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Greenfield Community College is an affirmative action/equal opportunity employer and does not discriminate on the basis of race, color, national origin, sex or handicap status in its education programs or in admission to, access to, treatment in or employment in its programs or activities as required by Title VI, Civil Rights Act of 1964; Title IX, Education Amendments of 1972; and Section 504, Rehabilitation Act of 1973 and regulations promulgated thereunder, 34 C.F.R. Part 100 (Title VI), Part 106 (Title IX) and Part 104 (Section 504). All inquiries concerning application of above should be directed to Robert Merriam, the College’s Affirmative Action Officer, who is the Title IX Coordinator, or Hyrum Huskey, 504 Coordinator. This school is authorized under Federal law to enroll non-immigrant alien students.

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.
THE COLLEGE

MISSION

The mission of Greenfield Community College incorporates the policies of the Board of Regents of Higher Education to provide associate degree programs, enrichment opportunities, and community services in response to the needs of the community. Beyond that, the College believes that its developmental studies, tutoring, and counseling components are essential in fulfilling its open admissions policy and its goal of academic excellence available to all students. In all its activities, the College endeavors to maintain a standard of excellence in designing and implementing its educational programs and services.

The College's identity is defined by a real connection and responsiveness to the community in which it has grown and to which it is dedicated. In all phases of its operation, the College strives to maintain a positive and humane environment within the institution itself and in its relations with the community it serves.

HISTORY

Founded in 1962, Greenfield Community College is one of 29 institutions which make up the Massachusetts Public Higher Education System. For twelve years, the College operated in an old school, a former factory building, and a remodeled warehouse in the center of Greenfield. In 1974, the College moved to a handsome, modern facility, located on 80 acres. Since its founding, the number of day students has grown from 125 to approximately 1500, and the Continuing Education program serves more than 1700.

ACCREDITATION

Greenfield Community College is accredited by the New England Association of Schools and Colleges. It is governed by a board of trustees of regional residents appointed by the Governor and the Massachusetts Board of Regents.

GENERAL INFORMATION

ADMISSIONS

Applicants for admission should:

- Obtain an admission application from the College Admissions Office or high school guidance office.
- Return completed application form, and non-refundable application fee, to the Admissions Office. Please make check or money order payable to Greenfield Community College. Applicants 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 the college to send verification of payment to Greenfield Community College. For those students in financial need, application fee waivers may be requested from the Admissions Office. The application fees are:
  - Massachusetts Residents $10.00
  - Out-of-State and International Students $35.00

- Have official transcripts sent directly to Greenfield Community College by all high school, college, and other post-secondary institutions attended.

- Contact the Admissions Office to arrange an interview.

- Transfer students must forward a certified financial aid transcript from previous post-secondary institutions or colleges.

- International student applicants must also file the following prior to the admissions decision:
  - Medical Examination Record
  - Certification of Finances
  - results of the Test of English as a Foreign Language (TOEFL)

READMISSION TO COLLEGE

Previously matriculated day students at Greenfield Community College, who have discontinued their enrollment, must file a Petition for Reinstatement with the Admissions Office. A $10.00 non-refundable fee will be required.

ADMISSION REQUIREMENTS

- Applicants for admission to Greenfield Community College usually have a high school diploma or high school equivalency diploma, but other interested individuals should discuss their candidacy with the Director of Admissions.

- The College does not require entrance examinations such as the SAT's or ACT's.

- With the exception of the Nursing Program and the Outdoor Leadership Program, applicants are generally admitted to the
program of their first choice on a space available basis.

- Applicants for admission to the nursing program 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.

- Non-Massachusetts residents are admitted to the College providing their acceptance does not deny admission to a qualified Massachusetts resident.

COLLEGE IMMUNIZATION LAW

Greenfield Community College, in response to the College Immunization Law, Chapter 76 Section 15C of the Commonwealth of Massachusetts, has adopted the following immunization policy: All students, under the age of 30, who are admitted to Greenfield Community College will be required to present evidence that they are immunized against measles, mumps, rubella, diphtheria and tetanus in order to register for classes. Medical and religious exemptions are allowed.

INTERNATIONAL STUDENTS

A limited number of international students may be admitted to the College each year on a selective basis. These students are required to apply no later than six months prior to the date of planned entrance.

Greenfield Community College does not provide housing on campus. However, students may contact the Student Activities Office at the College for assistance in locating housing.

Greenfield Community College is unable to offer financial assistance to international students under any federally funded financial aid program. International students should plan to have sufficient financial resources to meet college expenses.

Estimated College Expenses
for International Students Per Year

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition and Fees</td>
<td>$2,907</td>
</tr>
<tr>
<td>Room and Board (food)</td>
<td>3,406</td>
</tr>
<tr>
<td>Books and Supplies</td>
<td>310</td>
</tr>
<tr>
<td>Medical Care and Insurance</td>
<td>695</td>
</tr>
<tr>
<td>Personal Expenses</td>
<td>845</td>
</tr>
<tr>
<td>Transportation (after arrival in U.S.)</td>
<td>574</td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td><strong>$8,737</strong></td>
</tr>
</tbody>
</table>

Cost for items such as books and supplies, housing, food, medical care and personal expenses may vary for each individual student.

Prospective students whose native language is other than English
are required to submit their scores on the Test of English as a Foreign Language (TOEFL) to the Director of Admissions. Applicants who score less than 550 may be requested to do one or more of the following:

1. To repeat the TOEFL examination to raise their score.
2. To take an examination administered by the College prior to receiving further consideration for admission.
3. To submit additional evidence of English proficiency.

Inquiries concerning this program, including the schedule of test dates, should be directed to:

TOEFL Program Director
Educational Testing Service
Princeton, New Jersey 08540

ENGLISH AS A FOREIGN LANGUAGE

All students for whom English is a foreign language, both international students and U.S. residents, must take a standardized placement examination administered by the College. Students who prove their proficiency in English by their scores on this examination will not be required to enroll in English as a Foreign Language. Those students whose test scores indicate a need for English-language study will be required to enroll in the appropriate course level and are limited in their enrollment in other courses as follows:

EFL 101 - Beginning Level—may enroll in other courses only on an audit basis with EFL instructor's permission.
EFL 111

EFL 102 - Advanced Beginners' Level—may enroll in appropriate HUH and LED courses, or may audit other courses with EFL instructor's permission.
EFL 112

EFL 103 - Intermediate Level—may take 100-level courses; more advanced courses require advisor's permission.
EFL 113

EFL 104 - Advanced Level—may enroll in 100 and 101 level courses for credit on recommendation of academic advisor(s).
EFL 114

ADVANCED PLACEMENT

Advanced placement in specific subjects may be granted based on performance on College Board Advanced Placement Examinations administered to high school seniors.
CREDIT BY EVALUATION

Greenfield Community College recognizes that a college degree is more than the sum total of courses taken and examinations passed. The College grants academic credit for a wide range of educational experience including transfer of credit from accredited or recognized institutions of higher education, credit awarded on the basis of selected general and subject examinations of CLEP, credit awarded from successful performance on subject examinations created by appropriate faculty, credit awarded on the basis of unique life and work experiences which lend themselves to evaluation, credit granted for courses taken in the military through the United States Armed Forces Institute or other recognized educational programs. There is a $20.00 non-refundable fee for in-house testing.

GENERAL EDUCATION DEVELOPMENT TEST (GED)

Greenfield Community College is an official GED testing center. Non-high school graduates wishing to receive the High School Equivalency Certificate should contact the GED office at the College for details. Testing is available during day and evening hours.

NEW ENGLAND REGIONAL STUDENTS

Students who are legal residents of any New England state may be eligible for consideration under the New England Regional Student Program. A student accepted under this program pays a 25% tuition surcharge of the applicable in-state tuition rate. Potential students are eligible for consideration if ...

- a degree program is not offered at an in-state institution.

- a degree program is offered at both an in-state institution and at one of the Massachusetts Community Colleges, and the latter is closer in traveling time to the student's residence.

VETERANS

The College is approved by the Veterans Administration for attendance by veterans eligible for veterans' educational assistance benefits. Certain dependents of deceased or disabled veterans may also be eligible for receipt of VA Educational Assistance.

The Commonwealth of Massachusetts provides for tuition exemption at state supported institutions of higher education for eligible Vietnam Era Veterans enrolled in day, evening, or summer classes.
Veterans must submit a copy of Form DD214 to the Office of Veterans Affairs. For further information regarding application and procedures for veterans' programs, contact the Office of Veterans Affairs at the College.

TUITION, FEES AND EXPENSES

TUITION AND FEES PAYMENT

In accordance with College policy, all charges for tuition and fees are due and payable approximately three weeks before classes begin. Students are urged to make payment by mail. Bank checks or money orders should be made payable to Greenfield Community College. -DO NOT MAIL CASH- Students may not attend classes until all tuition and fees are paid.

FINANCIAL OBLIGATIONS

The College requires that all financial obligations be satisfied on time. Failure to do so will result in one or more of the following actions: withholding of College transcripts and financial aid transcripts; imposition of collection service charges; denial of other College services.

FINANCIAL AID AWARDS FROM PRIVATE SOURCES

Donors or recipients of awards should provide the Financial Aid Office with appropriate certification and terms of such awards.

CLASSIFICATION OF STUDENTS

Students carrying 12 or more graded credit hours per semester are full-time students. Students carrying less than 12 credits per semester are part-time students.

CERTIFICATE OF RESIDENCY

To qualify for the Massachusetts in-state tuition rate, students must submit a Statement of Residency.

In general, one is considered a Massachusetts resident if he/she has been in continuous residence in Massachusetts for six months immediately prior to the date of application to the College and has established a domicile in Massachusetts.
TUITION COSTS

<table>
<thead>
<tr>
<th></th>
<th>Part-Time (1-11 Credits)</th>
<th>Full-Time (12 or More Credits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Massachusetts Residents</td>
<td>$29.50/credit</td>
<td>$354.00/semester</td>
</tr>
<tr>
<td>Non-Residents</td>
<td>$100.00/credit</td>
<td>$1200.00/semester</td>
</tr>
<tr>
<td>NEDHE</td>
<td>$36.88/credit</td>
<td>$442.50/semester</td>
</tr>
</tbody>
</table>

NOTE: All fees are quoted per fee structure as of February 1985 and are subject to change.

TUITION REFUNDS

A student who leaves the College for any reason before a semester is completed will be granted a refund of tuition as follows:

<table>
<thead>
<tr>
<th>Period of Withdrawal</th>
<th>Amount Refundable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before classes begin</td>
<td>100%</td>
</tr>
<tr>
<td>During 1st and 2nd week of classes</td>
<td>75%</td>
</tr>
<tr>
<td>After two weeks of classes</td>
<td>None</td>
</tr>
</tbody>
</table>

NOTE: Please allow at least four weeks processing time for refunds.

INSURANCE PROGRAMS

Health and Accident Insurance
Students are required to purchase the 24-hour accident insurance plan if they cannot show proof of other insurance coverage. In addition, students may purchase the Massachusetts Community College 24-hour illness coverage for themselves, spouse or children.

Liability Insurance
All nursing students must be covered by a Professional Liability Insurance plan approved by the College.

Life Insurance
Applications are available for life insurance sponsored by the Commonwealth Division of Savings Bank Life Insurance.

COLLEGE SERVICES FEE (non-refundable)

All students are required to pay a college services fee of $10.00 per semester plus $5.00 per credit.

LATE REGISTRATION FEE (non-refundable)

A $10.00 non-refundable fee will be charged for registering after classes begin.
STUDENT ACTIVITIES FEE (non-refundable)

This non-refundable fee of $35.00 per semester is authorized by the Board of Trustees as recommended by the Student Senate. It supports the Student Senate and a range of cultural, social and recreational activities for students. In addition, payment entitles each student to the student handbook and student identification card. Students enrolled part-time pay a fee of $17.50 per semester.

ESTIMATED STUDENT EXPENSES

In addition to tuition and fees, students must plan to meet additional expenses related to college attendance. Those expenses include the cost of books and supplies, room and board, transportation, recreation, laundry, clothing, grooming aids, and medical costs.

While these additional costs may vary a great deal from student to student, the estimates below may assist students in planning to meet the costs of attendance at Greenfield Community College.

<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>$310</td>
<td>$310</td>
</tr>
<tr>
<td>Room</td>
<td>475</td>
<td>973</td>
</tr>
<tr>
<td>Board</td>
<td>625</td>
<td>1,582</td>
</tr>
<tr>
<td>Transportation</td>
<td>431</td>
<td>634</td>
</tr>
<tr>
<td>Personal</td>
<td>634</td>
<td>634</td>
</tr>
<tr>
<td>Medical</td>
<td>521</td>
<td>521</td>
</tr>
<tr>
<td>Total Expenses</td>
<td>$2,996</td>
<td>$4,451</td>
</tr>
</tbody>
</table>

HOUSING AND TRANSPORTATION

Greenfield Community College does not provide dormitory facilities since it is an institution designed primarily to serve the commuting student.

Ample, well-lighted parking space is provided on campus. For those who do not drive, there is regular bus service from Court Square in the center of Greenfield.

For those students who find it inconvenient to commute, the Student Activities Office offers assistance in finding housing.

FINANCIAL AID

In an effort to enable all students to attend the College, regardless of financial resources, Greenfield Community College
offers assistance to students with demonstrated financial need. The financial aid offered typically consists of a combination of gift aid, such as grants and scholarships which do not have to be repaid, and self-help aid, such as on-campus or off-campus jobs, and/or loans which must be repaid. The financial aid funds come from a variety of federal, state and private sources.

FINANCIAL AID PROGRAMS

Greenfield Community College participates in all of the major federal and state financial aid programs, including the following:

Pell Grant Program
Formerly called the Basic Educational Opportunity Grant Program, this program is a federal entitlement program which provides grants to students with demonstrated financial need. In order to receive consideration for other types of financial aid at Greenfield Community College, students must apply for a Pell Grant, using either a College Scholarship Service form or a Pell Grant application form, both of which may be obtained from a high school guidance office or from the Financial Aid Office at the College.

Supplemental Educational Opportunity Grant Program
Through this program, grants from federal funds obtained by the College are offered to students with exceptional financial need.

College Work-Study Program
As a way of assisting students in meeting College expenses, this program, using federal and state funds obtained by the College, enables the College to offer part-time, on-campus and off-campus employment to students with demonstrated financial need.

National Direct Student Loan Program
Using federal and state funds obtained by the College, this program allows the College to make low-interest, deferred-payment loans to students with demonstrated financial need. Students begin repayment following graduation or completion of studies.

Nursing Student Loan Program
This program using federal and state funds obtained by the College, enables the College to offer low-interest, deferred-payment loans to nursing students with demonstrated financial need.

Guaranteed Student Loan Program
This program enables students with financial need to obtain low-interest, deferred payment loans through banks or other lending agencies. Students obtain applications from the bank or lending agency itself. In Massachusetts this program is called the Higher Education Loan Program (HELP) and is administered by the Massachusetts Higher Educational Assistance Corporation.
Massachusetts State Scholarship Program
This state program offers scholarships to students who are Massachusetts residents and who have demonstrated financial need. In order to receive full consideration, students must submit the Massachusetts Financial Aid Form (MFAF) by March 1 of the year in which the academic year begins. Forms are available in high school guidance offices and the Financial Aid Office at the College.

Massachusetts Tuition Waiver Program
The Massachusetts Board of Regents of Higher Education has established this program under which Massachusetts public institutions of higher education may offer a limited number of tuition waivers to students who have demonstrated financial need. These awards may waive tuition charged by the day division only. This program does not apply to the Division of Continuing Education.

APPLICATION PROCEDURES FOR FINANCIAL AID

In order to receive consideration for financial aid awarded by the College, including the SEDG, CWS, NDSL, NSL, and tuition waiver programs, applicants must submit:

- a Financial Aid Form (FAF) or Massachusetts Financial Aid Form (MFAF), which may be obtained from high school guidance offices and the Financial Aid Office at the College. The Greenfield Community College code number is 3420 and must be included on the form. Applicants are encouraged to use this form to apply for a Pell Grant as well. Send the completed form, with appropriate payment enclosed, to the College Scholarship Service in Princeton, New Jersey.

- Student Aid Reports from the Pell Grant Program. These reports are sent directly to students from the Pell Grant Program and, once received, must be submitted to the College Financial Aid Office. Students 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 may be obtained from high school guidance offices and the Financial Aid Office at the College.

- a copy of the IRS income tax return for the calendar year preceding the year in which the academic year begins. Submit to the Financial Aid Office at the College the parents' IRS form, if the applicant is a dependent, and the applicant's IRS form.

To receive full consideration for all available financial aid, applicants should submit their materials by March 1 to ensure receipt by the College by April 15 of the year in which the academic year begins. Processing by the College Scholarship
Service and the Pell grant Program may take approximately six weeks. The Financial Aid Office at the College will make every effort to notify applicants by early June whether or not they will receive financial aid.

Financial aid recipients usually receive their awards, except in the case of the College Work-Study Program, by the middle of each semester. Students must plan accordingly to ensure that they have adequate financial resources until their awards are disbursed.

In order to receive financial assistance from any of the federal financial aid programs, students must be enrolled at the College for at least six credits in a degree or certificate program. Pell Grant amounts vary depending upon whether one is enrolled full-time (12 credits or more), three-quarter time (9-11 credits), or half-time (8-8 credits).

In addition, to remain eligible for financial aid students must maintain satisfactory academic progress. To do so, students may not be placed on academic probation or suspension and must earn a minimum number of credits during each semester of attendance, based on their enrollment status in each semester. A copy of the complete "Standards of Satisfactory Academic Progress for Students Receiving Title IV Financial Aid" may be obtained upon request in the Financial Aid Office at the College.

ACADEMIC POLICIES AND PROCEDURES

A student admitted to the College normally pursues an organized curricular program designed to culminate in the awarding of the degree of Associate in Arts (A.A) or Associate in Science (A.S.) and/or a certificate. Persons of post-high school age may wish to take credit or non-credit courses either during the day or evening for the purposes of occupational up-grading or personal enrichment. High school seniors are eligible to take credit courses that may be applied toward a college degree and high school graduation requirements with written approval of the high school 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 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 in Algebra and Coordinate Geometry, or 2) non-matriculated students who are taking
personal enrichment courses only. These students must obtain instructor or Division Chair approval first, however.

ADVISORY SERVICES

An important and vital part of the educational process is the academic advising available to students throughout their college careers. Advancing begins during the admissions process and continues with the assigned advisors who assist in orientation to the College and in registration. Advisors are also available throughout the academic year. It is the responsibility of students to initiate and maintain close contact with their advisor.

ATTENDANCE

The College expects regular class attendance of each student. Absences may place a student in academic jeopardy and may result in a lower grade. Individual instructors and/or program coordinators have the authority to set attendance standards appropriate for their courses. Instructors and/or program coordinators who expect specific attendance requirements to be met will inform students in writing at the beginning of a course.

RELIGIOUS ABSENCES

According to the General Laws of Massachusetts, Chapter 151C Section 2B, "Any student in an educational or vocational training institution, other than a religious or denominational educational or vocational training institution, who is unable, because of his religious beliefs, to attend classes or to participate in any examination, study, or work requirement on a particular day shall be excused from any such examination or study or work requirement, and shall be provided with an opportunity to make up such examination, study, or work requirement which he may have missed because of such absence on any particular day; provided, however, that such makeup examination or work shall not create an unreasonable burden upon such school. No fees of any kind shall be charged by the institution for making available to the said student such opportunity. No adverse or prejudicial effects shall result to any student because of his availing himself of the provision of this section."

CHANGES OF MAJOR PROGRAM OF STUDY

The College recognizes that students' interests and career goals may change after admission. To change one's major program of study, a Change of Major form must be completed and submitted to the Registrar's Office.

Students who wish to consider a change of major should first consult with their advisors and then obtain the approval of the
appropriate Division Chairperson. Some programs may not accept new students in the spring semester.

CREDIT OVERLOAD

A course load of 19 or more credits, for a student in good academic standing, requires the recommendation of a student's advisor and the approval of the advisor's Division Chairperson.

ADDING A COURSE

A period to add courses is made available after classes begin. Adding courses requires the signature of the advisor only, unless a course requires permission of the instructor.

Adding courses after this period requires the signature of the advisor, the appropriate Division Chairperson and the Dean of Students.

DROPPING/WITHDRAWAL FROM A COURSE

Withdrawal may be made with "no record" during the first 25 days or 1/3 of the course. Withdrawal from the 26th through 45th day or second 1/3 of the course will result in a "W" grade. Withdrawal after the 45th day or last 1/3 of the course will result in an "F" grade, or NC grade (for courses graded CR/NC), unless the Dean of Students' approval warrants the grade of "W". The signature of the advisor is required.

WITHDRAWAL FROM COLLEGE

To withdraw officially from the College, students must complete and submit a Withdrawal Form to the Registrar's Office. Absence from class or oral notice to instructors does not constitute official withdrawal. Failure to submit the Withdrawal Form properly may affect students' eligibility for tuition refunds or may result in failing grades in all courses.

MEDICAL WITHDRAWAL

A medical withdrawal or readmission after withdrawal for medical reasons may be granted by the Dean of Students upon the recommendation of the Director of the College Health Service or in special cases (i.e., psychological reasons) on the recommendation of the Director of Health Service and the Divisional Counselor or Director of Learning Assistance Programs.
GRADING

Reports of grades are issued to students after the end of the semester and at the end of the summer session. In the middle of each semester preliminary reports of academic deficiency are mailed to students. Plus and minus symbols may be used only for grades B and C; a minus symbol may be used for the grade of A. The following grades are used:

A - Excellent
B - Good
C - Satisfactory
D - Poor
F - Failing
IN - Incomplete

Incomplete is used to indicate 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
AU - Audit (not registered for credit or a grade)

Audit may be selected at the time of registration. A change from this status is treated as a regular course change and must be processed within the course adjustment period at the beginning of the semester.

CR - Credit (credit/no credit option)
NC - No Credit (credit/no credit option)

CR/NC (credit/no credit) is an option available to a student carrying a program of 12 credits or more. With approval of the student's advisor, a qualified student may elect to take one course per semester on a CR/NC basis. This option may be exercised in addition to courses which are graded exclusively on a CR/NC basis (e.g., Leisure Education courses) provided that at least 9 credits are carried on a graded (A, B, C, D, F) basis.

A student electing the credit/no credit option makes that commitment at the time of registration. A change from that status is treated as a regular course change and must be processed within the course adjustment period at the beginning of the semester.

GRADE POINT AVERAGING

Grade Point Average (GPA) is the method used to indicate a student's academic status. The GPA is based upon a range of numerical values, as follows:
A = 4.00  B = 3.00  C = 2.00  D = 1.00  
A- = 3.65 B- = 2.65 C- = 1.65 F = 0.00
B+ = 3.35 C+ = 2.35

Each student's GPA is computed on both a semester and cumulative basis. Only the cumulative GPA is used to determine a student's academic standing. Decisions regarding academic standing are made after the close of each semester.

REPEATING A COURSE

Any course may be repeated. Credit may not be earned twice for the same course. When a course is repeated, the new grade replaces the old grade in the calculation of the grade point average.

Options available under English Composition I (ENG 101, 103, 105) may substitute for each other when a student repeats English Composition I because of failure or having earned a grade of D in one of the options; similarly options available under English Composition II (ENG 112, 114, 116) may substitute for each other when a student repeats English Composition II.

DEAN'S LIST

Inclusion on the Dean's List for day students requires a GPA for the semester of at least 3.50 with no grade lower than C. Only full-time students carrying a program of at least twelve credits over and above any credit/no credit course options are eligible.

Matriculated Continuing Education students who have previously completed at least six graded credit hours at Greenfield Community College and who have completed at least six graded credit hours in Continuing Education during one semester are eligible for Dean's List that semester, provided they have a 3.50 semester average.

ACADEMIC STANDING

After one semester, any student who falls below a 1.00 cumulative GPA may be placed on PROBATION or be SUSPENDED or be DISMISSED from the College.

Any student who falls below a cumulative GPA of 2.00, but who achieves a cumulative GPA of 1.00 or above, may be placed under ACADEMIC REVIEW. At the end of the semester during which the student is under ACADEMIC REVIEW he/she must achieve a semester GPA of at least 2.00. Failure to do so will result in the student being placed on PROBATION, being SUSPENDED, or being DISMISSED. No student may be under ACADEMIC REVIEW more than twice. After two semesters under ACADEMIC REVIEW a student's cumulative GPA would be used to determine academic standing.
GPA must be 2.00 or better. Failure to achieve that cumulative GPA will result in PROBATION, SUSPENSION, or DISMISSAL.

After one semester on PROBATION, any student who fails to achieve a cumulative GPA of 2.00 would be subject to continuing PROBATION, SUSPENSION or DISMISSAL.

ACADEMIC REVIEW and PROBATION usually involve a reduction of academic load and co-curricular activities. It may also require interviews for diagnosis of difficulties and checking student progress.

Any student on PROBATION or SUSPENSION would be deemed to be making "Unsatisfactory Academic Progress." Students who are making unsatisfactory academic progress are not eligible for federal financial aid, including the Pell Grant Program, the Supplemental Educational Opportunity Grant Program, the College Work-Study Program, the National Direct Student Loan Program, the Nursing Student Loan Program, and the Guaranteed Student Loan Program.

Any student reinstated after SUSPENSION who continues to make "Unsatisfactory Academic Progress" will be subject to DISMISSAL from the College. Continuing "Unsatisfactory Academic Progress" following reinstatement from SUSPENSION remains the primary criterion for DISMISSAL.

Part-time students will not be evaluated for academic standing until they have completed a total of 12 credits. Subsequent evaluations of part-time students will be made on a proportional basis, with careful consideration of the number of credits attempted, and the grade point average earned in relation to total number of credits attempted and the cumulative grade point average.

The College recognizes that any of the above academic actions can be affected by unusual circumstances. Upon the request of a student, the Dean of Students will review the circumstances of the academic action.

WAIVER

In the event that a student feels there are unusual or extenuating circumstances which justify an exemption from an academic regulation, a written request may be submitted through the academic advisor, to the advisor's Division Chairperson, and to the Dean of Academic Affairs. Each request will be considered on its individual merit.

PETITION TO REVIEW ACADEMIC RECORD

Any currently enrolled student may petition the Transcript Review Committee to review the individual's academic record for the
purpose of seeking relief from past poor academic performance. Further information is available in the Student Services Office.

GRADUATION REQUIREMENTS

To earn a degree, a student must complete the course requirements of the curriculum and achieve a cumulative grade point average of at least 2.00 for all courses except those transferred from other institutions. No curriculum requires fewer than 60 credits; several require more. At least 15 credits toward the degree must be completed at Greenfield Community College.

Students wishing to earn additional associate degrees must:

1. Meet all specific requirements of each degree program.

2. Complete a minimum of 15 credit hours beyond the previous degree awarded.

3. Twelve of these 15 additional credits for each degree must be completed in residency.

A student must fulfill degree requirements in effect in the catalog at the time he/she matriculates. If the requirements change while he/she is enrolled as a matriculated student, he/she may elect to fulfill the new requirements.

To be eligible for graduation "With Honors" a student must complete at least 30 credit hours of course work at Greenfield Community College. A minimum cumulative grade point average of 3.50 is required.

APPLICATION FOR GRADUATION

Students eligible for graduation must submit an application for graduation. Applications are available in the Registrar's office. Greenfield Community College formally awards degrees once per year following the close of the spring semester.

RECORDS

The Family Rights and Privacy Act of 1974 requires that directory information (i.e., student's name, major, address, telephone number, dates of attendance, degrees earned, class schedule, and confirmation of enrollment) may be provided on request. Students may specify, however, that this information remain confidential by submitting a written request to that effect to the Registrar's Office. All other information may be provided only to appropriate College officials who have a legitimate need to know or to whom the student has given written consent specifying the records to be released, the reason for the release, and to whom they may be released.
TRANSCRIPTS

Transcripts of students' academic records will be provided to colleges, employers, students and others only with the written consent of the student. Students must submit their written requests for transcripts to the Registrar's Office, using either a Transcript Request form or a letter to that effect. One transcript is provided free of charge, while all subsequent transcripts will cost $2.00 each. Please allow at least 24 hours to process your request, whenever possible.

COMMONWEALTH TRANSFER COMPACT

The Massachusetts Board of Regents and Greenfield Community College have endorsed the Commonwealth Transfer Compact, a policy enacted in May 1974, for the purpose of facilitating student mobility in Massachusetts public higher education. The Compact guarantees that a student who fulfills the course distribution requirements as stipulated in the Compact and holds an A.A. or A.S. degree from a Massachusetts community college, and who subsequently transfers to a four-year public institution in Massachusetts will be awarded: (1) at least 60 semester hours of work toward a baccalaureate degree; and (2) at least 33 credit hours toward fulfillment of the general education (core) requirement for the baccalaureate degree. Further, the associate degree holder who is accepted for transfer under the Compact will be subject to no special requirements beyond those specified as major department and/or graduation requirements for students who originally enrolled in the four-year institution as freshmen.

An associate degree which is transferable as a unit under this policy is defined as the equivalent of at least 60 hours of undergraduate college-level study, including:

- 6 hours of English-Communication
- 9 hours of core Behavioral-Social Sciences
- 9 hours of core Humanities-Fine Arts
- 9 hours of core Mathematics-Sciences
- the remaining credits to be on a college level

It should be noted that the earning of an A.A. or A.S. degree does not guarantee acceptance to any four-year state institution, but does guarantee the transfer of credits as outlined above should the student be accepted for transfer. For further information and clarification of the Commonwealth Transfer Compact, contact the Coordinator of Transfer in the Student Services Office.
STUDENT SERVICES

CAREER COUNSELING

The Career Counselors help students to identify career and educational goals. Each student's interests and abilities are measured and used as a basis for counseling. In addition, career materials are provided for exploration. These services will also be helpful to those who are uncertain about course choices.

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 outside the College Store.

Supplies, required texts, paperbacks and study guides are carried. Students are advised to attend classes before purchasing textbooks.

NO CHARGING IS PERMITTED. The policy on refunds follows:

- Refunds are made for a period of two weeks after classes begin for the semester.
- Books must not be marked or damaged.
- Both the sales slip and an approved Petition for Course Change must be presented.

The policy on refunds does not apply to other merchandise.

The College Store will accept personal checks in the amount of the purchase only. A maximum personal check of $5.00 will be accepted by the College Store for cash upon presenting College I.D. There is no charge for this service; however, there is a $5.00 charge for returned checks that are cashed at the College Store.

DINING FACILITIES

A full breakfast menu, hot entrees, sandwiches, hot and cold drinks and a daily dinner special are featured at attractive prices. Special group dinners or luncheons may be arranged through the resident manager of the food service organization.

HEALTH SERVICE

The staff of the Health Service is composed of one full-time College health nurse practitioner, one part-time registered nurse
and two part-time physicians available on campus about 4 hours a week.

The Health Service is open from 8:30 a.m. to 4:30 p.m. daily and is equipped to handle most problems common to the student population. All records are confidential, and information is not released without permission of the student. All treatment in the Health Service is free of charge. Students who need laboratory studies or x-rays are referred to the local hospital. It is advisable to purchase some form of health insurance to cover these hospital costs. There is a Massachusetts Community College Accident and Sickness Insurance Plan for students.

The Health Service includes a Wellness Resource Center with a large selection of health-related materials. Students are encouraged to drop in to read materials or to view films about achieving and maintaining a high level of wellness.

THE LEARNING CENTER

The Learning Center helps students to improve academic and personal skills. Programs include tutoring in academic subjects and basic skills, reading and writing improvement, tutoring in special subject areas, and the teaching of study skills. An appointment can be made for tutoring and/or counseling. All programs are free of charge to students.

PERSONAL AND CAREER COUNSELING

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

PLACEMENT OFFICE

The Placement Office, with the cooperation of the faculty, is primarily structured to enable Greenfield Community College students and graduates to secure full and part-time job placement. The Placement Office, also, is prepared to assist students in identifying their marketable job skills, in preparing their credentials and resume files, and in developing their job interview techniques.

ATHLETICS AND INTRAMURALS

Greenfield Community College offers varsity intercollegiate programs in cross-country, basketball, volleyball, baseball, soccer and golf for men; and volleyball, soccer, cross-country, basketball, softball and golf for women. Toboggan/luge is a coed sport. Intramurals are offered in many different areas such as
bowling, soccer, golf, softball, basketball, wrestling, volleyball, road races, frisbee sports, and chess.

In order for students to participate in the varsity programs, they must be carrying 12 credits during the semester they participate, and have passed 12 credits with a 1.75 grade point average the previous semester.

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 theatre events is open to all members of the College community.

STUDENT ASSOCIATION

The Student Association of Greenfield Community College is the basic structure within which Student Senate and the Student Activities Program exist. All students who pay the student activities fees are considered to be members of the Association. Members may hold office, vote in elections, and participate in association programs.

STUDENT SENATE

The Student Senate, elected by members of the Student Association, 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 administration.

- to represent the students on and off the campus.

- to act with College officers in supervising the College activities program.

STUDENT ACTIVITIES PROGRAM

The Student Activities program is a vital part of the College community. The program assists student groups in planning and operating their programs, and encourages faculty to serve in the role of organizational advisors and participants.
Typical activities include intramural activities, varsity athletics, social activities, recreation activities, cultural programs, exhibits, workshops, lectures, films, tours, trips and clubs.

STUDENT HANDBOOK

A Student Handbook is published yearly. Students are expected to read it and will be held responsible for the policies and regulations included in it. There is also valuable information on services available.

TRANSFERING STUDENTS

Students who may be considering transfer to a four-year institution are encouraged to consult with their advisor and the Transfer Coordinator early in their College career to discuss transfer plans. Application forms and information about many four-year institutions are available in the Student Services Office. Questions about transfer procedures should be referred to the Coordinator of Transfer in the Student Services Office.

LIBRARY/LEARNING RESOURCE CENTER (L/LRC)

The Library plays an important role in the learning process at GCC. A collection of nearly 60,000 units of print and non-print material is available in the L/LRC. In addition to a rich variety of books, periodicals, newspapers and sound discs, the L/LRC also has facilities for computer practice, microform reading, typing and photocopying. Reader services include individualized library instruction on request, as well as information, reference and reserve services. Four important special collections are also available for enrichment--The Archibald MacLeish Collection, the Center for Massachusetts Data (Census), the Pioneer Valley Resource Center and the Yankee-Rowe Local Public Document Collection.

MEDIA

The Media Center provides instruction for faculty, staff and students in the production of mediated materials and the operation of media equipment. The Media Center also provides assistance in the design of instructional materials. The materials produced by the Media Center are: video tapes, audio tapes, color slides, duplicate slides, slide tape presentations, overhead transparencies, various graphic and photographic products, dry mounted and laminated visuals and other teaching materials.

The Media Center is responsible for the distribution and scheduling of media equipment. The equipment, subject to lending policies and procedures, is available to students, faculty and staff.
CONTINUING EDUCATION/COMMUNITY SERVICE

Continuing Education and Community Services is concerned with identifying current and potential community needs, drawing together resources from College and community and creating appropriate educational programs.

The Continuing Education Division, with its broad ranged curri- lum, offers basic courses required in Associate Degree programs as well as other courses for personal and professional enrichment. Instructors for these courses include day College faculty, professors from other colleges, and members of the surrounding community.

Credit and non-credit courses are offered during the day and evening hours in the fall, spring and summer sessions. In addition to credit courses, Continuing Education offers a wide range of non-credit community service workshops, lectures, conferences, community forums and other special events. Continuing Education is maintained at no expense to the Commonwealth.

While most of the courses offered through Continuing Education are held at the College, some are scheduled at Mahar Regional School in Orange, Hopkins Academy in Hadley, Frontier Regional School in South Deerfield, and Franklin County Technical School in Turners Falls. Credit and non-credit courses may be scheduled at other off-campus locations by request. Continuing Education is also willing to design and offer any course not listed in the catalog to be held at any location, at any convenient time.

A Continuing Education catalog is available upon request.
ACADEMIC PROGRAMS

The community college mission includes the provision of programs for students desiring transfer to the upper division of a baccalaureate degree program, and programs designed to prepare students for a variety of career positions in which an associate degree is necessary or desirable.

COOPERATIVE EDUCATION PROGRAMS

A component in many of the programs at Greenfield Community College, cooperative education is a systematic method of delivering educational services to students by combining academic instruction with community based, supervised on-the-job learning experiences.

There are a variety of terms used to designate the cooperative method of learning at Greenfield Community College: field experience, field work, cooperative work experience, and internship. The student receives academic credit for satisfactory completion of the learning experience.

LIBERAL ARTS PROGRAMS

The Liberal Arts Programs are organized programs of general education leading to the degree of Associate in Arts and include studies in the Humanities, Behavioral Sciences, and Natural Sciences.

Many professions require a strong liberal arts background before a student is accepted for more specialized education. Law, medicine, economics, education, and journalism are a few examples.

Most students choosing a Liberal Arts curriculum plan to transfer to a baccalaureate degree program. To facilitate this in Massachusetts public institutions, the Liberal Arts Programs at Greenfield Community College have been designed to fulfill the requirements of the Commonwealth Transfer Compact; however, students have the responsibility of familiarizing themselves with the requirements of potential transfer institutions.

The College currently offers ten Liberal Arts programs: a General Liberal Arts program and nine options. Students choosing a Liberal Arts program may wish to discuss vocational goals with the Director of Admissions or with their academic advisor.
Liberal Arts/General Program

To earn the Associate of Arts degree in the General Liberal Arts Program, a student must complete a minimum of 60 semester credits. At least 15 semester credits must be completed in residence at Greenfield Community College. The specific Liberal Arts degree requirements follow:

Core Requirements

<table>
<thead>
<tr>
<th>Requirement</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)</td>
<td>3</td>
</tr>
</tbody>
</table>

Behavioral Sciences Core:

a) Select two courses from the following list:
   - ANT 103 or 104, ECO 101 or 102, HEC 101,
   - POL 101, PSY 101, SOC 101 or 107.

b) Select any additional course coded BC

Humanities Core - one three-credit course from each of the following categories:

a) History (HIS 101, 102, 105 or 107, 106 or 108, 113)

b) Literature (ENG 201, 202, 203, 204, 205, 206, 219, 225, 247, 248, 253, 259, 260)

c) Any additional course coded (HC)

Science Math Core - one three-credit course from each of the following categories:

a) Math - any MAT course coded (NC)

b) Science - any science course (BIO, CHE, GEO, PHY or SCI) coded (NC)

c) Any additional course coded (NC)

Electives (See 1, 2 and 3 below) 24

Total 60

1) A Liberal Arts elective can be satisfied by the successful completion of any course coded (BC), (HC), (NC), (BL), (HL), (NL), and (L). No more than 18 credits may be taken in any specific subject, such as Chemistry, Psychology, etc., with the exception of English. In English, no more than 18 credits may be taken beyond English Composition II.

2) A Liberal Arts elective can also be satisfied by completing courses designed for career programs and coded (A) or (X). No more than 12 credits may be taken in (X) coded courses, and a maximum of 4 of those 12 credits can be in Leisure Education (LED) courses.

3) A General Elective may be satisfied by the successful completion of any course offered by the College, regardless of code, but subject to the limitations of 1 and 2 above.

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Liberal Arts/American Studies Option

The Liberal Arts option in American Studies provides a comprehensive overview of American culture for those planning to pursue such professions as teaching, public service, social service, law, advertising, public relations, journalism, library science and the ministry. The major emphasis is on American literature, history and government. A student electing this option should expect to transfer to a bachelor degree program in order to meet the educational requirements of such professions.

<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>ENG 203 and ENG 204 American Literature I and II</td>
<td>6</td>
</tr>
<tr>
<td>SPE 101 Oral Communication</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>9-12</td>
</tr>
</tbody>
</table>

*Elective Choice

American Studies - any 3 courses from the list below | 9

General Electives - any 4 courses | 12

Total 60-63

American Studies Electives (Limit-2 ENG courses)

| ART 105 | Valley/American Art & Architecture I | 3 |
| ART 106 | Valley/American Art & Architecture II | 3 |
| ANT 107 | Valley Archaeology | 3 |
| ECO 109 | Valley Economic & Industrial Development | 3 |
| ENG 219 | The Black in American Literature | 3 |
| ENG 253 | Valley Writers | 3 |
| ENG 257 | MacLeish Seminar | 3 |
| FLK 217 | American Folklore | 3 |
| FLK 219 | Valley Folklife | 3 |
| GEO 103 | Valley Geology | 3 |
| HIS 211 | The American Dream | 3 |
| HIS 217 | Valley Ethnic History | 3 |
| HIS 219 | American Economic History | 3 |
| HUM 119 | Women in the Pioneer Valley I | 3 |
| JOU 201 | Mass Media in America | 3 |
| MUS 102 | The American Experience in Music | 3 |
| POL 203 | American Civil Liberties | 3 |
| POL 205 | American Foreign Policy | 3 |
| THE 125 | The American Music Theatre | 3 |

*See Liberal Arts/General Program for specific requirements.

Program Coordinator: Helen E. Ellis
# Liberal Arts/Art Option

The Liberal Arts option in Art emphasizes art history, art appreciation and studio skills for non-art majors who plan to pursue careers in education, museum or exhibit curatorship, gallery operation or other fields in which an understanding of art is essential. It is transferable for students wishing to continue higher education at a four-year college or university.

<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</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>9-12</td>
</tr>
</tbody>
</table>

*Elective Choice

Art Electives (choose 2 courses from Group I and 2 courses from Group II below)  
General Elective  
Liberal Arts Elective

| Total                                      | 60-63 |

**Group I - (Select 2):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 111 Introduction to Studio</td>
<td>3</td>
</tr>
<tr>
<td>ART 117 Introduction to Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 151 Introduction to Photography</td>
<td>3</td>
</tr>
</tbody>
</table>

**Group II - (Select 2):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 231 Figure Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 232 Drawing Problems</td>
<td>3</td>
</tr>
<tr>
<td>ART 233 Printmaking I</td>
<td>3</td>
</tr>
<tr>
<td>ART 234 Printmaking II</td>
<td>3</td>
</tr>
<tr>
<td>ART 241 Painting I</td>
<td>3</td>
</tr>
<tr>
<td>ART 242 Painting II</td>
<td>3</td>
</tr>
<tr>
<td>ART 251 Photography I</td>
<td>3</td>
</tr>
<tr>
<td>ART 252 Photography II</td>
<td>3</td>
</tr>
<tr>
<td>ART 270 Graphic Art Production</td>
<td>3</td>
</tr>
</tbody>
</table>

**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
Business Administration Transfer Program

This Associate in Arts degree program in Business Administration is designed to provide a student with the necessary courses for successful transfer to most four-year programs in Business Administration. The program combines liberal arts courses (mathematics is emphasized) with a core of business administration courses. Through appropriate selection of elective courses a student should be able to complete the same program of study offered in the first two years of four-year colleges or universities offering majors in Business Administration.

<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</td>
<td>3</td>
</tr>
<tr>
<td>ACC 121 and 122 Intro. to Accounting I and II</td>
<td>8</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>ECO 101 and 102 Principles of Economics I and II</td>
<td>6</td>
</tr>
<tr>
<td>PSY 101 Principles of Psychology</td>
<td>3</td>
</tr>
<tr>
<td>*Humanities Core</td>
<td>9-12</td>
</tr>
<tr>
<td>*Science/Math Core (See 1 below)</td>
<td>9-12</td>
</tr>
<tr>
<td>*Elective Choice (See 2 below)</td>
<td>9</td>
</tr>
</tbody>
</table>

Total 62-55

1) Math courses to be chosen after consultation with faculty advisor and in consideration of the requirements of the transfer institution. Students expecting to transfer to the University of Massachusetts, School of Business Administration must take MAT 151 and 152 Applied Calculus I and II, and MAT 114 Probability and Statistics. The Science course must bear an advising code of (NC).

2) To be chosen in consultation with the faculty advisor and in consideration of the requirements of the transfer institution. Suggested electives are: BUS 103 Introduction to Marketing, BUS 155 and 156, Business Law I and II. No more than 12 credits bearing an (X) advising code may be applied toward this degree.

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

**Currently approved by the Massachusetts Board of Regents as Liberal Arts/Business.

Program Coordinator: Chairperson, Business Administration
Liberal Arts/Classical Humanities Option

This option parallels, as nearly as possible (and especially for students interested in majoring in English, history, philosophy, political science, journalism, etc.), the typical course of study of the first two years of smaller (usually private) liberal arts colleges. Students contemplating transfer to such colleges are urged to contact their academic advisor and the transfer officer as soon as possible.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101, 103 or 105</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112, 114 or 116</td>
<td></td>
</tr>
<tr>
<td>(Recommended: ENG 112)</td>
<td></td>
</tr>
<tr>
<td>HIS 101 and 102</td>
<td>3</td>
</tr>
<tr>
<td>Western Civilization to</td>
<td></td>
</tr>
<tr>
<td>1500 A.D.</td>
<td></td>
</tr>
<tr>
<td>and since 1500 A.D.</td>
<td>6</td>
</tr>
<tr>
<td>SPE 101 Oral Communication</td>
<td></td>
</tr>
<tr>
<td>ENG 201 and 202</td>
<td>6</td>
</tr>
<tr>
<td>Western Literature I and II</td>
<td></td>
</tr>
<tr>
<td>HUM 201 and 202</td>
<td>6</td>
</tr>
<tr>
<td>Humanities in the Western World I and II</td>
<td></td>
</tr>
<tr>
<td>*Science/Math Core</td>
<td>9-12</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: 2 or more from each group below)</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>60-63</td>
</tr>
</tbody>
</table>

Group I - (Select 2 or more)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 103</td>
<td>3</td>
</tr>
<tr>
<td>ART 104</td>
<td>3</td>
</tr>
<tr>
<td>MUS 101</td>
<td>3</td>
</tr>
<tr>
<td>MUS 105</td>
<td>3</td>
</tr>
<tr>
<td>MUS 106</td>
<td>3</td>
</tr>
<tr>
<td>THE 107</td>
<td>3</td>
</tr>
</tbody>
</table>

Group II - (Select 2 or more)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 259 Survey of Western Drama I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 260 Survey of Western Drama II</td>
<td>3</td>
</tr>
<tr>
<td>PHI 101 Logic and Scientific Method</td>
<td>3</td>
</tr>
<tr>
<td>PHI 103 Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>POL 103 Comparative Politics</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Languages</td>
<td></td>
</tr>
</tbody>
</table>

*See Liberal Arts/General Program for specific requirements.

Program Coordinator: Chairperson, Humanities
Liberal Arts/Data Processing Option

The Data Processing option within the Liberal Arts Program is designed for those students who want the Liberal Arts major for general education. This program will provide a basic knowledge of computers and data processing helpful to students who might utilize computer logic and information processing in their principal courses of study. The graduate earns the Associate in Arts degree.

<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</td>
<td>3</td>
</tr>
<tr>
<td>ENG 123 Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>±MAT 107 Fundamental Concepts of Math (or higher level math course)</td>
<td>3-4</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>-OR-</td>
</tr>
<tr>
<td>DAT 113 Intro. to Business Information Systems</td>
<td>-OR-</td>
</tr>
<tr>
<td>DAT 115 Programming Principles and Concepts</td>
<td>3</td>
</tr>
<tr>
<td>DAT 141 Programming in BASIC</td>
<td>-OR-</td>
</tr>
<tr>
<td>DAT 143 Introduction to ANSI COBOL</td>
<td>-OR-</td>
</tr>
<tr>
<td>DAT 145 FORTRAN Programming</td>
<td>-OR-</td>
</tr>
<tr>
<td>DAT 147 PASCAL Programming</td>
<td>3</td>
</tr>
<tr>
<td>DAT Electives (5 credits chosen from available courses)</td>
<td>5</td>
</tr>
<tr>
<td>*Behavioral Science Core</td>
<td>9</td>
</tr>
<tr>
<td>*Humanities Core</td>
<td>9</td>
</tr>
<tr>
<td>**Science Core</td>
<td>3-4</td>
</tr>
</tbody>
</table>

*Elective Choice

General Elective                                                        3
*Liberal Arts Elective                                                   6

Total 60-62

*Students planning to transfer to a four-year computer science major should take MAT 201, 202 (Calculus I,II), PHY 111, 112 (Physics I,II w/Calculus), DAT 211 (Assembly and Machine Languages); CHE 111, 112 may be required.

*See Liberal Arts/General Program for specific requirements.

Program Coordinator: Chairperson, Natural Sciences
Liberal Arts/Food Science Option

This option is designed for the student who plans to transfer to a four-year degree program with a major in Food Science or Food Science Engineering. It is consistent with the first two years of a university program and allows the student to transfer into a four-year degree program without loss of time and/or academic credit. Some students may wish to modify this program slightly to allow transfer into a major in Nutrition.

<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</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>*Behavioral Science Core</td>
<td>9</td>
</tr>
<tr>
<td>*Humanities Core</td>
<td>9</td>
</tr>
</tbody>
</table>

Total 67

*See Liberal Arts/General Program for specific requirements.

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

Liberal Arts/Human Ecology Option

The Liberal Arts/Human Ecology Option is a synthesis of the behavioral and natural sciences. This program is designed to develop understanding of the ecological perspective and emphasizes the application of science and technology in resolving current problems critical to our future. Project TEME, an acronym for totally enclosed modular environments, is an integral part of this curriculum, combining principles of ecology and effective group process with computer-integrated simulations and community eco-action projects to provide students with a career-oriented, hands-on learning experience. This option offers courses necessary for successful transfer to four-year institutions 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, 105 English Composition I, any option</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112, 114, 116 English Composition II, any option</td>
<td>3</td>
</tr>
<tr>
<td>SPE 101 Oral Communication</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 (mathematics) 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>ANT 103 or ANT 104 Intro. to Physical Anthropology, or Intro. to Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>HEC 101 Human Ecology: Problems and Solutions</td>
<td>3</td>
</tr>
<tr>
<td>HEC 111 Applied Human Ecology: Project TEME</td>
<td>3</td>
</tr>
<tr>
<td>HEC 251 Small Group Ecology: Project TEME Planning and Development</td>
<td>3</td>
</tr>
<tr>
<td>HEC 252 Small Group Ecology: Project TEME Implementation</td>
<td>6</td>
</tr>
<tr>
<td>PSY 101 Principles of Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 221 Environmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101 Principles of Sociology</td>
<td>3</td>
</tr>
<tr>
<td>Any Liberal Arts or General Electives</td>
<td>1-4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>60-63</td>
</tr>
</tbody>
</table>

### Program Coordinators:

Dan LaRose and Greg Vouros

---

**Liberal Arts/Math/Science Option**

This option is designed for the student who plans to transfer to a four-year degree program with a major in Mathematics or one of the Sciences. It is consistent with the first two years of a university program and allows the student to transfer into a four-year degree program without loss of time and/or academic credit. The student should consult with his advisor about choosing appropriate courses.

### 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</td>
<td>3</td>
</tr>
<tr>
<td>MAT 107, 108, 201, 202 (at least 2)</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>
</tbody>
</table>
Other Required Courses - at least 8 credits from 2 or more subject areas (16 credits total)

BIO 101 Zoology
BIO 102 Botany
CHE 111, 112 General Chemistry I and II
GEO 101 Physical Geology
GEO 102 Historical Geology
PHY 101, 102 General Physics I and II
PHY 111, 112 General Physics I and II w/Calculus
MAT 201, 202 Calculus w/Analytic Geometry I and II
MAT 203 Multivariate Calculus
MAT 204 Elementary Differential Equations
MAT 205 Elementary Linear Algebra 16

*Electives - any "Other Required Courses" plus:

BIO 103, 104, 105, 106, 107, 108, 111, 114, 130, 205
CHE 201, 202
DAT 145 or 111 or 147
GEO 103, 104, 106, 107, 201
MAT 112, 114
SCI 104

Total 11

60-62

*See Liberal Arts/General Program for specific requirements.

Program Coordinator: Chairperson, Natural Sciences

Liberal Arts/Natural Resources

This option is designed for the student who plans to transfer to a four-year program with a major in natural resources, agriculture, land use planning, landscaping, horticulture, forestry, wood technology, or wildlife management.

It is consistent with the first two years of a university program and allows the student to transfer into a four-year degree program without loss of time or academic credit. The student should consult with the advisor about choosing the most appropriate courses.

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101, 103 or 105 English Composition I, any option</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112, 114 or 116 English Composition II, any option</td>
<td>3</td>
</tr>
<tr>
<td>SPE 101 Oral Communication</td>
<td>3</td>
</tr>
<tr>
<td>BIO 103 Ecology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 104 Natural History</td>
<td>4</td>
</tr>
<tr>
<td>ENV 107 Land Use</td>
<td>3</td>
</tr>
</tbody>
</table>
Required Courses (continued)  

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 107 Fundamental Concepts of Mathematics or higher level</td>
<td>3</td>
</tr>
<tr>
<td>MAT 151 Applied Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>ECO 102 Principles of Economics II (Micro)</td>
<td>3</td>
</tr>
<tr>
<td>*Behavioral Science Core - Elective</td>
<td>6</td>
</tr>
<tr>
<td>**Humanities Core - Literature</td>
<td>3</td>
</tr>
<tr>
<td>**Humanities Core - History</td>
<td>3</td>
</tr>
<tr>
<td>Humanities Core - Elective</td>
<td>3</td>
</tr>
<tr>
<td>***Concentration electives to be selected from the appended listing.</td>
<td>15-20</td>
</tr>
</tbody>
</table>

Total 60-65

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

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

***Concentration Electives  

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGR 101 Agriculture</td>
<td>3</td>
</tr>
<tr>
<td>AGR 103 Equine Management</td>
<td>3</td>
</tr>
<tr>
<td>BIO 101 Zoology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 102 Botany</td>
<td>4</td>
</tr>
<tr>
<td>BIO 111 Horticulture</td>
<td>3</td>
</tr>
<tr>
<td>BIO 112 Woodlot Management</td>
<td>3</td>
</tr>
<tr>
<td>CHE 106 Chemistry of Air and Water</td>
<td>3</td>
</tr>
<tr>
<td>CHE 111-112 General Chemistry I and II</td>
<td>4-8</td>
</tr>
<tr>
<td>ENV 106 Landscaping</td>
<td>3</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>GEO 103 Valley Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEO 104 Oceanography</td>
<td>4</td>
</tr>
<tr>
<td>MAT 201-202 Calculus with Analytic Geometry I and II</td>
<td>4-8</td>
</tr>
<tr>
<td>PHY 101-102 General Physics I and II</td>
<td>4-8</td>
</tr>
<tr>
<td>SCI 104 Energy: Issues and Principles</td>
<td>3</td>
</tr>
</tbody>
</table>

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

Coordinator:  
Chairperson, Natural Sciences
Liberal Arts/Pioneer Valley Studies

The Pioneer Valley Studies Program examines the culture, history and environment of the Pioneer Valley in the national context. Students will learn to recognize cultural artifacts and become familiar with the rich natural and historical resources of the region. Designed for persons planning to pursue careers in teaching, public service, museum and library studies, journalism and art organizations, the program leads to an Associate in Arts degree and meets the requirements of the Commonwealth Transfer Compact.

<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</td>
<td>3</td>
</tr>
<tr>
<td>ART 105 or 106 Valley/American Art and Architecture</td>
<td>3</td>
</tr>
<tr>
<td>I or II</td>
<td></td>
</tr>
<tr>
<td>ECO 111 Valley Contemporary Economic Issues</td>
<td>3</td>
</tr>
<tr>
<td>ENG 203 or 204 American Literature I or II</td>
<td>3</td>
</tr>
<tr>
<td>ENG 253 Valley Writers</td>
<td>3</td>
</tr>
<tr>
<td>GEO 103 Valley Geology</td>
<td>3</td>
</tr>
<tr>
<td>HIS 107 and 108 Valley/American History I and II</td>
<td>6</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>*Natural Sciences Core</td>
<td>6</td>
</tr>
</tbody>
</table>

*Elective Choice

General Electives                                      9
Valley Studies Electives (chosen from below or from alternatives above) 6
Total 56

Valley Studies Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 109 Valley Industrial &amp; Economic Development</td>
<td>3</td>
</tr>
<tr>
<td>ENG 125 Interviewing and Transcribing</td>
<td>3</td>
</tr>
<tr>
<td>ENG 257 MacLeish Seminar</td>
<td>3</td>
</tr>
<tr>
<td>FLK 219 Valley Folklife</td>
<td>3</td>
</tr>
<tr>
<td>HIS 217 Valley Ethnic History</td>
<td>3</td>
</tr>
<tr>
<td>HUM 117 History of Pioneer Valley Education</td>
<td>3</td>
</tr>
<tr>
<td>HUM 119 Women in the Valley</td>
<td>3</td>
</tr>
<tr>
<td>HUM 231 Valley Research Project</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 in Arts degree.

*See Liberal Arts/General Program for specific requirements.

Program Coordinator: Bernard A. Drabeck
CAREER PROGRAMS

Career Programs are organized programs of specialized education leading to the degree of Associate in Science. They may include studies in the Behavioral Sciences, Humanities and the Natural Sciences.

The career programs are designed to prepare students for employment in a variety of occupational fields and, in some cases, to provide the foundation for transfer to a four-year baccalaureate degree program.

The College offers sixteen Career Programs in a wide variety of technological and service fields. Students interested in pursuing a Career Program may wish to discuss their vocational goals with a Program Coordinator or with their academic advisor.

The degree requirements for each career program are listed under its program title. In most career programs elective credits are required in Liberal Arts. The following code definitions are to be used in course selection:

1. A General Elective may be satisfied by completing any credit course offered at Greenfield Community College, regardless of code.

2. A Liberal Arts Elective may be satisfied by completing any credit course coded (C), (HC), (NC), (BC), (HL), (BL), (NL), (L), or (SL).

3. Electives from specific subject areas can be satisfied as defined below:

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

NOTE: Some electives in particular career programs are footnoted, and specific courses are suggested.
Accounting Associate

The Accounting Associate program is an occupational curriculum which prepares students to work at the para professional level in industry, retail and wholesale enterprises, or public accounting offices. The graduate earns the degree of Associate in Science and should be qualified for entry level positions such as accounts payable clerk, accounts receivable clerk, inventory manager, cost accounting clerk, junior accountant in public accounting firms, and motel or restaurant full charge bookkeeper.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 121</td>
<td>Intro. to Accounting I and II</td>
<td>8</td>
</tr>
<tr>
<td>ACC 122</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACC 203</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC 205</td>
<td>Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ADM 106</td>
<td>Keyboarding for Information Processing</td>
<td>1</td>
</tr>
<tr>
<td>BUS 111</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 105</td>
<td>Mathematics for Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 155</td>
<td>and 156 Business Law I and II</td>
<td>6</td>
</tr>
<tr>
<td>BUS 205</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>DAT 113</td>
<td>Introduction to Business Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101</td>
<td>Principles of Economics I (Macro)</td>
<td>3</td>
</tr>
<tr>
<td>ECO 102</td>
<td>Principles of Economics II (Micro)</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 123</td>
<td>Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>PSY 101</td>
<td>Principles of Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives:

Business Elective - any 3 credits with a prefix of ACC, ADM, BUS, or DAT (BUS 103 recommended) 3
Liberal Arts Electives - any 6 credits in courses with any advising code other than (A) or (X) 6
Program Electives - any 6 credits in courses from the list below 6

Total 63

Program Elective Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 201</td>
<td>or 202 Intermediate Accounting I or II</td>
<td>3-6</td>
</tr>
<tr>
<td>ACC 251</td>
<td>Cooperative Work Experience in Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUS 107</td>
<td>Introduction to Federal Income Taxes</td>
<td>3</td>
</tr>
<tr>
<td>DAT 121</td>
<td>Data Base Applications</td>
<td>1</td>
</tr>
<tr>
<td>DAT 125</td>
<td>Computerized Accounting</td>
<td>1</td>
</tr>
<tr>
<td>DAT 129</td>
<td>Computerized Financial Planning</td>
<td>1</td>
</tr>
<tr>
<td>DAT 131</td>
<td>Word Processing on Microcomputers</td>
<td>1</td>
</tr>
<tr>
<td>DAT 141</td>
<td>Programming in BASIC</td>
<td>3</td>
</tr>
<tr>
<td>DAT 143</td>
<td>Introduction to ANSI COBOL</td>
<td>3</td>
</tr>
<tr>
<td>DAT 201</td>
<td>Business Systems Analysis and Design</td>
<td>3</td>
</tr>
</tbody>
</table>

Program Coordinator: Chairperson, Business Administration
Art

The Art curriculum provides the first two years of professional art training. This curriculum is intended as a transfer program offering the degree of Associate in Science and leads to the degree of Bachelor of Fine Arts in Art or the degree of Bachelor of Science in Art education in a four-year institution.

Ours is a pre-professional program intended to lay the groundwork that will ultimately produce a functioning, creative artist, teacher or professional in a variety of art-related jobs.

Students may choose to take some of the required or elective Liberal Arts courses in the summer session between their first and second years in order to lighten their academic work during their first year. This will still enable the student to complete his/her program in two years. In some cases it may be advisable for a student to plan his/her program over a three-year period.

Required Courses

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 103 and 104 Art History I and II</td>
<td>6</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 and 132 Drawing I and II</td>
<td>6</td>
</tr>
<tr>
<td>ART 231 Figure Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 232 Drawing Problems</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>HUD 113 Job Search Training</td>
<td>1</td>
</tr>
</tbody>
</table>

Electives

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral Science Elective</td>
<td>3</td>
</tr>
<tr>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>General Elective</td>
<td>3</td>
</tr>
<tr>
<td>Liberal Arts Electives</td>
<td>6</td>
</tr>
<tr>
<td>Art Studio Electives (see below)</td>
<td>12</td>
</tr>
</tbody>
</table>

Total 64

Art Studio Electives

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 151 Introduction to Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 233 Printmaking I</td>
<td>3</td>
</tr>
<tr>
<td>ART 234 Printmaking II</td>
<td>3</td>
</tr>
<tr>
<td>ART 241 Painting I</td>
<td>3</td>
</tr>
<tr>
<td>ART 242 Painting II</td>
<td>3</td>
</tr>
<tr>
<td>ART 251 Photography I</td>
<td>3</td>
</tr>
<tr>
<td>ART 252 Photography II</td>
<td>3</td>
</tr>
<tr>
<td>ART 270 Graphic Art Production</td>
<td>3</td>
</tr>
<tr>
<td>ART 271 Graphic Design I</td>
<td>3</td>
</tr>
</tbody>
</table>
Art Studio Electives (Continued)

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

NOTES: Students may, with the permission of the Program Coordinator, take an additional course each semester.

It is understood that students must complete introductory level studios before taking advanced level studios.

Program Coordinator: T. Budge Hyde

Computer Information Systems

This program is designed for the student who plans to transfer to a four-year degree program with a major in Computer Information Systems or Business Data Processing. The program is consistent with the first two years of the model curriculum for Computer Information Systems Education as published by Data Processing Management Association, and will allow for transfer to most Computer Information Systems programs without loss of time and/or academic credit.

<table>
<thead>
<tr>
<th>Major Core</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADM 106  Keyboarding for Information Processing</td>
<td>1</td>
</tr>
<tr>
<td>DAT 115  Programming Principles and Concepts</td>
<td>3</td>
</tr>
<tr>
<td>DAT 141  Programming in BASIC</td>
<td>3</td>
</tr>
<tr>
<td>DAT 143  Introduction to ANSI COBOL</td>
<td>3</td>
</tr>
<tr>
<td>DAT 201  Systems Analysis and Design</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Business Core</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 121 and 122 Intro. to Accounting I and II</td>
<td>8</td>
</tr>
<tr>
<td>ACC 203  Managerial Accounting</td>
<td>3</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 and 156 Business Law I and II</td>
<td>6</td>
</tr>
<tr>
<td>BUS 205  Principles of Management</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Liberal Arts</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 101  Principles of Economics I (Macro)</td>
<td>3</td>
</tr>
<tr>
<td>ECO 102  Principles of Economics II (Micro)</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>
</tbody>
</table>
**Liberal Arts (Continued)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 151 and 152, Applied Calculus I and II</td>
<td>7</td>
</tr>
<tr>
<td>PSY 101, Principles of Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

*General Elective*  
Total 64

*Those using this program as a preparation for transfer should select a course which meets a requirement of the specific four-year institution to which transfer is planned. Your advisor or Division Chairman should be consulted in making this selection.*

**Program Coordinator:** Chairperson, Business Administration

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**Criminal Justice**

The curriculum in Criminal Justice leads to the degree of Associate in Science. It is designed to present a broad education in the operations, functions and objectives of the Criminal Justice system and its component parts. It examines the police, the courts and corrections. Graduates of this program are prepared for entry into a number of different baccalaureate programs or for certain careers within the criminal justice system.

**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, 116, English Composition II -OR-</td>
<td>3</td>
</tr>
<tr>
<td>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>
<tr>
<td>PSY 213, Psychology of Interpersonal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101, Principles of Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 201, Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>SPE 101, Oral Communications</td>
<td>3</td>
</tr>
</tbody>
</table>

or

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPE 121, Group Discussion: Problem Solving</td>
<td>3</td>
</tr>
<tr>
<td>CRJ Electives (See list below)</td>
<td>9</td>
</tr>
<tr>
<td>General Elective</td>
<td>3</td>
</tr>
<tr>
<td>Natural Science/Humanities Elec. (See 2 below)</td>
<td>6</td>
</tr>
</tbody>
</table>

Total 60
CRJ Electives - Any 3 of the following:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJ 113</td>
<td>Juvenile Justice Process</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 115</td>
<td>Introduction to Security</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 117</td>
<td>Principles of Loss Prevention</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 203</td>
<td>Criminal Investigation</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 211</td>
<td>Current Issues in Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 215</td>
<td>Field Experience Practicum (See 1 below)</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 217</td>
<td>White Collar Organized Crime</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 219</td>
<td>Issues in Constitutional Law</td>
<td>3</td>
</tr>
</tbody>
</table>

1) Select with the assistance of the program advisors.

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

Program Coordinator: Edward Kane

---

**Early Childhood Education**

This curriculum prepares students for professional employment in early childhood setting and for positions as aides in elementary schools and social service agencies. It also provides the foundation for further study in early childhood education, elementary education, special education and other human service curricula.

The field work component of the program provides direct experience in different early childhood settings and assures the acquisition of practical skills. Students graduating from this program are qualified to serve as assistant teachers in early childhood classrooms and, upon completion of a required period of experience, can be licensed as head teachers.

A student planning to transfer to one of the Massachusetts public colleges or universities to pursue a bachelor's degree should take advantage of the Commonwealth Transfer Compact. To satisfy Compact requirements, it will be necessary to take three liberal arts courses in addition to those stipulated below. In some areas, it may be advisable for the potential transfer student to plan for completion of the program in a two and one-half year period or to take courses during the intervening summer session.

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 101 Introduction to Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE 102 Prepracticum in Early Childhood Education (ECE 101 lab)</td>
<td>3</td>
</tr>
<tr>
<td>ECE 103 Creative Experiences in Art, Music, Drama and Dance</td>
<td>3</td>
</tr>
</tbody>
</table>

45
## Required Courses (Continued)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 201</td>
<td>Early Childhood Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>ECE 203</td>
<td>Contemporary Issues in Early Childhood Educ.</td>
<td>3</td>
</tr>
<tr>
<td>ECE 215</td>
<td>Student Teaching I</td>
<td>6</td>
</tr>
<tr>
<td>ECE 216</td>
<td>Student Teaching II</td>
<td>6</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>ENG 241 or FLK 218</td>
<td>Survey of Children's Literature</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or Storytelling</td>
<td></td>
</tr>
<tr>
<td>PSY 101</td>
<td>Principles of Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 217</td>
<td>Human Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101 or ANT 104</td>
<td>Principles of Sociology or</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Cultural Anthropology</td>
<td></td>
</tr>
<tr>
<td>SPE 101</td>
<td>Oral Communication</td>
<td>3</td>
</tr>
<tr>
<td>ECE/LED Electives (see Groups A and B below)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>EDU Electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>General Electives</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Natural Science/Math Elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>63-64</td>
<td></td>
</tr>
</tbody>
</table>

### Group A - Any 2 of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 221</td>
<td>Science for Children</td>
<td>1</td>
</tr>
<tr>
<td>ECE 223</td>
<td>Mathematics for Children</td>
<td>1</td>
</tr>
<tr>
<td>ECE 227</td>
<td>Designing Learning Environment</td>
<td>1</td>
</tr>
<tr>
<td>ECE 229</td>
<td>Nature Activities for Children</td>
<td>1</td>
</tr>
<tr>
<td>ECE 237</td>
<td>Exploring Children's Behavior</td>
<td>1</td>
</tr>
</tbody>
</table>

### Group B - Any 1 of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 231</td>
<td>Movement with Children</td>
<td>1</td>
</tr>
<tr>
<td>ECE 233</td>
<td>Early Education in the Home</td>
<td>1</td>
</tr>
<tr>
<td>ECE 235</td>
<td>AV in the Early Childhood Classroom</td>
<td>1</td>
</tr>
<tr>
<td>LED 153</td>
<td>New Games</td>
<td>1</td>
</tr>
<tr>
<td>LED 193</td>
<td>Contemporary Food Experience</td>
<td>1</td>
</tr>
<tr>
<td>LED 199</td>
<td>Creative Drama</td>
<td>2</td>
</tr>
<tr>
<td>MUS 109</td>
<td>Music in Early Childhood Education</td>
<td>1</td>
</tr>
</tbody>
</table>

### Education Electives (General)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU 111</td>
<td>Introduction to Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDU 113</td>
<td>Screening and Assessment Techniques for Young Children</td>
<td>3</td>
</tr>
<tr>
<td>EDU 115</td>
<td>Family School and Community Interaction</td>
<td>3</td>
</tr>
<tr>
<td>EDU 117</td>
<td>Program Options for Children w/Special Needs</td>
<td>3</td>
</tr>
<tr>
<td>EDU 123</td>
<td>Educating the Infant and Toddler</td>
<td>3</td>
</tr>
</tbody>
</table>

Program Coordinator: Nancy T. Winter
Electronics Technology**

The Electronics Technology program is designed to provide a strong program in both theoretical and practical work for entry-level positions in the electronics field. A minimum of 22 credit hours of technical courses in basic electricity and solid-state electronics is augmented by approximately 200 hours of laboratory experience in circuit analysis and instrumentation.

Students completing this program will be able to function as engineering assistants, electronic maintenance and repair technicians, supervisors in various phases of the electronics industry, and as technically-trained persons in other electronics-related positions for which their training has been appropriate.

Though the courses in this program are generally not transferable to four-year EE degree programs, because of their strong theoretical and mathematical level, they do provide a strong foundation upon which further study in electronics and electronics-related fields can be built.

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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 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 and 104 Applied Math I and II</td>
<td>6</td>
</tr>
<tr>
<td>MAT 151 Applied Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>PHY 101 and 102 General Physics I and II</td>
<td>8</td>
</tr>
<tr>
<td>SPE 101 Oral Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives

Behavioral Science/Humanities Electives 6
Electronics Electives (see below) 22

Total 62

Electronics Electives

ELT 101 Basic Electricity I - DC 4
ELT 102 Basic Electricity II - AC 4
ELT 103 Basic Electronics I 4
ELT 104 Basic Electronics II 4
ELT 201 Digital Circuit Theory -OR- 3
ELT 203 Microprocessing Fundamentals 4
ELT 205 Industrial Electronics 4
ELT or BUS Elective 3

**Currently approved by the Massachusetts Board of Regents as Industrial Technologies Cluster.

Program Coordinator: Dr. David A. Harvey
# Engineering Science

The Engineering Science curriculum is primarily a transfer program, and includes a solid base in math-engineering fundamentals. It offers considerable flexibility in overall program design, whereby students may select engineering courses appropriate to several different majors. The program awards the degree of Associate in Science.

<table>
<thead>
<tr>
<th>Required Courses</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-</td>
<td></td>
</tr>
<tr>
<td>Technical Elective*</td>
<td>3-4</td>
</tr>
<tr>
<td>DAT 147 PASCAL Programming</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101 Principles of Economics I (Macro) -OR-</td>
<td></td>
</tr>
<tr>
<td>ECO 102 Principles of Economics II (Micro)</td>
<td></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, 202 and 203 Calculus I, II and III</td>
<td>12</td>
</tr>
<tr>
<td>MAT 204 Elementary Differential Equations -OR-</td>
<td></td>
</tr>
<tr>
<td>MAT 205 Elementary Linear Algebra</td>
<td>3-4</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>SPE 101 Oral Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives**
- Humanities/Behavioral Science Electives (HC or BC) \( \text{6} \)
- Concentration Electives (below) \( \text{10-11} \)

Total \( \text{62-68} \)

\*MAT 204, MAT 205, EGR 200 series, CHE 200 series

Concentration Electives - Choose one grouping as listed below. Special circumstances may warrant some variations.

**Chemical Engineering**
- CHE 201 Organic Chemistry I \( \text{4} \)
- CHE 202 Organic Chemistry II \( \text{4} \)
- EGR 208 Thermodynamics \( \text{3} \)

**Civil/Mechanical Engineering**
- EGR 205 Statics \( \text{3} \)
- EGR 206 Mechanics of Materials \( \text{4} \)
- EGR 208 Thermodynamics -OR- \( \text{3} \)
- EGR 207 Dynamics \( \text{3} \)

**Electrical Engineering**
- EGR 211 Circuit Analysis I \( \text{4} \)
- EGR 212 Circuit Analysis II \( \text{4} \)
- ELT 201 Digital Circuit Theory \( \text{3} \)

Program Coordinator: Dr. Lee A. Webster
Fire Science Technology

The Fire Science Technology curriculum provides technical and legal training in various aspects of fire prevention, fire protection and hazardous material handling. Graduates of this program receive the degree of Associate in Science and may look forward to careers with local fire departments, in insurance and building inspection and in fire protection work with private firms. The program is designed for high school graduates interested in fire protection as a career and to provide opportunities for professional advancement for firefighters in service. Fire Science Technology courses are available only in the evening division, although students in this program may take liberal arts courses in either the day or evening division.

This curriculum is approved by the Massachusetts Board of Regents under the title of "Fire Protection and Safety Technology."

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 105 or SCI 101 Basic Principles of Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>or 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, any option</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>SCC 101 Principles of Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SPE 101 Oral Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Electives</th>
<th></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>
<tr>
<td>Total</td>
<td>60</td>
</tr>
</tbody>
</table>

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

Program Coordinator: Carleton P. Stinchfield
Graphic Design

The Graphic Design curriculum is for students interested in design and photography who wish to channel their creative talents into an occupation. The curriculum will broaden and refine the talents needed to enter the job market or to form the basis for advanced study. Experience in the Graphic Design program will prepare the individual to face abstract problems and interpret those problems into creative and practical solutions. The student will become familiar with the tools of advertising and develop skills in typography, illustration, layout, mechanical work, photography and printing production.

Students may choose to take some of the Liberal Arts courses during the summer session to lighten the course load during the first year. In some cases, it may be advisable for a student to plan his/her program for a three-year period.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 103 and 104, Art History I and II</td>
<td>6</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 and 132, Drawing I and II</td>
<td>6</td>
</tr>
<tr>
<td>ART 271 and 272, Graphic Design I and II</td>
<td>6</td>
</tr>
<tr>
<td>ENG 101, 103 or 105, English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112, 114, 116, or 123, English Composition II or Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>HUD 113 Job Search Training</td>
<td>1</td>
</tr>
</tbody>
</table>

Electives

Behavioral Science Elective | 3
Humanities Elective | 3
General Elective | 3
Liberal Arts Elective | 6
Art Studio Electives (see below) | 12

Total 64

Art Studio Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 151 Introduction to Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 231 Figure Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 232 Drawing Problems</td>
<td>3</td>
</tr>
<tr>
<td>ART 233 Printmaking I</td>
<td>3</td>
</tr>
<tr>
<td>ART 234 Printmaking II</td>
<td>3</td>
</tr>
<tr>
<td>ART 241 Painting I</td>
<td>3</td>
</tr>
<tr>
<td>ART 242 Painting II</td>
<td>3</td>
</tr>
<tr>
<td>ART 251 Photography I</td>
<td>3</td>
</tr>
<tr>
<td>ART 252 Photography II</td>
<td>3</td>
</tr>
<tr>
<td>ART 270 Graphic Art Production</td>
<td>3</td>
</tr>
<tr>
<td>ART 295 Directed Study in Art</td>
<td>1-3</td>
</tr>
<tr>
<td>ART 296 Directed Study in Art</td>
<td>1-3</td>
</tr>
<tr>
<td>ART 297 Cooperative Placement in Art</td>
<td>1-6</td>
</tr>
<tr>
<td>ART 298 Cooperative Placement in Art</td>
<td>1-6</td>
</tr>
</tbody>
</table>
NOTES: It is understood that students must complete introductory level studios before taking advanced level studios. Students, may with the permission of the Program Coordinator, take an additional course each semester.

Program Coordinator: T. Budge Hyde

Management

The Management curriculum is designed for students planning to begin careers immediately after earning the degree of Associate in Science and for students wishing to transfer to appropriate four-year degree programs. The program includes liberal arts courses, a core of management courses and optional electives of interest to the student either for career or transfer purposes. Those utilizing the Management curriculum as an occupational program may look forward to entry level management positions in business and public organizations.

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 121 and 122 Intro. to Accounting I and II</td>
<td>8</td>
</tr>
<tr>
<td>ACC 203 Managerial Accounting</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 155 and 156 Business Law I and II</td>
<td>6</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>ECO 101 Principles of Economics I (Macro)</td>
<td>3</td>
</tr>
<tr>
<td>ECO 102 Principles of Economics II (Micro)</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></td>
</tr>
<tr>
<td>PSY 101 Principles of Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives

Program Electives: any 6 credits in courses with a prefix of ACC, BUS or DAT

Liberal Arts Electives: any 6 credits in courses with any advising code other than (A) or (X)

Elective: any 3 credits with a number above 100

Total 62

Program Coordinator: Chairperson, Business Administration
Marketing

The Marketing curriculum is designed for those interested in pursuing careers in marketing and merchandising after earning the Associate in Science degree. Graduates may qualify for entry level management or sales positions at the retail, wholesale, and industrial levels. The program includes selected liberal arts courses, a core of business administration courses, specialized marketing courses, and the opportunity for a cooperative work placement.

<table>
<thead>
<tr>
<th>Required Courses</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 and 156 Business Law I and II</td>
<td>6</td>
</tr>
<tr>
<td>BUS 205 Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 211 Retail Merchandising</td>
<td>3</td>
</tr>
<tr>
<td>BUS 213 Personal Selling and Sales Techniques</td>
<td>3</td>
</tr>
<tr>
<td>BUS 223 Marketing Problems</td>
<td>3</td>
</tr>
<tr>
<td>DAT 113 Introduction to Business Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101 Principles of Economics I (Macro)</td>
<td>3</td>
</tr>
<tr>
<td>ECO 102 Principles of Economics II (Micro)</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, 116 or 123 English Composition II or Report Writing</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>
</tbody>
</table>

Electives

Program Elective: any 3-credits in courses with a prefix of ACC, BUS or DAT (See 1 below) 3
Liberal Arts Elective: any 3 credits in courses with codes other than (A) or (X) 3

Total 60

1) ACC 121 is recommended if transfer is a possibility. If so, then ACC 103 would be replaced by ACC 122.

Program Coordinator: Chairperson, Business Administration
Media Communication

The Media Communication curriculum is designed for persons with interest in the design, production, and dissemination of media communications or for those currently involved with information production and dissemination, and/or training. Students completing the program are prepared for positions as communications facilitators in education, business and industry. The program is normally transferable for study in media beyond the Associate in Science degree.

<table>
<thead>
<tr>
<th>Required Courses</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 any NC coded MAT course</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 Production</td>
<td>3</td>
</tr>
<tr>
<td>MCM 205 Photography and Graphics</td>
<td>3</td>
</tr>
<tr>
<td>MCM 209 Advanced Television Production</td>
<td>3</td>
</tr>
<tr>
<td>MCM 211 Advanced Media Production</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</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>6</td>
</tr>
</tbody>
</table>

Total 60

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

Program Coordinator: Thomas W. Hoisvert

Nursing

The Nursing curriculum prepares men and women for careers as nurses who will provide direct and competent bedside care for adults and children according to their level of adaptation on the health-illness continuum and using all elements of the nursing process. The student who successfully completes the prescribed curriculum earns the degree of Associate in Science and is eligible to take the Registered Nurse Licensing Examination. In addition to classroom and laboratory work in the College, the Nursing curriculum provides clinical experience at Franklin County Public Hospital, Farren Memorial Hospital, Franklin Nursing Home, Cooley Dickinson Hospital, Northampton State Hospital, Northampton Nursing Home and Brattleboro Retreat.
Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 101</td>
<td>Fundamentals of Nursing</td>
<td>7</td>
</tr>
<tr>
<td>BIO 105</td>
<td>Anatomy and Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>ENG 101, 103 or 105</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>PSY 101</td>
<td>Principles of Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

First Year - Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 102</td>
<td>Family-Centered Nursing</td>
<td>7</td>
</tr>
<tr>
<td>BIO 106</td>
<td>Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>SOC 101</td>
<td>Principles of Sociology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 217</td>
<td>Human Growth and Development</td>
<td>3</td>
</tr>
</tbody>
</table>

First Year - Spring Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 201</td>
<td>Adaptation to Illness I</td>
<td>8</td>
</tr>
<tr>
<td>NUR 203</td>
<td>Mental-Health Nursing</td>
<td>4</td>
</tr>
<tr>
<td>BIO 205</td>
<td>Microbiology</td>
<td>4</td>
</tr>
</tbody>
</table>

Second Year - Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 202</td>
<td>Adaptation to Illness II</td>
<td>9</td>
</tr>
<tr>
<td>NUR 204</td>
<td>Historical &amp; Professional Trends in Nursing</td>
<td>2</td>
</tr>
<tr>
<td>ENG 112, 114 or 116</td>
<td>English Composition II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>67</td>
</tr>
</tbody>
</table>

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

Office Administration

Office Administration is primarily an occupational program designed to develop skills and training necessary for office occupations. The program provides the flexibility for students to develop a curriculum to meet their individual career goals. The graduate earns an Associate in Science degree and may expect to find employment in executive, legal, medical and administrative office positions. He or she will be qualified to assume an administrative or secretarial role on the management team. Opportunities also exist for transfer to appropriate baccalaureate degree programs.
<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 111 Basic Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACC 112 Basic Accounting II or Program Elective</td>
<td>3</td>
</tr>
<tr>
<td>*ADM 111, 113 or 115 Typewriting</td>
<td>6</td>
</tr>
<tr>
<td>*ADM 113, 115 or Program Elective</td>
<td>3</td>
</tr>
<tr>
<td>ADM 119 Business English</td>
<td></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 Procedures</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>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 123 Business Communication</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, 116 or 123 English Composition II or</td>
<td>3</td>
</tr>
<tr>
<td>Report Writing</td>
<td></td>
</tr>
<tr>
<td>SPE 101 Oral Communication or SPE 121 Group Discussion</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives**

Liberal Arts Electives: any 12 credits in courses with an advising code other than (X) or (A)  

Total 60

*Students must complete either 6 credit hours of typing or ADM 115 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: Janet Balise, Office Administration
Recreation and Leisure Services

This program leads to the Associate in Science degree in Recreation and Leisure Services. It is designed to prepare students for leadership, programming, and supervisory positions in a variety of Recreation and Leisure Agencies such as Public Recreation Departments, Senior Centers, Fitness Agencies, Outdoor Programs and Private/Commercial Recreation settings.

Within the Recreation and Leisure Services program, students select specific courses which permit them to focus their study in one or more areas of the field. These areas include: Community Recreation, Physical Fitness, Elder Services, Outdoor Recreation and Commercial Recreation. This program design facilitates the development of specific leadership and activity skills and an educational experience most appropriate to personal and professional goals. The faculty have developed an advising program to assist students in making sound academic and career decisions.

The fieldwork program has a cooperative relationship with more than forty Recreation and Leisure Service agencies serving youth, adolescents, adults, the elderly, and special populations.

In addition to career preparation, the program is designed to permit successful transfer to many excellent four-year colleges and universities.

### Required Core Courses and Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLS 101</td>
<td>Intro. to Recreation and Leisure Service</td>
<td>3</td>
</tr>
<tr>
<td>RLS 109</td>
<td>Program Planning</td>
<td>3</td>
</tr>
<tr>
<td>RLS 115</td>
<td>Fieldwork I</td>
<td>3</td>
</tr>
<tr>
<td>RLS 119</td>
<td>Advanced First Aid and CPR</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>PSY 101</td>
<td>Principles of Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101</td>
<td>Principles of Sociology -or-</td>
<td></td>
</tr>
<tr>
<td>ANT 104</td>
<td>Intro. to Cultural Anthropology -or-</td>
<td></td>
</tr>
<tr>
<td>HEC 101</td>
<td>Human Ecology - Problems and Solutions</td>
<td>3</td>
</tr>
</tbody>
</table>

Leisure Education Electives: 8

Humanities Electives: 6

Behavioral Science Electives: 3

Natural Science Electives: 3

Recreation and Leisure Services Electives: 3

Study Area Requirements: 18

Total: 65

### Required Courses Within Each Study Area

Community Recreation

RLS 103 Creative Experiences in Art, Music, Drama, and Dance: 3

56
Community Recreation (Continued)  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLS 107</td>
<td>Recreational Sports Administration</td>
<td>3</td>
</tr>
<tr>
<td>RLS 111</td>
<td>Introduction Outdoor Recreation</td>
<td>3</td>
</tr>
<tr>
<td>RLS 215</td>
<td>Fieldwork II</td>
<td>3</td>
</tr>
<tr>
<td>General Electives</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

Physical Fitness

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLS 105</td>
<td>Intro. to Physical Education &amp; Fitness</td>
<td>3</td>
</tr>
<tr>
<td>RLS 107</td>
<td>Recreational Sports Administration</td>
<td>3</td>
</tr>
<tr>
<td>RLS 220</td>
<td>Planning, Organization and Administration of Fitness Programs</td>
<td>3</td>
</tr>
<tr>
<td>BIO 105</td>
<td>Anatomy and Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>BIO 106</td>
<td>Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>RLS 116</td>
<td>Inservice Training</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

Elder Services

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 223</td>
<td>Adult Development and Aging</td>
<td>3</td>
</tr>
<tr>
<td>RLS 103</td>
<td>Creative Experiences in Art, Music, Drama and Dance</td>
<td>3</td>
</tr>
<tr>
<td>*RLS 104</td>
<td>Intro. to Elder Recreational Services</td>
<td>3</td>
</tr>
<tr>
<td>RLS 131</td>
<td>Introduction to Therapeutic Recreation</td>
<td>3</td>
</tr>
<tr>
<td>RLS 215</td>
<td>Fieldwork II</td>
<td>3</td>
</tr>
<tr>
<td>General Electives</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

*RLS 104 may be offered through the Division of Continuing Education and will require additional fees and charges.

Outdoor Recreation

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLS 111</td>
<td>Introduction Outdoor Recreation</td>
<td>3</td>
</tr>
<tr>
<td>RLS 215</td>
<td>Fieldwork II</td>
<td>3</td>
</tr>
<tr>
<td>Environmental/Natural Science Electives</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>General Electives</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

Commercial Recreation

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 103</td>
<td>Introduction to Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BUS 111</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>RLS 107</td>
<td>Recreational Sports Administration</td>
<td>3</td>
</tr>
<tr>
<td>RLS 215</td>
<td>Fieldwork II</td>
<td>3</td>
</tr>
<tr>
<td>BUS 205</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>General Electives</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

NOTE: A student planning to pursue a baccalaureate program at one of the Massachusetts public colleges or universities should take advantage of the Commonwealth Transfer Compact. In addition to the Core Requirements for the Recreation and Leisure Services Program, students must take: 3 core credits in Behavioral Sciences (BC); 9 core credits in Humanities/Fine Arts (HC); 9 core credits in Mathematics/Sciences (NC).

Program Coordinator: Jeanne A. Ashley

57
CERTIFICATE PROGRAMS

Certificate programs provide a concentration of specialized course-work and do not include general education courses required for the associate degree. They are designed to prepare the student for early job entry and/or update specific career oriented skills. At least 15 credits or 2/3 of the credit hours required for a specific certificate program, whichever is less, must be completed in residence at Greenfield Community College.

In most cases, the courses required for a certificate are also required for an identified associate degree in a career field. In those cases where a student simultaneously completes the requirements for an associate degree and a certificate in the same field, only the associate degree will be conferred.

Greenfield Community College offers two separate and distinct types of certificate programs:

Board Approved Certificates

Such certificates are approved by the Massachusetts Board of Regents, are signed by the President of the Board, and require the successful completion of at least 30 semester credits, as defined for each program.

Greenfield Community College Certificate of Completion

A Certificate of Completion is a local program, approved by the Greenfield Community College Board of Trustees, signed by the President of the College, and requires the successful completion of the total credits as defined for each program.

Computer Aided Drafting Certificate Program

This program is designed to develop skills in the area of drafting with the assistance of computers. It also includes the development of mathematical and written communication competence. The program is designed to prepare students for an entry level position in computer-aided drafting. Some may wish to integrate this sequence into an engineering technology or engineering degree.

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADM 106</td>
<td>1</td>
</tr>
<tr>
<td>EGR 107 and 108</td>
<td>6</td>
</tr>
<tr>
<td>MAT 105 and 106</td>
<td>6</td>
</tr>
<tr>
<td>MAT 103 and 104</td>
<td>6</td>
</tr>
</tbody>
</table>

58
Required Courses (continued)
ENG 101  English Composition I 3
ENG 123  Report Writing 3
EGR 110  Engineering Graphics Project 3
DAT 111  Introduction to Computers -OR-
DAT 145  FORTRAN Programming -OR-
DAT 147  PASCAL Programming 3
DAT 133  Graphics Applications 1

Total 26

Program Coordinator:  Dr. Lee A. Webster

Fire Science Technology Certificate Program

This program is offered by the Division of Natural Sciences for the benefit of those students wishing to obtain, in a minimum of time, maximum technical training in fire protection, fire prevention and hazardous materials handling.

The courses required are offered through the Division of Continuing Education and Community Services on a rotating basis. CHE 111 or CHE 103 may be taken in the day division in place of CHE 105.

<table>
<thead>
<tr>
<th>Required Courses</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 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>
</tbody>
</table>

FST Electives 5

Total 27

Program Coordinator:  Carleton P. Stinchfield

Graphic Communications Certificate Program

This 28-credit program in graphic design is for practicing artists wishing to apply their technical and aesthetic skills through visual communication and increase their awareness of graphic design application in the social environment.
Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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 270</td>
<td>Graphic Art Production</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>
</tbody>
</table>

Electives---6 credits from the following:

- Any 2 ART electives                                   6
- BUS 103 Introduction to Marketing                     3
- BUS 125 Introduction to Advertising                   3

Total 28

NOTES: Students with background experience may waive any required course based on portfolio of work submitted.

Program Coordinator: T. Budge Hyde

Licensure for Early Childhood Educators

This certificate program provides the courses required by the Massachusetts Office for Children for those seeking to be licensed as head teachers in preschool settings. These four courses, when combined with twenty-seven months of classroom experience, qualify the person for this licensure. The program is recommended for those who are working as aides or who are interested in working with young children.

Required Courses

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

Total 15

Program Coordinator: Nancy T. Winter
Mathematics and Physical Science for Technicians
Certificate Program

This program provides technical training in mathematics, physics and electronics for technicians. It provides an opportunity for professional development and the improvement of math-science competency for technicians. English report writing skills are also developed.

Required Courses | Credits
--- | ---
ENG 101, 103 or 105 English Composition I | 3
ENG 123 Report Writing | 3
MAT 107 Fundamental Concepts of Mathematics | 3
MAT 108 Elementary Functions | 3
MAT 114 Probability and Statistics | 3
PHY 101 General Physics I | 4
PHY 102 General Physics II | 4
ELT 101 Basic Electricity I - DC | 4

Total | 27

Program Coordinator: Chairperson, Natural Sciences

Office Assistant Certificate Program

The Department of Office Administration offers this one-year program for the benefit of those students wishing to obtain the maximum office skills in a minimum of time. This program is especially designed for the student who desires to enter the employment market as quickly as possible. The program is offered with a shorthand option so that the student may elect to take two semesters of Gregg shorthand or one semester of Business Communications and a program elective.

Required Courses | Credits
--- | ---
ACC 111 Basic Accounting I | 3
*ADM 111 Typewriting Development I | 3
*ADM 113 Typewriting Development II | 3
ADM 119 Business English | 3
ENG 101, 103 or 105 English Composition I | 3
PSY 101 Principles of Psychology | 3
SPE 101 Oral Communication -OR- | 3
SPE 121 Group Discussion | 3

Program Elective (select three courses from the following list):

Total | 9

61
Program Electives

**ACC 112** Basic Accounting II 3
ADM 101 Shorthand I 3
**ADM 102** Shorthand II 3
**ADM 115** Production Typewriting 3
**ADM 205** Principles of Word Processing 3
**ADM 206** Word Processing/Transcription 3
ADM 209 Office Management 3
ADM 210 Records Management 3
BUS 105 Business Mathematics 3
BUS 123 Business Communications 3

NOTES:

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

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

Program Coordinator: Janet Balise, Office Administration

Outdoor Leadership Certificate Program

This year-long program provides students with the skills and knowledge required to lead Challenge Adventure and other outdoor programs. Highly experiential in its emphasis, the program activities are primarily field oriented, with theoretical and informational aspects being carefully integrated with the hands-on training. After completing two semesters of training, students will become involved in internships and/or specialized training courses. Employment assistance will be provided through the program staff. Those completing the program will qualify for employment opportunities in educational, recreational and human service settings.

Classes and training groups are small, and the instruction is highly individualized. Evaluation is based upon demonstrated performance of the required skills, knowledge and behavior competencies.

The Outdoor Leadership Program also offers an advanced certification for those with highly developed skills and experience, or for those wishing to attend a second year of the program.

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OLP 111 Introduction to Outdoor Adventure Programs and Services</td>
<td>3</td>
</tr>
<tr>
<td>OLP 112 Counseling and Human Services for Outdoor Leaders</td>
<td>3</td>
</tr>
</tbody>
</table>
Required Courses (continued)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OLP 116</td>
<td>Field Experience in Outdoor Leadership I</td>
<td>8</td>
</tr>
<tr>
<td>OLP 116</td>
<td>Field Experience in Outdoor Leadership II</td>
<td>8</td>
</tr>
<tr>
<td>OLP 120</td>
<td>Wilderness First Aid and Emergency Care</td>
<td>3</td>
</tr>
<tr>
<td>OLP 124</td>
<td>Environmental Interpretation</td>
<td>3</td>
</tr>
<tr>
<td>OLP 127</td>
<td>Outdoor Adventure Methods and Materials</td>
<td>3</td>
</tr>
<tr>
<td>OLP 140</td>
<td>Rock Climbing</td>
<td>1</td>
</tr>
<tr>
<td>OLP 141</td>
<td>Flat Water Canoeing</td>
<td>1</td>
</tr>
<tr>
<td>OLP 142</td>
<td>Cross Country Skiing</td>
<td>1</td>
</tr>
<tr>
<td>OLP 143</td>
<td>Winter Camping</td>
<td>1</td>
</tr>
<tr>
<td>OLP 144</td>
<td>Survival Education</td>
<td>1</td>
</tr>
<tr>
<td>OLP 145</td>
<td>White Water Canoeing</td>
<td>1</td>
</tr>
<tr>
<td>OLP 201</td>
<td>Individual Project in ODL I</td>
<td>1</td>
</tr>
<tr>
<td>OLP 202</td>
<td>Individual Project in ODL II</td>
<td>2</td>
</tr>
<tr>
<td>OLP 205</td>
<td>Outdoor Leadership Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

Total 35

Program Coordinator: Larry Buell

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**Advanced Outdoor Leadership Certificate Program**

<table>
<thead>
<tr>
<th>Required Courses</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 and 218 Field Experience in Outdoor Leadership III and IV</td>
<td>8</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 Whitewater Canoeing</td>
<td>1</td>
</tr>
</tbody>
</table>

Total 27-29

*Students may elect to take only 4 of the 6 outing sports (OLP 240-245) and still be granted the certificate of completion.

Program Coordinator: Larry Buell
Pioneer Valley Studies Certificate Program

This program, leading to a one-year Board approved certificate, is designed for persons 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. The program is applicable towards a degree for those wishing to continue in the 2-year program.

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS 107</td>
<td>Valley/American History</td>
<td>6</td>
</tr>
<tr>
<td>HUM 113</td>
<td>Introduction to the Pioneer Valley</td>
<td>3</td>
</tr>
<tr>
<td>ECO 111</td>
<td>Valley Contemporary Economic Issues</td>
<td>3</td>
</tr>
</tbody>
</table>

**Valley Studies Electives (See below)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 105</td>
<td>Valley American Art &amp; Architecture I</td>
<td>3</td>
</tr>
<tr>
<td>ART 106</td>
<td>Valley American Art &amp; Architecture II</td>
<td>3</td>
</tr>
<tr>
<td>ECO 109</td>
<td>Valley Industrial &amp; Economic Development</td>
<td>3</td>
</tr>
<tr>
<td>ENG 125</td>
<td>Interviewing and Transcribing</td>
<td>3</td>
</tr>
<tr>
<td>ENG 203</td>
<td>American Literature I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 204</td>
<td>American Literature II</td>
<td>3</td>
</tr>
<tr>
<td>ENG 253</td>
<td>Valley Writers</td>
<td>3</td>
</tr>
<tr>
<td>ENG 257</td>
<td>MacLeish Seminar</td>
<td>3</td>
</tr>
<tr>
<td>FLK 219</td>
<td>Valley Folklife</td>
<td>3</td>
</tr>
<tr>
<td>GEO 103</td>
<td>Valley Geology</td>
<td>3</td>
</tr>
<tr>
<td>HIS 217</td>
<td>Valley Ethnic History</td>
<td>3</td>
</tr>
<tr>
<td>HUM 119</td>
<td>Women in the Valley</td>
<td>3</td>
</tr>
<tr>
<td>HUM 231</td>
<td>Valley Research Project</td>
<td>3</td>
</tr>
</tbody>
</table>

**Valley Studies Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
</table>

**Total**

| Credits | 30 |

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

Program Coordinator: Bernard A. Drabek

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**Studio Arts Certificate Program**

This 27-credit program is for practicing artists wishing to improve their technical and aesthetic skills and their awareness and performance in areas such as drawing, painting, printmaking and photography.

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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>
</tbody>
</table>
Word Processing Certificate Program

This program is designed for administrative assistants, secretaries, typists, and clerks who want to prepare themselves for professional upgrading and more effective utilization of secretarial skills.

Opportunities will be made available for credit by examination for ADM 113 and ADM 119 for those presenting appropriate skills and experience.

<table>
<thead>
<tr>
<th>Required Courses</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 Communications</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

Program Coordinator: Chairperson, Business Administration
LEARNING ASSISTANCE PROGRAMS

The Learning Assistance Programs provide counseling, tutoring, and instruction which is aimed at building student skills and confidence. In addition to the activities described below, Learning Assistance staff help to coordinate the developmental studies courses, placement testing, and 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. Individually, or in a two-credit course (H UD 109), each student assesses his or her interests and abilities and possible occupations are explored.

HUMAN DEVELOPMENT COURSES

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

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

Director of Learning Assistance Programs: Dr. Garrett McAuliffe
Tutor Coordinator/Counselor: Dr. Michael Bathory
Advising Codes

Each course offered for credit has been given an advising code which appears in parenthesis at the end of the course title. This code should be used in the selection of appropriate courses which meet Career Programs, Liberal Arts Programs and/or Massachusetts Transfer Compact requirements. These codes are as follows:

A  Career courses that may be used as Liberal Arts electives in the Liberal Arts Programs.  
B  Behavioral Science/Social Science Courses  
C  Core Courses  
E  English Courses  
H  Humanities/Fine Arts Courses  
L  Liberal Arts Courses  
N  Natural Science/Math Courses  
S  Speech Courses  
X  Career Courses, Developmental Courses, Leisure Education Courses

Course Descriptions

The courses described in the following pages include all those offered for College credit and some non-credit courses. Courses numbered 000-099 do not carry collegiate credit. Those courses numbered 100-199 are normally introductory level or first year courses. Those numbered 200-299 are intermediate to advanced in academic level. If two courses are to be taken as a two-semester sequence, they are numbered consecutively with the second semester portion given an even number. Courses which are normally complete one-semester units are given odd numbers.

NOTE: Not all courses are offered each semester. Please refer to the appropriate class schedule.

Cooperative Placement

The college provides the opportunity for cooperative field placement for students majoring in liberal arts and/or career programs where that experience is not required. Applications and detailed instructions are available in division offices and student services.

Directed Study

The college provides the opportunity for students to complete projects for advanced individual study by special arrangements with an instructor and approval of the division chairperson having jurisdiction over the subject field. Application forms and detailed instructions are available in division offices and student services.
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
Fundamentals of accounting. Emphasis on accrual as well as cash basis of accounting. 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

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 a 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 201 Intermediate Accounting I (X) 3 credits
Introduction to accounting postulates, principals and contemporary financial statements, practices and forms. A theoretical framework for current accounting practices; valuation and reporting problems of working capital elements. Prereq: ACC 122

ACC 202 Intermediate Accounting II (X) 3 credits
Income tax allocation procedures, noncurrent assets and liabilities valuation; measurements of stockholder equities, legal factors governing accounting for the corporation; treasury stock transactions; stock options; retained earnings distribution; book value and earnings per share; special accounting problems involved in accounting changes, error corrections, and accounting for inflation. Prereq: ACC 201

ACC 203 Managerial Accounting (X) 3 credits
Introduces the process of gathering and analyzing accounting data
for use by managers in planning, decision-making and controlling. Basic cost accounting concepts, cost-volume-profit relationships, capital investment decisions, and budgeting are studied. A comprehensive management simulation is included. Prereq: 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. Preparation of two (2) comprehensive problems required. Prereq: ACC 203

**ACC 251  Cooperative Work Experience in Accounting (X) 3 credits**
Supervised employment in either a cost accounting department of a local industrial concern or a 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

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**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; pre-transcription 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 60 wpm for three minutes. Prereq: ADM 101 or equivalent

**ADM 106  Keyboarding for Information Processing (X) 1 credit**
Designed to develop basic touch keyboarding skill; input alphabetic, numeric and symbol information quickly and accurately; emphasizes the basic vocabulary and concepts used in keyboarding operations for inputting and retrieving information. Laboratory 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 the instructor.

**ADM 115  Production Typewriting (X) 3 credits**
Daily accuracy and speed drills; timed writings. Technical,
statistical, professional, governmental and executive typing. Laboratory required. Prereq: ADM 113 or permission of the instructor.

ADM 119 Business English (X) 3 credits
A study is made 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
Explores the "challenge of change"—the role of word processing and its impact upon people and procedures in an integrated office system. Students will acquire management and supervisory skills in addition to developing proficiency and resourcefulness in equipment operation. Prereq: ADM 113 or permission of instructor

ADM 206 Word Processing/Machine Transcription (X) 3 credits
Develops proficiency in transcribing dictation from tapes to mailable 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 113 and ADM 205 or permission of the 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 113

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 students in the Office Administration program. Prereq: ADM 113 or permission of instructor.
Agriculture

AGR 101 Principles of Agriculture (NL) 3 credits
An introduction toward a better understanding of traditional and contemporary practices as they apply to farm animals and crops. Emphasis will be on animal husbandry skills, breed characteristics and concerns of small-scale, part-time operations. Prereq: None

AGR 103 Equine Management (NL) 3 credits
A comprehensive and detailed examination of the biology, health, selection and proper care necessary for the successful maintenance and enjoyment of horses. Western and English riding or lessons available at nearby facilities at a reasonable fee. 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,
studied in traditional chronology. Emphasis on development of visual awareness, understanding change in aesthetics and style, causal factors and the role of the artist. Field trips required. Required course for Art and Graphic Design majors. Prereq: None.

ART 104 Art History II (HC) 3 credits
History of Western Art from the Early Renaissance to the present. Field trips required. Required course 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 1860 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: None

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: None

ART 121 Two Dimensional Design (HL) 3 credits
An investigation into the nature of two-dimensional order. Spe-
cific 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 131 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: Second year standing in Art or Graphic Design or permission of instructor.

ART 232 Drawing Problems (HL) 3 credits
Structure, organization, approach, problem-solving, as they relate to a drawing. Compositional and expressive considerations of figurative and non-figurative drawing. Required course for Art majors. 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 121, Art 131 or Art 118 or permission of the 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 (ART 131 or Art 118) 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, 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 112 Woodlot Management (NL) 3 credits
Thinning, weeding, pruning, planting and harvesting trees in a woodlot for insurance of reaping the greatest, long-term profits from it in regards to firewood, lumber, Christmas trees, game, recreation and aesthetics. Prereq: None

BIO 114 Foundations of Biology (NC) 4 credits
Basic concepts of biology explored in areas of: protoplasmic and cellular organization, growth and differentiation, genetic and ecological control, and current and past evolution. Provides a basis for understanding biologically related problems of value to the biology major and the non-major. Communicates principles upon which one may base further studies of biology or related fields. Lab required. 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, preventative medicine and health care. Prereq: None

BIO 205 Microbiology (NC) 4 credits
Introduction to the biology of micro-organisms with emphasis on the properties of micro-organisms and their relation to disease. Lab required. Prereq: BIO 101, 105 or 114
BIO 201 Interpretation of Diagnostic Laboratory Tests (NL) 3 cr.
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 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 and practices 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 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 P.I.

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 211 Retail Merchandising (X) 3 credits
Price lines, advertising and the quantitative approach to retailing. Prereq: BUS 103 or permission of the instructor

BUS 213 Personal Selling and Sales Techniques (X) 3 credits
A practical approach to salesmanship and sales promotion at various levels of distribution with emphasis on retail selling. Actual sales presentations are made and video-taped for analysis by the student and instructor. Prereq: BUS 103 or permission of the 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. Graded on a Credit/No-Credit basis. 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 1 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 101 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 course work in selected technical areas, but not intended as a substitute for CHE 111, 112 - General Chemistry. Prereq: None

CHE 106 Chemistry of Air and Water (NL) 3 credits
Physical, chemical and biological characteristics of substances found in air and water, methods of field and laboratory analysis and purification treatments. Laboratory required. 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, chemical bonding, nomenclature, chemistry of oxygen, oxidation reduction, chemistry of hydrogen, the gaseous state, the liquid state, water and the periodic properties of the elements. Laboratory required. Prereq: High School Algebra II or equivalent; or CHE 001 concurrently.

CHE 112 General Chemistry II (NC) 4 credits
Interrelated descriptive and theoretical topics of chemistry including the chemical families, chemical energy, chemical kinetics, chemical equilibrium acids and bases, electrochemical cells, nuclear phenomena, transition elements, organic chemistry, chemistry of life and natural resources. Includes qualitative analysis. Laboratory required. Prereq: CHE 111, or CHE 103 with permission of the instructor.

CHE 201 Organic Chemistry I (NC) 4 credits
Introduction to the chemistry of carbon compounds. Survey of methods used to characterize molecular structures and establish mechanisms of reaction. Systematic study of aliphatic and aromatic hydrocarbons and classes of compounds with the various functional groups. Lab required. Prereq: CHE 102

CHE 202 Organic Chemistry II (NC) 4 credits
Comprehensive survey of amines, amides, nitro compounds, and
other nitrogen bearing organic compounds. Study of the relation of optical activity to molecular structure. Examination of various classes of natural products and introduction to biochemistry. Study of photosynthetic processes, polymers and polymerization. Lab required. Prereq: CHE 201

CHE 211 Analytical Chemistry (X) 4 credits
Accuracy and precision, record keeping and reporting, gravimetric methods, volumetric methods, electrometric methods, photometric methods, paper chromatography, vapor phase chromatography, microscopy and polarimetry. Analytical separations. Lab required. Prereq: Che 112 General Chemistry II or permission of instructor.

CHE 221 Chemical Processes (X) 3 credits
Survey of unit operations, refining, fermentation, isolation of natural products, forest products, pulping and papermaking, polymerization, heavy chemicals organic syntheses, specialty chemicals and formulations. Manufacturing control, material balance and plant safety. Prereq: CHE 111, 112, 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 111 and 112, or CHE 105, 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
Stadia, topographic surveying, mapping, instrument adjustment, photogrammetry, simple curves, office computations using topographic maps. Prereq: CIV 101, MAT 104 may be taken concurrently.

CIV 201 Surveying III (X) 3 credits
Construction surveys, property surveys, astronomical work, office work to plot data and make computations. Lab required. Prereq: CIV 102

CIV 203 Soil Mechanics (X) 3 credits
Engineering properties and uses of soils, stability, consolidation, permeability, testing procedures. Elementary
design of footings and retaining walls. Prereq: EGR 206 may be taken concurrently.

CIV 207 Transportation Engineering (X) 3 credits
Highway economics, location, curves, earthwork. Sight distances, drainage, pavement, airports and railroads. Lab required. Prereq: CIV 102

CIV 209 Structural Design (X) 3 credits
Analysis and design of determinate and indeterminate structures. Steel and concrete design theory, formulas, codes. Prereq: EGR 206 may be taken concurrently.

CIV 211 Introduction to Water and Wastewater Technology (X) 3 cr.
Fundamental concepts of the technology of municipal water supply and wastewater disposal. Water supply, sources, treatment systems and distribution. Wastewater disposal, sewer and treatment plant components and functions. Domestic systems, land disposal techniques, practical hydraulics. Prereq: None

CIV 213 Engineering Hydraulics (X) 3 credits
Fluid statics and dynamics. Measuring devices; open and closed flow; hydraulic machinery; pipe networks. Prereq: MAT 104 and PHY 101, or equivalents, or permission of instructor.

CIV 215 Construction Estimating (X) 2 credits
Estimating quantities and costs for labor, materials and equipment. Basic concepts of overhead and profit and their relationship to project costs. Construction contracts and specifications. Prereq: None

CIV 217 Water and Wastewater Treatment Plant Operations (X) 4 cr.
Purification processes, water and wastewater facilities, primary methods, secondary methods, special or tertiary methods, maintenance, safety, sampling, analysis, reporting, data analysis, and troubleshooting. Lab and field work experience required. Prereq: CHE 106, CIV 211

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 CRJ 103, or permission of instructor.

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

CRJ 113  Juvenile Justice Process (A) 3 credits
Definitions 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 115  Introduction to Security (X) 3 credits
Historical, philosophical and legal bases of security. Role of
security and the security individual in modern society; the
concept of professionalism. A survey of the administrative,
personnel and physical aspects of the security field. Prereq:
None

CRJ 117  Principles of Loss Prevention (X) 3 credits
Functional operations of various specialized areas of security
such as theft and risk control, security surveys and loss
prevention in proprietary and governmental institutions. Prereq:
CRJ 101 and CRJ 115, 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,
CRJ 105 or permission of instructor.

CRJ 211  Current Issues in Criminal Justice (X) 3 credits
A review of current and 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 that directly relate to both federal and state laws on enforcement, and limitations placed on the enforcement activity through constitutional interpretation. Prereq: CRJ 101, 103 or permission of instructor.

Data Processing

DAT 111 Introduction to Computers (L) 3 credits
A non-technical survey course in computers—what they are, what they can do, what they cannot do, how to use them, and what impact they have on society. Ideal for someone looking for a single course in computer literacy. Not designed to prepare for a career in computing, although it provides a background for a select group of data processing offerings. Introduction to data management, graphics, word processing, and spreadsheets with student use of commercial software. Writing and running simple programs in the BASIC language also included. Students will need to spend time, outside of class time, in the computer lab. Prereq: MAT 105 or equivalent.

DAT 113 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 micro-computers in business. Elementary computer programming is taught using the BASIC language. This course examines the role of management and the user in the development and operation of business computer systems. This is the appropriate beginning course for those contemplating careers in both computing and business, as well as those wishing to know how to deal better with the
computer department of their organization. Prereq: MAT 105 or equivalent. Recom: ACC 121 or BUS 111

**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 125 Computerized Accounting (A) 1 credit**
A survey of the use of computerized systems to perform general ledger accounting on microcomputers. Completion of a case-study project using the BPI general ledger program required. Prereq: ACC 112 or ACC 121

**DAT 127 Computer Assisted Instruction (L) 1 credit**
A study of various applications for computer assisted instruction, together with an analysis of effective protocols for use with this method. Includes some actual programming in the BASIC language but is a non-technical course. Provides an understanding of the issues involved in selecting and implementing CAI systems. Also, covers various types of CAI systems and criteria for selection, standards and controls for course development. Prereq: None Recom: DAT 111 or DAT 113

**DAT 129 Computerized Financial Planning (A) 1 credit**
An applications-oriented course which looks at uses to which computer programs can be put in assisting business in making crucial financial decisions. This is an appropriate course for those persons with involvement in budgeting in government, non-profit, or business organizations. Prereq: None Recom: ACC 203 and DAT 111 or 113

**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. Prereq: None Recom: DAT 111 or 113
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 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 with an emphasis on querying, modifying and programming the database using dBASE II as the host language. Discussion of data models including hierarchical, network, and relational. Extensive application development using a relational database structure (dBASE II). Discussion of storage devices, data administration, design and implementation.

DAT 161 Introduction to Data Base Processing (A) 1 credit
A survey of data base structures and data organizations, together with a look at some data base management systems and the facilities provided by them. The course covers hierarchical and network data bases, with comparisons of their ease of development and advantages. The course also includes a discussion of retrieval and query languages that access data bases. The primary emphasis will be in microcomputer-based systems, but general principles of data base management will be taught. Prereq: DAT 121 and (DAT 111, or 113, 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. Prereq: DAT 113 Recom: DAT 141, 143 or 145

DAT 201 Systems Analysis and Design (X) 3 credits
An investigation and analysis of the methods and techniques used by the systems analyst in analyzing present systems, whether manual or automated systems. 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 micro-computer-based system for inventory and accounts receivable for a small business. Prereq: DAT 113 and 141 or 143

DAT 211 Assembly and Machine Languages (A) 3 credits
An introduction to machine languages. Includes elementary programming in 6502 assembly language (used by APPLE, PET, AND ATARI computers), with instruction in data representation, data manipulation, memory addressing. Prereq: DAT 141 or 143 or 145

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.

**Early Childhood Education**

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

ECE 102 Prepracticum in Early Childhood Education (ECE 101 Lab) (X) 3 credits
Work experience in area preschools, day cares and public schools. Prereq: ECE 101 (concurrent and/or prior enrollment) ECE Major.

ECE 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 REC 102 or ECE 103, but not for both. Prereq: ECE or REC major, or permission of the instructor.

ECE 201 Early Childhood Curriculum (X) 3 credits
Provides exposure to the research, theory, methods and materials needed when developing a curriculum for young children. Emphasis on reading readiness and language skills. Prereq: ECE 101, or permission of the instructor.

ECE 203 Contemporary Issues in Early Childhood Education (X) 3 credits
Contemporary early childhood practices and issues are reviewed. Social, cultural and technological changes of the 20th century are discussed. Prereq: ECE 101 or permission of the instructor.

ECE 215 Student Teaching I (X) 6 credits
Work experience with limited responsibility for program planning in early childhood settings. Prereq: ECE 101 and ECE 102.

ECE 216 Student Teaching II (X) 6 credits
Work experience with extensive responsibility for program planning and classroom management. Field trips required. Prereq: ECE 215 or permission of the program coordinator and approval of the Chairperson of the Division of Behavioral Sciences.

ECE 221 Science for Children (X) 1 credit
An introduction to methods and materials used in science activities for children; use of the classroom environment to promote curiosity and questioning skills. An appreciation of the scientific method to assist a child's perception of the world. Prereq: None

ECE 223 Mathematics for Children (X) 1 credit
The beginnings of mathematics as a logical system with dual emphasis on theory and practice. Focus will be on the progression of mathematical thinking and ways to foster that progression in children. Prereq: None

ECE 227 Designing Learning Environments for Children (X) 1 credit
An introduction to the basic principles and methods of designing optimum classroom environments. Examines the needs of the young child and incorporates these into the design of learning centers. The special needs of the handicapped child are explored. Prereq: None

ECE 229 Nature Activities for Children (X) 1 credit
The study of science for young children using nature activities as the prime source. An activity oriented approach; focuses on the use of the area available to local centers. Field trips required. Prereq: None
ECE 231 Movement Activities for Children (X) 1 credit
Movement exploration with children; uses movement exploration as a foundation for developing sensory, motor, perceptual and problem solving skills. Promotes awareness of self and enhancement of self-image shown through movement experiences. Prereq: None

ECE 233 Early Education in the Home (X) 1 credit
An exploration of child rearing practices and early education in the home. Focus on communication skills between adults and children and on understanding children's development and behavior. Regulations for establishing home child care will be analyzed. Field trips required. Prereq: None

ECE 235 Audio Visual in the Early Childhood Classroom (X) 1 credit
Familiarity with and use of various audio-visual and other aids appropriate to the early childhood classroom. Hands on training and direct applications emphasized. Prereq: None

ECE 237 Exploring Children's Behavior (X) 1 credit
Exploration of children and their behaviors in the context of the pre-school experience. The manner in which children acquire behavior, theories and techniques of behavior, theories and techniques of behavior management and the adult's impact on children's behavior will be discussed. Prereq: None

Economics

ECO 101 Principles of Economics I (Macro) (BC) 3 credits
Economic processes in the United States. Emphasis on economic analysis and current issues in the national and international economy. Business cycles, unemployment, inflation, economic growth, banking systems, monetary and fiscal policies. Prereq: None

ECO 102 Principles of Economics II (Micro) (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 and 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; interrelationship
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 111 Introduction to Special Education (L) 3 credits
Overview of development, physical and behavioral disabilities; basic principles of intervention techniques; overview of legislation (Chap. 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 115 Family, School and Community Interaction (X) 3 credits
Analysis of changing roles of parents and families in today's society. Focus on communication skills, communicating with parents and types of parental participation in education. Examination of child advocacy, current legislative issues and types of community resources for teachers of young children. 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 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 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 P.I. 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 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 103 Basic Electronics I (X) 3 credits**
Circuit elements and their characteristics and function. Topics include: Vacuum tube theory; transistor and other solid state devices; integrated circuits; transformers; bridges; transducers; rectifiers; filter networks; voltage doublers; regulation; biasing; semi-conductor circuit configurations. Lab required. Prereq: ELT 102 or equivalent.

**ELT 104 Basic Electronics II (X) 4 credits**
Typical circuit configurations and their functions and characteristics. Topics include, but are not limited to: amplifiers; detectors; power supplies; wave form generators; modulation; demodulation; receivers; transmitters; transmission lines and antennas; miscellaneous circuits. Lab required. Prereq: ELT 103 or equivalent.

**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 111  Electronics Drafting (X) 3 credits**
A basic course in drafting related particularly to the electrical and electronic disciplines. Topics include but are not limited to: mechanical drafting, electrical and electronic symbols, component and device symbols, block diagrams, pictorial drawings, schematic diagrams, cable drawings, military standards, printed circuit boards, electromechanical design, logic diagrams, industrial controls. Prereq: ELT 101

**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.

**ELT 205  Industrial Electronics (X) 4 credits**
Modern industry depends heavily upon electronic devices to perform the functions of sensing, measuring, regulating, and controlling. Various typical systems are studied from both a theoretical and practical point of view. The course will include, but is not limited to, the following topics: switching circuits, programmable controllers, SCR’s, thyristors, operational amplifiers, electromechanical systems, transducers, closed-loop systems, robotics. Prereq: ELT 104, ELT 201 or equivalent.

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**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) 3 credits
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, pictorials, 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: Co-requisite EGR 108 and enrollment in Computer-Aided Drafting Certificate Program, or permission of instructor.

EGR 205 Statics (X) 3 credits
Components and resultants of forces, concurrent and nonconcurrent force systems. Free body diagrams. Couples and moments, centroids, moment of inertia, friction. Distributed loads. Prereq: PHY 101 or 111; MAT 151 or 201 concurrently.

EGR 206 Mechanics of Materials (X) 4 credits
Axial and shear stress and strain, Torsion, bending, shear and moment diagrams. Deflection, columns, connections, indeterminate beams. Credit will be granted for EGR 206 or IND 207, but not for both. Lab required. Prereq: EGR 205

EGR 207 Dynamics (X) 3 credits

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

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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. Laboratory 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. Laboratory required. Prereq: EGR 211

English

ENG 100  Basic Communications Skills  (X) 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. 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: Structures 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 REA 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, includ-
ing the short story, poetry and drama. Writing assignments em-
phasizing 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 (K) 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
Composition I

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

**ENG 125** Interviewing and Transcribing (HL) 3 credits
Techniques and procedures for conducting and preserving
interviews for oral histories, broadcasting productions, and
articles, including projects in research, effective questioning,
analytical listening, verbal and nonverbal messages, reviewing,
outlining, transcribing, editing, indexing, and preparing
documents. Prereq: None
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 112, 114 or 116

ENG 207 Advanced Creative Writing (HC) 3 credits
Techniques and approaches in narrative, lyric and dramatic forms of writing, and the essay. Intensive practice. Prereq: ENG 114 or permission of instructor.

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 116

ENG 219 The Black in American Literature (HC) 3 credits
The study of literature dealing with Black Americans from the slavery period to the present, concentrating on the various images of the Black presented by both black and white writers in each major period in Black American history and on the awakening black consciousness of black writers. Writers studied include Dunbar, Ellison, Baldwin, Wright, Faulkner and Twain. Prereq: ENG 112, 114 or 116

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
ENG 225  Satirical Fiction (HC) 3 credits  
A survey of absurdist and political satire in fiction. Attention will be given to representative 18th and 19th 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

ENG 243  Modern Poetry (HC) 3 credits  
Forms, methods and ideas of 20th century American and British poets. In-depth study of a few major innovators, together with a broader survey of recent poetic work. Prereq: ENG 112, 114 or 116

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, sex 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, sex 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 251  Grammar and Editing (HC) 3 credits  
Study of functional grammar, punctuation and syntax; organization of sentences; paragraphs and papers; orthography; definition; etymology; logic and semantics; editing skills; the philosophy of language. Prereq: ENG 112, 114, 116 or permission of instructor.

ENG 253  Valley Writers (HC) 3 credits  
A survey of representative works of important literary figures who live or have lived in the Pioneer Valley. Genres studied are captivity literature, historical fiction, Puritan literature, modern and contemporary fiction, non-fiction, drama, poetry, and children's literature. Prereq: ENG 112, 114, 116 or permission of instructor.
ENG 257 MacLeish Seminar (HC) 3 credits
Focusing on taped biographical and critical interviews with Archibald MacLeish, the seminar will examine the periods of the poet's development, assessing the influences on his literary achievement of non-literary careers, environment and personal experiences. Extensive reading of poetry, drama and essays will be required. Prereq: One course in either American Literature, Modern Poetry or the equivalent.

ENG 259 Survey of Western Drama I (HC) 3 credits
A chronological and critical survey of dramatic literature from Sophocles to Goethe. Emphasis on the historical continuum of the form, as well as styles and methods of production. Themes considered from the perspectives of individual works, literary periods, and in relation to social and historical contexts. Prereq: ENG 112, 114 or 116

ENG 260 Survey of Western Drama II (HC) 3 credits
A chronological and critical survey of dramatic literature from Ibsen to Albee. Emphasis on the historic continuum of the form, as well as styles and methods of production. Themes considered from the perspectives of individual works, literary periods, and in relation to social and historical contexts. Prereq: ENG 112, 114 or 116

ENG 261 The Short Story (HC) 3 credits
A survey of the short story as a literary genre from its beginnings in the early 19th century to the present time with emphasis on interpretation and analysis, characters in conflict, point of view, and symbolism. Prereq: ENG 112, 114, 116

ENG 263 Advanced Composition (HC) 3 credits
Focuses on advanced skills development in essay writing. Classic forms of organization are stressed. Critical sense is developed through reading, writing, and discussing peer-critiques in collaborative learning. Prereq: ENG 101, 103, or 105 and permission of instructor. Concurrent enrollment in ENG 264 optional.

ENG 264 Tutoring Skills in English (HL) 1 credit
Focuses on materials, techniques and strategies for effective tutoring of writers at every stage in the writing process. Practice in tutoring is required. Prereq: Concurrent enrollment in ENG 263.

English as a Foreign Language

EFL 101 Written English as a Foreign Language—Beginning Level (X) 3 credits
Introduction to the English language through systematic study of vocabulary and grammar, and through reading and writing exercises. Individualized programs allow beginners students to pro-
gress at their own rate. Students in EFL 101 may enroll in other courses only on an audit basis with EFL instructor's permission. Graded CR/NC basis. Prereq: Placement by examination.

**EFL 102 Written English as a Foreign Language-Advanced Beginners (X) 3 credits**
Focus on reading and writing skills needed for the student to participate successfully in an American community. Students progress to more advanced levels in grammar, sentence study, and vocabulary development. Students in EFL 102 may enroll in appropriate HUD and LED courses, or may audit other courses with EFL instructor's permission. Graded CR/NC basis. Prereq: Placement by examination.

**EFL 103 Written English as a Foreign Language-Intermediate Level (X) 3 credits**
Refinement of reading and writing skills needed for the student to participate successfully in a full GCC academic program. Written assignments weekly as well as drills in grammar, paragraph development and reading. Students in EFL 103 may enroll in 100-level courses; but more advanced courses may be taken with advisor's permission. Graded CR/NC basis. Prereq: Placement by examination.

**EFL 104 Written English as a Foreign Language-Advanced Level (X) 3 credits**
Reading and writing skills on an advanced level as preparation for 101-level college courses and the TOEFL examination. Weekly papers and reading assignments. Students in EFL 104 may enroll in 100 and 101-level courses for credit on recommendation of academic advisor. Graded CR/NC basis. Prereq: Placement by examination.

**EFL 111 Spoken English as a Foreign Language-Beginning Level (X) 3 credits**

**EFL 112 Spoken English as a Foreign Language-Advanced Beginners (X) 3 credits**
Phonetics as needed. Exercises designed to develop listening and speaking for everyday living. EFL vocabulary and other English language elements put into practice. Graded CR/NC basis. Prereq: Placement by examination.

**EFL 113 Spoken English as a Foreign Language-Intermediate Level (X) 3 credits**
Phonetics as needed. College lectures presented to improve comprehension and develop note taking skills. EFL vocabulary and other English language elements put into practice. Graded CR/NC basis. Prereq: Placement by examination.
EFL 114 Spoken English as a Foreign Language—Advanced Level (X) 3 credits

Environmental Science

ENV 101 Environmental Design (NL) 3 credits
History of designed human environments; aesthetic considerations of physical and natural environments; application of design principles to utilization of physical and plant materials in planning environments. Lab and field trips required. Prereq: None

ENV 102 Conservation of Natural Resources (NL) 3 credits
An examination of the use and abuse of the world's natural resources and the societal implications of their availability. Prereq: None

ENV 106 Principles of Landscaping (NL) 3 credits
An introduction to the basics of landscape design and plant materials and their application to man in urban and rural environments. Lab and field trips required. Prereq: None

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

ENV 109 Historic Preservation (NL) 3 credits
An analytical survey of the need, methods and mechanisms of preservation and restorative techniques of the natural and man-made environments in urban and rural settings. Field trips required. 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 defenses, 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 guidelines, local, state and national. Prereq: None

FST 113 Fire Hydraulics with Applied Math (X) 4 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 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

FST 201 Fire Protection Systems & Equipment (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 Prevention Systems Equipment (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
An 81 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 technique. Students will learn to tell the folktale within the context of their own cultural experiences. Prereq: ENG 112, 114 or 116

FLK 219 Valley Folklife (HL) 3 credits
A field research course examining Valley folklife as evidenced in music, story, art, architecture, dance, poetry, customs, and festivals, as well as in other manifestations of oral, customary and material folk traditions. Students will work in groups on projects collecting, classifying and documenting significant areas of Valley folklife. This course is designed for students who have completed FLK 217, American Folklore, and wish to apply the skills and insights they have gained to introductory level field research. Prereq: FLK 217

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French

FRE 101 Elementary French I (HC) 3 credits
Introduction to the language by means of intensive oral work and systematic study of grammar and phonetics. For beginners and students who have not successfully completed one year of high school French. Prereq: None

FRE 102 Elementary French II (HC) 3 credits
Introduction to the language by means of intensive oral work and systematic study of grammar and phonetics. For students who have successfully completed one year of high school French, or FRE 101. Prereq: FRE 101 or equivalent.

FRE 201 Intermediate French I (HC) 3 credits
Refinement of written and conversational skills through selected readings in literature. Prereq: FRE 102 or permission of instructor.

FRE 202 Intermediate French II (HC) 3 credits
Study of chosen representative literary works from French literature. Outside reading and reports required. Prereq: FRE 201 or permission of instructor.

FRE 251 French Composition and Conversation (HC) 3 credits
Refinement of writing and speaking skills on an advanced level. Written and oral assignments required weekly. Prereq: FRE 202 or equivalent and permission of instructor.

Geology

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, volcanos, and the mountain building process. Particular attention to regional geology. Lab and field trips required. Prereq: None

GEO 102 Historical Geology (NC) 4 credits
Origin and age of the earth; evolution of life as revealed through the fossil record; development of the continents and ocean basins. Lab and field trips required. Prereq: GEO 101 or 103 or 106 or 107 or permission of instructor.

GEO 103 Valley Geology (NC) 3 credits
An introduction to the unique geology and geohistory of our region. Topics include: rocks, minerals, rivers, glaciers, dinosaurs, continental drift, resources and geologic hazards. Field trips. Credit will be granted for GEO 103 or 106 but not for both. Prereq: None
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. Prereq: None

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. Prereq: None

GEO 106 Survey of Geology (NC) 3 credits
An introduction to the science of geology to provide an understanding of such topics as: minerals and rocks, landscapes, environmental hazards, resources and earth history. Local field trips and lab work included in course. Areas to be visited during optional June field trip to either Sierra-Cascades or Rocky Mts. will be emphasized. Credit will be granted for GEO 103 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. Prereq: None

GEO 201 Rocks and Minerals (NC) 3 credits
An introduction to rocks and minerals based on their broad physical, chemical, and biological characteristics. Lab and field trips required. Prereq: None Recom: Previous GEO course.

History

HIS 101 Western Civilization to 1500 A.D. (NC) 3 credits
The major ideas, institutions and developments of Western Civilization from ancient times to the Renaissance. Themes include the nature of man, relationship of the individual to society; relationship of man to his universe; the role of religion; the individual in history, the transition to modern modes of life and thought. Prereq: None

HIS 102 Western Civilization since 1500 A.D. (NC) 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. Prereq: None

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. Prereq: None

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. Prereq: None

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; field trips required. Credit will be granted for HIS 105 or 107 but not for both. Prereq: None

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; field trips required. Credit will be granted for HIS 106 or 108 but not for both. Prereq: None

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 211 The American Dream (HC) 3 credits
A comparison of traditional goals and ideals—liberty, equality, individual rights; rugged individualism; unlimited opportunity; democracy; education; change; progress—the basis of the American Dream, with realities of the past and present and the responses and reactions of Americans to their ideals. Prereq: HIS 105, 106, 107 or 108

HIS 217 Valley Ethnic History (HL) 3 credits
Significant contributions to the cultural life and historic development of the Valley by people of various ethnic origins. The
process by which these contributions and developments took place will be explored through a variety of approaches, both in the field and in the classroom. Prereq: HIS 105, 106, 107, 108 or permission of instructor

HIS 219 American Economic History (HC) 3 credits
The development of American economic life from colonial times to the present; industrialization, technology and the rise of big business; workers and work; depressions, booms and the momentum of growth; changes in the Economic role of government; and the impact of economic growth on the quality of life. Prereq: HIS 105, 106, 107 or 108 Recom: ECO 101 or 102

Human Development

HUD 101 Study Skills (X) 1 credit
A course designed to teach academic success skills including techniques for effective reading and remembering, class involvement, preparation for tests, taking lecture notes and managing time. Prereq: None

HUD 103 The 24-Hour Outdoor/Personal Growth Experience (X) 1 credit
The four course sessions and central 24-hour experience, all facilitated by both outdoor leaders and counselors, focus on group problem-solving, familiarity with the night, interpretation of the natural and man-made environment and examination of personal and interpersonal issues. Graded on a CR/NR basis. Credit granted for HUD 103 or HUD 111 but not both. 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 information interviewing, resume development, formal job interviewing, and job contact 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, preventative medicine, sexuality, and stress. Prereq: None Graded on a CR/NC basis.

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: Project TEME (BL) 3 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: Project TEME Planning and Development (BL) 3 credits
Training in the use of ecological concepts and principles in the planning and development of the annual Project 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: Project TEME Implementation (BL)  
6 credits  
Application of ecological concepts and principles in the implementa-  
tion of the annual Project 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, includ-  
ing oral history and work in libraries, newspaper files, and  
museums. Field trips in the local area. Prereq: None

HUM 117  History of Pioneer Valley Education (HL) 3 credits  
Designed to familiarize the student with the diversity and wealth  
of educational opportunity in the Valley through a study of the  
history of its institutions. Educational trends will be identi-  
fied and their impact on the community examined. Field trips and  
a term paper required. 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.

HUM 231  Valley Research Project (HL) 3 credits  
A course designed as a cooperative research project for students  
who have an interest in local history, research and writing. A  
topic will be chosen each semester from fields such as art, bio-  
ography, genealogy, industry or society. The goal of the course  
will be to produce a paper for publication. Prereq: None
Industri al Engineering

IND 101 Machine Processes (X) 3 credits
Introduction to metal-working machines. Shapers, grinders, lathes, milling machines, welding and casting. Numerical control systems. Inspection. Prereq: None

IND 107 Contracts and Specifications (X) 3 credits
Basic principles of contract law and their application to industrial situations. Specifications relating to materials and workmanship and the basic concept of estimating costs. Prereq: None

IND 111 Productivity Management (X) 3 credits

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

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 union, 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.

IND 207 Strength of Materials (X) 3 credits
Axial and shear stress and strain. Torsion, bending, shear and moment diagrams, deflections, columns, connections, indeterminate beams. Credit will be granted for IND 207 or EGR 206 but not for both. Prereq: EGR 205.
Journalism

JOU 102 Newspaper Production (HL) 1 cr. per semester, maximum 4 credits
Practical experience in newspaper production, including manage-
ment, production, layout and design, writing and editing, adver-
tising sales and other aspects of college newspaper work. Attendance at
one class per week required during first semester of enrollment. Participation in the production of the college newspaper required in first and subsequent enrollments. Prereq: None (concurrent participation as a staff member of the college newspaper.)

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 students working on the student newspaper.

JOU 105 Magazine Production (HL) 3 credits
A workshop involving the writing, designing, and publishing of a magazine. Special instruction in news and feature writing, advertising, copywriting, editing, design, lay-out, and financial management. Readings pertaining to magazines, newspapers, advertising, radio and television will be required. Prereq: ENG 101, 103 or 105 or concurrent enrollment.

JOU 201 Mass Media in America (HC) 3 credits
The history, development, purposes, values and effects of the mass media in America, including the press, radio, film and television. Emphasis on contemporary issues, such as freedom of the press, dominance of commercialism, role of technology and media monopolies. Prereq: English Composition II (ENG 116 recom-
ded) or permission of instructor.

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 complemen-
tary water safety techniques. Course is available to all stu-
dents regardless of their present swimming ability. Approved for American National Red Cross certificate. Prereq: None

LED 103 Advanced Life Saving (X) 1 credit
Advanced techniques of rescue and water safety. Stresses practi-
cal application. Course leads to American National Red Cross

LED 105 Water Safety Instructor (X) 1 credit
Designed to train and certify American National Red Cross Water Safety Instructors. Provides students with knowledge, judgement and teaching skills for training others in swimming, rescue and water safety. Prereq: Successful completion of LED 103 or a current

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 111 Fundamentals of Canoeing Instructor (X) 1 credit
Designed to train and certify American Red Cross Canoeing Instructors; provides people with the knowledge, judgement and teaching skills for training others in basic flat water canoeing. Field trips required. Prereq: Successful completion of LED 107 and permission of instructor.

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) 1 credit
Designed to train and certify American National Red Cross Sailing Instructors; provides the knowledge, judgement and teaching skills for training others in basic sailing. Field trips required. Prereq: Successful completion of LED 113 or a 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 & 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 120 Aquatics Clinic (X) 3 credits
The eight day residential clinic is designed to give basic instruction in water safety, sailing, canoeing, and basic boating. Provides participants with knowledge of waterfront management skills, group leadership skills, and teaching methods. American Red Cross Fundamentals of Canoeing and Fundamentals of Paddling certification will be given to those who successfully complete the requirements. Additional fee for meals and lodging required. Field trips required. Prereq: RLS major or permission of instructor.

LED 124 Tree and Shrub Identification (X) 2 credits
The identification of the native and naturalized woody plants growing in Western Mass. Includes summer and winter characteristics, commercial significance and value to wildlife. 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 challenge 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 rope courses, initiative problems, rock climbing, river crossing, solo experience and group problem solving. Field trips required. Prereq: None

LED 128 Ropes Course Leadership (X) 1 credit
This course is designed to prepare students to plan, organize, conduct, and evaluate programs on the low and high ropes course elements. Prereq: LED 127 or P.I.

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 upon 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 back country 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 141 Winter Camping (X) 1 credit
The challenging/adventure activity of winter camping for the beginning cold weather wilderness traveler. Deals with the techniques of exploring and living in a white wilderness. 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 159 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 163 Physical Education and Fitness (X) 2 credits**
Provides students with the knowledge, understanding and values of physical activity as a means to healthful living. Planning for exercise programs suitable to different needs and age groups. Physical fitness as a lifetime concern is stressed. 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 racquet ball, 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 the 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 the 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 life-time sport. Prereq: None

LED 175 Low Organized Sports (X) 1 credit
Acquaints the student with a variety of team sport modifications and with lesser known sports. Emphasis on adapting sports to varying capabilities and degrees of physical development. Field trips required. 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 the instructor.

LED 180 Textile Arts—Weaving (X) 1 credit
Designed to provide the student with a variety of on loom and off loom weaving skills and techniques. Provides the student with the ability to lead weaving programs with any age group in a variety of environments. Prereq: None

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

LED 182 Music in Recreation and Leisure Service (X) 1 credit
Designed for students to develop leadership skills in a variety of musical activities, including leading group singing, developing a repertoire of songs, understanding basic musical notation,
and organizing music appreciation programs for a wide range of recreational settings and age groups. The course will also expand the student's personal appreciation for music. Prereq: None

LED 191 Recreationa\l Dance (X) 2 credits
Designed to provide the opportunity to increase basic dance skills. Introduction to basic rhythms, folk, square and social dances. Field trips required. Prereq: None

LED 193 Contemporary Food Experiences (X) 1 credit
The basic principles and preparation techniques of natural foods. An activity oriented approach which will focus upon eating patterns, nutrition and consumerism. Class activities will range from food planning and preparation to utilization of the community as a learning resource. Prereq: None

LED 195 Nature Crafts (X) 1 credit
Familiarity with and development of skills within a variety of nature craft activities. Incorporates the use of natural, inexpensive materials into arts and crafts. Teaching approaches, leadership and organizational skills appropriate to nature craft programs. Field trips required. Prereq: None

LED 196 Nature in Winter (X) 1 credit
This is a field course designed to stimulate an interest in natural history by studying and observing the adaptations and strategies that plants and animals use to survive the harsh winter season. The majority of class time will be spent in the field. Students will develop skills in observing, recording in a field journal, using keys and researching topics. Students will also prepare individual projects to present to the class. Field trips required. Prereq: None.

LED 199 Creative Dramatics (X) 1 credit
Prepares recreation leaders to direct informal creative dramatics for all age groups. Includes improvisation, pantomime, storytelling, charades, dramatic games and acting combined with other art forms. Field trips required. Prereq: None.

Mathematics

MAT 100 Basic Mathematics Skills (X) 3 credits
Designed for students who have been away from mathematics for a long time or who have a weak mathematics background. A basic premise of the course is that everyone learn mathematics. Basic skills are stressed and rules developed which make sense to the student. The issue of mathematics anxiety is discussed and overcome. The process of mathematical discovery is emphasized with the goal of enabling the student to analyze and solve new problems using general techniques of mathematical reasoning. This course is useful as a foundation for other mathematics or
science courses or for basic mathematical skills necessary in job situations. Prereq: None

MAT 103 Applied Mathematics I (NC) 3 credits
Applied mathematics with emphasis on developing general mathematical understanding and problem solving skills. Basic algebraic operations, exponents, graphs, exponential equations, logarithms, solution of linear equations and right triangle trigonometry with applications. 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 and vectors, graphs of trigonometric functions, complex numbers and polar forms, graphical and algebraic solutions of equations, determinants, topics from analytic geometry, quadratic equations. Prereq: MAT 103 or equivalent.

MAT 105 Algebra and Coordinate Geometry I (NC) 3 credits
Modern notation and language of algebra. Signed number, exponents and radicals, factoring and fundamental operations with rational expressions. First degree and quadratic equations with applications to the physical and social sciences. Prereq: None

MAT 106 Algebra and Coordinate Geometry II (NC) 3 credits
A continuation of MAT 105. Topics include simultaneous equations, graphs, radicals and quadratic equations. Prereq: MAT 105 or permission of the instructor.

MAT 107 Fundamental Concepts of Mathematics (NC) 3 credits
The basic principles and notation of modern mathematics. Logic and set terminology, the development of number systems including natural numbers, integers, rationals, reals and complex numbers; an introduction to relations and functions; equations and inequalities; special topics from modern algebra. Formerly MAT 101. Prereq: Successful completion of at least two years of college preparatory secondary school mathematics or MAT 106 or equivalent.

MAT 108 Elementary Functions (NC) 3 credits
Preparation for calculus and physical sciences. The principles and properties of functions and their graphs. Inverses and composition of functions. Polynomial, rational, circular, exponential and logarithmic functions. Topics from analytic geometry. Prereq: MAT 107

MAT 112 Finite Mathematics (NC) 3 credits
Techniques in modern mathematics that can be used to make the best decision. Topics include matrix algebra, logic, game theory and linear programming. Emphasis on applications of mathematics to real life situations in which various choices of action are possible. Prereq: MAT 107 or equivalent.
MAT 114 Probability and Statistics (NC) 3 credits
The organization, presentation and interpretations of data; measures of central tendency and dispersion; probability theory; distribution of measurements; binomial and normal probability distributions; statistical interference and hypothesis testing, linear regression and correlation. 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 Math 105, 106, 103, 104, 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 the 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 field. Functions and their graphs, limits, the derivative with applications, and the integral with applications. Prereq: MAT 104 or MAT 107 or permission of the instructor.

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. Some additional topics in managerial decision-making. Prereq: MAT 151

MAT 201 Calculus with Analytic Geometry I (NC) 4 credits
Limits and continuity. The derivative of algebraic functions. Applications of the derivative. Anti-differentiation and the definite integral. The Fundamental Theorem of the Calculus. Prereq: MAT 108 or MAT 104 or the equivalent

MAT 202 Calculus with Analytic Geometry II (NC) 4 credits

MAT 203 Multivariate Calculus (NC) 4 credits
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 transform. The methods will be applied to problems from engineering, physics, and chemistry. Prereq: MAT 202

MAT 205 Elementary Linear Algebra (NC) 3 credits

Media Communication

MCM 101 Introduction to Media Communication (A) 3 credits
Designed to acquaint and familiarize the student with characteristics, applications and implications of media and its related equipment. Emphasis will be placed upon mastering audiovisual equipment for traditional and innovative instructional uses. Prereq: Completion of, or concurrent enrollment in English Composition I.

MCM 103 Production of Audiovisual Materials (A) 3 credits
Basic audiovisual production processes, including illustration, preservation, lettering, coloring, photography, audio recording and mixing and SUPER 8 film making. Prereq: None

MCM 109 Television Production (A) 3 credits
Studio television production, including on-and-off camera functions. Emphasis on program direction and equipment operation. Prereq: None

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. Prereq: None

MCM 123 Motion Pictures and Television: Techniques and 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 209 Advanced Television Production** (X) 3 credits
A production oriented course designed to increase students' ability to direct television programs, refine organizational and motivational skills necessary for effective producers, and increase technical skills, especially in location shooting and editing. Substantial amounts of time outside of class required, both in the television studio and at remote production locations. Prereq: MCM 109 or equivalent.

**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 109. Recomm: 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 the instructor.

**Music**

**NOTE:** 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
Examination of the major forms of music including the folk, song, the symphony and the opera. Concentration on contemporary forms with tracing of historical foundations. 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 105 Music Literature II (HC) 3 credits
Masterpieces of Western music from Rococo, Classical, Romantic and Contemporary eras. Representative works from each period analyzed. Prereq: MUS 101 or permission of the instructor.

MUS 106 Music Literature II (HC) 3 credits
Masterpieces of Western music from the Medieval, Renaissance and Baroque eras. Representative works from each period analyzed. Prereq: MUS 101 or permission of the instructor.

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 the 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 P.I.

MUS 109 Music in Early Childhood Education (HL) 1 credit
Designed to meet the needs of early childhood education majors. Rewarding ways of using music for pre-school age children will be explored. Note reading will be acquired by playing simple tunes on recorder, autoharp and/or piano. Prereq: ECE major.

MUS 110 Ear Training and Dictation (HL) 1 credit
Ear Training and Dictation is 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. 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
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 one-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. Prereq: None

MUS 115 Applied Music: Intermediate Level (HL) 1 credit
Prereq: MUS 114 or 124 in same instrument or permission of Music Coordinator.

MUS 116 Applied Music: Advanced Level (HL) 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 students 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 technique, 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 the instructor.

MUS 124 Applied Music: Beginning Level (HL) 2 credits
Prereq: None

MUS 125 Applied Music: Intermediate Level (HL) 2 credits
Prereq: MUS 114 or 124 in same instrument or permission of instructor.
MUS 126 Applied Music: Advanced Level (HL) 2 credits
Prereq: MUS 115 or 125 in same instrument or permission of instructor.

MUS 133 Band (HL) 1 credits
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.

Nursing

NUR 101 Fundamentals of Nursing (X) 7 credits
Designed to provide a foundation for nursing practice. The student is introduced to the concepts of health, illness and adaptation. The nursing process is presented as a foundation for nursing practice. Emphasis is placed on assessment of the individual's ability to adapt to stressors and on the basic skills needed to assist the individual in this process. Prereq: High School chemistry or CHE 105 or CHE 111 (within 10 yrs.)

NUR 102 Family-Centered Nursing (X) 7 credits
Designed to introduce the student to the uniqueness of the family within our changing society. Emphasis is placed upon assisting the family in the process of adapting to child bearing and child rearing. The nursing process is utilized as it relates to the nursing care of children and pregnant women. The course is divided into two units: the maternity unit and the pediatric unit. The maternity unit focuses on the normal maternity cycle, including the needs of the neonate, the newly delivered mother and the family. Emphasis in the pediatric unit is on the ability to recognize normal growth and development and to identify deviations within the acute and chronic setting. Prereq: SOC 101 or concurrent enrollment in SOC 101, NUR 101 and PSY 217 or concurrent enrollment in PSY 217.

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 patient's physiological and psychosocial status and to utilize appropriate nursing diagnosis. The course provides opportunity to discuss the role of the professional nurse. Graded on a CR/NC 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.

121
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 work weeks students will work directly with their assigned nurse preceptor, do library research and attend seminar and conferences with a nursing instructor. Prereq: NUR 101 and NUR 102 and BIO 105 and 106 and permission of instructor. Enrollment limited to 16.

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 Nursing 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, 203.

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 psychosocial stressors. 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 a dynamic profession in which the nurse is a facilitator of adaptation to the changes which result from constant interaction with socioeconomic and political/legal forces in our health care delivery system. Prereq: NUR 101, 102, 201, 203.
Outdoor Leadership

OLP 111 Introduction to Outdoor Adventure Programs and 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 Wilderness First Aid and 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: Enrollment in OLP program and/or permission of instructor.

OLP 141 Flat Water Canoeing (X) 1 credit
Introduction to the skills, philosophy 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. Field trips required. Prereq: Enrollment in OLP program 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: Enrollment in OLP program 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: Enrollment in OLP program 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 back country. Field trips required. Prereq: Enrollment in OLP program and/or permission of instructor.

OLP 145 White Water Canoeing (X) 1 credit
Introduction to the skill, 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: Enrollment in OLP program and/or 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: Enrollment in OLP program and/or permission of instructor.

124
OLP 202 Individual Project in Outdoor Leadership II (X) 2 credits
A continuation of OLP 201, Individual Project in Outdoor Leadership I, with a more in-depth study of the student selected theory and/or practice topic of Outdoor Leadership. Prereq: Enrollment in OLP program 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 participants only.

OLP 211 Advanced Outdoor Adventure Programs and 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 participants only.

OLP 212 Counseling and Human Services for Outdoor Leaders II (X) 3 credits
Indepth 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. Apply the concepts to the field. Prereq: OLP participants 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 program to suit particular agency and population requirements. Field trips required. Prereq: OLP participants 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 participants 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 program to suit particular agency and population requirements. Optional Agency Internship. Work in selected public/private agencies. Prereq: OLP Participants only.

**OLP 220 Intermediate and Advanced Wilderness First Aid and Emergency Care (X) 3 credits**
Prevention and care of wilderness emergencies. Advanced skills and abilities. Special focus upon Wilderness Emergency Medical Technician (WEMT) and Red Cross Advanced First Aid Instructor. In-the-field leadership and instructorship highly recommended. Prereq: OLP participant 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 participants only.

**OLP 227 Advanced Outdoor Adventure Methods and 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 participants only.

**OLP 240 Intermediate and 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: Enrollment in OLP program and/or permission of instructor.

**OLP 241 Intermediate and 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. Prereq: Enrollment in OLP program and/or permission of instructor.

**OLP 242 Cross Country Skiing (X) 1 credit**
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. Optional Nordic Ski Patrol Member. Prereq: Enrollment in OLP program and/or permission of instructor.

OLP 243 Intermediate and Advance 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 mountaineering skills. Prereq: Enrollment in OLP program and/or permission of instructor.

OLP 244 Intermediate and 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 back country. Prereq: Enrollment in OLP program and/or permission of instructor.

OLP 245 Intermediate and Advanced White Water Canoeing (X) 1 credit
The skill, 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. Prereq: Enrollment in OLP program and/or permission of instructor.

Philosophy

PHI 101 Logic and Scientific Method (HC) 3 credits
Traditional logic; the deductive process of reasoning and method of knowing and handling the material of science; the inductive process. Prereq: None

PHI 103 Introduction to Philosophy (HC) 3 credits
Introduction to the major, classical philosophical problems through a thematic approach. Emphasis on active, informal discussion of contemporary issues. Prereq: None

PHI 105 Bio-Medical Ethics (HC) 3 credits
An examination of moral and value systems and the application of modern ethical theory. Special emphasis on investigation of contemporary bio-medical issues. Prereq: None

PHI 107 Comparative Religion (HL) 3 credits
A survey of the beliefs and practices of the world's living religions; a definition of what religion is and an examination of the religious experience. Prereq: None
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 fields of science, mathematics, engineering or related fields. Lab required. Prereq: 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. Prereq: 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. Prereq: MAT 201 concurrently or permission of instructor.

PHY 112  General Physics II with Calculus (NC) 4 credits
A continuation of PHY 111. Topics include simple harmonic motion, waves on a string, heat, ray and wave optics, and selected topics from modern physics. Lab required. Prereq: PHY 111, MAT 202 concurrently 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. Prereq: None

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

POL 105  International Politics (BC) 3 credits
Traditional principles of international relations and emerging new problems from a political perspective--population, environment, energy, natural resources, economic interdependence, rapid technological change. Provides as global context for dealing with new and developing international considerations. Prereq: None
POL 201 Government and Politics of the Soviet Union (BC) 3 credits
Emergence and development of the Soviet system; pre-communist Russian history; Marxism-Leninism; the Soviet system under leaders from Lenin to the present. Soviet foreign policy. Prereq: POL 103 or permission of instructor.

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. Prereq: 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 Recom: 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 symptomatic consistency with major organic and non-organic based problem behaviors including psychoses, 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, Horney, 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 and 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 and Aging (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 psychosocial 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 SOC 101

Reading

REA 100 College Reading Skills (X) 3 credits
Development of reading and study skills for increased comprehension, vocabulary building and variable speeds. Techniques for effectively and efficiently obtaining information from reading materials, especially textbooks. Prereq: None

Recreation and Leisure Services

RLS 101 Introduction to Recreation and Leisure Services (A) 3 credits
Considers the growing field of recreation and leisure services, including its history, philosophy and principles as related to the use of leisure; recreation as a social force. Especially designed to create an awareness of career opportunities in the profession of recreation. Field trips required. Prereq: None

RLS 102 Elder Services: Survey and Research (X) 3 credits
A research course designed to provide students with a comprehensive knowledge of the network of elder service resources, with an emphasis on recreation and leisure service
programs on the local, state, and federal levels. The course is designed to meet the needs of employed and volunteer personnel, as well as students preparing for vocations in the field. Field trips required. Prereq: None.

**RLS 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 REC 103 or ECE 103, but not for both. Field trips required. Prereq: REC or ECE 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. Certification as an Activity Coordinator in Elder Services agencies within the Commonwealth of Massachusetts is awarded upon successful completion of course. Prereq: None

**RLS 105 Introduction to Physical Education and Fitness (X)**
3 credits
Designed to enhance the students understanding of the Biology/Physiology of Human Activity as it pertains to Health and Physical Fitness. Study and course work will focus on developing a working understanding of exercise leadership and prescription, nutrition and weight control, strength and muscular endurance, cardiovascular fitness, flexibility, posture, stress management, and psychosocial aspects of exercise participation. Field trips required. Prereq: None Recom: BIO 105

**RLS 107 Recreational Sports Administration (X)**
3 credits
Participation, demonstrations and lectures acquaint students with a variety of sports and games applicable to a recreation setting. Emphasis on organizing and conducting a community sports program. Includes teaching techniques utilized in recreational sports. Field trips required. Prereq: None

**RLS 109 Program Planning (X)**
3 credits
Principles and methods of program development. Emphasis on gaining a thorough understanding and working knowledge of recreational programs applied to a variety of settings. Analysis of program objectives. Development of leadership skills. Field trips required. Prereq: None

**RLS 111 Introduction to Outdoor Recreation (X)**
3 credits
The meaning and significance of outdoor recreation in contemporary society. Deals with the needs of different age groups and special populations. 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 out-of doors. 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 115 Field Work I (X) 3 credits**
Experience in planning, organizing, conducting and evaluating recreation programs in a local agency. Settings change each semester. Field trips required. Prereq: RLS 109 or permission of instructor

**RLS 116 Inservice Training (X) 1 credit**
Experiences include observations, participation in, assisting with, and conducting physical fitness programs. Additional emphasis on administration, public relations, and evaluation. Students will learn through a variety of on-the-job-experiences in several different fitness agencies under direct supervision. Prereq: RLS Majors only.

**RLS 119 Advanced First Aid and 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 judgement. Successful completion of the course can lead to Red Cross certification in Advanced First Aid and CPR. Field trips required. Prereq: None

**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. The course offers practical guidelines for the operation of such programs including examples of activities and leadership methods. Field trips required. Prereq: None

**RLS 150 Leisure Leadership (X) 3 credits**
Course content focuses on the different processes leaders use when working with people in various recreation and leisure services settings. Teaching, counseling, group processors, group dynamics, human resources, and programming are also topics included in the course. Prereq: RLS major

**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, 109
RLS 215 Field Work II (X) 3 credits
Experience in planning, organizing, conducting and evaluating recreation programs in a local agency. Settings, change each semester. Field trips required. Prereq: RLS 115 or permission of instructor.

RLS 220 Planning, Organization and Administration of Fitness Programs (X) 3 credits
Designed to develop competencies and skills for the development and administration of fitness programming for all age groups and populations. Focus on the organization, resources and administration of a fitness agency. Prereq: RLS 105 or P.I.

RLS 225 Methods and Procedures of Fitness (X) 3 credits
Designed as a training course for the physical fitness evaluator. Geared to develop competencies in the evaluation of the components of fitness: cardiovascular, muscle strength and endurance, body composition, nutrition and flexibility. Prereq: RLS 105

Science

SCI 100 Introductory Physical Science (X) 3 credits
An introductory developmental course in physical science. Analytical problem solving skills will be emphasized. Science will be "demystified." Topics include scientific method, states of matter, structure of matter, energy and its transformation. Prereq: None

SCI 101 Physical Science I (NC) 3 credits
A fused treatment of the major principles normally dealt with in chemistry and physics. Covers the broad areas of matter, matter in motion, energy and its transformations, interactions of matter and energy. No lab. Prereq: None Recom: High School Algebra.

SCI 102 Physical Science II (NC) 3 credits
A fused treatment of the major principles normally dealt with in chemistry and physics. Emphasis upon modern developments and their impact upon society. Includes the philosophical and sociological influences of science in our modern culture. No lab. Prereq: None Recom: High School Algebra.

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, and 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 man. Includes some practical applications of conservation principles. Prereg: 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 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. Prereg: None

**Sociology**

**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. Prereg: None. Credit will be given for SOC 101 or 107 but not for both.

**SOC 201 Social Problems (BC) 3 credits**

**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. Prereg: SOC 101

**Spanish**

**SPA 101 Elementary Spanish I (BC) 3 credits**
Introduction to the language through conversation followed by a systematic study of practical grammar and phonetics. Readings correlated with what is learned through conversation. For beginners and students who have not successfully completed one year of high school Spanish. Prereg: None

**SPA 102 Elementary Spanish II (BC) 3 credits**
Development of basic language skills through conversation, study of grammar and phonetics and correlated readings. For students who have successfully completed one year of high school Spanish. Prereg: SPA 101 or equivalent.
SPA 201 Intermediate Spanish I (HC) 3 credits
Refinement of written and conversational skills through selected readings in literature. Prereq: SPA 102 or permission of instructor.

SPA 202 Intermediate Spanish II (HC) 3 credits
Further development of conversational and technical fluency. Continued consideration of Spanish literature to provide increased awareness of Spanish culture. Prereq: SPA 201 or permission of instructor.

SPA 251 Spanish Composition and Conversation (HC) 3 credits
Refinement of writing and speaking skills on an advanced level. Written and oral assignments required weekly. Prereq: SPA 202 or equivalent or permission of instructor.

Speech

SPE 101 Oral Communication (SL) 3 credits
Principles and practice, stressing the concept of speaker-listener interaction. Participation in a variety of speech situations. Prereq: None

SPE 106 Phonetics (L) 1 credit
Speech production and improvement. International Phonetic Alphabet; development of speech sounds in children, analysis and correction of tongue thrust, sound substitutions and distortions. Prereq: None. Credit will not be given for both SPE 106 and 107.

SPE 107 Phonetics; Speech and Voice Development (HL) 3 credits
Emphasis on speech sounds and their production; hearing, anatomy of the vocal mechanism; causes of and corrective measures for certain common speech problems. Prereq: None

SPE 121 Group Discussion: Problem Solving (HL) 3 credits
Communicating in small groups. The discussant as speaker and listener, causes and cures of communication breakdown, development of skills in effective communication and problem solving. Prereq: None

SPE 201 Persuasive Speaking (HL) 3 credits
The art of persuasion. Emphasis on the roles of semantics, propaganda, human motivation, proof, evidence, ethics. Prereq: SPE 101 or permission of instructor.

SPE 203 Argumentation and 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. Field trips to plays and theatres. Prereq: None

THE 105 Oral Interpretation of Literatures (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 107 History of the Dance (HC) 3 credits
Introduction to the history of theatrical dance, beginning with the Renaissance courts of Europe and ending with experiments in New York lofts. Includes dance literature/films and a live performance. 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, duet 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: P. I.

THE 125 The American Musical Theatre (HL) 3 credits
An examination of the development of the "musical comedy" from the early 40's 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 CR/semester; 4 CR max.
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 105 or THE 103, 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 P.I.
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