri Feb 21 .......................................................... IN grades converted to F
Fri Feb 28 ............................................................ Last day to withdraw/no record
Fri Mar 13 .......................................................... Deficiency notices due
Tue Mar 17 .......................................................... Evacuation Day / no classes
Mon-Fri Mar 23-27 .................................................. Spring recess / no classes
Mon Apr 13 .......................................................... Last day to withdraw from classes
Mon Apr 20 .......................................................... Patriots Day / no classes
Tue April 21 .......................................................... Fall registration for current students begins
Tue May 12 .......................................................... Last day of classes
Wed May 13 .......................................................... Reading day
Thu-Tue May 14-19 .................................................. Final exams
Sun Jun 7 .............................................................. Commencement

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