The Connecticut State University System reaches throughout the state with major campuses in four regional centers: Central Connecticut State University in New Britain, Eastern Connecticut State University in Willimantic, Southern Connecticut State University in New Haven, and Western Connecticut State University in Danbury. It enrolls more than 33,500 students who are taught by approximately 1,100 full-time faculty members and hundreds of part-time instructors.

Origins of the Connecticut State University System date back to 1849, with the founding of a school for teachers in New Britain. During their distinguished histories, the campuses have evolved from normal schools to teachers colleges to multi-purpose state colleges and, finally, to universities. Today, after a century and a half of growth and development, the four campuses of the Connecticut State University System are thoroughly diversified institutions. Among their alumni are physicians, teachers, lawyers, dentists, nurses, clergy, business people, journalists, scholars, librarians, artists and a host of other professionals. The graduates of the Connecticut State University System contribute to all aspects of Connecticut's economic, social and cultural life.

The governance of the Connecticut State University System is the responsibility of an 18-member Board of Trustees. Fourteen of the Trustees are appointed by the governor, and four are students elected to the Board by their classmates. The Chancellor of the Connecticut State University System is responsible for the administration of the system. Each campus operates with a considerable measure of autonomy and functions under the leadership of a president.

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Karl J. Krapek, Vice Chair .................................................................Avon
Lynn McD. Hathaway, Secretary ..........................................................Stamford
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William H. Detrick .............................................................................Cromwell
John A. Doyle .....................................................................................Soutthington
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Joseph A. Mengacci ...........................................................................Waterbury
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Rev. John P. Sullivan .........................................................................New Haven
Mertie L. Terry ..................................................................................Cromwell
Gail H. Williams ..............................................................................Danbury
Angela R. Zurowski ...........................................................................Danbury

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William J. Cibes, Jr..............................................................Chancellor of the Connecticut State University System
Herman D. Lujan ..............................................................................Chief Academic Officer
Yvette Melendez Thiesfield ...............................................................Chief Administrative Officer
Pamela J. Kedderis .........................................................................Chief Financial Officer

CONNECTICUT STATE UNIVERSITY SYSTEM • 39 Woodland Street • Hartford, CT 06105-2337
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Central Connecticut State University is committed to a policy of non-discrimination, equal opportunity and affirmative action for all persons regardless of race, color, religion, sex, sexual orientation, age, national origin, marital or veteran status, or disability. This policy is applicable to all employment practices, admission of students, programs and services to students, faculty, staff and the community. Central Connecticut's affirmative action policy seeks to include persons of color, women, veterans and persons with disabilities in its educational programs and in all job groups of its workforce. The University Office of Human Relations/Affirmative Action is located in Davidson Hall, Room 106 (832-3025).
UNIVERSITY OFFICES

Academic Deans
- School of Arts and Sciences 832-2600
- School of Business 832-3200
- Professional Studies 832-2101
- School of Technology 832-1800
- Advising Center 832-1615
- Bookstore 832-2665
- Career Services and Cooperative Education 832-1630
- Enrollment Center/Office of Continuing Education 832-2256
- Financial Aid Office 832-2200
- George R. Muirhead Center for International Education 832-2050
- Graduate Admissions 832-2350

Graduate Office 832-2363
Learning Center 832-1900
Library 832-2055
Ombudsman 832-3020
Personnel 832-1750
Prevention and Counseling Services 832-1945
Registrar 832-2235
Residence Life 832-1660
Special Student Services 832-1955
Student Affairs 832-1601
Student Center Operations 832-1960
Summer and Winter Sessions 832-2256
Transcripts 832-2244
University Police 832-2375
Veterans Services 832-1785
For all numbers not listed above 832-3200

Send Inquiries to:
Graduate Admissions Office
Central Connecticut State University
P. O. Box 4010, New Britain, CT 06050-4010
Office Phone: (860) 832-2350; TDD: (860) 832-1958; FAX: (860) 832-2362
Toll free (outside local calling area): 1-888-SEE-CCSU
E-mail: graduateadmissions@ccsu.edu or ABRAHAM@ccsu.edu
Home page: HTTP://WWWGS.CCSU.CTSTATEU.EDU

Accreditation and Memberships

The University is accredited by the New England Association of Schools and Colleges, the Connecticut Department of Higher Education, and the Connecticut Department of Education (for its certification programs in education) and the National Council for the Accreditation of Teacher Education. Programs in chemistry are accredited by the American Chemical Society. The honors track of the computer science program is accredited by the Computing Sciences Accreditation Board. The civil engineering technology and the manufacturing engineering technology programs are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology. The industrial technology programs are accredited by the National Association of Industrial Technology, and the Bachelor of Science in Nursing program is accredited by the National League for Nursing. The Council on Social Work Education has accredited the baccalaureate social work program, and the Council on Accreditation of Nurse Anesthesia Programs has accredited the master's degree in biological sciences, anesthesiology specialization.

The University is a member of the American Association of Colleges for Teacher Education, the American Association of Higher Education, the American Association of State Colleges and Universities, the American Council on Education, the Association of American Colleges and Universities, the College Board, the Council for Advancement and Support of Education, the Council of Graduate Schools, the National Commission for Cooperative Education and many other professional organizations related to the activities of individual departments at Central Connecticut State University.
## University Calendar 2000—2001

### Fall Semester 2000

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 28</td>
<td>Academic year begins</td>
</tr>
<tr>
<td>September 4</td>
<td>Labor Day — Holiday</td>
</tr>
<tr>
<td>September 6</td>
<td>Last day for full-time students to withdraw with 100% refund</td>
</tr>
<tr>
<td>September 6</td>
<td>Classes begin 8 a.m.</td>
</tr>
<tr>
<td>September 6–8, 11</td>
<td>Add/Drop period; last day to change from part-time to full-time status</td>
</tr>
<tr>
<td>September 12</td>
<td>Last day for part-time students to drop with 100% refund</td>
</tr>
<tr>
<td>September 15</td>
<td>Last day for graduate students to apply for December 2000 graduation</td>
</tr>
<tr>
<td>September 19</td>
<td>Last day for full-time students to withdraw with 60% refund</td>
</tr>
<tr>
<td>September 26</td>
<td>Last day to declare Pass/Fail and Audit options; last day for part-time students to drop with 60% refund; last day to change from full-time to part-time status</td>
</tr>
<tr>
<td>October 3</td>
<td>Last day to drop eight-week courses; last day for full-time students to withdraw with 60% refund</td>
</tr>
<tr>
<td>October 24</td>
<td>Mid-term; last day to drop full-semester courses; first eight-week courses end</td>
</tr>
<tr>
<td>October 25</td>
<td>Second eight-week courses begin</td>
</tr>
<tr>
<td>November 21</td>
<td>Last day to drop second eight-week courses; Thanksgiving recess begins 10 p.m.</td>
</tr>
<tr>
<td>November 27</td>
<td>Thanksgiving recess ends 8 a.m.</td>
</tr>
<tr>
<td>December 1</td>
<td>Last day for undergraduates to apply for December 2001 graduation</td>
</tr>
<tr>
<td>December 15</td>
<td>Day classes end</td>
</tr>
<tr>
<td>December 18–22</td>
<td>Examinations</td>
</tr>
<tr>
<td>December 23</td>
<td>Semester ends; last class meeting for Saturday classes</td>
</tr>
</tbody>
</table>

### Winter Session 2001

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 27</td>
<td>Classes begin</td>
</tr>
<tr>
<td>January 1</td>
<td>New Year's Day — Holiday — no classes</td>
</tr>
<tr>
<td>January 15</td>
<td>Martin L. King, Jr., Day — no classes</td>
</tr>
<tr>
<td>January 18</td>
<td>Classes end</td>
</tr>
</tbody>
</table>

### Spring Semester 2001

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 16</td>
<td>Academic semester begins</td>
</tr>
<tr>
<td>January 22</td>
<td>Last day for full-time students to withdraw with 100% refund</td>
</tr>
<tr>
<td>January 22</td>
<td>Classes begin 8 a.m.</td>
</tr>
<tr>
<td>January 22–25</td>
<td>Add/Drop period; last day to change from part-time to full-time status</td>
</tr>
<tr>
<td>January 29</td>
<td>Last day for part-time students to drop with 100% refund</td>
</tr>
<tr>
<td>February 2</td>
<td>Last day for full-time students to withdraw with 60% refund</td>
</tr>
<tr>
<td>February 9</td>
<td>Last day to declare Pass/Fail and Audit options; last day to change from full-time to part-time status</td>
</tr>
<tr>
<td>February 12</td>
<td>Last day for part-time students to drop with 50% refund</td>
</tr>
<tr>
<td>February 16–19</td>
<td>Lincoln's/Washington's Birthday weekend — Holidays — no classes</td>
</tr>
<tr>
<td>February 20</td>
<td>Last day for full-time students to withdraw with 40% refund; last day to drop first eight-week courses</td>
</tr>
<tr>
<td>March 1</td>
<td>Final day for graduate students to apply for May and August 2001 graduation</td>
</tr>
<tr>
<td>March 16</td>
<td>Midterm; last day to drop full-semester courses</td>
</tr>
<tr>
<td>March 17</td>
<td>Spring Recess begins 1:30 p.m.</td>
</tr>
<tr>
<td>March 26</td>
<td>Spring Recess ends 8 a.m.; second eight-week courses begin</td>
</tr>
<tr>
<td>April 13–14</td>
<td>Holiday — no classes</td>
</tr>
<tr>
<td>April 20</td>
<td>Last day to drop second eight-week courses</td>
</tr>
<tr>
<td>May 1</td>
<td>Final day for undergraduates to apply for May 2002 graduation</td>
</tr>
<tr>
<td>May 9</td>
<td>Day classes end</td>
</tr>
<tr>
<td>May 10–11</td>
<td>Reading Days (make-up days if needed) — no classes</td>
</tr>
<tr>
<td>May 14–18</td>
<td>Examinations</td>
</tr>
<tr>
<td>May 17</td>
<td>Graduate Commencement</td>
</tr>
<tr>
<td>May 19</td>
<td>Semester ends; last class meeting for Saturday classes</td>
</tr>
<tr>
<td>May 19</td>
<td>Undergraduate Commencement</td>
</tr>
</tbody>
</table>

### Summer Session 2001

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 29</td>
<td>First five-week session begins; eight-week session begins</td>
</tr>
<tr>
<td>June 28</td>
<td>First five-week session ends</td>
</tr>
<tr>
<td>July 2</td>
<td>Second five-week session begins</td>
</tr>
<tr>
<td>July 4</td>
<td>Independence Day — Holiday — no classes</td>
</tr>
<tr>
<td>July 19</td>
<td>Eight-week session ends</td>
</tr>
<tr>
<td>August 2</td>
<td>Second five-week session ends</td>
</tr>
<tr>
<td>August 6</td>
<td>Three-week post session begins</td>
</tr>
<tr>
<td>August 23</td>
<td>Three-week post session ends</td>
</tr>
</tbody>
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## University Calendar 2001–2002

### Fall Semester 2001

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<th>Date</th>
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<td>August 27</td>
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<td>Labor Day — Holiday</td>
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<tr>
<td>September 5</td>
<td>Classes begin 8 a.m.</td>
</tr>
<tr>
<td>September 5-7, 10</td>
<td>Last day for full-time students to withdraw with 100% refund</td>
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<tr>
<td>September 11</td>
<td>Last day for part-time students to drop with 100% refund</td>
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### Winter Session 2002

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<tbody>
<tr>
<td>January 2</td>
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<td>January 18</td>
<td>Classes end</td>
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</table>

### Spring Semester 2002

<table>
<thead>
<tr>
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<th>Event</th>
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<tbody>
<tr>
<td>January 14</td>
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</table>

### Summer Session 2002

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<td>August 5</td>
<td>Three-week post session begins</td>
</tr>
<tr>
<td>August 22</td>
<td>Three-week post session ends</td>
</tr>
</tbody>
</table>

### February 4

Last day for full-time students to withdraw with 60% refund

### February 11

Last day to declare Pass/Fail and Audit options; last day to change from full-time to part-time status; last day for part-time students to drop with 50% refund

### February 15–18

Lincoln's/Washington's Birthday weekend — Holidays — no classes

### February 19

Last day for full-time students to withdraw with 40% refund; last day to drop first eight-week courses

### March 1

Final day for graduate students to apply for May and August 2002 graduation

### March 18

Midterm; last day to drop full-semester courses

### March 23

Spring Recess begins 1:30 p.m.

### April 1

Spring Recess ends 8 a.m.; second eight-week courses begin

### April 15

Last day to drop second eight-week courses

### May 1

Final day for undergraduates to apply for May 2003 graduation

### May 8

Day classes end

### May 9–10

Reading Days (make-up days if needed) — no classes

### May 13–18

Examinations

### May 16

Graduate Commencement

### May 18

Semester ends; last class meeting for Saturday classes

### May 18

Undergraduate Commencement
GRADUATE SCHOOL FORMS — DISTRIBUTION AND DUE DATES

<table>
<thead>
<tr>
<th>TITLE OF FORM</th>
<th>RETURN TO</th>
<th>DATES DUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application, Reactivation, Re-enrollment Form</td>
<td>Graduate Admissions Office Also as on-line application (wwgs.ccsu.ctstateu.edu)</td>
<td>Aug. 10 for fall, Jan. 10 for spring</td>
</tr>
<tr>
<td>Special Project Capstone Forms</td>
<td>Graduate Office</td>
<td>Final submission on April 16</td>
</tr>
<tr>
<td>Thesis Capstone Forms</td>
<td>Graduate Office</td>
<td>July 1 for fall, Dec. 1 for spring</td>
</tr>
<tr>
<td>Application for Degree Candidacy</td>
<td>Graduate Office (for approval)</td>
<td></td>
</tr>
<tr>
<td>Graduate Assistant Forms</td>
<td>Graduate Office</td>
<td></td>
</tr>
<tr>
<td>Withdrawal Request</td>
<td>Registrar</td>
<td></td>
</tr>
<tr>
<td>Change of Status (full-time, part-time)</td>
<td>Registrar or Enrollment Center</td>
<td></td>
</tr>
<tr>
<td>Application for Graduation</td>
<td>Registrar</td>
<td>March 1</td>
</tr>
<tr>
<td>Comprehensive Examination Form</td>
<td>Registrar</td>
<td>Oct. 1 for fall; Feb. 15 for spring</td>
</tr>
<tr>
<td>Completed Planned Program of Study</td>
<td>Graduate Office. Registrar or Enrollment Center</td>
<td>Must be filed before completion of 15 credits</td>
</tr>
<tr>
<td>Course Substitution Forms</td>
<td>Registrar or Enrollment Center</td>
<td></td>
</tr>
<tr>
<td>Transfer of Credits</td>
<td>Registrar or Enrollment Center</td>
<td></td>
</tr>
</tbody>
</table>

Note: Forms are available in Graduate Studies, Registrar and Enrollment Center. Application, Re-enrollment and Reactivation Forms are available in Admissions. Materials related to graduate study also are available as Microsoft Word documents. Faculty and staff using PCs should first click on Network Neighborhood, then on “CMFSRV1” and next open “The Grad Materials” folder. Mac users should go under the Apple to “Chooser” and click on the Appleshare icon. In the right pane, go to "MacShare on CMFSRV1" and double click on it. Choose Microsoft Authentication and put in your NT username and password. Double click on the “Grad Materials” NetShare folder. Your icon for connection to the NetShare will be on the desktop.
# TABLE OF CONTENTS

## THE UNIVERSITY ................................................................. 8
Our Mission ........................................................................ 8
Affirmative Action Policy ...................................................... 8
The Graduate Office .............................................................. 8
The Academic Schools ........................................................... 8

## THE GRADUATE PROGRAMS .................................................... 9
School of Arts and Sciences .................................................... 9
School of Business ................................................................ 10
School of Education and Professional Studies ....................... 10
School of Technology ............................................................ 10

## GRADUATE ADMISSIONS ....................................................... 10
Applying for Admission ....................................................... 10
Admission Criteria ............................................................... 11
Conditional Admission ........................................................ 12
Admissions Appeals ............................................................. 12

## GRADUATE STUDENT POLICIES AND DEGREE REQUIREMENTS ... 12
The Planned Program of Graduate Study ............................... 12
Changes in the Planned Program ......................................... 12
Changes in Program ............................................................ 13
Master’s Degree Requirements ............................................. 13
Degree Candidacy ............................................................... 13
Capstone Requirements ....................................................... 13
Six-Year Time Limit ........................................................... 13
The Sixth-Year Certificate .................................................... 14
Graduate Teacher Certification Programs ............................... 14
Official Certificate Programs ............................................... 14
Post-Master’s Planned Programs .......................................... 14
Enrolling in Graduate Courses ............................................. 14
Course Numbering System .................................................. 14
Maximum Course Load ....................................................... 14
Adding a Course ............................................................... 15
Dropping a Course ........................................................... 15
Withdrawal from a Course .................................................. 15
Withdrawal from the Graduate Program ............................... 15
The Grading System ........................................................... 15
Incomplete Grades ............................................................. 15
Grade Appeals ................................................................. 15
Good Academic Standing .................................................... 15
Transfer of Graduate Credit in Degree Programs .................... 16
Graduation ................................................................. 16
Student Regulations and Conduct ....................................... 16
Attendance .............................................................. 16
Academic Honesty ........................................................... 16
Computer Use ............................................................... 16

## REGISTRATION, TUITION AND FEES ................................. 16
Connecticut Residency Status .............................................. 17
New England Regional Student Program ............................... 17
Full-time Graduate Status ................................................. 17
Part-time Graduate Status .................................................. 17
Summer and Winter Sessions ............................................. 17
Full-time Tuition and Fees .................................................. 17
Part-time Course and Registration Fees ............................... 17
Other Fees .............................................................. 17
Payment of Fees .......................................................... 18
Withdrawal and Refund Policy for Full-time Graduate Students . 18
Withdrawal and Refund Policy for Part-time Graduate Students . 18
Tuition and Fee Waivers ................................................... 18
Central Payment Plan (CPP) .............................................. 18
Campus Debit Card (Blue Chip) Accounts ........................... 19
Financial Aid Book Advances ............................................ 19

## FINANCIAL AID ................................................................. 19
Eligibility Criteria ............................................................ 19
Sources of Financial Assistance .......................................... 19
Applying for Financial Aid .................................................. 20
Award Notification ........................................................... 20
Satisfactory Academic Progress ......................................... 20

## GRADUATE ASSISTANTSHIPS ............................................ 20
Applying for a Graduate Assistantship ................................. 20
Eligibility ......................................................................... 20
Types and Work Commitments ......................................... 20
Course Loads for Graduate Assistants .................................. 20
Stipends .......................................................................... 20
Scholarships and Fellowships ............................................. 21

## GRADUATE ADVISING AND STUDENT SERVICES .......................... 21
Academic Advising ........................................................... 21
Graduate Student Association ............................................. 21
Other Student Services ...................................................... 21
Campus Ministry ............................................................. 21
Career Services and Cooperative Education ......................... 21
Enrollment Center/Office of Continuing Education .............. 21
International Student Services .......................................... 22
Learning Center ............................................................. 22
Prevention and Counseling Services .................................... 22
Special Student Services .................................................... 22
Student Judicial Programs ................................................. 22
University Health Service .................................................. 22
University Ombudsman ..................................................... 22
Veterans Services ............................................................ 22
Women’s Center ............................................................. 22

## GENERAL INFORMATION .................................................. 23
Alumni Association ........................................................... 23
Bookstore ......................................................................... 23
Cancellation of Classes Due to Inclement Weather ............... 23
Cancellation of Courses .................................................... 23
Change of Name or Address ............................................... 23
Childcare ......................................................................... 23
Food Service .................................................................... 23
Grade Reports ............................................................... 23
Health Insurance ............................................................. 23
Housing .......................................................................... 23
Identification Cards ........................................................ 23
Location .......................................................................... 24
Medical History and Immunization Verification .................... 24
OnlineCSU ........................................................................ 24
Parking ............................................................................ 24
Pet Policy .......................................................................... 24
Public Access to Student Records ....................................... 24
Public Safety ................................................................. 24
Study Abroad .................................................................... 24
Transcripts ........................................................................ 25
Voter Registration ............................................................ 25

## UNIVERSITY CENTERS .................................................... 25
George R. Muirhead Center for International Education ........... 25
CCSU Center for Caribbean Studies ................................. 25
China Resource Center ..................................................... 25

## FACILITIES ................................................................. 26
Cultural Resources .......................................................... 26
Elihu Burritt Library ........................................................ 26
Information Services ........................................................ 26
Media Center ................................................................. 26
TABLE OF CONTENTS

Sports and Recreation ................................................................. .26
Student Center .............................................................................. .26

SCHOOL OF ARTS AND SCIENCES ........................................ .27
Art .............................................................................................. .27
Biological Sciences ....................................................................... .27
Chemistry .................................................................................... .30
Communication ........................................................................... .31
Computer Information Technology .............................................. .32
Criminology and Criminal Justice ............................................... .32
Design (Graphic/Information) ....................................................... .33
English and TESOL ........................................................................ .34
Geography .................................................................................... .35
History ......................................................................................... .36
Mathematical Sciences .................................................................... .37
Modern Languages ........................................................................ .38
Music ........................................................................................... .39
Natural Sciences ............................................................................ .40
Physics and Earth Sciences .......................................................... .41
Political Science ............................................................................ .41
Psychology .................................................................................... .41
Science Education .......................................................................... .42
Social Science ................................................................................ .42

SCHOOL OF ARTS AND SCIENCES — School of Arts and Sciences Centers ......................................................... .42

SCHOOL OF BUSINESS ................................................................... .45
Master of Business Administration ................................................ .45
Business Education .......................................................................... .46

School of Business — Computer Information Technology .................. .46

SCHOOL OF EDUCATION AND PROFESSIONAL STUDIES ................................................................. .47
Educational Leadership .................................................................... .48
Health and Human Service Professions .......................................... .50
Physical Education and Health Fitness Studies ................................. .52
Reading and Language Arts .......................................................... .53
Special Education ........................................................................... .54
Teacher Education .......................................................................... .56
School of Education and Professional Studies Centers ....................... .59

SCHOOL OF TECHNOLOGY ................................................................. .61
Industrial Technical Management ................................................... .61
Technology Education ..................................................................... .61

Computer Information Technology ................................................ .62

School of Technology Center .......................................................... .62

INTERNATIONAL AND AREA STUDIES ................................................................. .63

COURSE DESCRIPTIONS ................................................................. .65
Accounting ..................................................................................... .65
Actuarial Science ........................................................................... .65
Anthropology .................................................................................. .66
Art ................................................................................................. .66
Biology ............................................................................................ .68
Business ......................................................................................... .69
Business Education ......................................................................... .69
Chemistry ....................................................................................... .70
Chinese ......................................................................................... .70
Communication .............................................................................. .71
Computer Information Technology ................................................ .71
Computer Science .......................................................................... .72
Counselor Education ....................................................................... .73
Criminal Justice .............................................................................. .74
Criminology .................................................................................... .74
Design (Graphic/Information) .......................................................... .75
Earth Sciences ................................................................................. .75
Economics ....................................................................................... .76
Education ....................................................................................... .76
Education — Early Childhood ......................................................... .77
Education — Elementary ................................................................ .78
Education — Middle Level ............................................................. .78
Education — Secondary .................................................................. .78
Education — Teacher Education ...................................................... .79
Educational Foundations ................................................................ .79
Educational Leadership ................................................................... .80

SCHOOL OF TECHNOLOGY — School of Technology Centers ................................................................. .80

Educational Technology ................................................................... .81
Engineering Technology .................................................................... .81
English ........................................................................................... .82
Finance ........................................................................................... .84
Fine Arts ......................................................................................... .85
French ............................................................................................. .85

GEOGRAPHY .................................................................................... .85

German ............................................................................................ .86
Health and Human Service Professions .......................................... .86
History ............................................................................................ .87

SCHOOL OF TECHNOLOGY — School of Technology Centers ................................................................. .87

Humanities ....................................................................................... .89
Industrial Technology ....................................................................... .89
International Business ..................................................................... .90
International Studies ......................................................................... .90
Italian ............................................................................................... .90
Law ................................................................................................. .91
Management .................................................................................... .91
Management Information Systems .................................................. .92
Marketing ........................................................................................ .93
Marriage and Family Therapy .......................................................... .93

Actuarial Science ........................................................................... .94
Modern Languages .......................................................................... .95
Music .............................................................................................. .96
Nursing ............................................................................................ .97
Philosophy ....................................................................................... .98
Physical Education .......................................................................... .98

Thinking — Logic ............................................................................... .99
Psychology ....................................................................................... .100
Reading ........................................................................................... .102

Russian ............................................................................................. .103
Science Education .......................................................................... .103
Sign Language ................................................................................ .104
Social Science ................................................................................ .104
Social Work ..................................................................................... .104
Sociology ........................................................................................ .105
Spanish ............................................................................................ .105

SCHOOL OF TECHNOLOGY — School of Technology Centers ................................................................. .105
Special Education ............................................................................ .105
Statistics ........................................................................................ .107
Technical Courses ............................................................................ .108
Technology Education ..................................................................... .108
Theatre ............................................................................................ .109
Vocational-Technical Education ....................................................... .110
Women's Studies ............................................................................. .110

FACULTY, ADMINISTRATIVE STAFF, LIBRARIANS ........................................................................... .111
Emeriti Faculty ................................................................................ .116

INDEX ............................................................................................. .119

DIRECTIONS ................................................................................... .124

CAMPUS MAP ................................................................................... inside back cover
THE UNIVERSITY

Central Connecticut State University (CCSU) is a regional, comprehensive public university dedicated to learning in the liberal arts and sciences and to education for the professions. CCSU offers Connecticut citizens access to academic programs of high quality. The University is also a responsive and creative intellectual resource for the people and institutions of our state's capital region. CCSU's many international programs and contacts also uniquely position the University to provide students and businesses with opportunities to grow and prosper in the emerging global community.

Connecticut's oldest publicly-supported institution of higher education was founded in 1849 as the New Britain Normal School, a teacher training facility. The school was moved to the present campus in 1922. It became Teachers College of Connecticut in 1933 when it began offering four-year baccalaureate degrees. After extensive growth and expansion, including the ability to grant degrees in the liberal arts, the school evolved into Central Connecticut State College in 1959. The present name and status — Central Connecticut State University — were conferred in 1983 to recognize the institution's change in commitment, mission, strategy and aspiration. Now the University offers undergraduate and graduate degrees.

The largest of four comprehensive universities within the Connecticut State University System, CCSU enrolls over 6,700 full-time students and nearly 5,200 part-time students, and offers undergraduate and graduate programs through the master's degree and sixth-year certificate levels. The University has a full-time faculty of over 375 members, 450 part-time faculty, and some 500 administrators and staff.

CCSU continues to grow, adding property, buildings and resources that place it among the finest state educational institutions in Connecticut. A growing network of overseas study opportunities, educational initiatives and exchange programs have helped CCSU become an internationally-oriented public university.

OUR MISSION

Central Connecticut State University is a community of learners dedicated to teaching and to scholarship. We encourage the development and application of knowledge and ideas through research and outreach activities. We prepare students to be thoughtful, responsible and successful citizens.

Central Connecticut State University is, above all else, about teaching undergraduate and graduate students. Our research endeavors improve us as teachers and expose our students to methods of inquiry. The public service expected of all members of our community benefits our society - local and global - and builds our sense of citizenship.

We value the development of knowledge and its application in an environment of intellectual integrity and open discourse. We expect that members of the University will engage in activities ranging from basic research and the creation of original works, to helping individuals and organizations achieve success in purely practical endeavors. All these activities enrich our community of learners.

As a public university, we receive support from the State of Connecticut. We have two designated Centers of Excellence and many nationally accredited programs. We take very seriously our commitment to provide access to higher education for all citizens in this State who can benefit from our offerings. Our high expectations for ourselves contribute to the fine quality and continuous improvement of our undergraduate and graduate programs.

We believe that quality and access are compatible and simultaneously achievable; our objective is to provide the support needed for our students to reach their full potential.

We also believe that higher education should promote the personal and social growth of our students, as well as their intellectual achievement and professional competence. We provide various opportunities for students to engage in activities or to join organizations and clubs where they develop leadership and other social skills. We foster a welcoming environment in which all members of our diverse community receive encouragement, feel safe and acquire self-confidence.

Central Connecticut State University aspires to be the premier public comprehensive university in Connecticut, with teaching as its primary focus, enhanced by the dynamic scholarship of its faculty; be highly regarded by its many constituents; be a significant resource contributing to the cultural and economic development of Connecticut; be global in its perspective and outreach; and be widely respected as a university dedicated to innovative, activity-based, life-long and learner-centered higher education.

AFFIRMATIVE ACTION POLICY

Central Connecticut State University is committed to a policy of non-discrimination, equal opportunity and affirmative action for all persons regardless of race, color, religion, sex, sexual orientation, age, national origin, marital or veteran status or disability. This policy is applicable to all employment practices, admission of students, programs and services to students, faculty, staff and the community.

The University's affirmative action policy seeks to include persons of color, women, veterans and persons with disabilities in its educational programs and in all job groups of its work force. Further information is available from the University Office of Human Relations/Affirmative Action, located in Davidson Hall 106 (832-3025).

THE GRADUATE OFFICE

The Graduate School at Central Connecticut State University was established in 1954. Graduate enrollment is approximately 2,700.

The Graduate Office has as its primary mission the development and administration of graduate degree programs which reflect high academic standards for advanced study. The mission of CCSU graduate programs is to prepare students with demonstrated critical thinking skills and a high level of analytic and verbal ability to become leaders in their fields through independent thinking and enthusiasm for inquiry. Graduate education seeks to operate at a separate and distinctive level of performance, easily recognized by others and resulting in graduates who make a significant contribution to their field of study or profession.

The University offers graduate programs leading to the degrees Master of Science, Master of Arts and Master of Business Administration, and to the Sixth-Year Certificate in Reading and in Educational Leadership. Non-degree graduate-level planned programs leading to teacher certification and for professional enhancement are also available.

THE ACADEMIC SCHOOLS

School of Arts and Sciences. The School of Arts and Sciences offers a wide range of liberal arts programs at the bachelor's and master's level. Subject-matter majors for students in teacher education programs are provided by the academic departments within the school. Faculty in Arts and Sciences also have the primary responsibility for the University's honors program, for providing developmental course work in basic skills and for the University's general education program.
Faculty in Arts and Sciences are involved in research and other scholarly activities both on campus and in the community and state. Students have the opportunity to work with faculty in their research and to collaborate on projects relevant to their study. Certain programs require supervised clinical practice or field study experiences.

The graduate program in Biological Sciences: Anesthesia is accredited by the Council on Accreditation of Nurse Anesthesia Programs. The school's undergraduate programs in chemistry, computer science and social work are accredited by their respective professional organizations.

School of Business. The School of Business prepares undergraduates for entry-level positions in business organizations through programs in accounting, international business, finance, management, management information systems and marketing. At the graduate level, students are prepared for leadership positions in international business through the Master of Business Administration (available with a concentration in accounting). The School also offers the state's only comprehensive graduate program in business teacher education.

School of Education and Professional Studies. Central Connecticut State University, along with the other three institutions within the Connecticut State University System, has special responsibility to prepare teachers and other professionals for the public schools of Connecticut.

Founded as the New Britain Normal School in 1849, Central Connecticut State is a university where teacher education and professional programs for educators and other professionals remain a very high priority.

The School of Education and Professional Studies, with the participation of the other academic schools, has primary responsibility for preparing prospective teachers. In addition, the School provides master's programs, two sixth-year certificate programs and several non-degree programs for the professional development of teachers and counselors. The School offers a Master's Degree in Marriage and Family Therapy and an undergraduate nursing program which is accredited by the National League for Nursing.

School of Technology. Central Connecticut State University is unique in that it has the only School of Technology within the Connecticut public university system. The School of Technology offers programs in technology education (also certification for vocational-technical education teachers), industrial technology and engineering technology, in addition to graduate programs in industrial technical management and technology education. The civil engineering technology and the manufacturing engineering technology programs are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC of ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202; (401) 347-7700. The industrial technology program is accredited by the National Association of Industrial Technology (NAIT).

Designated as a Center of Excellence by the State of Connecticut, the School provides state-of-the-art equipment and facilities, with an emphasis on computer-integrated design and manufacturing. The Institute for Industrial and Engineering Technology, supported in part by the business community, facilitates outreach and research.

THE GRADUATE PROGRAMS

Central Connecticut State University offers graduate degree programs in 32 fields of study. The Master of Arts (MA) degree signifies completion of at least 30 credits of advanced study, including research and a capstone experience, which may involve a thesis or special project. Students in an MA program seek to expand their knowledge of a particular subject, and may specialize in an aspect of the subject relevant to their career goals. Students also choose an MA degree program when planning to continue their studies at the doctoral level.

The Master of Science (MS) degree is primarily a professional degree for educators and others seeking to enter or advance in public service professions. Degree programs include at least 30 credits of course work; a thesis is optional, but a capstone experience is required. Most MS programs at Central Connecticut are designed for certified teachers (although some departments admit students who have not completed certification) and for students who intend to pursue other professions.

The Master of Science in Industrial Technology Management (MS) degree is a 36 cr. Plan B program which includes a required 15-credit core of courses, and a specialization of 21 credits of restricted and directed electives. The student must pass a comprehensive examination.

The Master of Business Administration (MBA) is a 33 cr. plan which includes an international core, a concentration and an integrative experience.

The Sixth-Year Certificate provides graduate study beyond the master's degree for teachers and other educators. Presently offered only in the fields of reading and educational leadership, the sixth-year certificate signifies completion of a program of study designed to prepare the recipient for a high level of professional practice and responsibility in public education.

Graduate certification programs are available for initial teacher certification in elementary, secondary and some pre-kindergarten through grade twelve fields. Certification as school counselor, media specialist, reading consultant and intermediate administrator/supervisor may be completed through coursework taken within related degree programs. The Office of the Dean, School of Education and Professional Studies, provides up-to-date information concerning certification programs and state requirements for certification.

GRADUATE PROGRAMS IN THE SCHOOL OF ARTS AND SCIENCES

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree</th>
<th>Certification Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art Education</td>
<td>MS, Certification</td>
<td></td>
</tr>
<tr>
<td>Biological Sciences</td>
<td>MA, MS, OCP</td>
<td>Certification</td>
</tr>
<tr>
<td>Computer Information Technology</td>
<td>MS</td>
<td></td>
</tr>
<tr>
<td>Criminal Justice</td>
<td>MS</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>MA, MS, Certification</td>
<td></td>
</tr>
<tr>
<td>Geography</td>
<td>MS</td>
<td></td>
</tr>
<tr>
<td>History</td>
<td>MA, MS, Certification</td>
<td></td>
</tr>
<tr>
<td>Information Design</td>
<td>MA</td>
<td></td>
</tr>
<tr>
<td>International Studies</td>
<td>MS</td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>MA, MS, Certification</td>
<td></td>
</tr>
<tr>
<td>Modern Languages</td>
<td>MA, Certification</td>
<td></td>
</tr>
<tr>
<td>Languages</td>
<td>(French, German, Italian, Spanish)</td>
<td></td>
</tr>
<tr>
<td>Music Education</td>
<td>MS, Certification</td>
<td></td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>MS, Certification</td>
<td></td>
</tr>
<tr>
<td>Natural Sciences/Science Education</td>
<td>MS</td>
<td></td>
</tr>
<tr>
<td>Organizational Communication</td>
<td>MS</td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>MA</td>
<td></td>
</tr>
<tr>
<td>Social Science</td>
<td>MS, Certification</td>
<td></td>
</tr>
<tr>
<td>Spanish</td>
<td>MS, Certification</td>
<td></td>
</tr>
<tr>
<td>TESOL</td>
<td>MS, Certification</td>
<td></td>
</tr>
</tbody>
</table>
GRADUATE PROGRAMS IN THE SCHOOL OF BUSINESS

Business
Education MS, Certification
Business Administration MBA
Computer Information Technology MS

GRADUATE PROGRAMS IN THE SCHOOL OF EDUCATION AND PROFESSIONAL STUDIES

Counselor Education MS, Certification
Early Childhood Education MS
Educational Foundations/ Secondary Education MS
Educational Leadership MS, SYC
Educational Technology MS
Elementary Education MS, Certification
Marriage and Family Therapy MS
Pedagogy and Leadership MS (jointly offered)
Physical Education MS, Certification
Reading MS, SYC
Special Education MS

Additional non-degree 30-credit programs of study beyond the master's degree are available in selected disciplines for certified teachers seeking professional development.

GRADUATE PROGRAMS IN THE SCHOOL OF TECHNOLOGY

Computer Information Technology MS
Industrial Technical Management MS
Technology Education MS, Certification

Further information about each of these programs is found in the program descriptions section of this catalog.

GRADUATE ADMISSIONS

APPLYING FOR ADMISSION

Central Connecticut State University welcomes advanced level applicants from a broad range of abilities, interests and backgrounds. Students are admitted to either full-time (9 hours or more) or part-time (8 hours or less) study. Applications are accepted for both the fall and spring semesters.

To be considered for full-time or part-time admission, applicants should submit the completed Application for Graduate Admission to the University, accompanied by a non-refundable application fee of $40. The Application for Admission is available upon request or may be obtained in a number of campus offices or downloaded from the web (wwwg.ccsu.ctstateu.edu).

The back portion of the form includes important information about the application and admission process.

As part of the application and admission process, the applicant must request that official undergraduate and graduate transcripts be submitted from every institution attended except Central Connecticut State University. Failure to identify on the application form all institutions attended, or to have transcripts sent from each of them, may be considered sufficient reason for non-admission or for subsequent dismissal from the graduate program. Applicants who have attended Central Connecticut State University must list all dates of attendance so their official record can be appropriately evaluated.

In addition to submitting the application form, the fee and official transcripts, applicants must provide any additional evidence of admissibility (such as test scores, essays, letters of recommendation, etc.) if so required by the program of application. The program description section of this catalog provides additional information about specific application requirements relevant to various graduate programs. All academic credentials submitted by applicants become part of the student's permanent file at the University and cannot be returned.

Application Deadlines. It is strongly recommended that applicants apply for the fall semester by May 1 and for the spring semester by November 1. However, all applications must be received no later than August 10 for the fall semester and January 10 for the spring semester.

Some programs have established earlier deadlines or admit students only once per year.

International applicants should submit all applications materials as soon as possible proceeding a semester's beginning dates to ensure adequate time for processing visa applications and for making other arrangements.

A personal interview with the faculty department and additional materials may also be required for entry into some graduate programs.

International Students. International applicants must meet all regular requirements for admission (including such tests as the Graduate Record Examination or the Graduate Management Admissions Test when required). In addition, applicants must submit a satisfactory score on the Test of English as a Foreign Language (TOEFL), when required, and provide a Declaration of Finance form which documents financial responsibility. Qualified applicants who cannot demonstrate financial responsibility will not be admitted. Presently financial aid is not available for non-U.S. students. A limited number of graduate assistantships may be available to students who are available for on-campus interviews and/or who have successfully completed a semester of graduate study at Central Connecticut State University.

International applicants must submit the following in addition to the application form, application fee, official transcripts and records of undergraduate and graduate studies, and any program-specific application requirements:

1) two letters of academic and character reference;
2) a Declaration of Finance form, which is provided to international applicants and includes provisions for indicating and verifying financial capability and responsibility;
3) translations of academic records produced and verified by the educational institution in the home country, or a U.S. academic credential evaluation agency, if such materials are not in English;
4) proof of competency in English as indicated by the Test of English as a Foreign Language (TOEFL) with a score of no less than 550 (or 213 on the computer-based test) unless waived by the University.

Information about the TOEFL test is available from the Educational Testing Service, PO. Box 6151, Princeton, NJ 08541-6154, USA. An undergraduate academic degree from a U.S. institution of higher education or from an overseas institution where the primary medium of instruction is English may be considered as proof of English competency. Central Connecticut State University reserves the right to require additional evidence of competency or to require that students admitted to
graduate programs take courses to develop their English language skills. Decisions regarding the need for such courses will be made by the Associate Vice President of Academic Affairs and Coordinator of Graduate Studies and Research in conjunction with the student's adviser and appropriate faculty from the English Department.

Central Connecticut State University is authorized under federal law to enroll non-immigrant, permanent resident students. These students will be required to submit proof of immigration status.

Intensive English Language Program. The Intensive English Language Program (IELP) offers dynamic English language instruction to international students, faculty, foreign professionals and other non-native English speakers. The Intensive English Language Program includes highly-participatory instruction in reading, writing, listening, grammar, pronunciation, speaking and TOEFL preparation. Students are placed in the appropriate level, based primarily on the results of an entrance exam which is administered the first day of the course. The IELP also administers an institutional TOEFL test five times per year.

Registration for these courses is done directly through the IELP office in the George R. Muirhead Center for International Education, Barnard 131.

Please contact the office at 832-3376 for application, course scheduling or other information.

Re-Admission of Former Students and Admission of Non-Matriculated Students Who Have Been in Attendance. Students who wish to be considered for re-admission after being withdrawn from a graduate program must complete a Request for Reinstatement form. After one calendar year of no registration, graduate students will be notified if they have become inactive and that they have one more year to register or they will be dropped from their program. If they are subsequently dropped, they must reapply and pay a re-enrollment fee of $50 if they want to return. Only students in good standing (3.00 graduate GPA or higher) are considered for re-admission. Students may request file reactivation when their previous program has not been completed.

The requirement of a 3.00 or higher GPA, earned at Central Connecticut State University, also applies to non-matriculated attendees who desire admission to a graduate program.

If a former student wishes to enter a program other than the one to which she or he was originally accepted and/or completed, a new application (including the application fee and official transcripts from any additional institutions) must be filed. Good standing status on the accumulated graduate record (3.00 or higher GPA) also applies to such students.

ADMISSION CRITERIA
Admission for a graduate program is based on the applicant's academic record. Students must hold a bachelor's degree from a regionally-accredited institution of higher education. The undergraduate record must demonstrate clear evidence of ability to undertake and successfully pursue studies in a graduate field.

A minimum undergraduate GPA of 2.70 on a 4.00 point scale (where A is 4.00), or its equivalent, and good standing (3.00 GPA) in all post-baccalaureate course work is required.

When applicable, evidence of successful completion of a master's degree from an accredited institution with a minimum 3.00 GPA, on a four-point scale (where A=4.00), will admit the student to the graduate school and the undergraduate GPA will not be counted.

For those students who apply to the graduate school who do not meet the minimum undergraduate GPA of 2.70 on a four-point scale (where A=4.00), the quality points of credits for courses taken at the graduate level will be added to the quality points of the undergraduate GPA to compute the total GPA to determine if the required 2.70 has been met.

Some graduate programs have established additional admission requirements beyond the minimum requirements of the Graduate Office. Prospective applicants should consult the program description section of this catalog to determine the requirements of the program to which they are applying. Such program-specific admission standards may include a higher minimum cumulative average; an undergraduate major or its equivalent in the program for which admission is sought; scores from the Advanced Test of Graduate School Examination (GRE) or the Graduate Management Admission Test (GMAT); evidence of language proficiency; and additional evidence of admirability such as letters of reference, statement of goals and objectives, etc.

Further, some programs can accept only a limited number of qualified applicants and may review admission files only at certain times of the year.

Applications to all programs are urged to consult the appropriate program description, the Graduate Office or the department chair to assure that all special admission requirements are met.

Admissions requirements are subject to change without notice.

Teacher Certification Programs. Central Connecticut State University offers programs of preparation for teacher certification at both the undergraduate and graduate levels. Consistent with state requirements for the undergraduate academic preparation of teachers, only those applicants who present at least a 2.70 (B-) undergraduate cumulative average may be considered for admission to a certification program at the graduate level.

After admission to the graduate program, a student seeking acceptance to the professional program in the School of Education and Professional Studies is required to submit separate application and accompanying documents for review by the Office of the Dean, School of Education and Professional Studies, and the respective department. The application must be submitted by September 10 (for Fall consideration) or by February 10 (for Spring consideration) for students in Elementary programs, and for all other programs by September 21 or February 21 of the semester in which the student is first eligible. (Note: These dates and processes differ for applicants to Summer Through Summer Programs. Applicants should consult directors of these programs.) An eligible student is someone who has been admitted to the graduate program; completed or is enrolled in no less than six credits of post-baccalaureate course work at CCSU; met special departmental requirements; and passed the basic skills examination for prospective teachers (Praxis I) or received an official waiver.

A complete application for the Professional Program in Education includes two letters of recommendation from persons able to testify to the candidate's suitability as a prospective teacher: an essay which demonstrates a command of the English language, describes in written narrative the reasons for wanting to enroll in the professional program and emphasizes experiences which are relevant to teaching; verification of a Praxis I completion by test or waiver; a copy of the letter of admission to the graduate program; and a signed copy of the official planned program of graduate study.

The student is responsible for presenting a complete application packet to the Assistant Dean of the School of Education and Professional Studies (Barnard Hall 248).

Students admitted for graduate study, but not yet admitted to the professional pro-
program for teacher certification, develop, with their assigned adviser, a planned program of required courses. The length of the planned program depends on the undergraduate preparation of the student. Most students must devote the equivalent of at least a year or more of full-time study in order to complete professional education, undergraduate deficiencies in areas of study required for certification, and student teaching.

Students must be accepted to the professional program before registering for student teaching. Those requesting student teaching in the fall semester must submit student teaching applications by March 1 of the preceding spring semester. Applicants requesting student teaching in the spring semester must apply by October 1 of the preceding fall semester.

Further information about the requirements for entry into the professional program may be obtained from the Office of the Dean of Graduate Studies and Professional Studies (Barnard Hall 248). Student teaching applications and information are available in the Office of Field Experiences (Barnard Hall 329).

Sixth-Year Certificate and Other Post-Master's Study. Central Connecticut State University offers the Sixth-Year Certificate in Educational Leadership and in Reading. Students wishing to develop a program of study for other fields may request admission to a 30-credit planned program of post-master's study in an available area of interest. All planned programs of post-master's study, with the exception of the Sixth-Year Certificate in Educational Leadership and in Reading, are non-degree programs and are provided in a limited number of fields. Admission to programs of post-master's study, including the sixth-year certificate, is limited to students who hold the appropriate Connecticut teaching certificate, hold an appropriate master's degree, or present other evidence of advanced course work in the field of study. Acceptance is based on performance at the master's degree level (minimum 3.00 on a 4.00 scale where A=4.00). Most programs also limit admissions to applicants who hold an appropriate master's degree or who present other evidence of advanced course work in the field of study. Additional admission requirements are described in the program descriptions section of this catalog.

CONDITIONAL ADMISSION
An applicant for graduate study who does not meet regular admission standards, but has an undergraduate GPA between 2.40 and 2.69, may be considered for conditional admission when the department of application has agreed in advance to make this option available to prospective students. The conditional admission program is a non-degree arrangement which allows students to demonstrate the ability to perform successfully in a graduate degree program. The conditional admission plan is available only in a limited number of fields by departmental agreement and does not apply to teacher certification areas.

Students admitted conditionally, where appropriate, are notified of pre-admission requirements. When any course requirements set forth are completed and conditions are met with a GPA of at least 3.00, the academic adviser may recommend regular acceptance.

ADMISSIONS APPEALS
Applicants who are denied admission to a graduate program at Central Connecticut State University may request a review of this decision. Such requests must be made in writing to the Coordinator of Graduate Studies and should include additional academic information (such as scores from standardized tests, grades in very recent courses or letters of recommendation from instructors) which was not submitted with the original application.

Depending on the nature of the appeal, the Graduate Appeals Subcommittee of Graduate Studies, an appropriate designee of the academic school, and the department chair of the relevant program will be consulted before making a decision.

Changes in the Planned Program
Changes in the Planned Program. A course substitution form must be completed whenever a student wants to modify degree requirements or apply a course not previously included in an approved planned program toward requirements. Requests to change pro-
program requirements which are initiated after the student has started a thesis, or attempted after the comprehensive examination, must be approved by the student’s academic department as well as by the Coordinator of Graduate Studies.

Changes in Program. To change a graduate program after admission, the student must complete a change of major/adviser form. Students must be matriculated and must meet any special requirements of the program to which they are seeking approval for a change.

If the change in program is approved, the student will be notified and assigned a new adviser. The student must then consult with the new adviser to develop a new planned program of graduate study for submission and approval. Subject to approval, course work completed prior to a change in program may be recommended for inclusion on the new planned program at the adviser’s discretion.

MASTER’S DEGREE REQUIREMENTS

The master’s degree is conferred upon the student who has completed, subject to approval of the faculty and administrative officials, all requirements of the planned program of graduate study. Requirements include a minimum of 30 credits of approved graduate courses and either a master’s thesis (Plan A), a comprehensive examination (Plan B), or a special project such as an art exhibit, performance or applied research project (Plan C). The program descriptions section of this catalog explains the capstone options available for each degree program.

Each candidate for the master’s degree is expected to demonstrate ability to present effectively the results of graduate study at the University and to analyze problems related to the area of specialization. Candidates must also maintain a minimum cumulative grade point average of 3.00 (B) on the graduate record at Central Connecticut State University. No more than two courses with grades of C may be carried in the planned program, otherwise such courses may have to be repeated. Courses in which students receive a C- or lower will not be counted for graduate credit in the planned program and may not be used to meet prerequisite requirements for graduate courses.

Degree Candidacy. Some graduate programs require students to make formal application for degree candidacy following the completion of nine credits (at least six of which must be from the area of specialization) in the planned program of graduate study. Students should consult the academic adviser concerning degree candidacy requirements of the particular program for which they have been accepted.

Admission to degree candidacy involves a formal review of the student’s progress and potential by department faculty and a decision as to whether the student will be permitted to continue in the graduate program. Degree candidates must have a minimum cumulative average of 3.00 and must meet requirements for candidacy established by the academic department.

Recommendations concerning degree candidacy are included in the student’s permanent graduate file. If a student is not approved for degree candidacy, he or she will be withdrawn from graduate study.

Capstone Requirements. All master’s degree programs at Central Connecticut State University include the capstone requirement of a thesis, a comprehensive examination or a special project.

The master’s thesis is required of all graduate students completing degrees under the Plan A option. The thesis represents a report of original scholarship completed under the supervision of a faculty thesis adviser. Depending on department policy, students receive either three or six credits for completing the thesis requirement.

Students electing to write a thesis will select or be assigned a faculty thesis adviser. Students select a topic in consultation with the thesis adviser. The adviser and committee of a minimum of one additional faculty member must approve the thesis proposal and the thesis prior to their submission to the Coordinator of Graduate Studies. Some departments require their students to give an oral defense of their thesis before it is submitted to the Coordinator of Graduate Studies, who assures that the thesis meets University standards for format and quality, and transmits the thesis to the University Library. A thesis handbook is available in the Graduate Office.

The following University requirements apply to all students writing theses:

1. Whenever possible, the student’s graduate adviser will serve as the thesis adviser. If the student and the adviser deem it appropriate, another faculty member may be appointed by the department chair to serve as thesis adviser.

2. The thesis topic and outline will not be approved until at least one-half of the student’s course work has been completed. A copy of the approved thesis outline must be submitted to the Coordinator of Graduate Studies by the thesis adviser.

3. The thesis must be prepared in a style and format appropriate to the discipline and approved by the Coordinator of Graduate Studies. Among the currently approved styles are APA, MLA, Campbell and Turabian.

4. Students expecting to graduate in May should submit a typed draft to their adviser no later than March 15.

5. Two copies of the approved thesis, and five additional copies of the thesis abstract (not to exceed 500 words), must be submitted to the Coordinator of Graduate Studies by April 15 of the year in which the student plans to graduate.

The comprehensive examination is required of all students who select the Plan B option. The comprehensive examination covers the course work in the student’s planned program. At the option of the department, the comprehensive examination may include an oral examination and/or an oral defense of the written examination.

The comprehensive examination is normally taken during the last semester of study, but may be attempted any time after the completion of at least 21 credits of planned program requirements. Examinations are given each fall and spring semester and, at the discretion of the academic department, during the summer. Students should consult their advisers and/or department chairs concerning the availability of summer session comprehensive examinations.

To be eligible to take the examination, students must complete an application form which is available in department offices, the Graduate Office or Registrar’s Office. Students should submit this form to the Registrar no later than October 1 for fall semester examinations, and no later than February 15 for spring semester examinations. The academic department will notify students concerning the time and place of the examination and will inform students of the results.

With departmental permission, students may retake the comprehensive examination. Students who do not pass the examination on a first attempt may be required to enroll in additional course work or to make other special preparations for reexamination. Students who fail the examination a second time must appeal to the Coordinator of Graduate Studies for permission to retake the examination.

Students who elect the Plan C option must complete a special project. The availability of this option and the requirements for the special project vary according to the degree program. In general, the special project involves...
completion of a body of work appropriate to the degree specialization. The faculty adviser or another faculty member in the department will supervise the project. The student's work will be evaluated by the adviser and by other members of the department as appropriate.

Students should consult the program descriptions section of this catalog concerning availability of a Plan C option and discuss with their advisers the department's requirements for the special project. Students normally receive three credits upon successful completion of their project.

**Six-Year Time Limit.** All course work and non-credit capstone requirements (i.e., theses, comprehensive examinations and special projects) for the degree must be completed during the six years which precede degree conferred. That is, the student has six years from the earliest course listed on the planned program (including any work transferred from another institution or completed prior to matriculation) to complete ALL degree requirements.

If a student, due to extenuating circumstances, anticipates that he/she will be unable to complete all degree requirements before the six-year limit is reached, it might be possible for the student to get an extension. To do this, the student must request an extension in writing to the graduate adviser who will forward it with recommendations to the Coordinator of Graduate Studies. When making the request, the student should include the date when the six-year limit will be reached, the amount of additional time needed to complete all degree requirements, and the reason for not meeting the six-year limit. If the Coordinator of Graduate Studies deems the request justified, due to extenuating circumstances, an extension may be granted.

**THE SIXTH-YEAR CERTIFICATE**

The Sixth-Year Certificate is presently offered in educational leadership and in reading. The Certificate is awarded, subject to faculty approval, to students who complete all requirements of the planned program.

All course work and any related requirements for the Sixth-Year Certificate must be completed as specified within the "Six-Year Time Limit" section above.

**GRADUATE TEACHER CERTIFICATION PROGRAMS**

Requirements for teacher certification at the graduate level will be individually prescribed by the adviser in the School of Education and Professional Studies after the student has been admitted. Certification requirements include not only course work (such as completion of undergraduate deficiencies and requirements for appropriate subject majors, professional education and student teaching) but also the satisfactory completion of all requirements for admission to the Professional Program of the School of Education and Professional Studies.

Students are advised to contact their adviser as soon as possible after they are admitted to graduate study and to consult the Office of the Dean, School of Education and Professional Studies, for current information concerning Connecticut and University requirements for certification.

**OFFICIAL CERTIFICATE PROGRAMS**

Official Certificate Programs (OCPs) are defined as academic programs of study that have been through a complete university curricular review and approval process, but which do not lead directly to a formal degree. These programs are designed for people interested in developing expertise in a particular field of study, but who do not wish to complete formal degree requirements. The advantages to these programs are that, as formal programs of study, students may be matriculated, pursue their studies on a full-time basis, and may be eligible for financial aid. Most importantly, these programs are coordinated by faculty closely tied to the area of interest who are committed to advising students enrolled in these programs, ensuring that the student is best able to achieve his or her educational goals. Requirements for Official Certificate Programs at the graduate level will be individually prescribed by the program director after the student has been admitted to Graduate Studies.

**POST-MASTER’S PLANNED PROGRAMS**

The Sixth-Year Certificate is awarded only in two fields of study at CCSU. Students wishing to pursue post-master’s study in other areas may request admission to a planned program of post-master’s study. Thirty-credit planned programs of graduate study beyond the master's degree are individually prescribed programs of advanced study for educators. Students develop a planned program with their adviser. All requirements must be completed within a six-year time period dating from the earliest course included on the planned program. When requirements have been completed, students may request an official letter from the Coordinator of Graduate Studies which documents that they have completed 30 credits in a planned program of graduate study beyond the requirements for a master's degree. Completion of post-master’s requirements is also noted in the student’s official University record. Students completing planned programs of post-master’s study do not participate in graduation ceremonies.

**ENROLLING IN GRADUATE COURSES**

Information about registration and fees is provided beginning on page 16. This section includes information about course numbers, enrollment and withdrawal from graduate study.

**Course Numbering System.** The following numbering system is used by Central Connecticut State University:

- **001—099** Non-credit courses
- **100** Search courses (undergraduate credit)
- **101—199** Courses open to first-year students, and in general to all undergraduate students
- **200—299** Courses open to sophomores, and in general to all undergraduate students
- **300—399** Courses open to juniors, and in general to sophomores, juniors and seniors
- **400—499** Courses open to seniors, and in general to juniors, seniors and graduate students. Additional work will be required for graduate credit.
- **500—599** Graduate courses; undergraduates require a minimum 2.70 GPA and 90 credits of study, approval of adviser, department chair and Coordinator of Graduate Studies, who will give preferential admission to graduate students.
- **600—699** Graduate courses open only to master's and sixth-year students.

Courses numbered 400 and above may be included in a planned program of graduate study when they are listed in the graduate catalog and the course description so allows and/or when approved by the adviser and the Coordinator of Graduate Studies. Courses numbered under 400 may be applied toward teacher certification and official certificate programs when recommended by the adviser but will not be approved for inclusion in a master's degree program.

**Maximum Course Load.** Students who register as part-time students in the Enrollment
Center/Office of Continuing Education may enroll for a maximum of eight credits. Students who register as full-time students enroll for no fewer than nine credits, up to a maximum of 18 credits.

Adding a Course. Students may add courses (that is, enroll in courses in addition to those for which they have previously registered) prior to the scheduled beginning and through the first four days of each semester. Registration after a semester's scheduled beginning is dependent on course enrollment and/or the willingness of the instructor and department chair to approve an additional student. All students add courses in the Enrollment Center/Office of Continuing Education.

Dropping a Course. Dropping courses will be allowed up to the chronological mid-point in the course, with the exception that full-time graduate students must maintain a minimum credit load of 9 credits. Courses dropped by the deadline do not appear on the student's transcript. Forms are available in the Enrollment Center/Office of Continuing Education, Willard Hall.

Graduate full-time students for whom dropping a course would reduce their credit load to fewer than 9 credits must APPLY for withdrawal from that course. (Follow the same procedure as for withdrawal from courses described above.)

The deadline for dropping all full-semester courses is included in the Enrollment Center/Office of Continuing Education bulletin and in the schedule of classes provided by the Registrar's Office.

Withdrawing from a Course. After posted deadlines for dropping courses pass, or if student status is otherwise affected, withdrawal from a course will be permitted only with the instructor's approval, provided that there are extenuating circumstances. Poor academic performance is not considered an extenuating circumstance. If withdrawal or early withdrawal is recommended, a "W" will be recorded on the student's transcript. All withdrawals, including early withdrawals, are to be initiated by using appropriate course withdrawal forms. These forms are available in the Registrar's Office and the Enrollment Center/Office of Continuing Education.

If a student stops attending and fails to officially withdraw from a course, a grade of "F" will be recorded on the student's record.

Withdrawing from the Graduate Program. A full-time student who wishes to withdraw in good standing from all course work in progress during the current semester at the University must consult with the Registrar or designee and file all appropriate forms. If the student subsequently wishes to resume full-time graduate study, a change of status form must be submitted.

A part-time student who wishes to withdraw in good standing from all course work in progress during the current semester must consult with the Director or a designee in the Enrollment Center/Office of Continuing Education (Willard Hall).

Any student who no longer wishes to pursue a graduate degree program must provide written notification to the Enrollment Center/Office of Continuing Education. Readmission into a graduate program will be contingent on the student's academic standing. Students obtain forms for reentry in the Graduate Office or Graduate Admissions.

THE GRADING SYSTEM

Letter grades, including their plus and minus combinations, are utilized by the Graduate Office. The following grade point equivalents will be used to compute cumulative grade averages: A (4.0); A- (3.7); B+ (3.3); B (3.0); B- (2.7); C+ (2.3); C (2.0); C- (1.7); D+ (1.3); D (1.0); D- (0.7); F (0.0). No planned program credit is awarded for grades below C-, but all grades received in post-baccalaureate status at Central Connecticut State are included in the student's cumulative grade average. Additional grades used at CCSU include: Inc (Incomplete); Aud (Audit); NC (Satisfactory completion of a non-credit course offered through the Enrollment Center/Office of Continuing Education); U (Unsatisfactory performance in a non-credit course).

The Pass/Fail grading option is not available to graduate students.

Incomplete Grades. A grade of Incomplete may be recorded at the discretion of the instructor when a student, for circumstances which cannot be controlled, is unable to complete the requirements of a course in which he or she is registered during the current semester or session.

The student who receives a grade of Incomplete will be responsible for assuring that all course requirements are completed within one calendar year of issuance, or sooner if required by the instructor. A grade of Incomplete which has not been changed by the instructor within the year allowed for course completion will become an F (failure) automatically.

Grade Appeals. Academic grading reflects careful and deliberate judgment by the faculty member instructing a course. However, the University recognizes that there may be occasion be error or injustice in the determination of a final grade for a course.

Any student who believes that a final grade involved an error or a palpable injustice should confer with the instructor who awarded the grade no later than the fourth week of the following regular academic semester (fall/spring). If the outcome is unsatisfactory, the student may present the case next to the department chair who may effect a settlement upon written agreement with the instructor. Further appeal shall be to the dean of the appropriate academic school and, if no settlement can be effected, to the Grade Appeals Review Board of the Academic Standards Committee. The full text of the Appeals for Grade Changes Policy may be found in the Student Handbook (available from the Office of Student Affairs, Davidson Hall 103).

GOOD ACADEMIC STANDING

All graduate students must maintain a 3.00 (B) cumulative grade point average (CPA) in course work at Central Connecticut State University in order to be in good academic standing. Good academic standing is required to receive financial aid and to graduate. Students who drop below a 3.00 average will receive a letter of warning from the Coordinator of Graduate Studies. Once a letter is received, the student is expected to promptly meet with their dean and provide an explanation for his/her poor performance. If a student fails to meet with the Coordinator of Graduate Studies before the beginning of the new semester, the student's schedule will be dropped and he/she will be withdrawn from his/her program. Any student who is dropped from the program must reapply for admission through the Graduate Office. The Coordinator of Graduate Studies will decide whether or not the student may continue with his/her studies. Continuation will be contingent upon the student's progress in meeting the requirements for good academic standing. In addition to grade-point requirements for good academic standing, students should note that
REGISTRATION, TUITION AND FEES

no more than two grades of C are permitted for courses included on the planned program of graduate study leading to a master's degree or sixth-year certificate.

Students who receive more than two grades of C or who achieve grades low enough so that, in the judgment of the Coordinator of Graduate Studies, they will not be able to attain the 3.00 CPA required for graduation will be dismissed from the graduate program. Students who are dismissed for academic reasons may appeal to the Graduate Studies Committee through the office of the Coordinator of Graduate Studies.

Students who are dismissed from graduate study may apply for reentry upon attainment of a 3.00 (B) cumulative grade point average on the Central Connecticut State graduate record. Forms for requesting file reactivation are available in the Graduate Admissions Office.

TRANSFER OF GRADUATE CREDIT IN DEGREE PROGRAMS

Students may request transfer of credit for graduate courses completed at another regionally-accredited institution of higher education. All credit presented for transfer must show an earned grade of 3.00 (B) or higher, must be included on the student's planned program of graduate study at Central Connecticut State University, and must be completed within the six-year period preceding graduation and conferral of the graduate degree. Courses which were applied to a previously completed degree will not be transferred to a new degree program.

Transfer of credit is limited to the following:

- Transfer of credits from accredited institutions other than universities in the CSU System is limited to nine credits.
- Up to 21 credits may be transferred from another Connecticut State University system institution (that is, from Eastern, Southern or Western). Regardless of the number of credits transferred from another university in the CSU System, no fewer than 15 credits in the student's degree program must be completed at Central Connecticut State, with at least six credits of the 15 in the student's area of specialization.
- Any combination of course work from CSU institutions and other accredited institutions is limited to a total of nine credits.

Students who have been admitted to a graduate program must obtain prior written approval from the advisor and the Coordinator of Graduate Studies if they wish to take a course at another institution for transfer into their planned program of graduate study. Forms for requesting transfer and substitution of credit are available in the Enrollment Center/Office of Continuing Education. Students who do not receive prior approval may not be able to use courses from other institutions as part of their planned programs. Students are responsible for requesting that an official transcript of any approved transfer courses is sent to the Graduate Office.

Graduate students are advised that the Connecticut Department of Higher Education as well as our various accrediting organizations have very strict policies concerning the recognition of credit awarded by non-collegiate institutions. The University does not presently have any agreements with non-collegiate institutions which allow for recognition and transfer of credit. Students should also be aware that "continuing education units" (CEU's) may not be transferred to graduate degree programs or applied toward the completion of graduate degree requirements.

GRADUATION

Upon completion of requirements for the master's degree or for the sixth-year certificate, students are eligible for graduation.

Students who anticipate completing degree requirements during the spring semester or in summer session must apply for graduation no later than March 1. Students who anticipate completing degree requirements during the fall must apply for graduation by September 15. Application forms are available in the Enrollment Center/Office of Continuing Education.

Students who have completed requirements or who apply for graduation by March 15 will be eligible to participate in the annual Commencement. Information about Commencement will be mailed to all students who apply for graduation.

STUDENT REGULATIONS AND CONDUCT

Graduate students at Central Connecticut State University are expected to follow University regulations outlined in the Student Handbook (available from the Student Affairs Office, Davidson Hall 103). The handbook describes in detail the code of student conduct and the subsequent disciplinary actions which violations of this code may incur. Policies of particular importance to graduate students are summarized below.

Attendance. Regular attendance for classes is expected of all graduate students and may be a course requirement. Frequent absences can result in a lowered grade or possible course failure.

Academic Honesty. The graduate student pursuing advanced studies or an advanced degree has a special obligation to maintain the highest standards of academic practice. Because the graduate student has completed a previous degree program, he or she is expected to know that presenting another's work without acknowledgment, whether in the same or in some modified form, is plagiarism. The sources for all papers must be appropriately acknowledged and documented.

Any graduate student found guilty of plagiarism or of academic dishonesty in any form will be subject to the strict penalties permitted by the Code of Conduct. These penalties include failing the course, involuntary withdrawal from the graduate program for a specified period of time and suspension from Central Connecticut State University. The full text of the academic honesty policy is found in the Student Handbook.

Computer Use. The campus computing facilities are available to graduate students to facilitate educational objectives, research and study. In exercising computer privileges, graduate students are expected to follow University rules and regulations governing the use of computer accounts and equipment. These regulations are found in the Student Handbook.

REGISTRATION, TUITION AND FEES

A student admitted to a graduate program at Central Connecticut State University may attend the University full-time or part-time. Graduate students are permitted to change from full-time to part-time status (and vice versa) on a semester-by-semester basis while they complete degree requirements. Full-time students who plan to change their status must contact the Enrollment Center/Office of Continuing Education to avoid billing problems.

Graduate students should be registered every fall and spring semester. During fall and spring semesters in which no course work is taken, matriculated graduate students
REGISTRATION, TUITION AND FEES

involved in completing Thesis (Plan A) or Special Projects (Plan C) must pay a Continuing Registration Fee of $40. This allows students access to computer facilities, the Library, parking and the faculty.

A matriculated graduate student who fails to pay the Continuing Registration Fee for the Capstone Plan A or C will be withdrawn and lose his/her matriculation status. Matriculated graduate students withdrawn for this reason will have to re-apply and pay a Re-enrollment Fee of $50 to regain their matriculation. The length of time to obtain a graduate degree will remain at six years from initial acceptance.

The cost of graduate study at Central Connecticut State University depends on whether the student registers full-time or part-time. In addition, costs may vary depending on Connecticut residency and on certain other categories of attendance. Full-time and part-time graduate students who receive appointments as graduate assistants pay tuition or course costs but receive a waiver for certain other fees.

Connecticut Resident Status. Connecticut resident status is defined by Public Act 74-474 as explained in the Application for Graduate Study. To request a change of resident status, the student must contact the University's Registrar and supply all necessary documentation. Until such time as a determination of Connecticut residency can be made, the applicant will be otherwise classified. Failure of any student to disclose fully and accurately the facts related to residence in the state may result in dismissal from graduate study.

New England Regional Student Program. Central Connecticut State University is a participant in the New England Regional Student Program. This arrangement offers residents of the other New England states the opportunity to enroll at Central Connecticut State for programs unavailable in their home state at the Connecticut resident tuition and state university fee rate plus a surcharge. Other fees are also required. Similarly, state residents may avail themselves of programs offered by schools in other New England states not available at public institutions within Connecticut.

For further information about the programs available through the New England Regional Student Program contact the New England Board of Higher Education, 45 Temple Place, Boston, MA 02111 (617) 357-9620; Web site: www.nebhe.org — or contact the Office of Recruitment and Admissions, Davidson Hall, Room 115.

Full-time Student Status. A graduate student who registers for nine (9) credits or more is considered a full-time student for tuition purposes.

Full-time graduate students are charged the tuition and fees established by the Board of Trustees of the Connecticut State University. New students register in the Enrollment Center/Office of Continuing Education. Continuing full-time students receive information in the mail about registration and related procedures conducted by the University Registrar.

Full-time students who fail to maintain the nine credit minimum course load required to maintain full-time status may need to re-register through the Enrollment Center/Office of Continuing Education. Part-time student fees or receipt of an early withdrawal may be involved. Exceptions to this policy may be granted by the Coordinator of Graduate Studies.

Part-time Student Status. A student who enrolls in eight (8) or fewer credits is considered a part-time student. Part-time students must register and pay fees through the Enrollment Center/Office of Continuing Education. Students who have not filed a planned program may need to consult with a faculty adviser prior to registration.

Part-time graduate students are charged a fixed rate per credit, depending on the level of the course(s) selected. Part-time students are also charged a $50 Registration Fee which gives them access to various University services and facilities, including the Student Center, the University library and student parking.

Summer and Winter Sessions. Summer and Winter Session registration is conducted by the Enrollment Center/Office of Continuing Education for all graduate students. The Summer Session Bulletin and the Winter Session Bulletin are available from the Enrollment Center/Office of Continuing Education. Summer and Winter Session fees are the same as part-time fees during regular academic semesters. The University permits a maximum registration of seven credits during each five-week Summer Session. During Winter Session, students may enroll in up to four credits of academic course work.

FULL-TIME TUITION AND FEES

Tuition and fees are subject to change at any time without notice by action of the Connecticut State University Board of Trustees. The per semester costs for 2000–01 of tuition and fees charged to full-time graduate students (nine or more credits of courses) are as follows.

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<thead>
<tr>
<th></th>
<th>Resident</th>
<th>Non-resident</th>
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<tbody>
<tr>
<td>Tuition</td>
<td>$1,334.00</td>
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<tr>
<td>Enrollment Deposit</td>
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<tr>
<td>Fee (credited toward tuition)</td>
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<td>($90.00)</td>
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<tr>
<td>State University Fee</td>
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<td>$810.00</td>
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<tr>
<td>General Fee</td>
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<tr>
<td>Student Activity Fee</td>
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<td>$33.00</td>
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<tr>
<td>Information Techn­</td>
<td>$62.50</td>
<td>$62.50</td>
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<td>ology Fee</td>
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Sickness Insurance. An annual fee of $257.00, payable in the fall semester, is required of all students who do not submit a waiver form.

Total Tuition and other required fees

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<tbody>
<tr>
<td>Fall</td>
<td>$2,231.00</td>
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<tr>
<td>Spring</td>
<td>$2,231.00</td>
<td>$5,096.00</td>
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</table>

PART-TIME COURSE AND REGISTRATION FEES

The 2000–01 fees charged to part-time graduate students (eight or fewer credits of courses) are as follows. These fees are subject to change without notice.

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<tr>
<td>Registration Fee</td>
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<tr>
<td>Courses numbered 100–499</td>
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<tr>
<td>Courses numbered 500–699</td>
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<tr>
<td>per credit</td>
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</table>

OTHER FEES

Depending on student status and/or course selections, other fees will be charged to students as follows:

Applied Music Fee (1/2 hour) | $200.00
Applied Music Fee (1 hour)   | $400.00
Audit Fees (same as for credit-bearing courses) | $0.00
Design Lab Fee               | $65.00

On-Campus Room and Meals. Very limited on-campus graduate student housing is available for international graduate students only on a space-available basis. Off-campus residents may participate in the meal plan which is required for all students living in the campus residence halls.
REGISTRATION, TUITION AND FEES

Room Deposit $140.00
Residence Hall Room
Balance Per Semester
Standard $1,542.00
James Hall 1,876.00
Vance Hall 2,267.00

Meal Plan (required of on-campus residence hall students):
A. 19 Meals/week & 10 Guest Meals $1,230.00
B. 220 Meals/semester & 10 Guest Meals $1,177.00
C. 180 Meals/semester & 10 Guest Meals plus $100 Blue Chip $1,220.00
D. 150 Meals/semester & 10 Guest Meals plus $200 Blue Chip $1,297.00

PAYMENT OF FEES
All graduate students accepted for full-time study must pay a non-refundable $90 Graduate Enrollment Deposit which secures a place at the University. This fee is later applied towards the full-time tuition.

Tuition and fees are due by July 15 for Fall Semester and December 15 for Spring Semester.

Penalties. The University will assess a Late Charge of $50 if payment is received after the due date. A Service Charge of $25 will be assessed for checks returned as non-negotiable. Registration materials and transcripts may be withheld for any student who has an unpaid financial obligation.

WITHDRAWAL AND REFUND POLICY FOR FULL-TIME GRADUATE STUDENTS
All full-time students who have paid tuition and fees but wish to withdraw from Central Connecticut State University must do so through the University Registrar (Davidson Hall 117). Refunds to eligible full-time students are processed by the cashier (Davidson Hall, second floor).

Full-time graduate students who have not registered for classes at the University and have not paid tuition or fees, but who have been accepted for a graduate program should notify the Registrar’s Office (Davidson Hall 117) if they wish to change their full-time status.

Prior to the first day of classes, students who are ineligible to continue because of grades or because of other actions by the University are entitled to a refund of tuition and fees as applicable.

All applicable refunds are automatic upon formal withdrawal from the University and will be granted according to the following schedule:

Admission Deposit Fee: Non-refundable
Housing Deposit: Non-refundable
Balance of Housing Fee:
Upon withdrawal from the University,
100% of the balance refunded prior to the second day of classes
60% of the balance during the first two weeks of classes
40% of the balance during the third and fourth week of classes
No refund after the fourth week.

No refund after the second week of classes.

Courses meeting for fewer than eight weeks:
Please consult the Continuing Education Registration Bulletin for refund dates.
Note: The registration fee is non-refundable.

Please allow approximately 4 to 6 weeks for processing of refund checks. Credit card adjustments are applied to the cardholder’s account.

Tuition and Fee Waivers
The University will waive the tuition and certain other fees for persons age 62 or older who have been formally admitted to a graduate program and register on a space-available basis.

Veterans. Veterans and certain others may qualify for veterans assistance programs, including waivers. Eligible students should consult the University Registrar (Davidson Hall 117). Anyone seeking to receive veterans benefits must be formally admitted to a graduate program and enrolled in courses required within the planned program of graduate study.

CENTRAL PAYMENT PLAN (CPP)
The CENTRAL Payment Plan is an alternative to the standard semester one payment of tuition, fees, room and meals. This plan is available to full-time students only. For the parent or student who finds it more convenient to make regular monthly payments, the CPP is the solution. The CPP is an installment payment plan that allows all CCSU charges to be paid in four installments per semester. Fall semester installment payments are made monthly, beginning July 1 and ending on October 1. Spring semester installment payments begin December 1 and end on March 1.

There is an enrollment fee for this service but no interest charge. The fee is $55 for the academic year, or $35 for a single semester. Students desiring to be enrolled in the CPP may obtain the Enrollment Form from the Bursar’s Office, Room 101, Davidson Hall. All incoming full-time students are mailed the enrollment form at about the same time as semester billing statements are sent.

All questions concerning the CENTRAL Payment Plan (CPP) should be directed to
the Bursar's Office—CPP Customer Service at 832-2220. Office hours are weekdays 7:30 a.m. to 5:00 p.m.; after hours or weekends, please leave a phone message.

**CAMPUS DEBIT CARD (BLUE CHIP) ACCOUNTS**

Each student at the University has the opportunity to establish a campus debit card account, called a "Blue Chip" account. This account is associated with the student's campus identification card. Photo identification cards are mandatory for all full-time students, faculty and staff; part-time students are encouraged to do so for library and computer lab services. The CCSU Card Office manages the photo ID system and Blue Chip accounts. The identification card (Blue Chip Card) is a campus debit card. A student may use funds on deposit to make purchases on campus in various cafeterias (including all Memorial Hall dining areas, Grand CENTRAL Cafe coffee shop and Trattoria) and in the campus Barnes and Noble Bookstore. Purchases may now be made using the Blue Chip Card in all campus vending machines, including campus copiers, residence hall laundry machines and at off-campus food locations, such as Blimpies', Tony's Central Pizza, Domino's (Allen St.), Sam's Getty, Tom's Pizza (Penna Rd. Plaza), Quick-N-Easy Convenience Store, Pizza Express (Allen St.), Papa John's, Bella Vite (West Main St.), Subway (East St.) and Jade Lee (Penna Rd. Plaza).

The University has an agreement with EDCONN Federal Credit Union to provide bank accounts associated with the Blue Chip Card. This allows students to have a regular bank account as well as the campus debit card account. Students will also have regular banking privileges associated with the Blue Chip Card. Students receiving financial aid may choose to have excess financial aid electronically deposited to an EDCONN bank account or to their campus debit card account. In addition, students working on campus may have their paychecks electronically deposited to the bank account. Students may use the Blue Chip Card as an ATM card with on- or off-campus ATM machines. EDCONN's CCSU office is located in Barnard Hall. Room 101 (832-0139).

Questions concerning Blue Chip Cards and accounts, or the EDCONN banking program, may be directed to the Card Office, located in the Power House on the northeast corner of the Barnard parking lot. Card Office hours are Monday through Friday from 8:00 a.m. to 5:00 p.m., with extended hours during the first month of each semester. The phone number is 832-2140; or visit the website at www.cardoffice.ccsu.edu. When the Card Office is closed, lost cards should be reported to the Police Department (832-2375); a temporary ID will be issued.

**FINANCIAL AID BOOK ADVANCES**

Some students receiving financial aid may have difficulty purchasing books at the start of the semester since financial aid funds are normally distributed after the first three weeks of classes. Full-time students receiving financial aid, where the amount of the financial aid exceeds all CCSU charges, are eligible to receive a book advance against this excess aid amount beginning 10 days prior to the first day of classes. Book Advance Request forms are available at the Bursar's Office. Such advances are deposited into the student's Blue Chip debit account, and the student's Blue Chip Card may be used to make book (CCSU Barnes & Noble Bookstore) or other incidental purchases on campus. The only distribution method for book advances is an electronic deposit to the Blue Chip account. No cash or checks are distributed as advances. Questions concerning book advances should be directed to the Bursar's Office. Room 101, Davidson Hall, phone 832-2010.

**FINANCIAL AID**

The Financial Aid Office is located in Davidson Hall 107. Students who wish to apply for financial aid should begin by requesting a financial aid packet from the Financial Aid Office. All questions regarding the application procedure or the award of financial aid should be addressed to the Financial Aid Office.

Financial need is determined through an assessment of the student's family financial situation as defined by federal regulations and the needs analysis services of the United States Department of Education.

**Eligibility Criteria.** To be eligible to receive assistance from federal and/or state financial aid programs, a student must: (1) be a U.S. citizen or an eligible non-citizen; (2) have demonstrable financial need; (3) be matriculated (that is, be admitted to a graduate program and enrolled in courses applicable to the program); (4) be attending classes at least half-time (defined for financial aid purposes as six credits of course work); and (5) be making satisfactory academic progress toward the degree as defined by the University and in the Graduate Catalog.

An application and all supporting documents required by the University must be filed each year that assistance is requested. Eligibility for financial aid can be determined only after all required forms have been submitted to the Financial Aid Office. Applicants will be notified if they qualify for the financial aid programs via an award notification.

**Sources of Financial Assistance.** The primary source of financial assistance for graduate students is the Federal Stafford Loan Programs. Other sources, such as University Grants, Federal Perkins Loans and Federal Work Study, are available to graduate students only if and when all undergraduate needs have been met and funds remain, and the individual need and circumstances of the particular graduate student cannot be met fully by the Federal Stafford Loan Programs.

**Federal Subsidized Stafford Loan** (variable interest rate loan — 8.25% cap). Interest rate is adjusted July 1 each year. Subsidized loans are based on need. Student is responsible for interest when studies have been terminated or dropped below half time, and repayment begins after a six month grace period. Graduate annual limit is $8500 per year. Aggregate loan limit is $65,500. Students must meet eligibility criteria.

**Federal Unsubsidized Stafford Loan** (variable interest rate loan — 8.25% cap). Interest rate is adjusted July 1 each year. Unsubsidized loans are awarded to students without demonstrated financial need. Student is responsible for interest payment while in school. Students have an option to capitalize the interest payment. Repayment begins six months after studies have been terminated or dropped below half time. Graduate annual limit is $8500 per year. Students must meet eligibility criteria.

**Other Sources.** In addition to applying for the aid programs previously mentioned, students are encouraged to explore other sources of financial assistance, such as graduate assistantships, private scholarships, veterans/GI Bill Benefits, the National Guard and the Army Reserve. The Financial Aid Office and the Office of Personnel and Employee Relations provide students with
referrals for a wide variety of part-time jobs, both on and off campus.

Applying for Financial Aid. In order to be considered for any financial aid programs at CCSU all applicants must complete the Free Application for Federal Student Aid (FAFSA). Central Connecticut State University's code number is 001378. The Financial Aid Office requires that applicants submit their Student Aid Report and signed copies of Federal Income Tax Returns by a priority deadline date. (Please contact the Financial Aid Office for deadline dates.)

Award Notification. A Notice of Eligibility Letter is generated to accepted, matriculated students who have submitted all required documents. The Notice of Eligibility Letter outlines the types and amounts of aid offered, including eligibility for Federal Subsidized and Unsubsidized Stafford Loans. Students are expected to carefully read and follow instructions included in the award notification packet.

Satisfactory Academic Progress. To remain eligible for financial aid, students must earn a minimum number of credits (see below) during a given academic year and remain in good academic standing (3.00 GPA for graduate students).

Students receiving financial assistance must make satisfactory progress toward degree completion. Failed or audited courses will not be counted toward the minimum number of hours required for satisfactory progress.

For full-time graduate students, satisfactory progress is defined as the successful completion of at least 18 credits of academic work toward the graduate degree or planned program of graduate study each academic year for students who enroll initially for the fall semester. Full-time students enrolling initially for the spring semester, or enrolling for the fall semester or Summer Session only, must complete six credits during the academic year. Part-time students are eligible for up to eight semesters of part-time attendance, or until certified for graduation, whichever comes first.

Students who do not successfully complete the required number of credits during the fall and spring semesters may complete the needed credits during the Summer Session without Title IV financial assistance. Anyone who does not complete the needed credits will be ineligible for financial assistance during the following academic year. Upon presentation of evidence of medical or other legitimate personal or family emergencies, students denied financial assistance under this policy may appeal to the campus officer designated by the President.

GRADUATE ASSISTANTSHIPS

Central Connecticut's graduate assistantship program provides some financial support for students who wish to participate in an academically-relevant work experience while pursuing graduate study. A limited number of graduate assistantships are available for full-time and part-time graduate students. Graduate assistants may teach, supervise laboratories, participate in leadership roles for service and partnership activities, and work with faculty who are conducting research. Faculty provide careful guidance so that graduate assistants develop new skills while carrying out their assigned responsibilities. At the same time, graduate assistants help faculty to meet their obligations as teachers and scholars. Thus, the program provides real benefits both to the graduate student and to the University community.

Applying for a Graduate Assistantship. Prospective graduate assistants must be admitted for graduate study toward a master's degree, sixth-year certificate, post-master's planned program or post-baccalaureate teacher certification.

Applications for graduate assistantships may be provided at the time of admission and may also be obtained in the Graduate Office.

The Career Services Office assists students in finding graduate assistantships and also has a telephone job line (832-1647). Students are also encouraged to contact their academic department chair concerning the availability of assistantships. Graduate assistants are appointed by the Coordinator of Graduate Studies upon the recommendation of a department chair or academic dean.

Eligibility. Graduate assistants must be fully admitted students pursuing course work leading to completion of the programs designated previously.

Assistantship recipients are expected to be enrolled in courses required within the planned program of graduate study and/or prerequisites necessary to offset any undergraduate deficiencies prior to taking such requirements.

To receive or to maintain an assistantship placement, a minimum GPA of 3.00 for all post-baccalaureate course work completed at Central Connecticut State University is required.

Types and Work Commitments. Assistantships are available on a full-time or half-time basis. Students appointed as full-time GAs provide approximately twenty (20) hours of service per week during the semester; students appointed as half-time GAs provide ten (10) hours of service per week.

Course Loads for Graduate Assistants. To be awarded a full-time assistantship, a graduate must be classified as a full-time student. Nine (9) credits comprises the required course load minimum for full-time graduate students. Half-time appointed GAs who are full-time students must also enroll for nine (9) or more credits of course work. A part-time student who receives a graduate assistantship may take from three (3) to eight (8) credits of course work.

Stipends. Full-time (20 hours per week) graduate assistants may receive a maximum stipend of $4,800 each semester, in addition to a waiver of the State University Fee and most of the General Fee. They pay resident or non-resident tuition as appropriate, a portion of the General Fee attributable to student accident insurance, and other insurance coverage costs as needed. Some insurance charges may be waived on the basis of alternate coverage.

Half-time graduate assistants receive a maximum stipend of $2,400 each semester. If half-time assistants enroll full-time in the general fund (nine or more credits), they may receive a waiver of the State University Fee and most of the General Fee as specified for full-time assistants. Other provisions described above
also apply to half-time graduate assistants who are full-time graduate students. If a graduate assistant enrolls for less than nine course credits within a semester, the student pays appropriate costs for part-time extension fund graduate students.

SCHOLARSHIPS AND
FELLOWSHIPS
Graduate Academic Scholarships are annual awards provided to highly-qualified students recommended by their departments. Academic departments and the Graduate Office have information about the scholarship program for graduate students.

A Graduate Student Association (GSA) Scholarship is awarded to students who demonstrate academic excellence and exemplary involvement in University and/or community service activities. Competition for this scholarship is open to all matriculated graduate students who have completed a minimum of 15 credits of graduate academic credit in residence at Central Connecticut State University and who have a grade point average of 3.50 or higher. Scholarship recipients are selected in the spring; awards are distributed the following fall semester. Application forms are available in the Graduate Studies Office.

The Anna Bubser Judd Minority Graduate Educational Administration Fellowship is awarded to a minority student who resides in the cities of Hartford or West Hartford and is enrolled in the Educational Leadership program. The Department of Educational Leadership can provide additional information.

GRADUATE
ADVISING AND
STUDENT
SERVICES

ACADEMIC ADVISING
Upon formal admission to a graduate program, each student is assigned a faculty adviser. All students are encouraged to seek regular advice from their advisers about registration and course selection, progress toward degree completion, and opportunities for career development and further study. A student should also consult with the adviser before registration for course work, if possible. An official planned program of graduate study, designed by the student and an adviser, must be submitted and approved prior to completion of 15 credits of course work.

A student may request a faculty adviser other than the one assigned by their department. To request a new adviser, the student must complete a “Request for Change of Major and/ or Adviser” form in the Enrollment Center/Office of Continuing Education. To the extent that individual faculty schedules permit, student requests for advisers will be honored.

Pre-admission advising is available in each school and in the offices of the academic departments during fall and spring academic semesters.

GRADUATE STUDENT
ASSOCIATION
The Graduate Student Association of Central Connecticut State University includes as members all full-time graduate students and, as associate members, any part-time student who pays a nominal membership fee. (Full-time student dues are included in the fees paid by full-time students.)

The Graduate Student Association (GSA) sponsors orientation activities for new graduate students, lectures, the GSA Scholarship, and Leadership Development Grants. The latter assist graduate students to attend conferences and workshops or to complete research associated with the preparation of the thesis. The GSA also funds the activities of graduate student societies in the academic departments.

In addition to sponsoring graduate student programs and activities, the GSA serves as the representative organization promoting graduate student interests on the Central Connecticut State University campus. The GSA president is a member of the President’s Cabinet which includes the University’s administrative officers and the presidents of the Faculty Senate and the Student Government Association. In addition, full-time and part-time graduate students are represented on the University Planning Committee, the University Budget Committee and the Graduate Studies Committee.

For further information, contact the Graduate Student Association, located on the first floor of Seth North Hall.

OTHER STUDENT SERVICES
Campus Ministry. The campus ministers are available for personal counseling and participation in classroom discussion. They also sponsor retreats and provide a variety of social, spiritual, educational and community programs. Students are encouraged to contact the Ministry Office (Barrows Hall) for further information concerning programs and services of the Protestant, Jewish, Catholic and Islamic Campus Ministries, and the religious student organizations, including Christian Students at Central (CSAC), Hillel Jewish Student Organization and Newman Club.

Career Services and Cooperative Education. The University Career Services Office provides a comprehensive program of career services to all students. Graduating students are provided assistance with making the transition to employment through workshops on resume writing, interviewing techniques, job search strategies and information on employment. Recruiters from major area corporations, government agencies and school systems visit the campus as a part of the year-long campus recruiting program. In addition the office maintains listings of full- and part-time jobs which can also be accessed through the Career Services/Co-op homepage (http://www.ccsu.edu/career/) and the Voice Job Line (832-1647).

Experiential education is a major focus for both undergraduate and graduate students, and Career Services coordinates the University’s sizeable Cooperative Education Program. Through this program, students work at six-month, paid positions which are related to their major field of study and provide them with real world experience.

Enrollment Center/Office of Continuing Education. The Enrollment Center (Willard Hall Lobby) is a centralized service center for all students (full- or part-time). Students may obtain all forms needed to initiate administrative and academic actions at the Center. The Center’s hours of operation are Monday through Thursday, 8:30 a.m. to 7:00 p.m.; Friday, 8:30 a.m. to 4:00 p.m. and Saturday morning during the academic year, 7:45 a.m. to 12:00 p.m.

The University offers more than 500 courses each semester in the evening and on weekdays and Saturdays for graduate students. Credit and non-credit courses, workshops and seminars are also available to students, community groups, civic organizations, businesses and industry.

The Enrollment Center/Office of Continuing Education registers all part-time and full-time graduate students. Students are notified in advance of registration dates and procedures. All graduate students who have been formally admitted to one of the Uni-
GRADUATE ADVISING AND STUDENT SERVICES

University's graduate programs receive advise-ment from their faculty advisers.

International Student Services. All interna-tional students should contact the Interna-tional Student Program Assistant in the George R. Muirhead Center for International Education (Barnard 138) as soon as they are admitted to graduate study. The Center provides a wide range of orientation and advise-ment services for international students.

Learning Center. The Learning Center (TLC) helps students reach their academic potential. Students who wish to establish a strong grade point average are encouraged to visit TLC early in their college experience for assistance with collegiate study skills, time management and exam preparation. TLC provides study skills tutorials, individual and small group study sessions, a nine-week study skills program called Methods of Inquiry, The Mathematics Center, learning styles and study skills assessment, and a computer-based Praxis I practice program for students applying for teacher certification. TLC is located in Copernicus. Room 241 (832-1900).

Prevention and Counseling Services. The mission of the University Prevention and Counseling Services is to promote the health and wellness of all members of the CCSU community through a variety of prevention programs, and to provide individual, family and group counseling services to students who may be experiencing psychological or behavioral problems. All counseling services are con-fidential and no fee is charged. Every effort is made to help students feel welcome and able to comfortably discuss their concerns.

Some of the prevention programs sponsored by this department include the Natural Helpers Program, On Campus Talking About Alcohol, prevention educa-tion programs on a range of behavioral health issues and training for student leaders, staff and faculty.

Individualized development of student internships, practicums and assistantships is also available to qualified students. The department is located in Willard Hall, Room 100 (832-1945).

Special Student Services. The Director of Special Student Services (Willard 100) helps students to obtain a wide range of services designed to make more accessible the academic opportunities of the Central Connecticut State campus. Certified sign language interpreting, textbooks on tape, priority scheduling and reserved handicapped parking are among the support services available. Please note that requests for accommodation should be made well in advance. For more information contact Dr. George Tenney, director of the Office of Special Student Services (832-1955), (TDD 860/832-1958).

Student Judicial Programs. The Office for Student Judicial Programs administers the discipline system for all full- and part-time students. The goal of the Office for Student Judicial Programs is the resolution of discipline cases in a manner consistent with University policy and applicable state and federal laws. This office assists with the coordination of discipline referrals to counseling or alcohol and other drug education programs.

In addition, this office is responsible for the development and coordination of a variety of special activities designed to educate students, faculty, and staff concerning the student discipline system. It is also responsible for developing ways to effectively respond to incidents or issues which threaten to disrupt the learning environment. The Director for Student Judicial Programs is available to all students, faculty, and staff who may have questions or con-cerns regarding the University Judicial System. The department is located in Barrows Hall, Room 110 (832-1667).

University Health Service. The University Health Service provides medical services, by appointment, for the maintenance of health and the evaluation and treatment of illnesses and injuries to all students. Faculty and staff will be seen for medical care or referrals where indicated. Various clinics, including blood pressure monitoring, travel, flu and allergy, to name a few, are offered. Although no fee is charged for appointments in Health Service, there are nominal fees for prescriptions ordered within the office, immunizations, allergy shots and certain diagnostic evaluations.

Full-time students are required to submit completed health forms (medical history, physical exam and up-to-date immunizations record) prior to registration at the Uni-versity. Part-time students are required by the University to have up-to-date immu-nizations for measles and rubella consistent with State of Connecticut Department of Health Service guidelines.

Students should inform the Office of Student Affairs if absent from classes for medical reasons for more than five days and not seen in the University Health Service. This information will be relayed to professors. The University Health Service will notify the Office of Student Affairs only if a student was seen at University Health Ser-vice for the diagnosis and is required to be out of class due to risk of hampering his/her recovery or of being contagious to others.

The University Health Service (832-1925), located in the Marcus White Annex, is staffed by a full-time physician and nurses and is open Monday–Thursday from 8:00 a.m. to 3:45 p.m. and Friday from 9:00 a.m. to 4:00 p.m. (closed daily from 12:00 to 12:30 p.m.). These hours are subject to change.

University Ombudsman. The University Ombudsman serves as a prompt, impartial and confidential resource designated by the University to assist members of the campus community to resolve issues of concern or dissatisfaction arising from the actions or inactions of other members of the University community. The Ombudsman also helps the University to develop, implement and maintain policies and procedures which equitably address the rights and responsibilities of everyone on campus. The University Ombudsman can be a last resort, offering help when regular channels have failed, as well as an information resource, offering guidance for those who don't know where to begin. The office of the University Ombudsman is located in Barnard 104 (832-3020).

Veterans Services. The Office of Veterans Services (Davidson 117) assists eligible stu-dents to obtain tuition waivers and educa-tional assistance benefits from the Veterans Administration. Questions concerning bene-fits and eligibility should be directed to the veterans services coordinator (832-1786).

Women's Center. The Ruthie Boyea Women's Center, named for its founding director, is a multi-purpose program and service center for students, staff and faculty. The center offers a variety of services for and about women, including peer education, re-entry counseling, support groups, crisis intervention, a luncheon series and pro-gramming and research on women's issues. The staff of the center also sponsors educa-tional and cultural programs in response to the needs and interests of campus women. The Ruthie Boyea Women's Center is located on the third floor of Seth North Hall (832-1655). Both men and women are welcome.
CANCELLATION OF COURSES
The University reserves the right to cancel courses which have insufficient registration, and to change the schedule of courses or instruction as necessary.

CHANGE OF NAME OR ADDRESS
Any change in name or address should be reported immediately to the Registrar’s Office or the Enrollment Center/Office of Continuing Education. If the University’s name and address files are not updated, there will be delays in grade reporting, billing, etc.

CHILDCARE
The Early Learning Program, Inc., a state-licensed child care facility, is available on campus for toilet-trained children from ages 3-5. The program operates during the academic year (September through June), with a summer session pending enrollment. Hours of operation are Monday through Friday, 7:45 a.m. to 5 p.m. Attendance options include nursery school, part-time care and full-time care. For information, call Catherine Pezze at 832-3760.

FOOD SERVICE
On-campus meals are served in Memorial Hall to students on the meal plan. The meal plan is optional for graduate students. Although any student who obtains on-campus housing is required to participate in a meal plan, meal plan expenses are listed on page 18. Additional food service is also available on a cash basis in the Memorial Hall Trattoria and Grand CENTRAL Cafe.

GRADE REPORTS
Students receive grades by mail from the Registrar’s Office following the posting of grades at the conclusion of each academic semester and, for all summer courses, at the end of the third Summer Session.

HEALTH INSURANCE
Health insurance coverage (accident and sickness) is mandatory for all full-time students. The University provides accident insurance coverage for all full-time students. Students can purchase a sickness insurance plan through the University or elect an alternative health insurance coverage through an outside carrier. Part-time students may elect the accident/sickness policy through the University for a combined premium by contacting the Office of Continuing Education. Brochures regarding the policy are available in the University Health Service (Marcus White Annex) or, for part-time students, in the Office of Continuing Education (Willard).

HOUSING
The Office of Residence Life (Mildred Barrows Hall) provides information about the availability of campus housing for students and about off-campus housing in the local community. Graduate students interested in living on campus should contact the Office of Residence Life (832-1660).

IDENTIFICATION CARDS
All students are required to obtain a photo identification card after payment of tuition and fees. Access to the Library and Microcomputer Lab requires a Blue Chip ID card.

The ID card, known as the Blue Chip Card, can be used as a debit card to make purchases from vending machines and at public-use copiers, as well as at dining locations in the Student Center and Grand CENTRAL Cafe. Off-campus vendors accepting the Blue Chip Card are Blimpie’s, Tony’s Central Pizza, Domino’s (Allen St.), Sam’s Getry, Tom’s Pizza (Fenn Rd. Plaza), Quick-N-Easy Convenience Store, Pizza Express (Allen St.), Papa John’s, Bella Via (West Main St.), Subway (East St.) and Jade Lee (Fenn Rd. Plaza).

There is a charge for laser printing at the Microcomputer Lab. This must be paid with the Blue Chip Card, or by purchasing a Guest Card at a Card Value Center. There will be no cash transactions.

In order to use the card as a debit card, money can easily be deposited to a debit account. The Card Office and Cashier’s Office accept cash and checks. Credit card transactions can be made by calling the Cashier’s Office (832-2020) or through the Card Office website at www.cardoffice.ccsu.edu. For money to be deposited instantly to a debit account, visit any of the four Card Value Centers, located at the Library (main floor), Microcomputer Lab, Memorial Hall and the Police Station, which is open 24 hours.

The Card Office is located in the Power House on the northeast corner of the Barnard parking lot. Card Office hours are Monday through Friday from 8:00 a.m. to 5:00 p.m., with extended hours during the first month of each semester. The phone number is 832-2140. After Card Office hours, lost cards should be reported to the Police Department (832-2175); a temporary
GENERAL INFORMATION

ID will be issued, as well as a “hold” placed to deactivate the account.

LOCATION
Central Connecticut State University is situated approximately two hour's driving time from Boston, New York City and southern Vermont. The campus, just 15 minutes from downtown Hartford, can be reached from state Routes 9, 71, 72 and 175, and Interstates 84 and 91. It is approximately 25 miles south of Bradley International Airport which serves Hartford and Springfield, Massachusetts.

MEDICAL HISTORY AND IMMUNIZATION VERIFICATION
All full-time graduate students are required to submit a medical history, including current immunization records and the results of a medical examination signed by a physician. In addition, State of Connecticut law effective July 1, 1989, requires that all full- or part-time graduate students present a physician's verification of measles and rubella (German measles) immunization or immunity. The required forms will be provided after acceptance to the University or at the time of registration. The health form is available from Health Service (Marcus White Annex).

ONLINECSU
OnlineCSU is the virtual classroom of the Connecticut State University System (CSU) — Central, Eastern, Southern and Western. CSU strives to meet the academic and support needs of our learners. Responding to the emerging trends of learning-on-demand, CSU designed OnlineCSU to ensure that the education it has traditionally made available in the classroom can now be offered without regard to time, distance or circumstance. Online learning, also known as distance education, takes place using computer technology and the Internet when the faculty and students are separated by distance, i.e., not in the same room. Within semester limits, OnlineCSU offers asynchronous learning, which means the instructor and the students need not be in the same room at the same time or on the computer at the same time. This means students may sign on at any time, 24 hours a day, seven days a week. Except where the faculty have set test dates, chat room sessions, etc., students do not need to sign on at the same time as other students or at the same time as the instructor.

OnlineCSU offers both graduate and undergraduate courses, and new courses are added every semester. CSU faculty, who design and teach the courses, are at the core of this distinctive learner-centered program. CSU campuses are fully accredited, and courses offered through OnlineCSU are approved for credit by the university offering the course. Credits earned online are eligible for credit towards a degree.

Full-time and part-time matriculated students (students who have formally applied and been admitted to a CSU university) who already have a faculty adviser should continue to consult with that adviser regarding online courses. Non-matriculated students do not need a faculty adviser to register for an online course.

For information on OnlineCSU courses, stop by the OnlineCSU site at www.OnlineCSU.csu.ctstateu.edu.

PARKING
All full- and part-time students must obtain decals for student parking from the University Police. Students may park in any campus lot or parking garage except those designated for administration, faculty or staff. Vehicles without decals or improperly parked vehicles may be ticketed or even towed at the owner’s expense. You are urged to learn and follow the campus parking regulations. Additional information regarding parking regulations is available on the University Police web page on the Internet, accessible through the University web page (www.ccsu.edu), or in the Parking Guide available at the CCSU Police Department, One Pikiell Lane.

PET POLICY
With the exception of animals used to aid persons with disabilities, animals used in University laboratories and fish in residence hall rooms, animals are prohibited in campus buildings.

PUBLIC ACCESS TO STUDENT RECORDS
In accordance with appropriate federal and state laws, the University has designated certain types of student information as public or “directory” information. While the University respects the student's right to privacy and will do its best to protect that privacy, such information may be disclosed. The following is directory information: student’s name, address, phone number, dates of attendance, class standing, academic major and degree(s) earned. Additional information is also deemed directory information, including participation in officially-recognized activities and sports, weight and height of members of athletic teams, and awards received.

Currently-enrolled students have the right to request that the University not release address and phone information to individuals or organizations outside the University (although we are required to provide information to organizations which have provided the student any type of financial aid, including loans). A student who wishes to have his/her address and phone number restricted should contact the Office of Registrar. Such protection is provided for currently enrolled students only.

The University assumes that failure on the part of any student to specifically request withholding of certain directory information indicates approval of disclosure.

PUBLIC SAFETY
The University Police Department, located at One Pikiell Lane, provides the campus community with a full range of protective and investigative police services around the clock. Also, the professional police officers of the department coordinate an escort service for students and are available to educate students in protecting themselves and their property. Through an on-campus dispatch center, linked to other regional emergency services, officers are able to respond rapidly to any emergency. State-of-the-art emergency telephones, connected to the dispatch center, are strategically located throughout the campus.

For additional information on police services and a copy of the Uniform Campus Crime Report, visit the University Police web page on the Internet. It is accessible through the University web page (www.ccsu.edu).

STUDY ABROAD
Central Connecticut State University can place students to study almost anywhere in the world through a variety of arrangements. International experiences may range from two weeks to one year in duration. CCSU offers two distinct types of programs — semester or academic year study abroad and courses abroad taught by our own faculty.

The study abroad immersion programs are typically available on an exchange basis, allowing students to pre-pay tuition, and in some cases room or board, to CCSU and enroll overseas to study at one of our partner universities. Study abroad programs are available in the United Kingdom, Spain, France, Germany, Poland, Sweden, Ghana, Puerto Rico, Jamaica, Barbados, Korea and
the Turkish Republic of Northern Cyprus. To plan a study abroad program, contact the Study Abroad Coordinator in the George R. Muirhead Center for International Education, Barnard Hall (832-2043). The application deadline is April 1 for all programs in the upcoming academic year. As it can take up to eight months to properly prepare for a program, it is advisable for students to begin investigating their choices well in advance of their desired departure date. The cost is often little more than studying at Central Connecticut State University, and financial aid applies to all CCSU programs. With proper planning, all coursework will transfer to Central Connecticut State University and be applied toward graduation requirements.

Students may also take a course taught abroad by a CCSU professor in Winter or Summer Sessions. Students may choose from a dozen courses offered each year by faculty in a variety of disciplines. Foreign language proficiency is generally not required. Registration for courses taught abroad in Summer or Winter Sessions takes place at the Enrollment Center/Office of Continuing Education, Willard Hall. Students must also declare their participation with the George R. Muirhead Center for International Education.

**TRANSCRIPTS**

A University transcript is a complete, unabridged academic record, without deletions or omissions, which includes the signature of an authorized official and bears the legal seal of the University. Central Connecticut State issues only official transcripts. Transcripts may be obtained from the Registrar's Office, Davidson 115. The cost, which is subject to change, is $3. All requests for transcripts must be in writing and include payment in advance.

**VOTER REGISTRATION**

Students can register to vote or change their registration at the Reference Desk in the Elihu Burritt Library. Regardless of which town in Connecticut is the place of residence, voter registration can be done on campus. Out-of-state registration can also be done using the federal universal voter registration form available at the Library. Students with special needs may register as voters at the Special Student Services Office in Willard 100. All students are urged to take advantage of this convenient service and exercise their rights and duties as citizens by becoming registered voters.

**UNIVERSITY CENTERS**

Within the University and its academic schools are special centers and research institutes which enhance the academic programs offered by individual departments. Academic centers are listed with their schools. Some of the more prominent centers are described below.

**George R. Muirhead Center for International Education.** The George R. Muirhead Center for International Education at Central Connecticut State University is the cornerstone of the University's unwavering commitment to international education. Established by the Board of Governors for Higher Education in 1987 as a statewide Center for Excellence in International Education, the Center is the flagship of global initiatives and activities at Central Connecticut State University. In planning and implementing CCSU's international mandate to carry out its global goals and responsibilities, the Center defines, develops and supports internationally focused interdisciplinary academic and development activities. Additionally, it provides a forum through which CCSU's students, faculty, staff and alumni pursue collaborative interests and projects with partner institutions around the world.

Through the Center's partner institutions around the globe, CCSU's students are presented with exciting opportunities to discover the world through overseas studies. Living and learning in a new culture helps to prepare students for the increasingly integrated and interdependent world around them. In any given year, the Center offers exciting semester and year-long exchange programs in locations as varied as England, Germany, Ghana and Korea. Short-term study tours bring students to the reaches of the earth, from the rainforests of Costa Rica to the Black Forest in Germany and from Tiananmen Square in China to Safari in Africa.

The Center is devoted to serving its international students from the moment of their recruitment through their graduation and beyond. The Center possesses the expertise necessary to easily process and transfer to usher international students from potential to bona fide status. The staff embodies the critical capabilities of both intercultural and interpersonal communication, facilitating the management of the

**CCSU Center for Caribbean Studies.** The CCSU Center for Caribbean Studies, located in Burritt Library, seeks to fulfill three of the University's primary goals. CCSU aims to be of service to the communities of Central Connecticut, in particular, and the state in general; the University seeks a meaningful international presence in a variety of geographical areas; and CCSU is committed to nourishing efforts that foster a respect for the state's many ethnic communities.

To help achieve these goals, the Center has faculty and student liaison agreements with a variety of institutions of higher learning: The Pontifical Catholic University of Puerto Rico; the University of the West Indies in Jamaica, Barbados and Trinidad; the eight branches of Interamerican University in Puerto Rico; the College of the Bahamas; and the Pontifical Catholic University, Madre y Maestra, in the Dominican Republic. The Center for Caribbean Studies sponsors a variety of community events and also supports an active research facility.

**China Resource Center.** Building on the 30 years of success of the University's Asian Studies programs, the China Resource Center advances academic and developmental initiatives for CCSU in China. The China Resource Center, housed in the George R. Muirhead Center for International Education, works closely with all academic units within the University to initiate and promote programs involving student education, faculty development, outreach to communities, partnerships with Chinese universities and linkage to Connecticut businesses and industries. The Center sponsors lectures and workshops to educate the Connecticut public about the culture, politics and history of China. Committed to linking business and education in a dedicated effort to prepare CCSU graduates for the global economy in which they will live and work, the Center provides student internships and other exposure to the international professional arena. In addition to informational seminars and workshops on the Chinese cultural and business environment, the China Resource Center works closely with other organizations, such as the Connecticut China Council, to
FACILITIES

CULTURAL RESOURCES

Many cultural opportunities are available to students, both on campus and in the New Britain and Hartford areas.

On campus, the Samuel S. T. Chen Art Center features an array of international, national and regional artists in exhibits of fine arts, design and scholastic arts. The Theatre Department facilities include one of the best equipped, flexible experimental stages in the region. Students may take advantage of concerts, theater, choral performances and dance presentations by student groups, faculty and professional companies from around the world.

Locally, students will find two nationally-known art museums, the New Britain Museum of American Art and the Wadsworth Atheneum in Hartford. Area theatres, including the Hartford Stage Company, the New Britain Repertory Theatre, the Goodspeed Opera House in East Haddam and the Bushnell Memorial Auditorium in Hartford, offer a variety of music, drama and dance. The New Britain Symphony Orchestra performs four times per year in Welte Hall on the CCSU campus.

ELIHU BURRITT LIBRARY

The Elihu Burritt Library holds nearly 600,000 volumes, subscribes to over 3,000 periodical titles and seats 1,800. Its extensive microfiche and microfilm collections provide access to periodicals, newspapers, ERIC documents, corporate annual reports and specialized research collections. The Library serves as a partial federal documents depository and houses a 14,500-volume Polish Heritage Collection, a rare book collection of 16,000 volumes and an extensive curriculum laboratory. Access to research materials is facilitated through CONSULS, the Library's on-line catalog, as well as through searching on-line and CD-ROM databases.

INFORMATION SERVICES

Information Services (Henry Barnard Hall) coordinates computer facilities for student use in education, research and other academic pursuits.

The Microcomputer Lab (Marcus White Annex) is the primary location for student access to computers and offers more than 225 PC-compatible and Macintosh computers and numerous laser printers. All of the computers offer a wide variety of popular software packages, as well as direct access to the Internet.

Users have access to all of the available hardware and software on a first-come, first-served basis. Student ID cards and proper certification are required to use the lab. Students are certified after passing a simple PC quiz to prove adequate computer knowledge. Training classes are given at the beginning of every semester, and self-paced, computer-aided instruction is also available to supplement, or substitute for, the training classes.

Once certified, a student is issued an NT account, which allows access to all of the software in the lab, as well as to the campus e-mail system. The lab should be used only for class work and other academically related work.

MEDIA CENTER

The Media Center (Willard Hall) coordinates all audio-visual and television services. The Center maintains reference files on instructional materials, film rental sources, film producers and media equipment. Facilities for making instructional materials are available during scheduled times. Faculty and students, with the approval of a faculty member, may request AV/TV equipment for class use.

SPORTS AND RECREATION

Central Connecticut State University encourages a balanced program of sports and intramurals/recreation consistent with the educational responsibilities of the student.

Harrison J. Kaiser Hall is home to the Department of Physical Education and Health Fitness Studies, as well as the Intercollegiate Athletics Department which sponsors 21 varsity sports. Kaiser Hall houses the newly-renovated, 3,200-seat William H. Detrick Gymnasium, the Jack Suydam Natatorium and special function rooms, including a modern Nautilus and free weight training facility.

The fall 2000 season brings a major upgrade to Arute Field, where the football team plays its home games — new grandstands and a synthetic turf field. The women's lacrosse program, in its second season as a varsity sport, will also play its home games on Arute Field in the spring of 2001.

Other sports facilities include Kaiser Annex, a 37,000-sq.ft. recreational/athletic, air-supported structure which features five tennis courts and a three-lane track; outdoor tennis courts; and fields for soccer, softball, baseball and recreation.

Central Connecticut State's Blue Devils have gained national recognition on the playing fields. The University is a member of the National Collegiate Athletic Association (NCAA), the Eastern College Athletic Conference (ECAC) and the Northeast Conference (NEC) and conducts its athletic programs under the rules of these organizations.

Students may also take advantage of indoor and outdoor facilities for intramural programs and recreational use.

STUDENT CENTER

The Student Center, a meeting place for the campus community, offers a variety of formal and informal programs. There are lounges and TV rooms, a game room, a ballroom, meeting rooms and special facilities for the campus radio station, newspaper and yearbook. The University Bookstore, the Devil's Den Cafeteria and Semesters are popular facilities.

The Student Center will be closed for extensive renovations and expansion until December 2001. During this time, the services provided by the Center, including the Bookstore and Food Services, have been relocated to other facilities. Most are in Memorial Hall or nearby buildings. Please look for materials, which are available around campus, to guide you to needed services during this period. Check out our website at http://scoes.ccsu.edu for service locations, regular updates and a live webcam to view the progress of the renovation online.
The School of Arts and Sciences offers the M.A. degree in biological sciences, English, history, information design, mathematics, modern language and psychology and the M.S. in biological sciences, computer information technology, criminal justice, geography, international studies, natural sciences and organizational communication.

Many academic departments within the School of Arts and Sciences provide the major for a number of M.S. degrees in education and for the post-baccalaureate certification program for secondary school teachers.

Currently, two graduate-level Official Certificate Programs are offered through the School of Arts and Sciences: OCP 500, Post-Baccalaureate Certificate in Pre-Health Studies, and OCP 501, Post-Baccalaureate Certificate in Cell and Molecular Biology.

A limited number of graduate assistantships are available in each department offering a master's degree program. Students seeking information about assistantships or program requirements should contact the academic department directly. For general information, students may call the Office of the Dean of Arts and Sciences (832-2600), located in DiLoreto 112.

ART

Faculty
Sherinatu Fafunwa (Chair, Maloney 151), Meyer Alewitz, Cassandra Broadus-Garcia, James Buxton, Sean Patrick Gallagher, Vicente Garcia, Faith Hentschel, Elizabeth Langhorne, Cora Marshall, Rachel Siporin, Mark Strathy, Ron Todd (Dept. phone: 832-2620)

Department Overview
The Department of Art offers a program of study leading to the Master of Science degree. Courses are also designed to serve as part of the General Education requirement for students preparing to teach in fields other than Art.

The graduate program in Art Education is designed primarily to meet the needs of experienced art educators who have completed an undergraduate program in the field. The program is available for elementary and secondary education teachers who wish to seek additional State Certification, as well as for students with a non-teaching graduate art-related degree from an accredited institution. These students may work towards the M.S. degree while they prepare to meet certification requirements in Art Education.

Program
The Art Department offers its Art Education Master's program with a wide range of visual arts specializations or concentrations. Both concepts and technical excellence are stressed. High quality resources are provided: equipment; a faculty of practicing artists, designers, and art educators; and a location convenient to major museums and numerous galleries.

After completing 15 credits of courses, the student must apply for Degree Candidacy. The student must present a resume, statement of purpose, portfolio of at least five pieces and two letters of recommendation to a committee of the adviser and other two faculty members selected by the student and approved by the adviser. After 12 credits, the student must undergo a final review, including committee approval of the thesis (Plan A) or exhibition/special project (Plan C). The comprehensive exam option (Plan B) is not available. Please follow the directions on page 12 concerning the planned program.

MASTER OF SCIENCE IN ART EDUCATION
(33 cr. including thesis/Plan A or exhibition or project/Plan C)

Professional Education (12 cr.):
ART 500 Problems in Art Education
ART 598 Research in Art Education
ART 597 Exhibition Research or
ART 599 Thesis
and one of the following: EDF 500, 516, 524, 525, 538, 583

Art Concentration (21 cr.):
Department offerings, as approved by faculty adviser

ART EDUCATION CERTIFICATION
Persons holding a bachelor's degree from an accredited institution with an art-related major or concentration may follow a planned program of graduate study leading to certification in Art Education K-12. These candidates are required to have the equivalent of 45 cr. in art-related courses.

POST MASTER'S STUDY
Thirty-credit planned programs of post-master's study in specific studio areas are available with the consent of the chair.

BIOLOGICAL SCIENCES

Faculty
Ruth Rollin (Chair, Copernicus 332), Leeds Carluccio, Douglas Carter, Michael Davis, Sylvia Halkin, Jeremiah Jarrett, Martin Kapper, Thomas King, Kathy Martin-Troy, Thomas Mione, Barbara Nicholson, Peter Osei, Clayton Penniman, David Specter, Cheryl Watson, Kim Wilson (Dept. phone: 832-2645)

Department Overview
The Department of Biological Sciences offers programs of study leading to the Master of Arts and Master of Science degrees, as well as courses which may serve as part of the general education requirement for students preparing to teach in fields other than biology. The department has a wide range of modern research equipment in laboratories designed for class and/or individual research studies. Specialized facilities, available for faculty and student instruction and research, include a greenhouse, herbarium, cell culture facilities, mouse and rat colonies, protein purification facility, photosynthesis research laboratory, molecular genetics research laboratory, darkrooms, experimental gardens, controlled environment room, growth chambers and a computer laboratory.

Through the academic and extracurricular opportunities which the department offers, students are prepared to understand and participate in a wide variety of biological specializations. Students in the graduate programs are expected to expand their understanding of biological concepts, to become familiar with recent developments
in biology and to become familiar with library, computer, and laboratory resources for biological research.

Admission Requirements
The following items are required:
- application for admission to graduate study
- narrative statement
- letters of recommendation by three college instructors familiar with your ability and record in biology and the related sciences
- official transcripts from all institutions in which undergraduate and graduate work has been taken
- Graduate Record Examination scores for the aptitude and advanced biology tests are recommended but not required

The above items are to be submitted to the Graduate Office. When an applicant's admission folder is complete, it will be forwarded to the department chair. The Departmental Graduate Committee will make a recommendation for acceptance. Students who are accepted will be assigned a program committee at the time of acceptance. If applicable, a thesis advising committee will be assigned after the student begins the program of study.

Programs

MASTER OF ARTS IN BIOLOGICAL SCIENCES
The master of arts programs provide study in the biological sciences for those graduate students desiring to major in biology. The program is designed to fulfill the educational needs of biologists outside the teaching profession who desire further specialization and/or knowledge of recent advances in the field; students who seek a subject matter concentration as an intermediate step toward preparation for work at the doctoral level; and teachers who are interested in specializing in a particular area, or updating their knowledge within the discipline of biology. Specialization may be in such areas as botany, zoology, physiology, and environmental studies. Each student will be assigned a graduate committee whose function will be to help the student plan a sound program.

Biological Sciences: General Program
There are two options (Plan A and Plan B) leading to the Master of Arts degree, both of which require 30 credits.

Both Plan A and B require BIO 500 and 540 in addition to 19-20 credits of directed electives in biology or related fields as approved by adviser. Plan A also requires BIO 599 (6 credits) and thesis defense or BIO 598 (3 credits) and 599 (3 credits) and thesis defense. Plan B requires BIO 590 and 598 and a comprehensive exam.

Biological Sciences: Cell and Molecular Biology (30 credits)
Major Field Requirements (5-6 cr.):
- BIO 500 Seminar in Biology
- BIO 540 Topics in Advanced Biology
- BIO 572 Laboratory Rotation in Cell and Molecular Biology

Directed Electives (18-19 cr.)
In biology or related fields as approved by adviser

Research (6 cr.):
Plan A:
- BIO 599 Thesis (6 credits) and thesis defense or BIO 598 Research in Biology and BIO 599 Thesis (3 credits) and thesis defense
or
Plan B:
- BIO 590 Research Problem
- BIO 598 Research in Biology Comprehensive exam

MASTER OF SCIENCE IN BIOLOGICAL SCIENCES
Biological Sciences: Anesthesia and Biological Sciences: Health Sciences
Specialization are for students enrolled in anesthesia programs or allied health fields. Dr. Rollin is program coordinator for Anesthesia and Health Sciences.

The General Program is for biology and science teachers and all others who wish to expand their background in the broad area of biology or who wish to specialize in a particular aspect of this discipline. Students who as undergraduates majored in areas other than biology may also pursue a master's degree in this program.

The planned program of graduate study will be developed by the students and their adviser and will be based upon the student's undergraduate record and educational needs. Thesis and non-thesis programs are available to students in all programs, except the Health Sciences specialization. Non-thesis programs will require a comprehensive examination.

Biological Sciences: General Program (30 credits)
This program is for teachers and others interested in a master's degree with a professional education component. Other courses may be substituted for the professional education component with the adviser's approval.

Professional Education (6-9 cr.):
- EDF 500 Contemporary Educational Issues
- EDF 516 School and Society
- EDF 524 Foundations of Contemporary Theories of Curriculum
- EDF 525 History of American Education
- EDF 538 The Politics of Education
- EDF 583 Sociological Foundations of Education

and Additional course(s) as approved by adviser

Biological Sciences: Cell and Molecular Biology (30 credits)

Major Field Requirements (5-6 cr.):
- BIO 500 Seminar in Biology
- BIO 540 Topics in Advanced Biology
- BIO 572 Laboratory Rotation in Cell and Molecular Biology

Directed Electives (18-19 cr.)
In biology or related fields as approved by adviser

Research (6 cr.):
Plan A:
- BIO 599 Thesis (6 credits) and thesis defense or BIO 598 Research in Biology and BIO 599 Thesis (3 credits) and thesis defense
or
Plan B:
- BIO 590 Research Problem
- BIO 598 Research in Biology

Comprehensive exam

Professional Education (6-9 cr.):
- EDF 500 Contemporary Educational Issues
- EDF 516 School and Society
- EDF 524 Foundations of Contemporary Theories of Curriculum
- EDF 525 History of American Education
- EDF 538 The Politics of Education
- EDF 583 Sociological Foundations of Education

and Additional course(s) as approved by adviser

Biological Sciences: Cell and Molecular Biology (30 credits)

Major Field Requirements (5-6 cr.):
- BIO 500 Seminar in Biology
- BIO 540 Topics in Advanced Biology
- BIO 572 Laboratory Rotation in Cell and Molecular Biology

Directed Electives (18-19 cr.)
In biology or related fields as approved by adviser

Research (6 cr.):
Plan A:
- BIO 599 Thesis (6 credits) and thesis defense or BIO 598 Research in Biology and BIO 599 Thesis (3 credits) and thesis defense
or
Plan B:
- BIO 590 Research Problem
- BIO 598 Research in Biology

Comprehensive exam

Biological Sciences: Anesthesia and Biological Sciences: Health Sciences
Specialization are for students enrolled in anesthesia programs or allied health fields. Dr. Rollin is program coordinator for Anesthesia and Health Sciences.

The General Program is for biology and science teachers and all others who wish to expand their background in the broad area of biology or who wish to specialize in a particular aspect of this discipline. Students who as undergraduates majored in areas other than biology may also pursue a master's degree in this program.

The planned program of graduate study will be developed by the students and their adviser and will be based upon the student's undergraduate record and educational needs. Thesis and non-thesis programs are available to students in all programs, except the Health Sciences specialization. Non-thesis programs will require a comprehensive examination.

Biological Sciences: General Program (30 credits)
This program is for teachers and others interested in a master's degree with a professional education component. Other courses may be substituted for the professional education component with the adviser's approval.

Professional Education (6-9 cr.):
- EDF 500 Contemporary Educational Issues
- EDF 516 School and Society
- EDF 524 Foundations of Contemporary Theories of Curriculum
- EDF 525 History of American Education
- EDF 538 The Politics of Education
- EDF 583 Sociological Foundations of Education

and Additional course(s) as approved by adviser

Biological Sciences: Cell and Molecular Biology (30 credits)

Major Field Requirements (5-6 cr.):
- BIO 500 Seminar in Biology
- BIO 540 Topics in Advanced Biology
- BIO 572 Laboratory Rotation in Cell and Molecular Biology

Directed Electives (18-19 cr.)
In biology or related fields as approved by adviser

Research (6 cr.):
Plan A:
- BIO 599 Thesis (6 credits) and thesis defense or BIO 598 Research in Biology and BIO 599 Thesis (3 credits) and thesis defense
or
Plan B:
- BIO 590 Research Problem
- BIO 598 Research in Biology

Comprehensive exam

Biological Sciences: Anesthesia and Biological Sciences: Health Sciences
Specialization are for students enrolled in anesthesia programs or allied health fields. Dr. Rollin is program coordinator for Anesthesia and Health Sciences.

The General Program is for biology and science teachers and all others who wish to expand their background in the broad area of biology or who wish to specialize in a particular aspect of this discipline. Students who as undergraduates majored in areas other than biology may also pursue a master's degree in this program.

The planned program of graduate study will be developed by the students and their adviser and will be based upon the student's undergraduate record and educational needs. Thesis and non-thesis programs are available to students in all programs, except the Health Sciences specialization. Non-thesis programs will require a comprehensive examination.

Biological Sciences: General Program (30 credits)
This program is for teachers and others interested in a master's degree with a professional education component. Other courses may be substituted for the professional education component with the adviser's approval.
Research (4–6 cr.):
Plan A:
  BIO 598 Research in Biology
  BIO 599 Thesis (3 credits)
and thesis defense
  or
Plan B:
  BIO 490 Studies in Biology (clinical case study in anesthesia, 1 cr.)
  BIO 598 Research in Biology
  Comprehensive exam

Note to prospective Anesthesia students:
The student must be a licensed registered nurse and satisfactorily complete the program of study in Anesthesia at an affiliated hospital-based school of anesthesia which includes 1000 hours of clinical practicum. Admission to this program is contingent upon admission to one of the following affiliated schools:
  New Britain School of Nurse Anesthesia, New Britain, CT: John Satterfield, M.D., medical director, and Joan Dobbins, M.S., CRNA, program director.
  Hospital of St. Raphael, New Haven, CT: Philip J. Noto, M.D., medical director, School of Anesthesia; and Judy Thompson, M.S., CRNA, program director.
  Memorial Hospital of Rhode Island, Pawtucket, R.I.: Fred T. Perry, M.D., medical director, School of Anesthesia; and Mark Foster, M.A., CRNA, program director.

BIO 490 Studies in Biology (clinical case study in anesthesia, 1 cr.)

Research (6 cr.):
  BIO 599 Thesis (6 credits) and thesis defense
  or
  BIO 598 Research in Biology and BIO 599 Thesis (3 credits) and thesis defense

CERTIFICATION IN BIOLOGY FOR SECONDARY EDUCATION
The Department of Biological Sciences also evaluates undergraduate and graduate preparation of applicants to the biology certification program in secondary education. This evaluation is done through interviews and/or review of transcripts of prospective candidates who have been admitted to the graduate program. Transcripts are forwarded to the department chair by the School of Education and Professional Studies. The chair of Biological Sciences or a departmental designee will make recommendations for courses to be completed in the biological area of the student's program. Admission to the professional program is contingent on recommendation by the Department of Biological Sciences in addition to completion of other requirements.

OFFICIAL CERTIFICATE PROGRAM:
POST-BACCALAUREATE CERTIFICATE IN CELL AND MOLECULAR BIOLOGY

Program Overview
This non-degree certificate program is designed for college graduates wishing to expand or update their knowledge of modern cell and molecular biology, but who are not ready to commit to a graduate program leading to a master's degree. This post-baccalaureate certificate program provides these students a formal option for acquiring both advanced instruction and academic advisement.

Admission
Students must have completed a bachelor's degree to participate in the program. Potential students should contact the Office of Graduate Admissions to request an application packet. The application requires official transcripts from all colleges and universities attended and an essay describing why the student is interested in the program. Completed applications will be filed with the Graduate Admissions Office. The Cell, Molecular and Physiological Biology (C/M/P) Coordinator in Biological Sciences will schedule an interview with the applicant, during which an advisory committee of C/M/P faculty will work with the candidate to develop an individualized plan of study in keeping with their academic background and professional goals. The C/M/P Coordinator will make admission recommendations to the Department Graduate Studies Committee which will make final admission decisions on a rolling basis. Successful applicants will have a 2.70 undergraduate cumulative grade point average and course prerequisites must be met, including BIO 121, 122 and 201; and CHEM 121 and 122; or equivalent. Post-baccalaureate students will be classified as graduate students but need not be matriculated. However, only matriculated graduate students may take a full-time (minimum 9 credits/academic semester) load and may qualify for financial aid.

Program Requirements
The Official Certificate Program in Cell and Molecular Biology will require 18–20 credits in approved cell and molecular biology courses (see below), including BIO 572, BIO 590 and at least two cell and molecular biology courses that include laboratory instruction. Any individual program must be selected and approved in consultation with the C/M/P adviser. A minimum of 15 credits in the planned program must be taken at CCSU.

Program
The Official Certificate Program in Cell and Molecular Biology will require 18–20 credits in cell and molecular biology, including:

Research Component:
  BIO 572 Laboratory Rotation in Cell and Molecular Biology 1
  BIO 590 Research Problem (independent research in cell and molecular biology) 2

Laboratory Science Component:
  2 courses with lab from the following:
  BIO 411 Cellular Physiology and Metabolism 4
  BIO 416 Immunology 3
  BIO 417 Immunology Laboratory 1
  BIO 449 Plant Physiology 3
  BIO 450 Investigations in Plant Physiology 1
  BIO 495 Molecular Biology 4
  BIO 540 Topics in Advanced Biology 4 (with a cell and molecular biology topic and with a laboratory component only)
The student must maintain a 3.00 (B) cumulative grade point average in order to be in good academic standing and to receive the post-baccalaureate certificate. Upon completion of the planned certificate program, a certificate will be issued from the Office of Continuing Education. (While completion of this program does not lead to a graduate degree, courses at the 400-level or above that are taken as part of the post-baccalaureate certificate program may be counted towards a master's degree, provided that the graduate-syllabus option is elected at the time of course registration in all 400-level courses; no more than 3 courses at the 400 level are included in the planned program; all master's program admissions and degree requirements are met; and the courses are part of a planned program of study approved by the master's degree adviser.)

OFFICIAL CERTIFICATE PROGRAM: POST-BACCALAUREATE CERTIFICATE IN PRE-HEALTH STUDIES

The Pre-Health Professions Advisory Committee (Pre-PAC) individually advises post-baccalaureate students seeking to prepare themselves for entry into professional training programs in the health sciences. The Pre-PAC is composed of eight faculty members (three from Biological Sciences, two from Chemistry, one from Physics and Earth Sciences, and two from Psychology), including the Chief Health Professions Adviser (P. Osei, Biological Sciences; Copernicus 339; 832-2657) and the Pre-PAC Chair (R. Troy, Chemistry; Copernicus 434; 832-2684).

Program Overview

This non-degree certificate program is designed for college graduates whose undergraduate background does not meet the requirements for admission to professional schools of medicine, dentistry, veterinary medicine, etc. This rigorous program provides post-baccalaureate students with the foundational courses and the advisement they need to prepare for applying to professional training schools.

Admission

Students must have completed a bachelor's degree to participate in the program. Potential students should contact the Graduate Admissions Office to request an application packet. The application requires official transcripts from all colleges and universities attended and an essay describing why the student is interested in the program. File completed applications with the Graduate Admissions Office. The Pre-PAC Chair will schedule an interview with the applicant, during which an advisory committee (including the Chief Health Professions Adviser) will work with the candidate to develop an individualized planned program of study in keeping with their academic background and professional goals.

To begin the program during the summer session, applications must be received by April 15. If students wish both to begin during the summer session and to be considered for financial aid, applications must be received by January 15. However, students may begin the program in any semester and applications will be accepted throughout the year. Post-baccalaureate students in this program are classified as graduate students but need not be matriculated. However, only matriculated graduate students may take a full-time (minimum 9 credits/academic semester) load and may qualify for financial aid.

Program Requirements

While each student's academic program will be tailored to meet the individual's specific academic needs and professional goals, a model program that would be appropriate for a student with a minimal science background is shown below. This model program also illustrates the 45-credit upper limit for this certificate program. Smaller academic programs may be possible for students with some science background, with a lower limit of 26 credits. All individual programs must be designed and approved in consultation with the Pre-PAC advisory committee at the admission interview. A minimum of 18 credits in the planned program must be taken at CCSU.

Model Program*
(45 credits)

Biology (21 cr.), including:
BIO 122 General Biology II
BIO 201 Principles of Cell and Molecular Biology
BIO 306 Genetics
or
BIO 316 Microbiology
BIO 318 Anatomy and Physiology I
BIO 490 Studies in Biology
BIO 319 Anatomy and Physiology II
or
BIO 411 Cellular Physiology and Metabolism
or
BIO 412/413 Human Physiology

Chemistry (16 cr.), including:
CHEM 121 General Chemistry I
CHEM 122 General Chemistry II
CHEM 311 Organic Chemistry I
CHEM 312 Organic Chemistry II

Physics (8 cr.) including:
PHYS 121 General Physics I
PHYS 122 General Physics II

*For course descriptions and prerequisites for courses numbered lower than 400, please see the Undergraduate Catalog.

Students must maintain a 3.00 (B) cumulative grade point average in order to be in good academic standing and to receive the post-baccalaureate certificate. Upon completion of the planned certificate program, a certificate will be issued from the Office of Continuing Education. (While completion of this program does not lead to a graduate degree, courses at the 400-level or above that are taken as part of this program may be counted towards a master's degree, provided that the graduate-syllabus option is elected at the time of course registration in 400-level courses.)

CHEMISTRY

Faculty

Timothy D. Shine (Chair, Copernicus 438), James V. Arena, Thomas R. Burkholder, Guy Crundwell, Neil Glagovich, Carol A. Jones, Michael LaFontaine, Robert C. Troy, Barry L. Westcott (Dept. phone: 832-2675)
Department Overview

The Department of Chemistry offers the Master of Science in Natural Sciences for certified secondary school teachers of chemistry and for other people whose science background qualifies them for admission to graduate study in chemistry. Certification programs for liberal arts graduates who wish to teach chemistry in high school and courses for students who wish to increase their knowledge of chemistry and/or general requirements are also offered.

Each candidate for the M.S. degree program will be required to complete appropriate undergraduate courses if the undergraduate degree program shows deficiencies. All programs include a minimum of thirty credits of graduate study.

For details of the program, see Natural Sciences major on page 40 of this catalog.

COMMUNICATION

Faculty

Andrew Moemeka (Chair, Marcus White 204), Robert Fischbach. Glynis Hiebner. Yanan Ju, Serafin Mendez-Mendez, Robert Petrausch, Christopher Pudlinski, Karen Ritzenhoff, Benjamin Sevitch. Cornelius Benjamin Tyson, Frederick Wasser. Cindy White (Dept. phone: 832-2690)

Department Overview

Graduate study in communication provides students with academic experiences that enable them to evaluate, develop, shape and change the communication environment within organizations (internal communication) as well as between organizations and their target audiences (external communication). Students will learn to understand communication processes internal and external to an organization; employ research methods in the diagnosis of communication problems within organizations and between organizations and their target audiences, including those resulting from intercultural differences; apply problem-solving, decision-making and negotiation strategies in complex relational situations within organizations; examine the use and impact of information and communication technologies in the design and evaluation of strategic communication campaigns and other organizational applications; and develop and practice sound and ethical reasoning.

Program

THE MASTER OF SCIENCE IN ORGANIZATIONAL COMMUNICATION

The thirty-six (36) credit Master of Science program is comprised of two sections, a 15-credit core of foundational courses and 21 credits of adviser-approved directed electives. The student may opt to emphasize their coursework of directed electives in either the internal or the external communication area. A capstone experience consisting of Plan A (6-credit Thesis) or Plan B (Comprehensive Examination) is required for graduation. Program requirements and electives are provided below.

Core Courses (15 credits):
COMM 500 Introduction to Graduate Studies in Organizational Communication
COMM 501 Theories of Human Communication Within an Organizational Context
COMM 503 Research Methods in Communication
COMM 505 Social and Behavioral Dimensions of Persuasive Communication
COMM 504 Organizational Communication Audits
or
COMM 507 Campaign Monitoring and Evaluation

Directed Electives (15–21 credits):
Students will select from the following courses approved by the faculty adviser. A planned program of study must be completed no later than six credits into the student's program. The student may specialize in either track or may select courses from both tracks.

Internal Track
COMM 502 Theories of Communication and Information Management
COMM 504 Organizational Communication Audits
COMM 522 Corporate Communication
COMM 551 Policy Issues in Organizational and Managerial Communication
COMM 562 Communication and High-Speed Management

External Track
COMM 506 Principles and Processes of Communication Campaigns
COMM 507 Campaign Monitoring and Evaluation
COMM 512 Communication and Change

COMM 543 Intercultural Communication
COMM 544 Strategies in Negotiation and Conflict Resolution

General
COMM 585 Special Topics
COMM 590 Independent Study

Outside
MGT 500 The Role of Management in Contemporary Society
AC 510 Accounting and Control
IT 464 Continuous Process Improvement
IT 500 Industrial Applications of Computers
IT 502 Human Relations and Behavior in Complex Organizations
IT 564 Quality Systems Management
STAT 453 Applied Statistical Inference

Capstone (0–6 credits):
Plan A: COMM 590 Independent Study (3 cr.) and COMM 599 Thesis/Special Project (3 cr.) or Plan B: Comprehensive Examination

To complete degree requirements, students have the option of a thesis (Plan A) or a comprehensive examination (Plan B) comprised of a written exam followed by an oral exam. Programs will be designed jointly by the departmental advisers and the students to provide the greatest educational and career opportunities.

Note: COMM 504, 507 and 590 may not be double counted.

Admission

Students seeking admission to the M.S. in Organizational Communication program must present an undergraduate average of B (3.00). Students with an undergraduate GPA of 2.70 through 2.99, or who have been out of school for five years and possess significant professional experience, may apply to be considered for provisional acceptance.

Students who meet the above requirements should submit an Application for Graduate Admission, official copies of transcripts and their application fee directly to the Graduate Office. A current resume, a writing sample comprised of 500 to 1,000 words which expresses their goals for graduate study and future professional aspirations, and three (3) letters of recommenda-
Management Information Systems focuses on the hands-on manipulation of the software that implements them, the proper operation focuses on computer networking and technology. Computer Science, Management Information Systems, and Industrial Technology Departments jointly offer a Master of Science degree in Computer Science, Management Information Systems, and Industrial Technology. No action will be taken until all of the above materials have been received.

COMPUTER INFORMATION TECHNOLOGY

Faculty

Computer Science: Joan Calvert
(Director, Maria Sanford 206, 832-2715), Fatemeh Abdollahzadeh, William Jones, Bradley Kjell, Zdravko Markov, Charles Neville, Brian O'Connell, Irena Pevac, Neli Zlatareva

Management Information Systems:
Marianne D’Onofrio, Raymond Papp

Industrial Technology: James DeLaura, Paul Reserarits, Karen Tracey, Michael Vincenti, Deborah Zanella

(web site address: www.cs.ccsu.edu/cit/index.htm)

Overview

The Computer Science, Management Information Systems and Industrial Technology Departments jointly offer a Master of Science degree in Computer Information Technology. Computer science is focused on the study of algorithms, the software that implements them, the properties of computers and the processes for creating these technologies. Industrial technology focuses on computer networking and the hands-on manipulation of the components and hardware systems that make up a computer and computer network. Management information systems focuses on the use of information technology for end-users and manipulating data for decision-making.

Program

MASTER OF SCIENCE IN COMPUTER INFORMATION TECHNOLOGY

33 credits as follows:

Core Courses (18 credits):
CS 501 Foundations in Computer Science
CS 502 Computing and Communications Technology
MIS 501 Foundations of MIS

MIS 502 e-Business and Information Technology
IT 500 Industrial Applications of Computers
IT 501 Applied Networking Technology

Specialization (12 credits):
Students select 12 credits from one of the following specializations in consultation with an adviser.

Specialization 1 — Computer Science electives:
CS 410, 423, 460, 462, 463, 473, 481, 490, 530, 550, 570, 580, 590

Specialization 2 — Industrial Technology electives:
TC 414, 416, 436, 443, 449, 453, 479, 526; IT 480, 481, 513, 521, 551, 564, 596, 598, 664

Specialization 3 — MIS electives:
MIS 400, 460, 494, 510, 515, 550, 561, 565, 569

Capstone (3 credits):
Students may register for this course upon completion of core requirements.

CIT 599 Integrative Experience in CIT

Note: A maximum of 6 credits at the 400-level is allowed.

CRIMINOLOGY AND CRIMINAL JUSTICE

Faculty

Susan E. Pease (Chair, DiLoreto 208), Tim Bakken, Stephen Cox, Ronald Fernandez, Trevor Johnson, Debra L. Stanley, Raymond Tafrate (Dept. phone: 832-3005)

Overview

The Master of Science degree provides students with the knowledge and skills required to complete core courses, students are allowed to select elective courses that match their individual academic and career interests. Students may request consideration for admission to the criminal justice program based upon:

1. A bachelor's degree in any field from a regionally-accredited institution of higher education
2. A minimum GPA of 3.00 on a 4.00 scale
3. One undergraduate course in research methods with a grade of "C" or better
4. One undergraduate course in elementary statistics with a grade of "C" or better
5. A formal, typed application essay which focuses on academic and work history, reasons for pursuing graduate study in criminal justice, and future career goals

Students who do not meet these requirements may request consideration for admission with special requirements. No students may register for criminal justice courses without first being admitted to the program.

Program

MASTER OF SCIENCE IN CRIMINAL JUSTICE

Core Courses (18 cr.):
CJ 501 Proseminar on the Nature of Crime
CJ 510 Proseminar on Law and Social Control
CJ 520 Proseminar on the Administration of Justice
CJ 533 Research Methods in Criminal Justice
STAT 453 Applied Statistical Inference

Program Overview

Students develop an area of specialization in consultation with an academic adviser. Those students seeking to advance their careers as administrators and policy makers may choose courses designed to enhance their administrative skills. Other students, interested in careers as probation officers, counselors or juvenile and adult case workers in correctional institutions, detention centers, alternative sanction programs and substance abuse treatment centers, may

Specialization (9 cr.):
Students already working in the field develop an original research project.

Consideration for admission to the criminal justice program is based upon:

1. A bachelor's degree in any field from a regionally-accredited institution of higher education
2. A minimum GPA of 3.00 on a 4.00 scale
3. One undergraduate course in research methods with a grade of "C" or better
4. One undergraduate course in elementary statistics with a grade of "C" or better
5. A formal, typed application essay which focuses on academic and work history, reasons for pursuing graduate study in criminal justice, and future career goals

Students who do not meet these requirements may request consideration for admission with special requirements. No students may register for criminal justice courses without first being admitted to the program.
choose courses that help them plan and evaluate programs designed to encourage behavioral change in criminal and juvenile populations or courses that help sharpen their counseling skills with involuntary clients. Students choose three courses from the following:

- CRM 450 Drugs and Society
- CRM 475 Controlling Anger and Aggression
- CJ 525 Program Planning and Evaluation
- CJ 530 Offender Profiles
- CJ 535 Correctional Counseling
- CJ 570 Leadership and Supervision of Criminal Justice Organizations
- CJ 575 Organizational Development and Evaluation of Criminal Justice Organizations
- CJ 580 Public Policy in the Criminal Justice System
- PS 446 The Budgetary Process
- SPED 578 The Juvenile Offender as an Exceptional Learner

Capstone (3 cr.):
Students choose one course from the following:

- CJ 599 Thesis (Prereq.: Completion of 21 cr. of approved study and permission of adviser)
- CJ 536 Field Studies in Criminal Justice

**DESIGN (GRAPHIC/INFORMATION)**

**Faculty**

Susan Vial (Chair, Maloney 139), Edward Asturita (Marketing), Joan Calvert (Computer Science), Eleanor Thornton (Design), C. Benjamin Tyson (Communication) (Dept. phone: 832-2557)

**Department Overview**

The Department of Design provides an academic structure for the advancement of graphic and information design training and degrees at the University. The Department of Design was established to promote professional training in the expanding areas of graphic design, web site design, multimedia design and digital imaging. Faculty members have backgrounds in graphic design, fine art, advertising, illustration, communications, marketing, computer science, management information systems, web site design, multimedia design and CD ROM presentation.

**Program Overview**

The study of Information Design at CCSU includes the design of traditional graphic (print) material as well as other forms of digital information, including web site design and multimedia design. Graduates are expected to take leadership positions in the design industry, including graphic design, publishing, advertising, multimedia design, web design, digital imaging and corporate information design.

The degree program is unique in curriculum and structure, including course work in design practice, marketing, management, computer applications, design theory, research methods, history of design and Internship. The program, similar to the actual practice of design, addresses not only the theoretical, creative and technical aspects of visual design, but business applications as well. This unique degree program promises to deliver graduates who will meet and exceed the challenges of this rapidly evolving field.

**Facilities**

The Department of Design maintains state-of-the-art computer laboratories and a print center that are dedicated to various aspects of design training. Faculty and staff with professional software training and design background operate these facilities.

**Admission Requirements**

Applicants for the Master of Arts degree in Information Design must hold a bachelor's degree from a regionally accredited institution of higher education. The undergraduate record must demonstrate clear evidence of ability to undertake and pursue successfully advanced study in the graduate field. In addition to standard university graduate admission requirements, the Department of Design requires that successful applicants submit the following materials to the Admissions Office:

1. Minimum undergraduate grade point average of 3.0 on a 4.0 scale.
2. 12 credits of undergraduate course work in design with a grade of "B" or better. These courses will be reviewed by the Department for appropriate content.
3. Application essay including applicant's reasons for pursuing graduate study in Information Design and future career goals.

Note: Successful applicants will be expected to take a technical competency test prior to admission to DES designated courses requiring computer use.

**Program**

**MASTER OF ARTS IN INFORMATION DESIGN** (36 credits)

Core Courses (24 cr.):

- MKT 470 Marketing Communications
- MGT 552 Management Theory and Practice
- DES 499 Computer Applications for Graphic/Information Design
- DES 501 Graphic/Information Design Theory I
- DES 502 Graphic/Information Design Theory II
- DES 520 Advanced History of Design
- DES 598 Research Methods in Design

Specialization (9 cr.):

- DES 503 Graphic/Information Design Practice I
- DES 504 Graphic/Information Design Practice II
- DES 437 Design Internship
- DES 565 Topics in Graphic/Information Design

Directed Elective (3 cr.):

- MGT, MKT, BUS or ART course as approved by adviser

Capstone (3 cr.):

- DES 599 Design Thesis

Note: Students enrolled in the following courses will be assessed a $65 Design Lab Fee: DES 436, 438, 439, 465, 498, 499, 503, 504, 598, 599. Contact the Department for additional information.
ENGLISH

Faculty

Department Overview
The Department of English offers graduate study leading to Certification in English; a Concentration in English for certified elementary school teachers; adult-level certification in TESOL; K-12 certification in TESOL; a Master of Science Degree in Teaching English to Speakers of Other Languages (TESOL); a Master of Science degree in English; and a Master of Arts degree in English.

Admission Requirements
Elementary education majors who wish to concentrate in English must have at least eighteen undergraduate credits of course work in English. To qualify for the master of science or master of arts degree programs (excluding TESOL), an applicant must have an undergraduate degree in English or thirty credits in English. Additional undergraduate credit will be required of those who lack prerequisites or their equivalent. To qualify for the Master of Science degree program in TESOL, an applicant must have completed 3 cr. of study in a second language (non-native speakers of English may use English to satisfy this requirement).

Students lacking this background may be admitted provisionally, but will be required to complete the 3 cr. of a second language study before graduation from the program.

Students in the degree programs will be assigned an English Department adviser appropriate to their areas of study. Before degree candidates register for course work they should read the program brochure appropriate to their programs. In general, students should file a planned program before completing 15 cr. of graduate course work.

M.S. and M.A. English students should consult “Graduate Programs in English;” TESOL candidates should consult “Pre-Professional and In-Service Programs in Teaching English to Speakers of Other Languages.” Additional information may be obtained from the adviser and in this catalog under General Information.

Programs
Certification in English is a non-degree program offered to persons with a bachelor's degree (normally in English) whose undergraduate course work does not meet State of Connecticut certification requirements for secondary English teachers. Courses taken to complete certification requirements may not be used to complete the English Department's M.S. or M.A. degree programs. A minimum of 6 credits in English at CCSU is required before student teaching.

Certification in TESOL is a non-degree program offered to persons with a bachelor's degree. Certification may be obtained for adult-level ESL or for the K-12 level.

The Master of Science degree in Teaching English to Speakers of Other Languages (TESOL) is a plan of study especially designed for those students with an interest in language and linguistics who wish to work with non-English speaking students here or abroad.

The Master of Arts degree in English is offered to students who wish to devote their program exclusively to the advanced study of English and American literature. The Master of Arts diploma specifies a graduate degree in English, a prerequisite for further graduate work in English.

The Master of Science degree in English is offered to students who wish to pursue advanced study of English and American literature, with the possibility of focusing on a particular literary genre or on literary periods. Those who elect this degree program are required to take six credits of education courses outside the Department of English.

The requirements for each program are as follows.

MASTER OF SCIENCE IN TEACHING ENGLISH TO SPEAKERS OF OTHER LANGUAGES (TESOL)
This program offers Plan A (33 credits plus a thesis) and Plan B (36 credits and a comprehensive exam with a thesis). Students should complete the course requirements listed below. In addition, students may select one of the following specializations:

TESOL Specialization (21 cr.):
ENG 400 Linguistic Analysis
ENG 496 TESOL Methods
ENG 497 Second Language Acquisition
ENG 512 Modern Syntax
ENG 513 Modern Phonology
ENG 515 An Introduction to Sociolinguistics

One course from:
ENG 498 TESOL Practicum
ENG 431 The History of the English Language
ENG 533 Second Language Composition
ENG 535 Second Language Testing

Research (3 cr.):
ENG 598 Research in English (TESOL section)

Professional Education (6 cr.):
One of the following:
EDF 500 Contemporary Educational Issues
EDF 516 School and Society
EDF 524 Foundations of Contemporary Theories of Curriculum
EDF 525 History of American Education
EDF 538 The Politics of Education
EDF 583 Sociological Foundations of Education

and Additional course as approved by adviser

One elective selected from among the following (3 cr.):
EDT 490 Instructional Computing
ED 511 Principles of Curriculum Development
EDF 516 School and Society
EDF 522 Comparative Education
EDF 530 Multicultural Education
EDF 583 Sociological Foundations of Education
RDL 591 Developmental Reading in Primary Grades
RDL 593 Developmental Reading in Secondary Schools
SPED 506 Foundations of Language for the Exceptional Child
EDF 521 History of Educational Ideas
EDF 525 History of American Education
EDF 538 The Politics of Education
EDSC 556 Instructional Theory and Practice

Middle School Level Literacy Development
All planned programs and course sequences must be approved by a TESOL adviser prior to registration.

**Plan A** students take English 599 Thesis plus one general elective. **Plan B** students take two general electives. General electives are graduate course offerings as approved by the student's adviser from Anthropology, English or another Modern Language, Geography, History, Humanities, Political Science or other relevant fields.

It is expected that a degree candidate will have control of the English language beyond mere communicative adequacy. It shall be the joint decision of the TESOL faculty whether a degree candidate's control of spoken and/or written English is appropriate to the profession. The faculty will recommend various remedies for any candidate deemed deficient.

**MASTER OF Arts IN English**

*30 cr.*

**Plan A** (Thesis)

English electives as approved by the faculty adviser (18 cr.)

ENG 500 and 501 Seminar in American and Seminar in British Literature (6)

ENG 598 Research in English* (3)

ENG 599 Thesis (3)

**Plan B** (Comprehensive Examination)

English electives as approved by the faculty adviser (21)

ENG 500 and 501 Seminar in American and Seminar in British Literature (6)

ENG 598 Research in English (literature section)* (3)

**Master of Science in English**

*Generally for elementary and secondary school teachers* (36 cr.)

All students must take the Comprehensive Examination, which will include at least five questions in literature and two questions on material derived from professional courses offered through the English Department.

Professional Education (6–9 cr.):

One of the following:

- EDF 500 Contemporary Educational Issues
- EDF 516 School and Society
- EDF 524 Foundations of Contemporary Theories of Curriculum
- EDF 525 History of American Education
- EDF 538 The Politics of Education

EDF 583 Sociological Foundations of Education

Additional course(s) as approved by adviser

Professional Course work, English Department (6 cr.):

Two electives, as approved by the faculty adviser

English Major (18–21 cr.):

English electives as approved by the faculty adviser

ENG 500 or ENG 501, Seminar in American or Seminar in British Literature

Research (3 cr.):

ENG 598 Research in English (Lit. section)*

*To be completed during the first semester of graduate study.*

**GOALS AND OBJECTIVES**

**Programs**

**The M.S. in Social Science** with a concentration in geography continues to meet the needs of Connecticut's teachers.

**The M.S. in Geography** has been used as a springboard by those interested in further graduate study. Several graduates have gone on to Ph.D. programs at major universities. However, most graduate students are interested in using the M.S. in Geography as a terminal degree which will prepare them for careers in several technical areas.

**ADMISSIONS STANDARDS**

The M.S. degree programs are available to all individuals who meet the admissions requirements. The Graduate Record Examination is not an admission requirement. An undergraduate major or minor in geography is desirable but not required of applicants. However, those with deficient academic preparation may be asked to complete up to four courses of remedial work at the undergraduate level. Details are available from the Department of Geography.

**PROGRAM OF STUDY**

Students enrolled in the graduate program must comply with all requirements in the current graduate catalog.

**M.S. in Social Science with a Concentration in Geography.** This program requires 30 credits of course work, distributed as follows: two professional education courses, one general education elective course, and seven geography courses. GEOG 500 and 598 is required of all students, and at least half of the credits must be at the 500 level.
should file a planned program before completing 15 cr. of graduate course work. M.S. and M.A. English students should consult "Graduate Programs in English." TESOL candidates should consult "Pre-Professional and In-Service Programs in Teaching English to Speakers of Other Languages." Additional information may be obtained from the adviser and in this catalog under General Information.

Programs

Certification in English is a non-degree program offered to persons with a bachelor's degree who meet State of Vermont requirements for English as a second language. It includes 12 cr. of coursework taken to meet these requirements. Professional and In-Service Programs in Teaching English to Speakers of Other Languages includes 3 cr. of coursework taken to meet these requirements. As an alternative, the director of the program may accept 12 cr. of coursework taken to meet these requirements.

TESOL Specialization (21 cr.):
- ENG 400 Linguistic Analysis
- ENG 496 TESOL Methods
- ENG 497 Second Language Acquisition
- ENG 512 Modern Syntax
- ENG 513 Modern Phonology
- ENG 515 An Introduction to Sociolinguistics

One course from:
- ENG 498 TESOL Practicum
- ENG 431 The History of the English Language
- ENG 533 Second Language Composition
- ENG 535 Second Language Testing

Research (3 cr.):
- ENG 598 Research in English (TESOL Practicum-course renumbering)
- ENG 496 TESOL Methods
- ENG 497 Second Language Acquisition
- ENG 512 Modern Syntax
- ENG 513 Modern Phonology
- ENG 515 An Introduction to Sociolinguistics

Professional Education (6 cr.):
- One of the following:
  - EDF 500 Contemporary Educational Issues
  - EDF 516 School and Society
  - EDF 524 Foundations of Contemporary Theories of Curriculum
  - EDF 525 History of American Education
  - EDF 538 The Politics of Education
  - EDF 583 Sociological Foundations of Education

Professional course work, Department of English:
- Two electives as approved by the faculty adviser (6 cr.).
- One elective selected from among the following (3 cr.):
  - EDT 490 Instructional Computing
  - ED 511 Principles of Curriculum Development
  - EDF 516 School and Society
  - EDF 522 Comparative Education
  - EDF 530 Multicultural Education
  - EDF 583 Sociological Foundations of Education

Professional course work, English Department:
- Two electives as approved by the faculty adviser (6 cr.).
- One elective selected from among the following (3 cr.):
  - EDT 490 Instructional Computing
  - ED 511 Principles of Curriculum Development
  - EDF 516 School and Society
  - EDF 522 Comparative Education
  - EDF 530 Multicultural Education
  - EDF 583 Sociological Foundations of Education

TESOL candidates should consult "Pre-Professional and In-Service Programs in Teaching English to Speakers of Other Languages." Additional information may be obtained from the adviser and in this catalog under General Information.
SCHOOL OF ARTS AND SCIENCES

All planned programs and course sequences must be approved by a TESOL adviser prior to registration.

**Plan A** students take English 599 Thesis plus one general elective. **Plan B** students take two general electives. General electives are graduate course offerings as approved by the student’s adviser from Anthropology, English or another Modern Language, Geography, History, Humanities, Political Science or other relevant fields.

It is expected that a degree candidate will have control of the English language beyond mere communicative adequacy. It shall be the joint decision of the TESOL faculty whether a degree candidate’s control of spoken and/or written English is appropriate to the profession. The faculty will recommend various remedies for any candidate deemed deficient.

**MASTER OF ARTS IN ENGLISH**
(30 cr.)

**Plan A** (Thesis)
English electives as approved by the faculty adviser (18 cr.)
ENG 500 and 501 Seminar in American and British Literature (6)
ENG 598 Research in English* (3)
ENG 599 Thesis (3)

**Plan B** (Comprehensive Examination)
English electives as approved by the faculty adviser (21)
ENG 500 and 501 Seminar in American and Seminar in British Literature (6)
ENG 598 Research in English (literature section)* (3)

**MASTER OF SCIENCE IN ENGLISH**
(Generally for elementary and secondary school teachers) (36 cr.)
All students must take the Comprehensive Examination, which will include at least five questions in literature and two questions on material derived from professional courses offered through the English Department.

Professional Education (6–9 cr.):
One of the following:
EDF 500 Contemporary Educational Issues
EDF 516 School and Society
EDF 524 Foundations of Contemporary Theories of Curriculum
EDF 525 History of American Education
EDF 538 The Politics of Education
EDF 583 Sociological Foundations of Education
Additional course(s) as approved by adviser
Professional Course work, English Department (6 cr.):
Two electives, as approved by the faculty adviser
English Major (18–21 cr.):
English electives as approved by the faculty adviser
ENG 500 or ENG 501, Seminar in American or Seminar in British Literature
Research (3 cr.):
ENG 598 Research in English (Lit. section)*

*To be completed during the first semester of graduate study.

**GEOGRAPHY**

**Faculty**
John Harmon (Chair, DiLoreto 208), Richard Benfield, Peter Kwaku Kyem, Timothy Rickard, Xiaoping Shen, James Snaden, Brian Sommers, Philip Van Beynen (Dept. phone: 860/832-2785)

**Department Overview**
Central Connecticut State University has the oldest and largest graduate program in Geography in the state of Connecticut. The graduate program was initiated in 1962 with a Master of Science in Social Science for in-service teachers who desired to complete the requirements for their permanent teaching certificates. However, the program’s emphasis has changed since state approval was granted in 1976 to offer a Master of Science in Geography. Since that time, students have used the latter degree in the pursuit of a variety of career goals.

Geography is the science of location. The geography faculty teaches students how to use effectively maps and air photos, gather information about places, and make computer analyses. Students use this knowledge to learn about how people use the land in different places, and what impacts humans.

The Department of Geography has fully equipped cartography, air photo interpretation and microcomputer laboratories available for student use. The microcomputer lab includes a network of IBM PC-compatible computers, to include an extensive software collection along with digitizers and plotters for automated cartography, computer graphics and geographic information systems. CCSU has a map depository for the Defense Mapping Agency and the U.S. Geological Survey, with close to 30,000 sheets in our collection. The department also receives planning reports, maps and documents from cities, towns and regions throughout the Northeast.

In addition the Department of Geography provides internships and part-time employment for students in a variety of town, regional, state and private planning agencies and offers consulting services, workshops and short courses as part of its outreach program.

**Programs**

**GOALS AND OBJECTIVES**
The M.S. in Social Science with a concentration in geography continues to meet the needs of Connecticut’s teachers.

The M.S. in Geography has been used as a springboard by those interested in further graduate study. Several graduates have gone on to Ph.D. programs at major universities. However, most graduate students are interested in using the M.S. in Geography as a terminal degree which will prepare them for careers in several technical areas.

**ADMISSIONS STANDARDS**
The M.S. degree programs are available to all individuals who meet the admissions requirements. The Graduate Record Examination is not an admission requirement. An undergraduate major or minor in geography is desirable but not required of applicants. However, those with insufficient academic preparation may be asked to complete up to four courses of remedial work at the undergraduate level. Details are available from the Department of Geography.

**PROGRAM OF STUDY**
Students enrolled in the graduate program must comply with all requirements in the current graduate catalog.

M.S. in Social Science with a Concentration in Geography. This program requires 30 credits of course work, distributed as follows: two professional education courses, one general education elective course, and seven geography courses. GEOG 500 and 598 is required of all students, and at least half of the credits must be at the 500 level.
Comprehensive Examination, which will include at least five questions in literature and two questions on material derived from professional courses offered through the English Department. Professional Education (6-9 cr.): One of the following: EDF 500 Contemporary Educational Issues; EDF 516 School and Society; EDF 524 Foundations of Contemporary theories of Curriculum; EDF 525 History of American Education; EDF 538 The Politics of Education; EDF 583 Sociological Foundations of Education; and additional courses as approved by adviser.

Two electives as approved by the faculty adviser (6 cr.). Eng 500 and Eng 501, Seminar in American or Seminar in British Literature (6 cr.); Eng 598 Research in English (Lit. section)* (3 cr.); 4-5 English electives as approved by the faculty adviser, with no more than 3 courses on the 400 level (12-15 cr.). *To be completed in the first semester of graduate study.

One elective selected from among the following (3 cr.):
EDT 490 Instructional Computing
EDT 496 TESOL Practicum
EDT 497 Instructional Theory and Practice

Middle School Level Literacy Development

TESOL Specialization (21 cr.):
ENG 400 Linguistic Analysis
ENG 496 TESOL Methods
ENG 497 Second Language Acquisition
ENG 512 Modern Syntax
ENG 513 Modern Phonology
ENG 515 An Introduction to Sociolinguistics

One course from:
ENG 498 TESOL Practicum
ENG 431 The History of the English Language
ENG 533 Second Language Composition
ENG 535 Second Language Testing

Research (3 cr.):
ENG 598 Research in English (TESOL section)

Professional Education (6 cr.):
EDF 500 Contemporary Educational Issues
EDF 516 School and Society
EDF 524 Foundations of Contemporary Theories of Curriculum
EDF 525 History of American Education
EDF 538 The Politics of Education
EDF 583 Sociological Foundations of Education

One elective selected from among the following (3 cr.):
EDT 490 Instructional Computing
ED 511 Principles of Curriculum Development
EDF 516 School and Society
EDF 522 Comparative Education
EDF 530 Multicultural Education
EDF 583 Sociological Foundations of Education
RDG 591 Developmental Reading in Primary Grades
RDG 593 Developmental Reading in Secondary Schools
SPED 506 Foundations of Language for the Exceptional Child
EDF 521 History of Educational Ideas
EDF 525 History of American Education
EDF 538 The Politics of Education
EDF 556 Instructional Theory and Practice

TESOL Practicum (course renumbering): Delete ENG 431 from list.

-One elective (3 cr.): Delete EDT 490 from list.
All planned programs and course sequences must be approved by a TESOL adviser prior to registration.

**Plan A** students take English 599 Thesis plus one general elective. **Plan B** students take two general electives. General electives are graduate course offerings as approved by the student's adviser from Anthropology, English or another Modern Language, Geography, History, Humanities, Political Science or other relevant fields.

It is expected that a degree candidate will have control of the English language beyond mere communicative adequacy. It shall be the joint decision of the TESOL faculty whether a degree candidate's control of spoken and/or written English is appropriate to the profession. The faculty will recommend various remedies for any candidate deemed deficient.

**MASTER OF ARTS IN ENGLISH**

(30 cr.)

**Plan A (Thesis)**

English electives as approved by the faculty adviser (18 cr.)

ENG 500 and 501 Seminar in American and Seminar in British Literature (6)

ENG 598 Research in English* (3)

ENG 599 Thesis (3)

**Plan B (Comprehensive Examination)**

English electives as approved by the faculty adviser (21)

ENG 500 and 501 Seminar in American and Seminar in British Literature (6)

ENG 598 Research in English (literature section)* (3)

**MASTER OF SCIENCE IN ENGLISH**

(Generally for elementary and secondary school teachers) (36 cr.)

All students must take the Comprehensive Examination, which will include at least five questions in literature and two questions on material derived from professional courses offered through the English Department.

Professional Education (6–9 cr.):

One of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDF 500</td>
<td>Contemporary Educational Issues</td>
</tr>
<tr>
<td>EDF 516</td>
<td>School and Society</td>
</tr>
<tr>
<td>EDF 524</td>
<td>Foundations of Contemporary Theories of Curriculum</td>
</tr>
<tr>
<td>EDF 525</td>
<td>History of American Education</td>
</tr>
<tr>
<td>EDF 538</td>
<td>The Politics of Education</td>
</tr>
</tbody>
</table>

EDF 583 Sociological Foundations of Education and Additional course(s) as approved by adviser

Professional Course work, English Department (6 cr.):

Two electives, as approved by the faculty adviser

English Major (18–21 cr.):

English electives as approved by the faculty adviser

ENG 500 or ENG 501, Seminar in American or Seminar in British Literature

Research (3 cr.):

ENG 598 Research in English (Literature section)*

To be completed during the first semester of graduate study.

**GEOGRAPHY**

**Faculty**

John Harmon (Chair, DiLoreto 208), Richard Benfield, Peter Kwaku Kyem, Timothy Rickard, Xiaoping Shen, James Snaden, Brian Sommers, Philip Van Beynen (Dept. phone: 860/832-2785)

**Department Overview**

Central Connecticut State University has the oldest and largest graduate program in Geography in the state of Connecticut. The graduate program was initiated in 1962 with a Master of Science in Social Science for in-service teachers who desired to complete the requirements for their permanent teaching certificates. However, the program's emphasis has changed since state approval was granted in 1976 to offer a Master of Science in Geography. Since that time, students have used the latter degree in the pursuit of a variety of career goals.

Geography is the science of location. The geography faculty teaches students how to use effectively maps and air photos, gather information about places, and make computer analyses. Students use this knowledge to learn about how people use the land in different places, and what impacts humans.

The Department of Geography has fully equipped cartography, air photo interpretation and microcomputer laboratories available for student use. The microcomputer lab includes a network of IBM PC-compatible computers, to include an extensive software collection along with digitizers and plotters for automated cartography, computer graphics and geographic information systems. CCSU has a map depository for the Defense Mapping Agency and the U.S. Geological Survey, with close to 30,000 sheets in our collection. The department also receives planning reports, maps and documents from cities, towns and regions throughout the Northeast.

In addition the Department of Geography provides internships and part-time employment for students in a variety of town, regional, state and private planning agencies and offers consulting services, workshops and short courses as part of its outreach program.

**Programs**

**GOALS AND OBJECTIVES**

The M.S. in Social Science with a concentration in geography continues to meet the needs of Connecticut's teachers.

The M.S. in Geography has been used as a springboard by those interested in further graduate study. Several graduates have gone on to Ph.D. programs at major universities. However, most graduate students are interested in using the M.S. in Geography as a terminal degree which will prepare them for careers in several technical areas.

**ADMISSIONS STANDARDS**

The M.S. degree programs are available to all individuals who meet the admissions requirements. The Graduate Record Examination is not an admission requirement. An undergraduate major or minor in geography is desirable but not required of applicants. However, those with deficient academic preparation may be asked to complete up to four courses of remedial work at the undergraduate level. Details are available from the Department of Geography.

**PROGRAM OF STUDY**

Students enrolled in the graduate program must comply with all requirements in the current graduate catalog.

**M.S. in Social Science with a Concentration in Geography**. This program requires 30 credits of course work, distributed as follows: two professional education courses, one general education elective course, and seven geography courses. GEOG 500 and 598 is required of all students, and at least half of the credits must be at the 500 level.
M.S. in Geography. Students pursuing this degree may select Plan A, which requires 30 credits, including a thesis. The 30 cr. are distributed as follows: 12 credits of core courses, including GEOG 500, 514 or 516 or 518, 530 or 542, 598; 9–12 credits of geography electives selected in consultation with an adviser; and 3–6 credits selected from other disciplines in consultation with an adviser. Thesis guidelines are available from the appropriate dean’s office. Some students select Plan C, in which a special project is completed instead of a thesis. The 30 cr. required are the same as in Plan A, except that GEOG 595 is substituted for GEOG 599.

Program Specializations — Students enrolled in the M.S. in Geography program may specialize in any of the following areas:
- urban and regional planning
- environmental protection
- travel and tourism
- computer mapping or geographic information systems

Each graduate student’s planned program of graduate study is custom-designed to provide the best possible preparation for the career selected and can include practical work experience to apply classroom theory.

CERTIFICATION
Graduate study in geography does not lead to teacher certification. Those who wish to teach geography should pursue the certification program in secondary social studies.

ADVICEMENT
Contact the Chair in DiLoreto 208 (860/832-2785), or write to the:
Department of Geography
Central Connecticut State University
New Britain, CT 06050 U.S.A.

HISTORY

Faculty
Heather Munro Prescott (Chair, DiLoreto 208), Jay Bergman, Stanislaus Blejwas, Gloria Emacwali, Victor Geraci, Katherine Hermes, Elias Kapananopoulos, Norton Mezvinsky, Alfred Richard, Glenn Sunshine, Matthew Warshauer, Louise Williams, Robert Wolff (Dept. phone: 832-2800)

Department Overview
The Department of History provides an M.A. degree in History, and an M.S. program for certified teachers and for liberal arts graduates who have completed teacher certification requirements. The Department, in cooperation with other departments in the social science areas, offers various programs for teachers, and presents courses for the general education of graduate students in other fields of specialization.

Admission to the degree programs in the Department requires a prerequisite of an undergraduate history major or its equivalent, generally interpreted as 30 credits in history and closely related fields. A graduate student lacking this prerequisite will be required to take courses for undergraduate credit to make up any deficiency.

Each student taking a major or a concentration in History will be assigned to a graduate adviser who will assist the student in designing the planned program of graduate study. All graduate student planned programs in History require the approval of the adviser and department chair.

Programs
MASSAGE OF ARTS IN HISTORY
(30 s.h., including a thesis)
Three 500-level History courses (9 cr.)
Three additional History courses (excluding HIST 495 unless this or a similar course was taken at the undergraduate level) (9 cr.)
HIST 599, Thesis (6 cr.)
Electives in related fields (6 cr.)

No more than three courses (9 credits) may be taken at the 400-level in this program. All masters theses require an adviser and second reader.

Candidates will be required to demonstrate the ability to translate material in their field in one foreign language, except in those cases where, upon the request of a candidate in U.S. history, a substitute skill or subject is approved by the Department. Candidates must make application in the Department to take the language examination. Deadlines are October 10, for the fall examination; March 10, for the spring.

The fields of concentration available in the M.A. Program are U.S. History, European History, and Comparative World History.

MASTER OF SCIENCE IN HISTORY
(Certified Secondary Teachers)
Students in this specialization are required to follow Plan C which requires 36 credits including HIST 593 and 598. The fields of concentration are U.S. History, European History, and Comparative World History.

General Education (3 cr.):
Elective other than History as approved by the adviser

Professional Education (6 cr.):
One of the following:
EDF 500 Contemporary Educational Issues
EDF 516 School and Society
EDF 524 Foundations of Contemporary Theories of Curriculum
EDF 525 History of American Education
EDF 538 The Politics of Education
EDF 583 Sociological Foundations of Education

and
Additional course as approved by adviser

History courses or seminars (21 cr.):
Department offerings as approved by the faculty adviser of which 12 cr. must be in one of the fields listed above including 3 cr. in the courses on the 500-level

HIST 593 Directed Study in History
HIST 598 Research in History

No more than three courses (9 credits) may be taken at the 400-level in this program. All HIST 598 projects require an adviser and second reader.

MASTER OF SCIENCE IN HISTORY
(Certified Elementary Teachers)
Students in this specialization are required to follow Plan C which requires 36 credits including HIST 593 and 598.

General Education (3 cr.):
Elective other than History, as approved by the faculty adviser

Professional Education (6 cr.):
One of the following:
EDF 500 Contemporary Educational Issues
EDF 516 School and Society
EDF 524 Foundations of Contemporary Theories of Curriculum
EDF 525 History of American Education
EDF 538 The Politics of Education
EDF 583  Sociological Foundations of Education

and

Additional course as approved by adviser

History courses (21 cr.):
In undergraduate and graduate work, combined, the candidate must have completed at least 33 cr. in History, of which at least 21 cr. are for graduate credit; undergraduate credit must include 6 cr. in European or World History, and 6 cr. in United States History. Of the graduate cr. at least 6 cr. must be in a one-year sequence of courses.

HIST 593  Directed Study in History
HIST 598  Research in History

No more than three courses (9 credits) may be taken at the 400-level. All 598 projects require an adviser and second reader.

CERTIFICATION

The Department of History in cooperation with the School of Education and Professional Studies offers courses of study leading to secondary teacher certification in History and in History and Social Studies. Information about current Connecticut teacher certification requirements may be obtained from the Office of the Dean, School of Education and Professional Studies.

POST-MASTER’S STUDY

Individually designed 30-credit programs of post-master’s study are available for qualified students.

MATHEMATICAL SCIENCES

Faculty
Timothy Craine (Chair, Marcus White 110), Stephen Bacon, Nelson Castaneda, Yuanqian Chen, Penelope Cee, Robert Crouse, Katherine Gavin, Philip Halloran, Chun Jin, Robin Kalder, Dix Kelly, Daniel Larose, Stephen Lewis, Jeffrey McGowan, Daniel S. Miller, George B. Mill-r, Narasimhachari Padma, Angela Shaw, David Smith, Ann Marie Spinelli, Victor Sung, Charles Waiveris (Dept. phone: 832-2835)

Department Overview

The Department of Mathematical Sciences offers programs leading to the Master of Science and Master of Arts degrees. Master of Arts candidates may specialize in Mathematics, Computer Science, Statistics, Actuarial Mathematics or Operations Research. Master of Science candidates may pursue a program for certified elementary or secondary school teachers. Students may also enroll in a program leading to certification to teach mathematics at the secondary level.

Programs

MASTER OF SCIENCE IN MATHEMATICS FOR CERTIFIED ELEMENTARY SCHOOL TEACHERS
(Plans A, B and C are offered as options)

General Education (3–9 cr.):
Elective(s) as approved by faculty adviser

Professional Education (6–9 cr.):
One of the following:
EDF 500  Contemporary Educational Issues
EDF 516  School and Society
EDF 524  Foundations of Contemporary Theories of Curriculum
EDF 525  History of American Education
EDF 538  The Politics of Education
EDF 583  Sociological Foundations of Education

and

Additional course(s) as approved by adviser

Mathematics Specialization requirements as Plan B, except that in place of the Comprehensive Examination, the student must complete an additional 3 cr. course, MATH 590, Special Project in Mathematics.

MASTER OF SCIENCE IN MATHEMATICS FOR CERTIFIED SECONDARY SCHOOL TEACHERS
(Plans A, B and C are offered as options)

General Education (0–9 cr.):
Elective(s) as approved by faculty adviser*

Professional Education (6–9 cr.):
One of the following:
EDF 500  Contemporary Educational Issues
EDF 516  School and Society
EDF 524  Foundations of Contemporary Theories of Curriculum
EDF 525  History of American Education
EDF 538  The Politics of Education
EDF 583  Sociological Foundations of Education

and

Additional course(s) as approved by adviser

Mathematics Major (15 cr. including at least 6 cr. of 500-level courses):
Department offerings chosen from four of the following five groups:
Group I (Algebra): MATH 469, 473, 515, 516
Group II (Geometry and Topology): MATH 483, 525
Group III (Analysis): MATH 463, 486, 491, 495, 520
Group IV (Applied and Computer):
MATH 471, 472, 477, 479 and
Group V (General): MATH 404, 421, 431, 468, 540, 543, 580 and STAT 453, 475
Research (3-6 cr.):
MATH 598 and/or Thesis, MATH 599

Plan A (30 cr.) includes Research in Mathematics, MATH 598 (3 cr.) and Thesis, MATH 599 (3 cr.); or Thesis, MATH 599 (6 cr.) and 12–15 cr. in courses in the Mathematics Specialization.

Plan B (30 cr.) includes Research in Mathematics, MATH 598 (3 cr.); 12–18 cr. in courses in the Mathematics Specialization and a Comprehensive Examination.

Plan C (33 cr.) has the same General Education, Professional Education and Mathematics Specialization requirements as Plan B, except that in place of the Comprehensive Examination, the student must complete an additional 3 cr. course, MATH 590, Special Project in Mathematics.
Revise M.S. in Geography, to;
Students may select Plan A or C. Plan A (30 cr.) includes:
- a thesis (GEOG 599)
- core courses (12 cr.) including GEOG 500; GEOG 514 or 516 or 518; GEOG 530 or 542; GEOG 598
- Geography electives (9-12 cr.) selected in consultation with an advisor
-Electives from other disciplines (3-6 cr.) selected in consultation with an advisor
Thesis guidelines are available from the appropriate Dean's office.
Plan C (30 cr.) substitutes a special project (GEOG 595) for the thesis (GEOG 599).
No more than 9 credits may be taken at the 400 level.

Program Specializations — Students enrolled in the M.S. in Geography program may specialize in any of the following areas:
- urban and regional planning
- environmental protection
- travel and tourism
- computer mapping or geographic information systems
Each graduate student's planned program of graduate study is custom-designed to provide the best possible preparation for the career selected, and can include practical work experience to apply classroom theory.

Admission to the degree programs in the Department requires the prerequisite of an undergraduate history major or its equivalent, generally interpreted as 30 credits in history and closely related fields. A graduate student lacking this prerequisite will be required to take courses for undergraduate credit to make up any deficiency.

Each student taking a major or a concentration in History will be assigned to a graduate adviser who will assist the student in designing the planned program of graduate study. All graduate student planned programs in History require the approval of the adviser and department chair.

Programs
MASTER OF ARTS IN HISTORY
(30 s.h., including a thesis)
Three 500-level History courses (9 cr.)
Three additional History courses (including HIST 501) (9 cr.)
A similar major or a concentration in History and department chair.

Add M.A. in Public History;
Admission criteria: Acceptance into the CCSU Graduate Program and approval of the History department. Plan C (30 s.h., including an internship and project):
- Five Public History courses (15 cr.) including: HIST 510 (Seminar in Public History) (3 cr.); HIST 511 (Topics in Public History, may be taken twice with different topics for a total of 6 cr.) (3 cr.); HIST 521 (Public History Internship) (3 cr.); HIST 595 (Research Project in Public History) (3 cr.)
- Two 500-level History courses (6 cr.), from among the following: HIST 560; HIST 564; HIST 565; HIST 567; HIST 568; HIST 570.
- Two Social Sciences courses (6 cr.), from among the following: GEOG 433; GEOG 439; GEOG 440; GEOG 441; GEOG 445; GEOG 450; GEOG 455; ANTH 450; ANTH 451; ECON 420: ECON 455; PS 432; PS 492; PS 561.

Revise M.A. in History, to;
30 s.h., including a thesis. Three 500-level History courses (9 cr.).
Three additional History courses (including HIST 501) (9 cr.). HIST 599, Thesis (6 cr.). Electives in related fields (6 cr.). Candidates will be required to demonstrate the ability to translate material in their field in one foreign language, except in those cases where, upon the request of a candidate in U.S. history, a substitute skill or subject is approved by the Department. Candidates must make application to the Department before taking the language examination. Deadlines are October 10 for the fall examination: March 10, for the spring. The fields of concentration available in the M.A. Program are the United States to 1876, the United States since 1860, Modern Europe, and Public History. No more than 9 credits can be taken at the 400 level.

HISTORY

Admission criteria: Acceptance into the CCSU Graduate Program and approval of the History department. Plan C (30 s.h., including an internship and project):
- Five Public History courses (15 cr.) including: HIST 510 (Seminar in Public History) (3 cr.); HIST 511 (Topics in Public History, may be taken twice with different topics for a total of 6 cr.) (3 cr.); HIST 521 (Public History Internship) (3 cr.); HIST 595 (Research Project in Public History) (3 cr.)
- Two 500-level History courses (6 cr.), from among the following: HIST 560; HIST 564; HIST 565; HIST 567; HIST 568; HIST 570.
- Two Social Sciences courses (6 cr.), from among the following: GEOG 433; GEOG 439; GEOG 440; GEOG 441; GEOG 445; GEOG 450; GEOG 455; ANTH 450; ANTH 451; ECON 420: ECON 455; PS 432; PS 492; PS 561.

SCHOOL OF ARTS AND SCIENCES

concentration are U.S. History, European History, and Comparative World History.

General Education (3 cr.):
Elective other than History as approved by the adviser

Professional Education (6 cr.):
One of the following:
EDF 500 Contemporary Educational Issues
EDF 516 School and Society
EDF 524 Foundations of Contemporary Theories of Curriculum
EDF 525 History of American Education
EDF 538 The Politics of Education
EDF 583 Sociological Foundations of Education

and
Additional course as approved by adviser

History courses or seminars (21 cr.):
Department offerings as approved by the faculty adviser of which 12 cr. must be in one of the fields listed above including 6 cr. in courses on the 500-level

HIST 593 Directed Study in History
HIST 598 Research in History

No more than three courses (9 credits) may be taken at the 400-level in this program. All HIST 598 projects require an adviser and second reader.

MASTER OF SCIENCE IN HISTORY
(Certified Elementary Teachers)
Students in this specialization are required to follow Plan C which requires 36 credits including HIST 593 and HIST 598.

General Education (3 cr.):
Elective, other than History, as approved by the faculty adviser

Professional Education (6 cr.):
One of the following:
EDF 500 Contemporary Educational Issues
EDF 516 School and Society
EDF 524 Foundations of Contemporary Theories of Curriculum
EDF 525 History of American Education
EDF 538 The Politics of Education
SCHOOL OF ARTS AND SCIENCES

EDF 583 Sociological Foundations of Education

and Additional course as approved by advisee

History courses (21 cr.):
In undergraduate and graduate work, combined, the candidate must have completed at least 33 cr. in History, of which at least 21 cr. are for graduate credit; undergraduate credit must include 6 cr. in European or World History, and 6 cr. in United States History. Of the graduate cr. at least 6 cr. must be in a one-year sequence of courses.

HIST 593 Directed Study in History
HIST 598 Research in History

No more than three courses (9 credits) be taken at the 400-level. All 598 projects require an adviser and second reader.

CERTIFICATION
The Department of History in cooperation with the School of Education and Professional Studies offers courses of study leading to secondary teacher certification in History and in History and Social Studies. Information about current Connecticut teacher certification requirements may be obtained from the Office of the Dean of Education and Professional Studies.

POST-MASTER’S STUDY
Individually designed 30-credit programs are available for qualified students.

MATHEMATICAL SCIENCES

Faculty
Timothy Craine (Chair), Marcus White, Stephen Bacon, Nelson Castaneda, Yi Chen, Penelope Coe, Robert Crouse, Katherine Gavin, Philip Halloran, Chi-Rong Kalder, Dix Kelly, Daniel Larc, Stephen Lewis, Jeffrey McGowan, Di-Anna Miller, George B. Miller, Narasimha Padma, Angela Shaw, David Smith, Marie Spinelli, Victor Sung, Charles (Dept. phone: 832-2835

M.A. Program in Mathematics, to;
Master of Arts in Mathematics This program is designed for those students who wish to expand their knowledge of mathematics beyond the level of undergraduate study, either as preparation for knowledge of mathematics for teaching or to combine a knowledge of higher mathematics with related mathematical sciences and computer science for a career in industry. Applicants to the Master of Arts program are expected to have completed the equivalent of MATH 122, 221, 222, 228, and 366 in addition to any necessary prerequisites for course required in the planned program of graduate study. MA Program in Mathematics (30 cr.). Requirements (18 cr.):
MATH 515 Abstract Algebra I; MATH 516 Abstract Algebra II; MATH 519 Principles of Real Analysis I; MATH 520 Principles of Analysis II; MATH 523 General Topology; MATH 526 Complex Variables. Electives as approved by faculty advisor (12-21 cr.). No more than 9 of the above credits may be earned in 400-level courses. Comprehensive Examination.

M.A. Program in Mathematics with Specialization in Computer Science (30 cr.) The student will choose a specialization in Computer Programming Techniques and Numerical Methods or Computer Systems and Software Engineering. The student and faculty advisor will work out an appropriate plan of study within the framework of the following requirements. Requirements: Basic Mathematics Courses (12 cr.): Three (3) of MATH 515, 516, 519, and 520 and one (1) of MATH 523, 526, and STAT 551. Electives appropriate to the area of specialization as approved by the faculty advisor (18 cr.). No more than 9 of the above credits may be earned in 400-level courses. Comprehensive Examination.

M.A. Program in Mathematics with Specialization in Statistics, Actuarial Science or Operations Research (Plans A, B, and C are offered as options). The student will choose a specialization in one of the following areas of mathematical science: Statistics, Actuarial Science, or Operations Research. The student and faculty advisor will then work out an appropriate plan of study within the framework of the following requirements. Requirements One of the following two-semester sequences (6-8 cr.):
**SCHOOL OF ARTS AND SCIENCES**

- Admission to the degree programs in the Department requires the prerequisite of an undergraduate history major or its equivalent, generally interpreted as 30 credits in history and closely related fields. A graduate student lacking this prerequisite will be required to take courses for undergraduate credit to make up any deficiency.

  Each student taking a major or a concentration in History will be assigned to a graduate adviser who will assist the student in designing the planned program of graduate study. All graduate student planned programs in History require the approval of the adviser and department chair.

**Program Specializations**

- Students enrolled in the M.S. in Geography program may specialize in any of the following areas:
  - urban and regional planning
  - environmental protection
  - travel and tourism
  - computer mapping or geographic information systems

  Each graduate student's planned program of graduate study is custom-designed to provide the best possible preparation for the career selected, and can include practical work experience to apply classroom theory.

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**HISTORY**

Add M.A. in Public History:

- Admission criteria: Acceptance into the CCSU Graduate Program and approval of the History department. Plan C (30 s.h., including an internship and project):
  - Five History courses (15 cr.) including: HIST 510 (Seminar in Public History) (3 cr.), HIST 511 (Topics in Public History), may be taken twice with different topics for a total of 6 cr. (3 cr.), HIST 521 (Public History Internship) (3 cr.), HIST 595 (Research Project in Public History) (3 cr.)
  - Two 500-level History courses (6 cr.), from among the following: HIST 560; HIST 564; HIST 565; HIST 567; HIST 568; HIST 570.
  - Two Social Sciences courses (6 cr.), from among the following: GEOG 433; GEOG 439; GEOG 440; GEOG 441; GEOG 445; GEOG 450; GEOG 455; ANTH 450; ANTH 451; ECON 420; ECON 455; PS 432; PS 492; PS 561.

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**M.A. in Public History**

- Three 500-level History courses (9 cr.)
  - Electives from other disciplines (3-6 cr.) selected in consultation with an advisor
  - Electives from other disciplines (3-6 cr.) selected in consultation with an advisor
  - Thesis guidelines are available from the appropriate Dean's office.

No more than 9 credits may be taken at the 400 level.

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**M.A. in History**

- 30 s.h., including a thesis. Three 500-level History courses (9cr.)
  - Three additional History courses (including HIST 501) (9cr.), HIST 599. Thesis (6cr.). Electives in related fields (6cr.). Candidates will be required to demonstrate the ability to translate material in their field in one foreign language, except in those cases where, upon the request of a candidate in U.S. history, a substitute skill or subject is approved by the Department. Candidates must make application in the Department to take the language examination. Deadlines are October 10, for the fall examination; March 10, for the spring. The fields of concentration available in the M.A. Program are the United States to 1876, the United States since 1860, Modern Europe, and Public History. No more than 9 credits can be taken at the 400 level.

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**Professional Education (6 cr.):**

- One of the following:
  - EDF 500 Contemporary Educational Issues
  - EDF 516 School and Society
  - EDF 524 Foundations of Contemporary Theories of Curriculum
  - EDF 525 History of American Education
  - EDF 538 The Politics of Education
  - EDF 583 Sociological Foundations of Education

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**Additional course as approved by adviser**

- History courses or seminars (21 cr.): Department offerings as approved by the faculty adviser of which 12 cr. must be in one of the fields listed above including 6 cr. in courses on the 500-level

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**M.S. in Geography**

- 59 credits, including courses in the United States and Europe, and Public History. No more than 9 credits can be taken at the 400 level.

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**Certified Elementary Teachers**

- Students in this specialization are required to follow Plan C which requires 36 credits including HIST 593 and HIST 598.

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**General Education (3 cr.):**

- Elective other than History as approved by the faculty adviser
Master of Science in Mathematics for Certified Elementary Teachers (Plans A, B, and C are offered as options). The program consists of 30 credits (Plans A and B) or 33 credits (Plan C). No more than 9 credits may be earned in 400-level courses. General Education (0-9 cr.): Elective(s) as approved by faculty advisor. Professional Education (3-9 cr.) One of the following: EDF 500 Contemporary Educational Issues EDF 516 School and Society EDF 524 Foundations of Contemporary Theories of Curriculum EDF 525 History of American Education EDF 538 The Politics of Education EDF 583 Sociological Foundations of Education, and additional course(s) (0-6 cr.) as approved by advisor. Mathematics Specialization (9-18 cr.): department offerings from the following: MATH 404, 441, 442, 446, 449, 505, 531, 532, 534, 580. Capstone: Plan A (30 cr.) includes 21 credits in courses from the above and Applied Statistical Inference, STAT 453, Research in Mathematics, MATH 598 (cr.), and Thesis, MATH 599 (3 cr.). Plan B (30 cr.) includes 24 credits in courses from the above and Applied Statistical Inference, STAT 453, Research in Mathematics, MATH 598 (3 cr.), and a Comprehensive Examination. Plan C (33 cr.) has the same General Education, Professional Education, and Mathematics Specialization requirements as Plan B, except that in place of the Comprehensive Examination, the student must complete an additional 3 cr. course, MATH 590, Special Project in Mathematics.

Three (3) of MATH 515, 516, 519, and 520 and one (1) of MATH 523, 526, and STAT 551. Electives appropriate to the area of specialization as approved by the faculty advisor (18 cr.). No more than 9 of the above credits may be earned in 400-level courses. Comprehensive Examination.

M.A. Program in Mathematics with Specialization in Statistics, Actuarial Science or Operations Research (Plans A, B, and C are offered as options). The student will choose a specialization in one of the following areas of mathematical science: Statistics, Actuarial Science, or Operations Research. The student and faculty advisor will then work out an appropriate plan of study within the framework of the following requirements. Requirements One of the following two-semester sequences (6-8 cr.):
SCHOOL OF ARTS AND SCIENCES

concentration are U.S. History, European History, and Comparative World History.

General Education (3 cr.):
Elective other than History as approved by the adviser

Professional Education (6 cr.):
One of the following:
EDF 500 Contemporary Educational Issues
EDF 516 School and Society
EDF 524 Foundations of Contemporary Theories of Curriculum
EDF 525 History of American Education
EDF 538 The Politics of Education
EDF 583 Sociological Foundations of Education

and Additional course as approved by adviser

History courses or seminars (21 cr.):
Department offerings as approved by the faculty adviser of which 12 cr. must be in one of the fields listed above including 6 cr. in courses on the 500-level

HIST 593 Directed Study in History
HIST 598 Research in History

No more than three courses (9 credits) may be taken at the 400-level in this program.
All HIST 598 projects require an adviser and second reader.

MASTER OF SCIENCE IN HISTORY
(Certified Elementary Teachers)
Students in this specialization are required to follow Plan C which requires 36 credits including HIST 593 and HIST 598.

General Education (3 cr.):
Elective other than History, as approved by the faculty adviser

Professional Education (6 cr.):
One of the following:
EDF 500 Contemporary Educational Issues
EDF 516 School and Society
EDF 524 Foundations of Contemporary Theories of Curriculum
EDF 525 History of American Education
EDF 538 The Politics of Education
Revised M.S. in Mathematics for Certified Secondary Teachers, to:

Master of Science in Mathematics Education, Elementary Teachers (Plans A, B offered as options). The program consists of 30 credits (Plans A and B) or 33 credits (Plan C). No more than 9 credits may be earned in 400-level courses. The Mathematics Major (15-21 cr.) consists of three groups of courses: (1) the following: EDF 500 Contemporary Issues, EDF 516 School and Society, Foundations of Contemporary Curriculum, EDF 525 History of American Education, EDF 538 The Politics of Education, EDF 583 Sociological Foundations of Education, and additional course(s) (0-6 cr.) as approved by advisor. Mathematics Major offers department offerings from the following groups of courses (18 cr.): 

GROUP I (Algebra): MATH 469, 473, 515, 516; Group II (Geometry and Topology): MATH 523, 525; Group III (Analysis): MATH 463, 491, 519, 520, 526; Group IV (Applied and Computer): MATH 471, 472, 477, 479, and CS 407, 410, 460, 462, 463, 464, 465, 473, 481, 485, 490, 498; Group V (General): MATH 404, 421, 468, 534, 540, 543, 580 and STAT 575. Capstone: Plan A (30 cr.) includes 21 credits in courses from the above and Applied Statistical Inference, STAT 453, Research in Mathematics, MATH 598 (cr.), and Thesis, MATH 599 (3 cr.). Plan B (30 cr.) includes 24 credits in courses from the above and Applied Statistical Inference, STAT 453, Research in Mathematics, MATH 598 (cr.), and a Comprehensive Examination. Plan C (33 cr.) has the same General Education, Professional Education, and Mathematics Specialization requirements as Plan B, except that in place of the Comprehensive Examination, the student must complete an additional 3 cr. course, MATH 590, Special Project in Mathematics. Note: Once a graduate student has elected one of the three plans (A, B, or C), any change to one of the other two plans must be made prior to the completion of 21 graduate cr. and requires the approval of the student’s advisor and the appropriate dean.

M.S. Program in Mathematics, Statistics, Actuarial Science or Operations Research (plans A, B, and C are offered as options). The student will choose a specialization in one of the following areas of mathematical science: Statistics, Actuarial Science, or Operations Research. The student and faculty advisor will then work out an appropriate plan of study within the framework of the following requirements. Requirements One of the following two-semester sequences (6-8 cr.):
Mathematics Specialization requirements as Plan B, except that in place of the Comprehensive Examination, the student must complete an additional 3 credit course, MATH 590, Special Project in Mathematics.

*The CS courses in Group IV may be applied to the General Education area.

Note: Once a graduate student has elected one of the three plans (A, B or C), any change to one of the other two plans must be made prior to the completion of 21 graduate cr. and requires the approval of the student’s adviser and the appropriate dean.

MASTER OF ARTS IN MATHEMATICS

This program is designed for those students who wish to expand their knowledge of mathematics beyond the level of undergraduate study, either as preparation for advanced graduate study or to increase their knowledge of mathematics for teaching, or to combine a knowledge of higher mathematics with related mathematical sciences and computer science for a career in industry.

Applicants to the Master of Arts program are expected to have completed the equivalent of MATH 122, 221, 222, 228 and 366 in addition to any necessary prerequisites for courses required in the planned program of graduate study.

M.A. Program in Mathematics (30 cr.)
Requirements (18 cr.):
 MATH 483 General Topology**
 MATH 486 Complex Variables**
 MATH 515 Abstract Algebra I
 MATH 516 Abstract Algebra II
 MATH 495 Principles of Real Analysis II
 MATH 520 Principles of Analysis II

Electives as approved by faculty adviser (12-21 cr.)

Comprehensive Examination

Plan A: Thesis, MATH 599 (6 cr.) with 27 cr. of course work
Plan B: Comprehensive Exam with 30 cr. of course work
Plan C: Special Project in Mathematics, MATH 590 (3 cr.) with 30 cr. of course work

Electives appropriate to the area of specialization (10-15 cr.)

Requirements:
Basic Mathematics Courses (12 cr.) —
 Three (3) of MATH 495, 515, 516 and 520; and one (1) of MATH 483**, 486 and STAT 451.

Electives appropriate to the area of specialization as approved by the faculty adviser (18 cr.)

Comprehensive Examination

** A student may be exempted from MATH 483 and/or MATH 486 and/or MATH 495 if he/she has taken an equivalent course as an undergraduate. In such cases, the required course will be replaced by an appropriate department offering.

M.A. Program in Mathematics with Specialization in Statistics, Actuarial Science or Operations Research (Plans A, B and C are offered as options.)

The student will choose a specialization in one of the following areas of mathematical science: Statistics, Actuarial Science or Operations Research. The student and faculty adviser will then work out an appropriate plan of study within the framework of the following requirements.

Requirements
One of the following two-semester sequences (6-8 cr.):
Statistics Specialization: STAT 467 and 475
Actuarial Specialization: ACTL 465 and 466
Operations Research Specialization: STAT 451 and MATH 470

Three courses chosen from the courses listed above or the following (9 cr.): MATH 477, 495, 520, 473

Electives appropriate to the area of specialization (10-15 cr.)

Graduate Certification in French, German, Italian and Spanish

Students seeking certification to teach foreign language must:
• apply to the Graduate Office as a non-degree graduate student seeking certification. Application, along with transcripts, is forwarded to the Modern Languages Department for review. Determination is made for Plan of Study;
• have an interview with the departmental committee to assess oral competency and gain acceptance into Professional Program: recommendations are made by committee to the School of Education and Professional Studies;
• complete the equivalent of an undergraduate major (36 credits), professional core
requirements and student teaching block. Students with insufficient undergraduate preparation must make up deficiencies by taking at least two courses at the graduate level. These courses do not count toward a graduate degree.

Programs

MASTER OF SCIENCE IN SPANISH FOR CERTIFIED TEACHERS

Elementary or secondary school teachers electing a specialization in Spanish are expected to have a baccalaureate degree, with at least 24 credits of the language in college or equivalent preparation, before being admitted to this program.

Before admission to candidacy for the degree, students must contact the Department for evaluation of their competence in listening, speaking, reading, and writing in Spanish.

30 credits (Plan A or B), as follows:

Professional Education (6—9 credits):
One of the following:
EDF 500 Contemporary Educational Issues 3
EDF 516 School and Society 3
EDF 524 Foundations of Contemporary Theories of Curriculum 3
EDF 525 History of American Education 3
EDF 538 The Politics of Education 3
EDF 583 Sociological Foundations of Education 3
and
Additional course(s) as approved by adviser

Note: A maximum of 9 credits at the 400-level is allowed.

MASTER OF ARTS IN MODERN LANGUAGE

Applicants for this degree program should have a baccalaureate degree with a minimum of 24 cr. preparation in each language in which graduate work will be undertaken. Only French, Italian or Spanish may be chosen as the language of specialization. With approval of the adviser, candidates with sufficient background in a second language may be permitted to include up to two appropriate graduate courses in this language in their program. Certified teachers whose oral and proficiency skills are of sufficient caliber may include up to 6 cr. in professional education in their program.

Before being admitted to candidacy, candidates must contact the Department for evaluation of their graduate-level competence in speaking, listening comprehension, reading and writing in each language to be included in the program.

Note: A maximum of 9 credits at the 400-level is allowed.

Specialization in French

30 credits (Plan A or Plan B), as follows:

Core (6 credits):
FR 460 Advanced Grammar and Composition 3
ML 598 Research in Modern Language 3

Directed Electives (15 credits):
Literature — Choose 12 cr. from FR 471, 510, 561, 571, 581
Culture and Civilization — FR 472 or 588

Electives (6—9 credits):
Selected in consultation with adviser

Capstone (0—3 credits):
FR 599 (Plan A) or Comprehensive Examination (Plan B)

Specialization in Italian

(pending DHE approval)
30 credits (Plan A or Plan B), as follows:

Core (6 credits):
ITAL 460 Advanced Written Italian
ML 598 Research in Modern Languages

Directed Electives (15 credits):
Literature — Choose 12 cr. from ITAL 470, 476, 561 (up to 3 times), 571
Culture and Civilization — ITAL 488 or 588

Electives (6—9 credits):
Selected in consultation with adviser

Capstone (0—3 credits):
ITAL 599 (Plan A) or Comprehensive Examination (Plan B)

MUSIC

Faculty

Pamela Perry (Chair, Welte 212), Daniel D'Addio, Robert Glarner, Carl Knox, Linda Laurent, Helen Myers, N. Carlotta Parr, Julie Ribchinsky (Dept. phone: 832-2912)

Department Overview

The Music Department offers a variety of programs in music education for the graduate student by qualified faculty of diverse training and expertise. In addition to the faculty listed above the department has an outstanding part-time faculty of professional musicians, many from the Hartford and New Haven symphonies, who teach applied music and related subjects.

The Summer Music Institute (SMI) offers graduate courses in music education with both resident and guest faculty members. A
Mathematics Specialization requirements as Plan B, except that in place of the Comprehensive Examination, the student must complete an additional 3 credit course, MATH 590, Special Project in Mathematics.

*The CS courses in Group IV may be applied to the General Education area.

Note: Once a graduate student has elected one of the three plans (A, B or C), any change to one of the other two plans must be made prior to the completion of 21 graduate cr. and requires the approval of the student's adviser and the appropriate dean.

MASTER OF ARTS IN MATHEMATICS

This program is designed for those students who wish to expand their knowledge of mathematics beyond the level of undergraduate study, either as a preparation for graduate study or to improve their teaching.

**A student may be exempted from MATH 483 and/or MATH 486 and/or MATH 495 if he/she has taken an equivalent course as an undergraduate. In such cases, the required course will be replaced by an appropriate department offering.**

M.A. Program in Mathematics with Specialization in Statistics (30 cr.)

Requirements:
- Basic Mathematics Courses (12 cr.) — Three (3) of MATH 495, 515, 516 and 520; and one (1) of MATH 483**, 486 and STAT 451.

Electives appropriate to the area of specialization as approved by the faculty adviser (18 cr.)

Comprehensive Examination

**Note:** MATH 590, Special Project in Mathematics, may be counted toward degree program.

MODERN LANGUAGES

Faculty

Louis Auld (Chair, Davidson 212). Gloria Caliendo-Reed, Edward Force, Antonio García-Lozada, Paul Karpuk, Paloma Lapuerta, Cheng Sing Lien, Gustavo Mejía, Angéla Morales, Maria Passaro, Carmela Pesca, Marie-Claire Rohinsky, Samuel Schulman, Shizuko Tomoda, Lilián Uribe, Martha Wallach (Dept. phone: 832-2875)

Department Overview

The Modern Languages Department offers Master of Science and Master of Arts degree programs for teachers and other qualified persons wishing to pursue language and literature at the graduate level. Its offerings are designed to support the study of Spanish and to meet the needs of graduate students in related disciplines.

Applicants to the Master of Arts Program in Modern Languages should first contact the Foreign Language Office as a non-degree candidate. After obtaining admission, they will be admitted to the program as a degree-seeking candidate. Certification is granted on the basis of performance in language courses and tests. The foreign language departmental and/or professional core requirements for admission to candidacy are made by the Department of Education with the advice of Education.

- **Specialization in Hispano-North American Interactions**
- **Foreign Language Determination in Italian**

Office as a non-degree student seeking certification without transcripts, professional core requirements are made by the departmental and/or professional core
requirements and student teaching block. Students with insufficient undergraduate preparation must make up deficiencies by taking at least two courses at the graduate level. These courses do not count toward a graduate degree.

**Programs**

**MASTER OF SCIENCE IN FOR CERTIFIED TEACHERS**

Elementary or secondary school students electing to have a baccalaureate with at least 24 credits of the college or equivalent preparation being admitted to this program.

Before admission to candidacy for a degree, students must contact the Department for evaluation of competency in listening comprehension, reading, and writing in Spanish.

30 credits (Plan A or B), as follows:

- **Professional Education** (6–9 credits):
  - EDF 500 Contemporary Educational Issues 3
  - EDF 516 School and Society 3
  - EDF 524 Foundations of Contemporary Theories of Curriculum 3
  - EDF 525 History of American Education 3
  - EDF 538 The Politics of Education 3
  - EDF 583 Sociological Foundations of Education 3

- **Additional course(s) as approved by adviser**

**Directed Electives** (15 credits):

- Literature — Choose 12 credits from ITAL 470, 476, 561 (up to three times), 571 (maximum 9 credits at the 400 level is allowed).
- Culture and Civilization — ITAL 488 or 588

**MUSIC**

**Faculty**

Pamela Perry (Chair, Welte 212), Daniel D'Addio, Robert Glarner, Carl Knox, Linda Laurent, Helen Myers, N. Carlotta Parr, Julie Ribchinsky (Dept. phone: 832-2912)

**Department Overview**

The Music Department offers a variety of programs in music education for the graduate student by qualified faculty of diverse training and expertise. In addition to the faculty listed above the department has an outstanding part-time faculty of professional musicians, many from the Hartford and New Haven symphonies, who teach applied music and related subjects.

The Summer Music Institute (SMI) offers graduate courses in music education with both resident and guest faculty members. A
Sociological Foundations of History of American Issues
Contemporary Educational Foundations of Contemporary School and Society

**Program**

**MASTER OF SCIENCE IN MUSIC EDUCATION**
The M.S. in Music Education is designed to provide the certified music teacher with professional training beyond the baccalaureate degree in music history, theory, performance, and music education. Entrance examinations in musicianship and music education are required for acceptance. The student in the M.S. in Music Education program may select Plan A (33 cr. including a thesis), Plan B (30 cr. and comprehensive examinations), or Plan C (33 cr. including a culminating project).

**Requirements**

**General Education (0–6 cr.):**
Elected with adviser’s approval

**Professional Education (3–9 cr.):**
One of the following:

- EDF 500 Contemporary Educational Issues
- EDF 516 School and Society
- EDF 524 Foundations of Contemporary Theories of Curriculum
- EDF 525 History of American Education
- EDF 538 The Politics of Education
- EDF 583 Sociological Foundations of Education

and up to 6 additional credits, to be selected with adviser’s approval.

**Music (15–27 cr.):**

- MUS 470 Music Structure and Style
- MUS 504 Principles and Foundations of Music Education
- MUS 510 Current Issues in Music Education
- MUS 598 Research in Music Education

**Up to 12 cr. of adviser-approved electives in music and music education**

**Culminating Projects (0–3 cr.):**

- Plan A: MUS 599 Thesis
- Plan B: Comprehensive Exam
- Plan C: MUS 500 Project in Music or MUS 597 Recital

Note: Students enrolled in the following courses will be assessed an Applied Music Fee — $200.00 for 1/2 hour lesson (MUS 577) and $400.00 for full hour lesson (MUS 578). Contact the Department for additional information.

**CERTIFICATION IN MUSIC EDUCATION**
A student who holds a bachelor's degree but who is not certified in music education may apply for acceptance into the graduate certification program. Upon satisfactory completion of a musicianship exam and audition, the student will consult with the Music Department chair in order to establish a planned program for certification. Course work used to gain certification may not be used toward a graduate degree program. Students must meet all requirements for admission to the Professional Program in the School of Education and Professional Studies. For information on admission to the Professional Program, see page 47.

**POST-MASTER'S STUDY IN MUSIC EDUCATION**
Music educators with a master's degree may apply for acceptance into post-master's study. Upon satisfactory completion of a musicianship exam, students will be assigned an adviser to assist designing a 30-credit planned program.

**NATURAL SCIENCES**

**Faculty**
Faculties of the departments of Chemistry (Dept. phone: 832-2675) and Physics and Earth Sciences, including Science Education (Dept. phone: 832-2930). See departmental listings for details.

**Overview**
Track I provides for advanced study in physics or earth sciences. Track II is for certified teachers in elementary and secondary schools. This program is developed on an individual basis according to goals identified by the student and the adviser. Track III provides for advanced study in chemistry.

**Program**

**MASTER OF SCIENCE IN NATURAL SCIENCES**
Core Requirements:

- SCI 500 Science, Technology and Society
- Either Track I, Track II or Track III

**Track I: Physics or Earth Sciences**
Specialization (12–24 cr.):
Courses in either Earth Sciences or Physics as approved by adviser

- Cognate (0–12 cr.):
  - Courses in a related field or fields as approved by adviser

- Research/Thesis (3–9 cr.):
  - Research (ESCI 598 Research in Earth Science or PHYS 598 Research in Physics) and/or Thesis (PHYS 599 or ESCI 599)

Note: Plan A requires 3–6 credits of Thesis; Plan B requires a comprehensive exam.

**Track II: Science Education**
Professional Education (6–9 cr.):
One of the following:

- EDF 500 Contemporary Educational Issues
- EDF 516 School and Society
- EDF 524 Foundations of Contemporary Theories of Curriculum
- EDF 525 History of American Education
- EDF 538 The Politics of Education
- EDF 583 Sociological Foundations of Education

and

Additional course(s) as approved by adviser

Specialization (15–21 cr.):
Science courses as approved by adviser

- Research (3–6 cr.):
  - SCI 598 Research in Science Education

Plan C: SCI 595 Special Project in Science Education

Plan A: SCI 599 Thesis

Note:
Plan A: 30 cr., including 3–6 credits of Thesis
Plan B: 30 cr. and a comprehensive exam
Plan C: 33 cr., including SCI 595
School of Arts and Sciences

Track III: Chemistry
(27 credits, no more than 6 credits at the 400 level)
Specialization (15 credits, with 12 credits at the 500 level):
Courses in chemistry as approved by adviser

Cognate (6 credits):
Courses selected from BIO, CHEM, EDF, ESCI and PHYS, as approved by adviser.

Capstone (6 credits):
CHEM 599 Thesis (Plan A)

Post-Master's Study
Thirty-credit planned programs of post-master's study are available for elementary teachers and secondary school science teachers.

Physics and Earth Sciences

Faculty
Ali A. Antar (Chair, Copernicus 509),
Charles Baskerville, Marsha Bednarzki.
Sandra Burns, Celia Chung Chow, Charles Dimmick, Kristine Larsen, Peter LeMaire,
Steven B. Newman, Nimmi Parikh, Thomas Roman, Nanjundiah Sadanand, Luisito Tongson (Dept. phone: 832-2930)

Department Overview
Located in Copernicus Hall, the facilities of the Physics and Earth Sciences Department include numerous introductory and intermediate/advanced laboratories as well as two teaching laboratories, an observatory containing a 16-inch telescope, a 100-seat planetarium, and a 400-kv Van de Graaff linear accelerator. The fully equipped weather center includes a National Weather Service Facsimile System, Internet capability, two rooftop satellite data retrieval systems and a fully operational color Doppler weather radar monitoring system.

In addition to teaching, the faculty pursue many areas of interest including atomic collisions; solid state; general relativity, astrophysics; ground water pollution; public planetarium productions; lunar, planetary and deep sky observing; weather forecasting and analysis, and climatology of thunderstorm and hurricane activity in Connecticut; science education, particle physics, applied holography, and general relativity. Wherever possible, students enrolled in programs are encouraged to join with the faculty in their ongoing studies in these and other areas.

The Department offers a Master of Science in Natural Sciences. For details of the program, see the Natural Sciences major on page 40 of this catalog.

Political Science

The Department of Political Science does not offer a graduate program, but an agreement between the University of Connecticut and Central Connecticut State University makes it possible for qualified undergraduate students at CCSU to enroll in up to four graduate-level courses in UConn's M.P.A. program and later apply these credits toward the M.P.A. Part-time students who have a bachelor's degree may take up to three courses at the graduate level before applying for the M.P.A. program. UConn M.P.A. students may take approved courses at CCSU's campus. There is some exchange of faculty between the two schools. Questions about the specifics of the cooperative program should be addressed to the M.P.A. director at UConn or to the chair of the Political Science Department at CCSU.

CCSU courses that have been approved for credit toward the M.P.A. are the following:
PS 446 The Budgetary Process
PS 447 Administrative Law
PS 448 The Politics of Human Services

Outside of the M.P.A. program, courses numbered 400 or higher which are offered by the department and listed elsewhere in this catalog may be included on planned programs of graduate study if approved by the student's adviser and the appropriate dean.

Psychology

Faculty
Marc Goldstein (Chair, Marcus White 212),
Carol Shaw Austad, Laura Bowman, Adolfo Chavarrío, Paul Chu, James Conway, Joanne DiPlacido, Francisco Donis, Douglas Engwali, Carol Ford, Steven Horowitz, Laura Levine, Charles Mate-Kole, Lauren Perdue, Moises Salinas, Robert Stowe, Saad Vaillant, Bradley Waite (Dept. phone: 832-3100)

Department Overview
The Department of Psychology offers the Master of Arts in Psychology with options for a General Psychology program or a specialization in Community Psychology. The specialization in Community Psychology emphasizes primary prevention. The department also offers courses to meet general elective requirements of graduate students in other disciplines, and courses for liberal arts graduates who are preparing for teacher certification.

Each student in the M.A. program will be assigned an adviser who will assist the student in developing an approved program.

Programs

Master of Arts in Psychology
The M.A. program in Psychology can be designed to prepare students for a career in the field of human services or as preparation for further graduate study. The current program requires 36 credits of course work including a thesis. A common core of 18 cr. is required for all students. Students also must elect either the General Psychology program option or the specialization in Community Psychology.

The General Psychology program is planned with the assistance of a graduate adviser.

The focus of the specialization in Community Psychology is on primary prevention, where students are trained to be active practitioners in the prevention field. The specialization is designed to be taken sequentially in six semesters. Both the General Psychology and the Community Psychology options are primarily intended for part-time students.

The Psychology Department may be contacted for full information concerning these programs. For admission, a B.A. degree with a minimum of 18 cr. in psychology or sociology is preferred; courses in statistics and research methods are required. A minimum undergraduate grade point average of 2.75 and a 3.00 in psychology courses, three letters of reference and a personal statement are required. Application deadline for spring admission is November 10, and March 31 is the deadline for fall admission.

MA Program (36 s. h., including thesis)
Common Core for all M.A. students
(18 cr.):
PSY 512 Seminar in Developmental Psychology
The Social Science programs are based upon
Victor Geraci (Program Coordinator,
History Dept., phone: 832-2808)

Overview
The Social Science programs are based upon
the prerequisite of an undergraduate major
in the social sciences, one of the social sci­
ence disciplines, or the equivalent. The

graduate student who lacks this prerequisite
may be required to complete additional
undergraduate courses.

The Master of Science in Social Science
is designed for teachers desiring to specialize
in teaching social studies, including history.
The areas included are Economics,
Geography, History, Political Science and
Sociology-Anthropology. In recommending
a program of study, the student's adviser will
consider the student's undergraduate record
and individual interests.

Programs
MASTER OF SCIENCE IN SOCIAL
SCIENCE FOR CERTIFIED
ELEMENTARY SCHOOL TEACHERS

General Education (3–9 cr.):
Electives other than social science
approved by adviser

Professional Education (6–9 cr.):
One of the following:
EDF 500 Contemporary Educational
Issues
EDF 516 School and Society
EDF 524 Foundations of Contemporary
Theories of Curriculum
EDF 525 History of American
Education
EDF 538 The Politics of Education
EDF 583 Sociological Foundations of
Education

and
Additional course(s) as approved by adviser

Specialization (12–18 cr.):
Social science courses approved by
adviser. Concentration to be selected in
consultation with adviser.

Research/Special Project (6 cr.):
GEOG 598, HIST 598, or ED 598
HIST 593, Directed Study in History

Note: All MS in Social Science programs
require 36 credits, including a special project (HIST 593).

SCHOOL OF ARTS
AND SCIENCES

CENTERs

The Center for Social Research (DiLoreto
200) performs applied social research for
municipalities and non-profit and commu­
nity organizations within the central Con­
necticut region. The Center offers students
and faculty the opportunity to apply their
academic experience to real-world environ­
ments through cooperative ventures with
governmental and other non-profit or public
interest institutions. The Center also houses
the Social Sciences Computing Laboratory.

The Copernican Planetarium and
Observatory (Copernicus Hall) includes a
full-function, optical planetarium which seats
108 people and is used for classes and pro­
grams for the community. The observatory,
located on the roof of Copernicus Hall, is
used for astronomical instruction for Physics
and Earth Sciences classes. It also supports
student research in astronomical photography
and observation using a modern 16-inch
Casegrain reflector and other telescopes.

The Institute for Science Education,
coordinated by the Department of Biological
Sciences, offers summer courses for middle,
junior high and high school science teachers.
The Partners in Science program for middle
school students presents interdisciplinary
explorations of science in Saturday morning
workshops. Science faculty and students
work with middle and secondary school teachers on topics to enhance pre-college science preparation and encourage students to pursue careers in science.

The Mathematics Center (Memorial Hall), operated by the Department of Mathematical Sciences, provides counseling, tutorial assistance and diagnostic testing in mathematics for day and evening students. Students are encouraged to visit the Mathematics Center for appointment scheduling or assistance.

The Multi-Media Language Learning Center (Barnard 336) provides students with state-of-the-art technology for language study and cultural enrichment. The lab is equipped with audio, film, video and laser disc technology and a scanner, as well as web-capable computers for interactive learning.

The Polish Studies Center (DiLoreto 208-23) was established in an effort to foster within both the Polish-American and the American communities an awareness of Poland's culture, history and civilization. In 1997 Connecticut's first, and New England's second, Endowed Chair in Polish and Polish-American Studies was established at CCSU. The Polish Studies Center offers courses in Polish history, politics, culture and civilization, language and the Polish community in America. The Center's other resources include the Polish Heritage Book Collection, the Connecticut Polish American Archive, the Annual Fiedorczyk Lecture in Polish American Studies, the Milewski Polish Studies lecture, the Godlewski Evening of Polish Culture, educational materials for teachers, movies, exhibits and scholarship aid for Polish-American students and for students pursuing Polish Studies.

The Copernicus Science Computing Laboratory, located in the Francis J. Rio Interdisciplinary Science Center (Copernicus 227), serves the faculty and students in the natural and physical sciences. The Computing Lab houses 20 networked PCs and Macintoshes, as well as two laser printers, two inkjet printers, a scanner and a multimedia projector.

The Weather Center is a fully-functional weather forecasting facility, including a satellite downlink to the National Weather Service, computer data retrieval capability, color weather radar and satellite access. It supports forecasting for the University community as well as faculty and student research in the atmospheric sciences.

The Writing Center (Willard 305) provides one-to-one tutorials and small-group workshops to help members of the CCSU community improve their writing in areas such as drafting compositions, preparing research papers and taking essay exams. Appointments for tutorials are available Monday through Friday from 9 a.m. to 4 p.m. by calling 832-2765.
M.S. in Social Science with a Concentration in Geography

This program requires 30 credits of course work, distributed as follows:
- two professional education courses, one graduate elective, and seven Geography courses. GEOG 500 and 598 and either GEOG 595 or 599 are required, and no more than 9 credits can be at the 400 level.

General Psychology Program (36 cr.)
- Common Core (18 cr.)
- Directed electives as approved by adviser (18 cr.)

Specialization in Community Psychology (36 cr.)
- Common Core (18 cr.)
- PSY 551 Primary Prevention
- PSY 553 Developing Prevention Programs
- PSY 595 Internship in Prevention Applications
- Directed electives as approved by adviser (9 cr.)

SCIENCE EDUCATION

Faculty
Sandra F. Burns (Coordinator, Physics and Earth Sciences Dept., Copernicus 533, 832-2934); Adviser: Marsha Bednarski (Physics and Earth Sciences Dept., 832-2943)

For details of the program, see Natural Sciences: Track II on page 40 of this catalog.

POST-MASTER'S STUDY
Thirty-credit planned programs of post-master's study are available for elementary teachers and secondary school science teachers.

SOCIAL SCIENCE

Revise MS in Social Science for Certified Secondary School Teachers, to:
- 30 cr. as follows: Professional Education (6 cr.) Educational Foundations Elective as approved by the adviser. Social Science Major (18 cr., no more than 9 credits to be taken at the 400 level). United States History (6 cr., taken as required). Science (6 cr., taken at the 400 level and approved for graduate credit). History, International Studies, or Political Science. Research/Special Project History.

Programs

MASTER OF SCIENCE IN SOCIAL SCIENCE FOR CERTIFIED SECONDARY SCHOOL TEACHERS
- General Education (3–9 cr.):
- Electives other than social science approved by adviser

Professional Education (6–9 cr.):
- One of the following:
  - EDF 500 Contemporary Educational Issues
  - EDF 516 Social and Political Issues
  - EDF 524 Foundations of Contemporary Theory of Curriculum
  - EDF 525 History of American Education
  - EDF 538 The Politics of Education
  - EDF 583 Sociological Foundations of Education

Specialization (12–18 cr.):
- Social science courses approved by adviser. Concentration to be selected in consultation with adviser.

Research/Special Project (6 cr.):
- GEOG 598, HIST 598, or ED 598
- HIST 593, Directed Study in History

Note: All MS in Social Science programs require 36 credits, including a special project (HIST 593).

SCHOOL OF ARTS AND SCIENCES

The Center for Social Research (DiLoreto 200) performs applied social research for municipalities and non-profit and community organizations within the central Connecticut region. The Center offers students and faculty the opportunity to apply their academic experience to real-world environments through cooperative ventures with governmental and other non-profit or public interest institutions. The Center also houses the Social Science Computing Laboratory.

The Copernican Planetarium and Observatory (Copernicus Hall) includes a full-function, optical planetarium which seats 108 people and is used for classes and programs for the community. The observatory, located on the roof of Copernicus Hall, is used for astronomical instruction for Physics and Earth Sciences classes. It also supports student research in astronomical photography and observation using a modern 16-inch Cassegrain reflector and other telescopes.

The Institute for Science Education, coordinated by the Department of Biological Sciences, offers summer courses for middle, junior high and high school science teachers. The Partners in Science program for middle school students presents interdisciplinary explorations of science in Saturday morning workshops. Science faculty and students
work with middle and secondary school teachers on topics to enhance pre-college science preparation and encourage students to pursue careers in science.

The **Mathematics Center** (Memorial Hall), operated by the Department of Mathematical Sciences, provides counseling, tutorial assistance and diagnostic testing in mathematics for day and evening students. Students are encouraged to visit the Mathematics Center for appointment scheduling or assistance.

The **Multi-Media Language Learning Center** (Barnard 336) provides students with state-of-the-art technology for language study and cultural enrichment. The lab is equipped with audio, film, video and laser disc technology and a scanner, as well as web-capable computers for interactive learning.

The **Polish Studies Center** (DiLoreto 208-23) was established in an effort to foster within both the Polish-American and the American communities an awareness of Poland's culture, history and civilization. In 1997 Connecticut's first, and New England's second, Endowed Chair in Polish and Polish-American Studies was established at CCSU. The Polish Studies Center offers courses in Polish history, politics, culture and civilization, language and the Polish community in America. The Center's other resources include the Polish Heritage Book Collection, the Connecticut Polish American Archive, the Annual Fiedorczyk Lecture in Polish American Studies, the Milewski Polish Studies lecture, the Godlewski Evening of Polish Culture, educational materials for teachers, movies, exhibits and scholarship aid for Polish-American students and for students pursuing Polish Studies.

The **Copernicus Science Computing Laboratory**, located in the Francis J. Rio Interdisciplinary Science Center (Copernicus 227), serves the faculty and students in the natural and physical sciences. The Computing Lab houses 20 networked PCs and Macintoshes, as well as two laser printers, two inkjet printers, a scanner and a multimedia projector.

The **Weather Center** is a fully-functional weather forecasting facility, including a satellite downlink to the National Weather Service, computer data retrieval capability, color weather radar and satellite access. It supports forecasting for the University community as well as faculty and student research in the atmospheric sciences.

The **Writing Center** (Willard 305) provides one-to-one tutorials and small-group workshops to help members of the CCSU community improve their writing in areas such as drafting compositions, preparing research papers and taking essay exams. Appointments for tutorials are available Monday through Friday from 9 a.m. to 4 p.m. by calling 832-2765.
The goal of the MBA is a broad degree that prepares individuals for general management positions in corporations, non-profit organizations, government agencies and other organizations. Candidates identify the central issues in managing organizations, uncover opportunities and needs for organizational success, analyze markets and business plans from multiple perspectives, and integrate data and information and convert it into knowledge. The required core courses in the disciplines of accounting, finance, management and marketing provides a global perspective for all students.

Application requests for the MBA program can be obtained from the Graduate Admissions Office (860-832-2356). When requesting material, individuals should note their interest in the MBA degree in order to ensure receipt of a separate insert pertaining to additional requirements for the MBA degree. All materials should be returned to the Graduate Admission Office. Admission decisions are made when all materials are received, including GMAT scores, official transcripts, application fee, etc. Questions pertaining to the MBA degree program should be referred to the MBA Director at 860-832-3210.

Applicants to the MBA should hold a four-year bachelor's degree, have a GPA of 2.70 or higher, and score 500 or higher on the GMAT. All applicants are expected to be current in computer software and hardware usage. Additional requirements include a current resume, two letters of recommendation and a statement of how admission to the degree will assist the individual in their career plans. International applicants must also provide evidence of English proficiency, including a TOEFL of 213 or higher. International applicants generally are required to have a transcript evaluation from an outside agency, such as the World Education Association. Suggested deadlines for admission are May 1 for fall classes and October 1 for spring classes. Domestic part-time applicants may contact the MBA Director regarding admission beyond the suggested deadlines.

**MASTER OF BUSINESS ADMINISTRATION**

**Faculty**
Contact George F. Caffey (MBA Director, Maria Sanford 102, 832-3210) or Steve Moscove (Chair, Accounting Dept., 832-3221) for further information.

**Mission Statement**
The mission of the School of Business is to prepare professionally-oriented students for success in the global marketplace and to create mutually-beneficial relationships with the business and other communities that support Central Connecticut State University.

**Overview**
The Master of Business Administration (MBA) is a professional degree providing a broad-based education for people who aspire to be leaders in the global arena of business. This program provides academic rigor and pragmatic relevance, affording the opportunity to explore theory and practice and to develop a global perspective. It is designed to provide knowledgeable, ethical, and socially responsive leadership in the global marketplace. Graduates become ambassadors to the world, knowledgeable and understanding of world cultures, ideas and people.

Candidates for the Master of Business Administration complete 33 credits of graduate course work. The program includes a 12 credit International Core, a Concentration of 12 credits and an Integrative Experience of 9 credits. An MBA Accounting Concentration is available to fulfill the 150-hour education requirement to sit for the CPA examination. Prerequisite course work in financial/managerial accounting, micro/macroeconomics, managerial finance, management organization and theory, fundamentals of marketing, and statistics/probability may be waived based on prior education. Applicants are expected to have completed the equivalent of a second course in a foreign language either as part of their undergraduate program or before program completion.

The International Core consists of course work in international accounting, international financial management, international management and international marketing.

**Admissions Requirements**
A separate application is required for the MBA program. Forms are available in the School of Business Offices.

MBA program applicants must meet general admission and academic requirements as described in the Graduate Catalog and the School of Business. Academic evaluation for admission to the program is based primarily on the applicant's undergraduate record and the score on the Graduate Management Admissions Test (GMAT). Information about the GMAT may be obtained on campus in the Career Services Office, Student Development Center in Willard Hall.

Program applicants must also submit an essay stating how acceptance into the program relates to the applicant's career objectives. Upon entering the program, applicants must have word processing and spreadsheet computer proficiency.

The program is designed for part-time or full-time study.

**Programs**

**Prerequisite Undergraduate Core**

May be waived based on prior education
- Financial/Managerial Accounting
- Principles of Economics (macro/micro)
- Managerial Finance
- Management and Organization Theory
- Fundamentals of Marketing
- Statistics/Probability

**International Core Courses**

A common core of 12 cr:
- AC 531 Accounting Information for Decision Making
- FIN 541 International Financial Management
- MGT 551 Management for Global Operations
- MKT 571 Market Planning for a Global Environment

**Concentration**

12 cr. of approved graduate course work selected in consultation with adviser based on student interests and qualifications. The Accounting Concentration requires AC 532 and AC 537. Students in Accounting
should consult with Dr. Steve Moscove, Department Chair.

Directed Electives
6 cr. of approved graduate course work selected in consultation with adviser

Integrative Experience
All students must successfully complete an integrative experience.
MGT 591 Global Strategy

BUSINESS EDUCATION

Faculty
Contact the Department of Management Information Systems (Maria Sanford 102), George F. Claffey, Faye Cohen (Dept. phone: 832-3210)

Departmental Overview
The graduate program in Business Education serves both experienced business education teachers and students who wish to complete teacher certification requirements in business education.

Note: Course offerings are dependent on enrollment. Master's courses are generally offered once every two years.

Programs
CERTIFICATION PROGRAM IN BUSINESS EDUCATION
The objective of graduate certification in Business Education is to certify individuals to teach business education subjects in Connecticut’s public junior and senior high schools. Candidates plan Business Education certification programs with advisers from the School of Education and the Management Information Systems Department. Certification requirements include the following:

• Undergraduate degree in a business major or equivalent academic background

• A minimum of 12 credits in Business Education including:
  BE 410 Office Education Methods
  BE 450 Office Systems Application
Software and Records Management

BE 524 Organization and Administration of Business and Marketing Education
BE 530 Teaching Accounting, Basic Business, and Marketing Education

• Additional business courses based on content and recency of previous academic work as assigned by adviser

• Other Requirements:
  Successful completion of Keyboarding Proficiency Examination
  WP 204 Introduction to Word Processing or equivalent
  500 hours of office work experience within five years immediately preceding program completion.

MASTER OF SCIENCE DEGREE IN BUSINESS EDUCATION (30 cr.)
A thesis option (Plan A) and a comprehensive examination option (Plan B) are available.

Requirements for business education teacher certification must be completed before a student may matriculate into a master's or post-master's degree program.

General Education (0–9 cr.):
Electives other than from Business Education as approved by faculty adviser

Professional Education (6–9 cr.):
One of the following:
EDF 500 Contemporary Educational Issues
EDF 516 School and Society
EDF 524 Foundations of Contemporary Theories of Curriculum
EDF 525 History of American Education
EDF 538 The Politics of Education
EDF 583 Sociological Foundations of Education

and
SPED graduate course as approved by adviser
Elective as approved by adviser

Business Education Specialization
(15–21 cr.):
BE 501 Current Problems in Business Education
BE 598 Research in Business Education
Electives as approved by faculty adviser

Thesis (Plan A only, 3 cr.):
BE 599 Thesis

COMPUTER INFORMATION TECHNOLOGY

Faculty
Computer Science: Joan Calvert (Director, Maria Sanford 206, 832-2715), Fatemeh Abdollahzadeh, William Jones, Bradley Kjell, Zdravko Markov, Charles Neville, Brian O'Connell, Irena Pevac, Neli Zlatareva
Management Information Systems: Marianne D’Onofrio, Raymond Papp
Industrial Technology: James DeLaura, Paul Resetarits, Karen Tracey, Michael Vincenti, Deborah Zanella
(web site address: www.cs.ccsu.edu/cit/index.html)

Program
For details of the program, see page 32 of this catalog.
The School of Education and Professional Studies has graduate programs that lead to teacher certification in the State of Connecticut and advanced programs in the Departments of Educational Leadership, Health and Human Service Professions, Physical Education and Health Fitness Studies, Reading and Language Arts, Special Education, and Teacher Education. The mission of the School of Education and Professional Studies, to prepare professionals for service in our communities, is expressed in programs for individuals who are liberally educated and who are in command of the requisite professional knowledge to practice effectively in their chosen field.

Academic programs in the School of Education and Professional Studies are accredited by the American Association of Marriage and Family Therapy (AAMFT), Connecticut State Department of Education (CSDE), National League for Nursing (NLN), New England Association of Schools and Colleges (NEASC), and the National Council for the Accreditation of Teacher Education (NCATE). In addition, the School of Education and Professional Studies is a member of the Holmes Partnership, a network of universities and schools created to provide “high quality professional development and significant school renewal,” a member of the Urban Network to Improve Teacher Education (UNITE); a member of AACTE; and an active participant on the Teacher Education Council of State Colleges and Universities (TECSCU).

Currently, the School operates three centers (see page 59) and a network of professional development schools. Over the past five years, faculty in the School of Education and Professional Studies and from affiliated schools have established a network of Professional Development Schools (PDS). These schools are public schools that provide exemplary clinical sites for teacher candidates, enhance pupil learning, and provide sites for action research.

Below is an overview of graduate programs and the departments where they are located.

**Educational Leadership**
- Master of Science in Educational Leadership
- Sixth Year Certificate: Intermediate Administrator or Supervisor
- Master of Science in Leadership and Pedagogy
- Master of Science in Technology/Educational Media

**Health and Human Services**
- Master of Science in Counselor Education with specializations in: School Counseling, Community/Rehabilitation Counseling, Student Development Higher Education
- Master of Science in Marriage and Family Therapy

**Physical Education and Health Fitness Studies**
- Master of Science in Physical Education

**Reading and Language Arts**
- Master of Science in Reading
- Master of Science in Reading: Remedial Language Arts Teacher
- Sixth-Year Certificate: Reading and Language Arts Consultant

**Special Education**
- Master of Science in Special Education

**Teacher Education**
- Master of Science in Early Childhood Education
- Master of Science in Elementary Education
- Master of Science in Education Foundations
- Master of Science in Foundations/Secondary Education

**Post-Baccalaureate Work in Teacher Education**
Students who already hold a bachelor’s degree may pursue teacher certification through our post-baccalaureate programs. These programs prepare students for teacher certification and do not result in a master’s degree. Students can seek certification in the following fields:
- Elementary Education
- Secondary Education in the following subjects: Biology, Business, Chemistry, Earth Sciences, English, French, General Science, German, Italian, Mathematics, Physics, Social Studies, and Spanish
- NK-12 Education in the following subjects: Art, Music, TESOL, Special Education, Technology Education

Post-baccalaureate students are considered graduate students and so must apply to the Graduate Office for admission.

They should subsequently apply for admission to the Professional Program by completing an application packet for the Professional Program. The application packet includes: instructions; an application blank; a transcript release form; forms for letters of recommendation from persons who can attest to student’s suitability to be a teacher; directions for writing an essay which shows command of English. The essay also asks the student to provide reasons for becoming a teacher and to describe experiences working with children. Some departments have special assignments (mathematics majors must write two essays) which must be completed.

Applications are available outside Barnard Hall 248 or may be obtained by writing to the Dean of the School of Education and Professional Studies at CCSU.

While the application packets differ from program to program, post-baccalaureate students must meet the 2.70 grade point average requirement.

The state’s Praxis I CBT (basic skills test in reading, writing and mathematics) must also be satisfied prior to the application process, and a copy of the Praxis I CBT “Pass” letter or “Waiver” letter must be attached to the application. Waiver qualifications include: meeting one of the following criteria:
- a student has a Scholastic Aptitude Test (SAT)* score totaling 1100 with a score of no less than 450 in either the verbal or math subtests from test administrations on or after April 1, 1995;
- a student has an American College Test (ACT)* composite score of no less than 25, with no less than 22 on the English subtest and 19 on the math subtest;
- a student passes a similar test in another state with which Connecticut has certification reciprocity agreements; or
• Post-baccalaureate students should be

ject matter major requirements — some of
particular departments at CCSU; others are
these requirements are deemed important by

• Each “Program of Study” must be

Program Planning. Post-baccalaureate stu-
dents must meet all course and laboratory
requirements specified in particular teacher
education programs. Even though they
already have a bachelor's degree, students in
post-baccalaureate programs also are required
to satisfy certain general education and sub-
ject matter major requirements — some of
these requirements are deemed important by
particular departments at CCSU; others are
deemed important by the state of
Connecticut. Putting together a “Program
of Study” is the process of ensuring students
that they will satisfy all certification require-
ments. The “Program of Study” also
becomes the contract between the baccalaure-
ate student and his or her adviser.

- Each “Program of Study” must be

- Post-baccalaureate students should be

sive of the state of Connecticut, a student must
achieve a specified (3.00) grade point average.
If a students GPA drops below this level he
or she may be denied enrollment to restric-
ted courses until the GPA reaches the
approved level.

Restricted Professional Course Work.

Retention Criteria. Once admitted to a
particular teacher education program a post-

appeals Process for All Students and

Programs in Education

Students who fail to be admitted because of
a grade point average below 2.70, may,
upon receipt of the rejection letter, meet
with the assistant dean of Education and
Professional Studies to discuss their situa-
tions and possible options.

Connecticut Certification Procedures

To be eligible to teach in the public schools
of the state of Connecticut, a student must
meet the certification requirements of the
State Board of Education. Certification reg-
ulations are subject to change and, under
current state practice, students are subject to
the certification regulations in effect at the
time they apply for certification.

Recommendations for certification at
Central Connecticut State University are
made by the Dean of Education and
Professional Studies. Questions concerning
certification that cannot be answered by
your department can be addressed to the
assistant dean.

- Postgraduate certification students obtain

Out-of-State Certification Procedures for
CCSU Graduates

Information about out-of-state certification
is available in the University Placement
Office. Any application or portion of an
application that requires “interstate recip-
ocity” information or affirmation con-
cerning the completion of an “Approved
Program” should be referred to the assistant
dean with full information about the gradu-
ate’s name at the time of completion of
CCSU’s program, date of program comple-
tion, social security number, current name
and address, and any particulars concerning
the other state’s information requirements.

EDUCATIONAL

LEADERSHIP

Faculty

Anthony Rigazio-DiGilio (Chair, Barnard
260), Farough Abed, Richard Arends,
Karen Beyard. Carol J. Carter-Lowery,
Penelope Lisi, Olusegun Sogunro, Barry
Sponder, Aldrige A. Vaillant (Dept. phone:
832-2130)
The Department of Educational Leadership seeks to prepare well-educated and competent practitioners who are capable of improving the quality of education for Connecticut's children. The Department values interdisciplinary collaboration as a means of fulfilling its goals; as such, faculty associated with the Center for Multicultural Research and Education, Educational Technology, and Educational Leadership work together to design programs which will prepare professional educators with the skills and dispositions needed to create learning environments where all learners will be successful. The Department of Educational Leadership offers a Master of Science in Educational Technology, a Master of Science in Educational Leadership, a sixth-year certificate leading to certification as an intermediate administrator or supervisor and a joint program with the Department of Teacher Education leading to a Master of Science in Pedagogy and Leadership. Non-degree programs leading only to certification are not available in this department.

Programs

MASTER OF SCIENCE IN EDUCATIONAL LEADERSHIP

With the assistance of their adviser, students will select a concentration area from one of two stands: Educational Leadership or Curriculum Leadership. All students will select either Plan A (thesis) or Plan B (comprehensive examination).

The admission standard for the Educational Leadership M.S. program includes either a 3.00 undergraduate GPA or a 2.70 GPA with a 3.00 upper-level GPA.

Strand I — Educational Leadership (30 cr.): Graduates are prepared to assume leadership positions within public and private schools at the level of teacher.

Strand II — Curriculum Leadership (30 cr.): Graduates are prepared to provide specific leadership skills to public and private schools in the area of curriculum renewal.

Computer Prerequisite

A computer prerequisite (EDT 490, Instructional Computing) or its equivalent, which may not be counted for credit in the master's degree program, must be completed prior to the completion of 24 graduate credits.

Core Requirements (18 cr.):

- EDF 500 Contemporary Educational Issues (or EDF 516, 524, 525, 538, 583)
- ED 511 Principles of Curriculum Development
- EDL 513 Supervision
- ED 517 Evaluation
- ED 540 Educational Motivation and the Learning Process
- ED 598 Research in Education

Strand Requirements and Electives (12 cr.)

Strand I — Educational Leadership Required courses (6 cr.):

- ED 514 Administration
- EDL 555 Leadership for Culturally Diverse Schools

Elective courses (6 cr.):

Students select adviser-approved elective courses to complete their graduate program

Strand II — Curriculum Leadership Required courses (6 cr.):

- EDL 551 Curriculum Leadership
- EDL 555 Leadership for Culturally Diverse Schools

Elective courses (6 cr.):

Students select adviser-approved elective courses to complete their graduate program

SIXTH-YEAR CERTIFICATE IN EDUCATIONAL LEADERSHIP

The sixth-year certificate program meets the needs of educators who seek to acquire 1) advanced career and professional development, and 2) the leadership skills and credentials necessary to function effectively in school settings under the Intermediate Administrator/Supervisor Certificate. Graduates of the program who are certified as intermediate administrators or supervisors will be eligible for such positions as elementary or secondary principal/assistant principal, program coordinator, department head, and assistant superintendent, or for positions on the staffs of central offices, regional educational agencies, and the state Department of Education.

Admissions Requirements

Admission to this program is limited and highly competitive. In addition to meeting the general requirements, admission to the sixth-year certificate program will be based on an evaluation of all materials submitted including the following criteria:

- possess a master's degree from a regionally accredited institution of higher education
- attained a 3.30 minimum post-baccalaureate cumulative grade-point average (GPA) on a four-point scale or its equivalent
- have a minimum of three years of teaching experience and possess, or be eligible for, a Connecticut teaching certificate
- submit two letters from school administrators supporting the application and concentrating on such areas as strengths and weaknesses, interpersonal skills, intellectual ability and leadership potential
- be interviewed by a team of faculty members. Provisional admission for one semester may be granted to applicants who are not able to be interviewed prior to the start of the semester
- submit a formal, typed application essay which focuses on 1) the reasons that led the candidate to the area of school leadership, and 2) future career goals

All applications and supporting materials for admission to the program for the following academic semester must be received by the Graduate Office by October 1 for spring admission and April 1 for fall admission. The applicant's essay, supporting letters, interview and professional experience are all significant factors in the admissions review process.

Program of Study

The sixth-year certificate in Educational Leadership, including certification for the Intermediate Administrator/Supervisor, requires a minimum of 30 credits. Requirements include a professional core of 21–24 cr., 6–9 cr. of adviser-approved electives and a qualifying examination required prior to enrollment in EDL 690 and EDL 691.

Professional Core (21–24 cr.):

- EDL 617 Personnel and Program Evaluation
- EDL 634 Seminar in Curriculum Development
- EDL 635 Seminar in Supervision
- EDL 636 Dynamics of Educational Leadership
- EDL 690 Internship in Educational Leadership I: Theory and Practice
EDL 691  Internship in Educational Leadership II: Research and Practice

EFD 687  Seminar in Educational Policy Studies

Electives (6-9 cr. of adviser-approved electives; may apply up to 9 cr. of prerequisites to this requirement)

Note: It is expected that ED 511, EDL 513, EDL 514, ED 540 and ED 598, or equivalent coursework or experiences determined by the student's adviser, will have been satisfied prior to admission to the program. A maximum of 9 credits of these courses, approved by the adviser, may be applied to the planned program.

Note: To receive certification, student must also pass a performance-based examination administered by the Connecticut State Department of Education.

Note: A change to the sixth year certification program as currently offered by the Department of Educational Leadership is planned to begin Fall 2001. Those students who are enrolled after that time should consult with an adviser.

MASTER OF SCIENCE IN PEDAGOGY AND LEADERSHIP

Plan C (34 cr.)

The Master’s in Pedagogy and Leadership is an extension of the Cross-Endorsement certification programs in Elementary and Middle School level. It is a Plan C program. See Teacher Education section of this catalog for a complete description of the course of study leading to this master’s degree.

MASTER OF SCIENCE IN EDUCATIONAL TECHNOLOGY

The Master of Science in Educational Technology offers study plans to meet the needs of professionals who wish to increase their knowledge and experience in this field. Computer-based instruction, instructional design, interactive multimedia, networking and distance learning are examined within the program's requirements. Students pursue an applied curriculum which includes a balanced approach to theory and applied experience. Plan A (thesis) or Plan C (special project) may be selected in consultation with the adviser.

Core courses (21 cr.):

- EDT 500  Instructional Design and Evaluation I
- EDT 501  Message Design and Production
- EDT 511  Topics in Educational Technology
- EDT 512  Computer-based Instruction
- EDT 521  Interactive Multimedia for Instruction I
- EDT 522  Instructional Design and Evaluation II
- EDT 531  Interactive Multimedia for Instruction II
- EDT 532  Distance Learning and Networking

Professional Education (3 cr.):

One of the following:

- EDF 500  Contemporary Educational Issues
- EDF 516  School and Society
- EDF 524  Foundations of Contemporary Theories of Curriculum
- EDF 525  History of American Education
- EDF 538  The Politics of Education
- EDF 583  Sociological Foundations of Education
- or COMM 502  Theories of Communication and Information Management (for non-educators)

Research and Capstone Requirements (6 cr.):

- Plan A: 33 cr., including EDF 500 (or EDF 516, 524, 525, 538, 583) or COMM 502, ED 598 and EDT 597, Final Project
- Plan B: 33 cr., including EDF 500 (or EDF 516, 524, 525, 538, 583) or COMM 502, ED 598 and EDT 597, Final Project

Computer Prerequisite: Certification to use the VAX and the MAC Lab

Special Service Course (undergraduate and graduate): EDT 490  Instructional Computing

The following courses offered at Southern Connecticut State University may be used to fulfill requirements for school media specialists:

- EDT 560  Evaluation, Acquisition and Organization of Media Materials
- EDT 561  Structuring and Accessing Information
- EDT 562  Developing, Operating and Leading Media Facilities

Note: Students interested in a School Library Media Specialist cross-endorsement should contact the Connecticut State Department of Education Certification Office.

HEALTH AND HUMAN SERVICE PROFESSIONS

Faculty

Judith Hriceniak (Chair, Barnard 230), Linda Barile, Ralph Cohen, H. Jane Fried, Amy James, Margaret Lewis, James Malley, Nancy Organek, Judith Rosenberg, Daniel Wiener, Mary Jane Williams (Dept. phone: 832-2154)

Department Overview

The counseling programs at Central Connecticut State University prepare students for professional careers in Marriage and Family Therapy, School Counseling, Rehabilitation Counseling, Substance Abuse Counseling, Mental Health Counseling and Student Development in Higher Education. Courses are designed to develop student competence in the application of theory-based counseling models, to understand the concerns of diverse client populations and to enhance students' personal and professional development. The practicum and clinical internship provide students with valuable opportunities to apply their skills in a field-based setting under close supervision. Programs are accessible to full- and part-time students, offering flexible advising hours and classes in the late afternoons and evenings.

Admissions

The admission standard for the Counselor Education program requires a minimum of 2.70 GPA based on a 4.00 point scale where A is 4.00. Applicants for the school counseling program have the additional requirement of providing evidence that they have passed the PRAXIS I CBT test or that they qualify for a waiver. (See page 47 for the criteria for a waiver.) Admission to the graduate school automatically places students in a pre-candidacy status and allows
SCHOOL OF EDUCATION

Fifty-one/fifty-four (51-54) credits (Plan A or C) as follows;

a. Core (33 s.h.): Cnsl 500, 501, 503, 504, 507, 521, 522, 568; Psy 598

b. Specialization (9-12 s.h.): either,

1. Mental Health Counseling: Cnsl 560, 571, MFT 541, either Psy 530 or MFT 556
2. Rehabilitation Counseling: Cnsl 560, 561, 562, 563, 571
3. Rehabilitation Counseling/Substance Abuse: Cnsl 560, 561, 562, 563, 571; Psy 454

c. Internship (6 s.h.): Cnsl 594 (two semesters)
d. Capstone (6 s.h.): either,

1. Ed 599 (Plan A)
2. Cnsl 595 (Plan C)

Field Experience

The supervised practicum is considered to be the nuce elements in the program. Students must submit their application for priority in order to be considered for the spring semester. Students must maintain a grade of B or better in the fieldwork course in order to be considered for the program.

SCHOOL COUNSELING

Graduates are prepared for school counseling in public and private schools. The program is designed in accordance with the requirements of the Connecticut School Counseling Standards and the National Standards for School Counselors. The program is also accredited by the Council for Accreditation of Counselor Education Programs.

Core Courses (15 cr.):

CNSL 500 The Dynamics of Behavior 3
CNSL 501 Theories and Techniques in Counseling 6
CNSL 503 Supervised Counseling Practicum 6

Specialized Courses (33 cr.):

CNSL 504 Professional Studies in Counseling 3
CNSL 507 Methods in Group Facilitation 3
CNSL 520 Guiding Principles, Organization and Administration 3
CNSL 521 Career Counseling and Development 3
CNSL 522 Appraisal Procedures in Counseling 3
CNSL 524 Consulting in the Schools 3

Capstone (3 cr.):

CNSL 530 Student Development in Higher Education 3
CNSL 531 Student Services in Higher Education 6
CNSL 532 Program Design in Student Services 6
CNSL 592 Supervised Internship in Higher Education (two semesters) 6
ED 598 Research in Education 3

Specialization Courses (9-12 cr.): either

Mental Health Counseling:

CNSL 560 Intro. to Rehabilitation Counseling 3
CNSL 571 Mental Health Counseling 3
MFT 541 Intro. to Theories of Family Systems 3
PSY 530 Psychopathology 3

Rehabilitation Counseling:

CNSL 560 Introduction to Rehabilitation Counseling 3
CNSL 561 Advanced Rehabilitation Counseling 3
CNSL 562 Case Management in Rehabilitation Counseling 3

Note: It is expected that prior to applying for candidacy into the program, the applicant will have successfully completed Psy 236 or 512.
The program has been awarded accreditation by AAMFT's Commission on Accreditation for MFT Education.

The practicum is a two-semester, 12-hour-per-week supervised clinical placement during the Second Year. Students learn basic clinical skills and begin working with clients. Students process their experiences in a small group format with a faculty supervisor.

The internship is a 12-month (3 semester), 25-hour-per-week intensive clinical placement following the practicum experience which allows students to conduct marital and family therapy under supervision of an AAMFT Approved Supervisor. Interns conduct 500 hours of therapy with individuals, couples and families; 250 hours must be with couples and families. Interns receive a minimum of 100 hours of individual and group supervision with a minimum of 50 hours of supervision using actual clinical material (i.e., audio and videotapes) for intensive review.

On completion of 300 of the 500 clinical hours required for graduation, each student completes a capstone project consisting of a comprehensive written examination of a clinical case seen by the student as well as an oral presentation of the case to MFT faculty and peers. This project is designed to help the student integrate his/her learning experiences in the program.

Prerequisites (12 cr.):
- PSY 512 Seminar in Developmental Psychology 3
- CNSL 500 The Dynamics of Group Behavior 3
- CNSL 501 Theories and Techniques in Counseling 6

Marriage and Family Therapy Specialization (51 cr.) — thesis optional:
- CNSL 504 Professional Studies in Counseling 3
- MFT 541 Introduction to Theories of Family Systems 3
- MFT 543 The Family Life Cycle 3
- MFT 544 Families in Context: Gender and Cultural Dimensions 3
- MFT 551 Structural/Strategic & Behavioral Family Therapies 3
- MFT 552 Experiential, Intergenerational and Psychodynamic Family Therapies 3
- MFT 554 Couples Therapy 3
- MFT 555 Dysfunctional Family Processes 3
- MFT 556 Systemic Perspectives on Mental Disorders 3
- MFT 557 Action Methods in Marital and Family Therapy 3
- MFT 583 Marriage and Family Therapy Practicum I 3
- MFT 584 Marriage and Family Therapy Practicum II 3
- MFT 585 Marriage and Family Therapy Internship 3
- PSY 598 Research in Psychology 3

Elective required (3 cr.)

Nursing
At the present time, the Department of Health and Human Service Professions does not offer a graduate program in nursing. However, an M.S. degree program in nursing is being proposed for licensure. Check with the Department of Health and Human Service Professions (832-2154) for current information.

Courses numbered 400 or higher which are offered by the Department and listed elsewhere in this catalog may be included on planned programs of graduate study if approved by the student's adviser and the appropriate dean.

Special Opportunities
Graduate assistantships are available. Upon acceptance to a graduate program, students are eligible to apply for assistantships. Preference in awarding assistantships is given to students who have completed the core counseling courses. Funding for student help is available from time to time. Check with the department.

PHYSICAL EDUCATION AND HEALTH FITNESS STUDIES

Facult
David Harackiewicz (Chair, Kaiser 114), Antone Capitao, Catherine Fellows, Frank Frangione, Judith Bourell Miller, Victoria Morley, Jack Olcott, Susan Smith, Robert Trichka, John Webster (Dept. phone: 832-2155)

Department Overview
The Department of Physical Education and Health Fitness Studies offers courses leading to a Master of Science Degree in Physical
Education for certified teachers and professionals in the allied field of health fitness. Also available is undergraduate course work leading to Connecticut teacher certification in physical education.

**Programs**
The graduate program of Physical Education is designed to: (1) increase the competency of teachers of physical education and (2) provide valuable subject matter for professionals in health fitness. An undergraduate program in physical education from an accredited institution of higher education is preferred for admission to the master's degree program. This undergraduate program should be the equivalent of the undergraduate program at CCSU.

**MASTER OF SCIENCE IN PHYSICAL EDUCATION**
Two plans are offered in Physical Education: Plan A includes a thesis; Plan B includes a written comprehensive examination. Both plans require at least 30 credits of graduate study.

MS students complete courses in four areas: General Education (3-6 credits of courses other than Education or Physical Education as approved by the faculty adviser); Professional Education (3-6 cr. of Education courses other than Physical Education as approved by the faculty adviser, including either EDF 500, 516, 524, 525, 538 or 583); Specialization (15-18 cr. of department offerings as approved by the faculty adviser); and Research including PE 598, Research in Physical Education as a requirement for all plans, and for Plan A only, PE 599, Thesis in Physical Education.

**POST-BACCALAUREATE PROGRAM FOR CERTIFICATION IN PHYSICAL EDUCATION**
Students who already hold a bachelor's degree may pursue teacher certification in Physical Education through our post-baccalaureate program. This program prepares students for pre-K–12 teacher certification and does not result in a master's degree. For information on admission to this program, see page 47.

**POST-MASTER'S STUDY**
A 30-credit planned program of post-master's study is available for the professional physical educator who wishes to expand or update knowledge of physical education and the related fields of exercise science and health fitness.

### READING AND LANGUAGE ARTS

**Faculty**
Barry Davies (Chair, Barnard 245), Helen Abadiano, Catherine Kurkjian, Patti Lynn O'Brien, Jesse Turner (Dept. phone: 832-2175)

**Department Overview**
The Department of Reading and Language Arts offers a Master of Science degree program and a sixth-year certificate. Master of Science degree and sixth-year certificate programs include courses leading to certification that enable the student to obtain knowledge of the reading process and to develop knowledge and skills in the developmental, clinical and administrative aspects of teaching reading and teaching language arts. The Master of Science degree and sixth-year programs without certification include courses structured to equip the student with the knowledge of procedures and materials to enhance the teaching of reading and the teaching of language arts in regular classrooms.

**Programs**
Note: A change to the programs offered by the Department of Reading and Language Arts is planned for 2003. Those students who will graduate after July 1, 2003, should consult with an adviser.

**MASTER OF SCIENCE DEGREE PROGRAMS IN READING**
A student admitted to any program offered by the Department of Reading and Language Arts must meet as early as possible with the assigned adviser to complete a planned program of graduate study. The sample programs below are recommended only. The official planned program of graduate study is designed by the student and the adviser.

**Admission:** The Department of Reading and Language Arts follows the admission guidelines established by the Graduate Office. The requirements for formal admission to the Master of Science degree program in Reading and Language Arts are explained in the department admissions packet distributed by the Graduate Office at the time of application. These requirements include the following: a) letters of recommendation; b) application essay, c) department interview; d) certification and experience qualifications.

**Planned Program of Graduate Study:** Following admission, students must meet with their assigned adviser to complete a planned program of graduate study.

**Degree Candidacy:** Students must meet with their adviser following completion of nine graduate credits in order to make application for degree candidacy. For certification program applicants degree candidacy and formal admission must be completed before registering for the first course in the clinical sequence (RDG 594).

**Clinical Experience:** Students registering for the clinical experience (RDG 596) must make formal application to the Department of Reading and Language Arts. Application forms are available from the department.

**MASTER OF SCIENCE IN READING — CERTIFICATION PROGRAM**
The Master of Science in Reading degree is designed to increase knowledge and to improve skills of teachers in the area of reading. Also, the program includes courses which will enable students to develop those skills in the corrective and remedial processes of reading and language arts necessary for certification by the state of Connecticut as a remedial reading and language arts teacher. The student's planned program of graduate study is developed by the student and the adviser. This program may fulfill or partially fulfill state of Connecticut certification requirements. The student's planned program of graduate study should include the following.

Research (3–6 cr.):
- Plan A (30 cr.): ED 599 Thesis
- Plan B (30 cr.): ED 598 Research in Education and comprehensive exam

Professional Education (3–6 cr.):
- One of the following:
  - EDF 500 Contemporary Educational Issues
  - EDF 516 School and Society
  - EDF 524 Foundations of Contemporary Theories of Curriculum
  - EDF 525 History of American Education
  - EDF 538 The Politics of Education
  - EDF 583 Sociological Foundations of Education

Additional course as approved by adviser
MASTER OF SCIENCE IN READING — NON-CERTIFICATION PROGRAM

Students not interested in pursuing certification as a remedial reading and remedial language arts teacher may design a planned program of graduate study with an adviser leading to a master's degree with a concentration in reading. A Reading-Math concentrate is also available.

The Master of Science in Reading degree non-certification program is designed to increase the knowledge and improve the skills of classroom teachers in the area of reading and language arts. The program will assist the student to become a more effective teacher in the areas of reading, writing, listening and speaking. Also, the program may include courses related to literature for children and the teaching of mathematics. The student's planned program of graduate study should include the following:

- Research (3–6 cr.):
  - Plan A (30 cr.): ED 599 Thesis
  - Plan B (30 cr.): ED 598 Research in Education and comprehensive exam

- Professional Education (3–6 cr.): One of the following:
  - EDF 500 Contemporary Educational Issues
  - EDF 516 School and Society
  - EDF 524 Foundations of Contemporary Education
  - EDF 525 History of American Education
  - EDF 538 The Politics of Education
  - EDF 583 Sociological Foundations of Education

- and Additional course as approved by adviser

- Area of Specialization (18–24 cr.):
  - Reading and Language Arts Concentrate:
    - RDG 585 Reading in Content Area

- Clinical/Research Experience: Students registering for the Practicum for Reading and Language Arts Consultants (RDG 696) and the research seminar (RDG 698) must make formal application to the Department of Reading and Language Arts. Application forms are available from the department.

Program Requirements: Course requirements will be based on the student's needs in terms of fulfilling professional and personal goals. A minimum of 15 credits of 600-level courses are required in both the certification track and the non-certification track programs for the certificate:

Reading/Language Arts Consultant Certification Track
- RDG 696 Practicum for Reading and Language Arts Consultants (6 cr.)
- RDG 698 Research Seminar (3 cr.)

- Related Area of Study (6 cr.)
- Area of Specialization (15 cr.):
  - RDG 588 Teaching Children's Literature
  - RDG 692 Specialized Diagnosis & Remedial Techniques
  - RDG 694 Organization, Administration and Supervision of Reading Programs
  - Reading and Language Arts Elective (3 cr.)
  - Electives (0–3 cr.)

Non-Certification Track
- Research (3 cr.): RDG 698 Research Seminar

- Related Area of Study (6 cr.)
- Area of Specialization (15–18 cr.):
  - RDG 680 Current Trends and Issues in Reading and Language Arts
  - Electives (3–6 cr.)

SPECIAL EDUCATION

Faculty
- To be named (Chair, Barnard 224), Mitchell Beck, Laura Boynton Hauerwas, Ernest Pancsofar, Mae Williams, Michael Williams (joint appointment) (Dept. phone: 832-2400)
Department Overview

The Department of Special Education offers two programs leading to a Master of Science degree. One program is designed for students who already hold certification in special education. In this program students take coursework designed to broaden and/or deepen their knowledge of the field.

The second program is designed for students who have Connecticut certification in elementary education or a Connecticut 7-12 secondary subject certificate in biology, business, chemistry, earth science, English, history/social science, integrated science, mathematics, or physics. This program leads to both a Master's degree and a cross-endorsement for either elementary or secondary (including middle level) special education.

Programs

**MASTER OF SCIENCE PROGRAM WITH CROSS-ENDORSEMENT IN SPECIAL EDUCATION, PLAN C**

36–39 credits as follows:

<table>
<thead>
<tr>
<th>Core Requirements (6 cr.)</th>
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<tbody>
<tr>
<td>One of:</td>
<td></td>
</tr>
<tr>
<td>EDF 500 Contemporary Educational Issues</td>
<td>3</td>
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<tr>
<td>EDF 516 School and Society</td>
<td>3</td>
</tr>
<tr>
<td>EDF 524 Foundations of Contemporary Theories of Curriculum</td>
<td>3</td>
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<tr>
<td>EDF 525 History of American Education</td>
<td>3</td>
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<tr>
<td>EDF 538 The Politics of Education</td>
<td>3</td>
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<tr>
<td>EDF 583 Sociological Foundations of Education</td>
<td>3</td>
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<tr>
<td>and</td>
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<tr>
<td>ED 598 Research in Education</td>
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<table>
<thead>
<tr>
<th>Specialization (27–30 cr.)</th>
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</thead>
<tbody>
<tr>
<td>SPED 511 Behavioral/Emotional Disorders</td>
<td>3</td>
</tr>
<tr>
<td>SPED 512 Learning Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>SPED 513 Developmental Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>SPED 514 Cognitive Behavior Management and Social Skills Strategies</td>
<td>3</td>
</tr>
<tr>
<td>SPED 515 Assessment in Special Education</td>
<td>3</td>
</tr>
<tr>
<td>SPED 516 Instructional Programming for Students with Exceptionalities</td>
<td>3</td>
</tr>
<tr>
<td>SPED 517 Instructional Methods for Students with Special Needs—Elementary</td>
<td>3</td>
</tr>
</tbody>
</table>

| Instructional Methods for Students with Special Needs—Secondary | 3 |
| Seminar for Special Educators | 3          |
| Student Teaching in Special Education—Elementary | 6 |
| or                          |                          |
| Student Teaching in Special Education—Secondary | 6 |
| or                          |                          |
| Practicum in Elementary Special Education | 3         |
| or                          |                          |
| Practicum in Secondary Special Education | 3       |

<table>
<thead>
<tr>
<th>Capstone Requirement (3 cr.)</th>
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<tbody>
<tr>
<td>SPED 519 Action Research in Special Education</td>
<td>3</td>
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</table>

* Pending approval by State Department of Education and State Department of Higher Education

**MASTER OF SCIENCE PROGRAM FOR STUDENTS ALREADY CERTIFIED IN SPECIAL EDUCATION**

30 credits of advanced-level course work in special education. Up to 6 cr. of related course work from other departments may be included at the adviser's discretion.

<table>
<thead>
<tr>
<th>General Education (3 cr.)</th>
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<tbody>
<tr>
<td>Elective</td>
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</table>

<table>
<thead>
<tr>
<th>Professional Education (6 cr.)</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>EDF 500 Contemporary Educational Issues</td>
<td>3</td>
</tr>
<tr>
<td>SPED 566 Pupil Personnel Services in Special Education</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specialization (12–18 cr.)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SPED 577 Integrative Seminar</td>
<td>3</td>
</tr>
<tr>
<td>Electives — Students usually take 15 cr. of advanced-level course work in special education. Up to 6 cr. of related course work from other departments may be included at the adviser's discretion.</td>
<td>3</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Research (3–6 cr.)</th>
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</thead>
<tbody>
<tr>
<td>ED 598 Research in Education (required for Plan A and B)</td>
<td>3</td>
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<tr>
<td>ED 599 Thesis (required for Plan A only)</td>
<td>3</td>
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</table>

<table>
<thead>
<tr>
<th>Elective (3 cr.)</th>
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</thead>
<tbody>
<tr>
<td>Students choose an additional course with their adviser to complete 30 credits.</td>
<td>3</td>
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</tbody>
</table>

| Note: Completion of this degree does not provide certification in special education |

**MASTER OF SCIENCE PROGRAM FOR STUDENTS WITH CERTIFICATION IN OTHER AREAS OF EDUCATION**

Professional Education (12 cr.):

<table>
<thead>
<tr>
<th>One of the following:</th>
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<tbody>
<tr>
<td>EDF 500 Contemporary Educational Issues</td>
<td>3</td>
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<tr>
<td>EDF 516 School and Society</td>
<td>3</td>
</tr>
<tr>
<td>EDF 524 Foundations of Contemporary Theories of Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>EDF 525 History of American Education</td>
<td>3</td>
</tr>
<tr>
<td>EDF 538 The Politics of Education</td>
<td>3</td>
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<tr>
<td>EDF 583 Sociological Foundations of Education</td>
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</tbody>
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<tr>
<th>and</th>
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</thead>
<tbody>
<tr>
<td>ED 598 Research in Education</td>
<td>3</td>
</tr>
<tr>
<td>SPED 566 Pupil Personnel Services in Special Education</td>
<td>3</td>
</tr>
<tr>
<td>SPED 577 Integrative Seminar</td>
<td>3</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Specialization (15 cr.)</th>
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</thead>
<tbody>
<tr>
<td>Choose 6 credits from:</td>
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</tr>
<tr>
<td>SPED 430 Characteristics and Education of Individuals with Behavioral/Emotional Disorders</td>
<td>3</td>
</tr>
<tr>
<td>SPED 432 Characteristics and Education of Individuals with Learning Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>SPED 434 Characteristics and Education of Individuals with Developmental Disabilities</td>
<td>3</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Choose at least 9 credits from:</th>
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</thead>
<tbody>
<tr>
<td>SPED 506 Foundations of Language for the Exceptional Child</td>
<td>3</td>
</tr>
<tr>
<td>SPED 510 Inclusive Education</td>
<td>3</td>
</tr>
<tr>
<td>SPED 530 The Family, the School and the Handicapped Child</td>
<td>3</td>
</tr>
<tr>
<td>SPED 536 Introduction to the Autistic Child</td>
<td>3</td>
</tr>
<tr>
<td>SPED 560 Crisis Intervention in the Schools</td>
<td>3</td>
</tr>
<tr>
<td>SPED 578 The Juvenile Offender as an Exceptional Learner</td>
<td>3</td>
</tr>
<tr>
<td>SPED 580 The Special Education Teacher as Consultant</td>
<td>3</td>
</tr>
<tr>
<td>SPED 590 Early Intervention for Infants, Toddlers and Preschoolers with Special Needs</td>
<td>3</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Elective (3 cr.)</th>
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<tbody>
<tr>
<td>Students choose an additional course with their adviser to complete 30 credits.</td>
<td>3</td>
</tr>
</tbody>
</table>
POST-BACCALAUREATE PROGRAM FOR CERTIFICATION IN SPECIAL EDUCATION

Professional Requirements (13 cr.):
30 hours of verified field experience with regular education students; 10 hours of verified field experience with exceptional learners.

EDTE 315 Principles of Learning 4
SPED 315 Introduction to Educating Learners with Exceptionalities 3
RDG 315 Introduction to Literacy 3

One of the following:

MATH 213 Structure of Mathematics II: Probability and Geometry 3
MATH 412 Elementary Mathematical Methods 3
RDG 412 Literacy in the Elementary School 3
RDG 414 Literacy Across the Middle Level Curriculum 3
RDG 440 Literacy in the Secondary School 3

Specialization Requirements (36 cr.):
SPED 430 Characteristics and Education of Individuals with Behavioral/Emotional Disorders 3
SPED 431 Behavior Management and Social Skills Development 3
SPED 432 Characteristics and Education of Individuals with Learning Disabilities 3
SPED 433 Educational Assessment for Exceptional Learners 3
SPED 434 Characteristics and Education of Individuals with Developmental Disabilities 3
SPED 435 Curriculum Adaptations and Teaching Strategies for Learners with Exceptionalities 3
SPED 436 Language Arts for Learners with Exceptionalities 3
SPED 437 Integrative Seminar for Beginning Special Educators 3
SPED 438 Student Teaching with Exceptional Learners I 6
SPED 439 Student Teaching with Exceptional Learners II 6

Notes:
1. It is the student's responsibility to consult the adviser on a regular basis since program policies and procedures are subject to change.
2. Students must be sure to consider pre-requisite requirements before registering for courses. Numerical listing does not necessarily indicate correct sequence.
3. In addition to maintaining a 3.00 overall average, students must maintain a B- (2.07) average in special education courses to be recommended for certification.
4. Admission to the professional program is a prerequisite for SPED 433–SPED 439.

TEACHER EDUCATION

Faculty
Carole Shmurak (Chair, Barnard 277), Elizabeth Aaronsohn, Ronnie Casella, Gail Gueto, Basanti Dey-Chakraborty, Nancy Hoffman, Maxine Howell, Lawrence Klein, Daniel Mulcahy, Karen Riem, Susan Seider, Claudia Shuster (Dept. phone: 832-2415)

Department Overview
The Department of Teacher Education is committed to the initial preparation and continuing professional education of those involved in early childhood, elementary and secondary education. Accordingly, the department offers programs leading to a Master of Science degree in the following areas: Early Childhood Education, Educational Foundations, Elementary Education and Secondary Education. The Department of Teacher Education also has a Master of Science program in Pedagogy and Leadership offered jointly with the Department of Educational Leadership. The Department offers Post-Baccalaureate Teaching Certificate programs in elementary and secondary education that are both part-time and full-time, and a 30-credit planned program of post-master's study in early childhood and elementary education.

Programs
MASTER OF SCIENCE IN EARLY CHILDHOOD EDUCATION
Coordinator: Claudia Shuster

This program is designed for early childhood educators wishing to pursue graduate study which extends their knowledge of the theory and practice of early childhood education. The program consists of a number of core requirements, directed electives, and the opportunity to develop research skills in the field.

The student's planned program of graduate study must include the following:

Core Requirements:
EDEC 550 Communication and the Young Child
EDEC 551 Programs and Curricula in Early Childhood Education I
EDEC 552 Programs and Curricula in Early Childhood Education II
EDEC 553 Family, School and Community Partnerships in Early Childhood Education
EDEC 554 Observation and Assessment in Early Childhood Education

Directed Electives (9 cr.):
As approved by adviser

History, Philosophy and Sociology of Education (3 cr. chosen from the following):
EDF 500 Contemporary Educational Issues
EDF 516 School and Society
EDF 521 History of Educational Ideas
EDF 525 History of American Education
EDF 583 Sociological Foundations of Education

Multicultural/International Perspectives on Education (3 cr. chosen from the following):
EDEL 509 Education and the Development of Cultural Understanding
EDEL 531 Education in the Inner City
EDF 522 Comparative Education
EDF 530 Multicultural Education

Research:
ED 598 Research in Education

Note:
Plan A — 33 cr., including 3–6 cr. of Thesis (replaces 3–6 cr. of electives)
Plan B — 33 cr. including comprehensive examination
Plan C — 33 cr. including Action Research Project (EDEL 591 and 592 which replace 6 cr. of electives)

MASTER OF SCIENCE IN EDUCATIONAL FOUNDATIONS/SECONDARY EDUCATION
Coordinators: Lawrence Klein, Karen Riem

This program is designed to offer teachers and other educators the opportunity to pursue graduate studies in the foundations of education or a combination of foundations and secondary education. There are,
accordingly, two strands from which a choice is made. Strand 1 is centered on the theme of policy studies in American education. Strand 2 employs an approach to the study of curriculum and instruction in secondary education which integrates both theory and practice.

**Strand 1: Concentration in Educational Foundations and Policy Studies**

Core (15 cr.):
- EDF 500 Contemporary Educational Issues
- EDF 521 History of Educational Ideas
- EDF 522 Comparative Education
- EDF 525 History of American Education
- EDF 538 The Politics of Education

Electives (9–12 cr.):
- EDF 516 School and Society
- EDF 583 Sociological Foundations of Education
- EDF 597 Supervised Readings in History and Philosophy of Education

or other electives as approved by adviser

Research (3–6 cr.):
- Plan A: ED 598 Research in Education and ED 599 Thesis
- Plan B: ED 598 Research in Education and comprehensive exam

**MASTER OF SCIENCE IN ELEMENTARY EDUCATION**

Coordinator: Nancy Hoffman

This program is designed for elementary education teachers wishing to pursue graduate study which extends their knowledge of the theory and practice of elementary education. The program consists of a number of professional courses, core requirements, directed electives, and the opportunity to develop research skills in the field.

Teacher certification in either elementary education, early childhood education, middle level education or a NK–12 special area is required for admission to the program.

Core Courses (12 cr.):
- EDEL 529 Analysis of Teaching
- EDEL 508 Current Trends in Elementary School Curriculum

and Choice of one of the following courses providing a multicultural/international perspective of education:

- EDF 530 Multicultural Education
- EDEL 531 Education in the Inner City
- EDF 522 Comparative Education
- EDEL 509 Education and the Development of Cultural Understanding

One subject matter methods course from among appropriate offerings in reading, language arts, children's literature, math, science, social studies, art, music and educational technology.

Professional Education Courses (9 cr.):
- EDF 517 Evaluation
- ED 598 Research in Education

Choice of one course from the following courses in history, philosophy or sociology of education as approved by the graduate adviser:

- EDF 500 Contemporary Educational Issues
- EDF 516 School and Society
- EDF 521 History of Educational Ideas

EDF 525 History of American Education
EDF 583 Sociological Foundations of Education

Electives (9 cr., of which 6 cr. must be in courses offered through the Department of Teacher Education.)

Note: A maximum of 6 cr. in 400-level courses may be taken with the approval of the graduate adviser.

Students choose a capstone requirement:
- Plan A: Thesis (ED 599 in lieu of one or two electives)
- Plan B: Comprehensive Examination
- Plan C: Action Research (EDEL 591, 592 which replace 6 cr. of electives)

**Post-Master's Study**

A 30-credit planned program of post-master's study is available in Elementary Education and Early Childhood Education. Programs are planned with a faculty adviser on an individual basis to meet the professional development aspirations of the student.

**POST-BACCALAUREATE TEACHER CERTIFICATION PROGRAMS**

Students who already hold a bachelor's degree may pursue teacher certification through our post-baccalaureate programs. These programs prepare students for teacher certification and do not result in a master's degree. Students can seek certification in the following fields:

- Elementary Education
- Secondary Education in the following subjects: Biology, Business, Chemistry, Earth Sciences, English, French, Integrated Science. German, History, Italian, Mathematics, Physics, Social Science and Spanish
- NK-12 Education in the following subjects: Art, Music, Physical Education, TESOL, Technology Education

Information on admission to the post-baccalaureate programs can be found on page 47.

Students have options of varying lengths to complete their certification program of study. They are as follows.

**Option 1:** This option involves part- or full-time study extended over a number of years in any certification field. Each student will, together with an adviser, put together a planned program of graduate study which would satisfy all certification requirements. Each planned program is individualized,
based on the student's previous college course work and state certification requirements.

**Option 2:** This is a full-time, summer through summer (4 semester) option in either elementary education or elementary education with an urban strand. Students in these programs take courses and field experiences in a cohort group and in a specific sequence that begins in one summer and concludes in the following summer. Credits earned may be used towards a master's degree.* An additional admissions process is required by the Department of Teacher Education. Students seeking admission to one of the Option 2 programs should submit their application to the Graduate Office no later than March 15. However, fall applications are strongly encouraged to allow students to take full advantage of financial aid and complete needed prerequisites.

### SUMMER THROUGH SUMMER POST-BACCALAUREATE CERTIFICATION PROGRAM IN ELEMENTARY EDUCATION
51 cr., 21 of which are applicable to a Master of Science in Elementary Education

* Indicates course that carries graduate credit toward a Master of Science Degree in Education.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>EDTE 540</td>
<td>Advanced Seminar in Elementary Education General Methods</td>
</tr>
<tr>
<td>EDF 415</td>
<td>Educational Foundations</td>
</tr>
<tr>
<td>FA 490</td>
<td>Integrating the Fine Arts for the Young Learner*</td>
</tr>
<tr>
<td>ED 545</td>
<td>Integration of Methods of Research and Assessment*</td>
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</tbody>
</table>

#### SUMMER THROUGH SUMMER POST-BACCALAUREATE CERTIFICATION PROGRAM IN MIDDLE LEVEL EDUCATION
This program is currently on hold. No new students will be admitted to this program.

### SUMMER THROUGH SUMMER POST-BACCALAUREATE CERTIFICATION PROGRAM IN ELEMENTARY EDUCATION: URBAN STRAND
51–54 cr., 21 of which are applicable to a Master of Science in Education

* Indicates course that carries graduate credit toward a Master of Science Degree in Education.

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>EDTE 420</td>
<td>Practicum in Elementary Education II</td>
</tr>
<tr>
<td>EDTE 510</td>
<td>Methods of Inquiry into Pedagogy and Leadership in Diverse Communities (field experience required)*</td>
</tr>
<tr>
<td>RDG 315</td>
<td>Introduction to Literacy</td>
</tr>
<tr>
<td>EDT 490</td>
<td>Instructional Computing</td>
</tr>
<tr>
<td>EDTE 540</td>
<td>Advanced Seminar in Leadership and Learning Communities*</td>
</tr>
</tbody>
</table>

#### SUMMER THROUGH SUMMER POST-BACCALAUREATE CERTIFICATION PROGRAM IN MIDDLE LEVEL EDUCATION
This program targets teaching in urban settings and is planned to respond to the presence of a highly diverse multicultural society and to issues and challenges of equity and diversity. Teacher candidates in the urban program have the added option of completing a cross endorsement in bilingual education. The urban strand elementary education program has requirements and experiences that distinguish it from other programs.

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<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>MATH 412</td>
<td>Elementary Mathematical Methods</td>
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<tr>
<td>Spring (13 cr.):</td>
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<tr>
<td>EDEL 430</td>
<td>Elementary Education Student Teaching</td>
</tr>
<tr>
<td>EDTE 540</td>
<td>Advanced Seminar in Leadership and Learning Communities*</td>
</tr>
<tr>
<td>EDEL 422</td>
<td>Elementary Education General Methods</td>
</tr>
<tr>
<td>Second Summer (12 cr.):</td>
<td></td>
</tr>
<tr>
<td>EDTE 540</td>
<td>Advanced Seminar in Leadership and Learning Communities*</td>
</tr>
<tr>
<td>RA 412</td>
<td>Principles of Learning</td>
</tr>
<tr>
<td>SCI 412</td>
<td>Elementary Science Methods</td>
</tr>
<tr>
<td>RDG 586</td>
<td>Literacy Instruction for Diverse Populations I*</td>
</tr>
<tr>
<td>EDT 415</td>
<td>Developing Instructional Materials</td>
</tr>
<tr>
<td>EDTE 540</td>
<td>Advanced Seminar in Leadership and Learning Communities*</td>
</tr>
</tbody>
</table>

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**Notes:**
- Graduate course in Anthropology, Psychology, Sociology, Educational Leadership, Reading & Language Arts or Teacher Education that focuses on diverse cultures or inner cities (approval of adviser required)

**Bilingual Education or Graduate Course Elective (optional)**

### MASTER OF SCIENCE PROGRAM IN PEDAGOGY AND LEADERSHIP
(34 cr. — Plan C)

Students wishing to complete the Master’s of Pedagogy and Leadership need to begin by completing a cross endorsement course of study in either elementary or middle level education. During the cross endorsement program students take 18 cr. toward the master's.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDEL 422</td>
<td>Elementary Education General Methods</td>
</tr>
<tr>
<td>EDEL 430</td>
<td>Elementary Education Student Teaching</td>
</tr>
<tr>
<td>EDTE 540</td>
<td>Advanced Seminar in Leadership and Learning Communities*</td>
</tr>
<tr>
<td>EDTE 540</td>
<td>Advanced Seminar in Leadership and Learning Communities*</td>
</tr>
<tr>
<td>SPD 315</td>
<td>Introduction to Educating Learners with Exceptionalities</td>
</tr>
<tr>
<td>SCI 555</td>
<td>Teaching of Science in the Elementary School</td>
</tr>
<tr>
<td>EDTE 540</td>
<td>Advanced Seminar in Leadership and Learning Communities*</td>
</tr>
<tr>
<td>SPED 315</td>
<td>Introduction to Literacy</td>
</tr>
<tr>
<td>MATH 412</td>
<td>Elementary Mathematical Methods</td>
</tr>
<tr>
<td>EDTE 315</td>
<td>Methods of Inquiry into Pedagogy and Leadership in Diverse Communities (required field experience)*</td>
</tr>
</tbody>
</table>

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**Core (18 cr.):**
- EDTE 530 Internship in Pedagogy and Leadership I
EDTE 540 Advanced Seminar in Leadership and Learning Communities (1 cr. taken 2 times)
ED 535 Integrating Curriculum Development with Educational Technology
ED 545 Integration of Methods of Research and Assessment

Capstone (4 cr.):
EDTE 531 Internship in Pedagogy and Leadership II

To complete the master's students take 12 additional credits.

Directed Elective (3 cr.):
EDF 500 Contemporary Educational Issues
or
EDF 516 School and Society

Specialization (9 cr.):
Students select three courses for 9 cr. in one of six designated specializations.
Diversity and Urban Issues: EDEL 509 and 531, EDF 522 and 530, EDL 555, RDG 586
Leadership: ED 515, EDF 538, EDL 513, 514 and 555, EDSC 505
Curriculum: ED 511, EDEL 508, EDF 524, EDSC 586, a content area course in language arts, math, science, social studies
Pedagogical Studies: ED 540, EDEL 529 or EDSC 556, EDF 521 or 525
Basic Literacy: RDG 585, 589 and RDG 590 or 591 or 592
Clinical Literacy: RDG 590, 594 and 595

OFFICE OF FIELD EXPERIENCES
Student Teaching
To be named, Director

All students in early childhood, elementary and secondary education programs who are seeking initial certification by the State of Connecticut are required to complete student teaching. Prospective student teachers must complete a student teaching application form which is available in the Office of Field Experiences. To student teach in the fall semester, applications must be submitted by March 1 in the preceding spring semester. Applications to student teach in the spring semester must be submitted by October 1 of the preceding fall semester. Students must include their letter of acceptance to the professional program of the School of Education and Professional Studies with their application for student teaching.

Student teaching courses (EDEC 430, EDEL 430, EDM 430, and EDSC 414, 415, 417, 419, 420, 421, 428, 429 and 435) may not be taken or repeated without permission of the Director of Field Experiences, as well as the chairs of the student's major department and teacher education.

The Reading Clinic (Barnard 234) provides a setting for reading and language arts teachers to help children develop reading and language arts skills. Faculty of the Department of Reading and Language Arts direct the operations of the clinic and supervise the activities of students working in the clinic. The Center for Multicultural Research and Education (Barnard Hall 260) provides a variety of professional development programs and opportunities for K–12 and university faculty that support development of education that is multicultural. Additional goals of the Center include serving as a resource center in the dissemination of research information, articles and curriculum materials, and supporting efforts to recruit students representing diverse cultural backgrounds to the teacher preparation and professional programs.

The Center for Innovation in Teaching and Technology (CITT), located in Barnard Hall 333, provides faculty and students with opportunities to create learning outcomes through using state-of-the-art technology in multi-media, computer-based instruction and other technological delivery systems.
The School of Technology provides a broad range of educational and career enhancement opportunities in technological disciplines through a balance of theory and application that enhances individual's contributions to the global marketplace. Our students/clients develop the knowledge and confidence needed to meet today's modern challenges as members of engineering, technical management and educational teams.

The School of Technology has maintained state-of-the-art technical laboratories. Students are provided the opportunity to develop an understanding of tools, materials and instrumentation related to their technical specialization.

**INDUSTRIAL TECHNICAL MANAGEMENT**

**Faculty**

Paul J. Resetarits, Chair; Industrial Technology (Resetarits@ccsu.edu); Graduate Advisers: Stuart Bennett, James DeLaura, Olusegun Odesina, Karen Tracey, Peter Vernesoni, Michael Vincenti (Dept. Office: 236 N. Copernicus Hall; Dept. phone: 832-1830)

**Overview**

The Master of Science in Industrial Technical Management provides students with academic experiences that enable them to develop professionally and effectively direct change and productivity in business and industry. Flexibility is the cornerstone of this degree. Core program requirements focus on managerial responsibility, human relations and communication processes in organizations, financial analysis, applied research and use of the computer as an industrial tool. Directed electives may include internal marketing strategies, product research and control and development of technical skills, as well as total quality system management. Graduate study plans in technology are individually designed by faculty advisers to prepare responsible professionals in the field. The needs and interests of students with established careers as technical managers in corporations are considered, as well as those individuals who aspire to leadership positions in the industrial sector. Many of the courses for this degree are offered online.

**Program**

The Master of Science in Industrial Technical Management consists of three different plans. A is 30 credits with a thesis, B is 36 credits with comprehensive exams and C is 30 credits with a research project.

a. All three plans have a core curriculum (18 cr.) as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 500</td>
<td>Industrial Applications of Computers</td>
</tr>
<tr>
<td>IT 502</td>
<td>Human Relations and Behavior in Complex Organizations</td>
</tr>
<tr>
<td>IT 510</td>
<td>Industrial Planning and Control</td>
</tr>
<tr>
<td>IT 551</td>
<td>Project Management</td>
</tr>
<tr>
<td>IT 598*</td>
<td>Research in Technology</td>
</tr>
<tr>
<td>AC 510</td>
<td>Accounting and Control</td>
</tr>
</tbody>
</table>

b. Directed electives. Plans A and C require 9 credits. Plan B requires 18 credits. These are courses in technology at the 400-, 500- and 600-level as approved by a faculty adviser. This allows the student flexibility to develop a specialization.

* It is strongly recommended that IT 598 be taken within the first nine credits of a student's program of study.

**Specializations**

Some examples could include, but are not limited to, Construction Management, Computer Applications, Electronics, Environmental and Occupational Safety, Graphic Communication, Manufacturing Processes, Quality Management and Robotics and Automation.

c. All three plans have capstone course requirements of 3-6 credits.

Plan A: IT 597 Thesis
Plan B: Comprehensive exam
Plan C: IT 595 Applied Research Topic in Technology

**Technical Prerequisites**

It is expected that M.S. in Industrial Technical Management students possess technical prerequisites for their planned programs of graduate study. Students who do not meet the necessary requirements may be requested to complete prerequisites before enrolling in courses.

**TECHNOLOGY EDUCATION**

**Faculty**

Michael J. Williams (Chair; williamsm@ccsu.edu), John Larkin, Peter Rodrigues (Dept. phone: 832-1850)

**Department Overview**

The graduate programs in Technology Education are designed to meet the needs of teachers who have completed an undergraduate program in technology education. However, individuals with technical or engineering degrees who are interested in teaching in industry or at a community college or university would benefit by completing a graduate degree in technology education. In addition, elementary educators interested in integrating educational disciplines (especially the integration of mathematics, science, technology and social science) would find a graduate degree in technology education very suitable. The programs provide a maximum amount of flexibility. Students, in consultation with their adviser, may plan a program of study uniquely fitted to their needs.

The Department of Technology Education offers graduate programs in the following areas.

**Master of Science in Technology Education**

With the guidance of an adviser, students select from the following plans: Plan A (30 credits including a thesis); Plan B (30 credits and comprehensive examination), or Plan C (30 credits including a special project).

**Post-Master's Study**

The student must have an appropriate master's degree and consult with a TE graduate adviser to plan a program of advanced study.
Programs

MASTER OF SCIENCE IN
TECHNOLOGY EDUCATION

The program is a balance of liberal arts, research, and professional and technology education courses leading to a Master of Science in Technology Education degree. A minimum of 30 credits in approved graduate courses is required. The program is designed for flexibility in meeting the needs of the individual students. Programs of study are individualized through electives and independent study.

The primary purpose of the program is to develop the professional competencies of technology education instructors so that they may successfully progress in their chosen field. Specifically, graduates of the program will:

- exhibit an acceptable degree of professional competencies and proficiency essential for meeting educational and social challenges
- update their technical competencies and understandings in their major area of concentration
- analyze and evaluate recent issues in their field, such as curriculum innovations and strategies for program improvement and/or implementation
- explain how the relationship between their field and the academic disciplines impacts the development of their students
- identify and research problems in education and use the results for professional improvement
- further their interest in and potential for educational leadership or other service in or outside their area of concentration

Many of the graduate students pursuing a master's degree in Technology Education are employed as technology education instructors in secondary schools; instructors/supervisors in industry education programs; instructors in community colleges and technical schools; instructors/supervisors in government agencies; and technology education instructors in overseas dependent schools.

Professional Education (6–9 cr.):
One of the following:

EDF 500 Contemporary Educational Issues
EDF 516 School and Society
EDF 524 Foundations of Contemporary Theories of Curriculum
EDF 525 History of American Education
EDF 538 The Politics of Education
EDF 583 Sociological Foundations of Education

and

Additional electives as approved by the faculty adviser — students may focus on instruction, curriculum development, administration/ supervision, special education, or research.

Technology Education offerings approved by adviser (12–21 cr.)

Research (3–6 cr.):
TE 598 Research in Technology Education (required as part of first 12 cr. of the graduate program)
ED 599 Thesis (for Plan A)
TE 596 Special Project in Technology Education (for Plan C)

Comprehensive Examination (for Plan B)

TECHNOLOGY EDUCATION CERTIFICATION PROGRAM FOR COLLEGE GRADUATES

This post baccalaureate certification program provides courses for college graduates, regardless of previous major, to teach technology education. This program, comprised of technical and professional courses, is offered in the late afternoon and evenings. The number of courses required to complete the program is contingent upon each student's previous industrial experience and formal degree work.

This program provides a unique opportunity for individuals seeking a career change. A minimum undergraduate cumulative grade point average of 2.70 is required for admission to this program. All students must first apply to the Graduate Office. Once the student is accepted into the certification program, an adviser will be assigned who will assist in planning a program of graduate and undergraduate courses which incorporate certification requirements of the state of Connecticut. For additional information please contact the Chair, Department of Technology Education.

EDF 500 Contemporary Educational Issues
EDF 516 School and Society
EDF 524 Foundations of Contemporary Theories of Curriculum
EDF 525 History of American Education
EDF 538 The Politics of Education
EDF 583 Sociological Foundations of Education

PROGRAMS

Faculty

Computer Science: Joan Calvert (Director, Maria Sanford 206, 832-2715), Fatemeh Abdollahzadeh, William Jones, Bradley Kjell, Zdravko Markov, Charles Neville, Brian O'Connell, Irena Pevac, Neli Zlatareva

Management Information Systems:
Marianne D'Onofrio, Raymond Papp

Industrial Technology: James DeLaura, Paul Resataris, Karen Tracey, Michael Vincenti, Deborah Zanella

(web site address: www.cs.ccsu.edu/cit/index.html)

Program

For details of the program, see page 32 of this catalog.

SCHOOL OF TECHNOLOGY CENTER

The Institute for Industrial and Engineering Technology, located in downtown New Britain at 185 Main Street, is the outreach function of the School of Technology. The Institute provides the business and industrial communities with economic development services through six centers. The Technical Training Center assists companies in technical updating, ranging from quality assurance to engineering design and analysis. The Manufacturing Applications Center is designed to help small manufacturers make the transition to advanced technology in their manufacturing processes. The Center for Flexible Manufacturing Networks is designed to help link small manufacturers together. The Procurement and Technical Assistance Center assists small- and medium-sized companies in the bidding process for government procurement.

The Human Resource Development Center assists business, government and not-for-profit agencies in educational and training programs for their workforce. Programs range from basic business skills to advanced computer training. The Institute also has a Conference Center and houses the New Britain Industrial Museum.
Designated as a Center for Excellence in International Education in 1986, the University has developed a wide variety of programs and initiatives that support this aspect of its mission. The continuing enrichment, expansion and refinement of the Master of Science in International Studies result from the institution's established commitment to global awareness. The four courses which comprise the program core are designed to deepen and extend knowledge of present and past world affairs, social perspectives and human nature, communication skills in multinational affairs, personal values and cultural traditions.

The balance of the master's program in international studies (15 credits) is individually designed by students and their faculty advisers to ensure that career plans and research interests are accommodated. If a student wishes to travel or work in a different country, these preferences may receive consideration within the program's scope.

Another approach involves upper division and graduate course selection from a variety of disciplines, including modern languages, history, geography, political science, economics, anthropology, religion, communication and others, provided at the University to develop specializations with a global or theoretical orientation. Or, students may focus on an area of the world such as Africa, East Asia, Latin America, the Middle East and Eastern or Western Europe.

To ensure adequate preparation for a career or further study in international affairs, language competency related to the area of specialization is required. Mid-level reading, writing, speaking and comprehension skills may be demonstrated by examination or through appropriate course work.

**Faculty**

International Studies Curriculum Coordinator: Joseph McKeon (832-2921)

**African Studies:** Evelyn Newman Phillips (Coordinator, Anthropology Dept.), Gabriel Alungbe, Ali Antar, Carol Austad, Walton Brown-Foster, Tennyson Darko, Ghassan El-Eid, Gloria Emeagwali, Parker English, Sheri Fafunwa-Ndibe, Peter Kyem, Peter LeMaire, C. Charles Mate-Kole, Andrew Moemeka, Segun Odesina, Peter Osei, Warren Perry, Timothy Rickard, Renee White (Phone: 832-2617)

**East Asian Studies:** Shizuko Tomoda (Coordinator, Modern Languages Dept.), Gavro Altman, Yanan Ju, Ki Hoon Kim, Cheng Sing Lien, Joseph McKeon, Paul Petterson, Xiaoping Shen, Caryn Stedman (Phone: 832-2892)

**European Union/West European Studies:** Carmela Pesca (Coordinator, Modern Languages Dept.), Richard Benfield, George Claffey, Paloma Lapuerta, Angela Morales, Maria Passaro, Paul Petterson, Timothy Rickard, Karen Ritzenhoff, Marie-Claire Rohinsky, Robert Stowe, Ronald Todd, Martha Wallach, G. Weinberger, Louise Williams (Phone: 832-2882)

**Latin American Studies:** Antonio Garcia-Lozada (Coordinator, Modern Languages Dept.), Walton Brown-Foster, Gloria Caliendo, Adolfo Chavarro, George Claffey, Gail Cueto, Marco Cupolo, Francisco Donis, Ronald Fernandez, Frank Gagliardi, Gustavo Mejia, Serafin Mendez-Mendez, George B. Miller, Thomas Mione, Angela Morales, Alfred C. Richard, Moises Salinas, James N. Snaden, Lilian Uribe (Phone: 832-2895)

**Middle Eastern Studies:** Ali Antar (Coordinator, Physics and Earth Sciences Dept.), Fatemah Abdollahzadeh, Karen Beyard, Anthony Cannella, Ghassan El-Eid, Gloria Emeawgali, Joseph McKeon, Norton Mezvinsky, Anastasios Papathanasis, Timothy Rickard, Nanjundiah Sadanand, Leyla Zidani-Eroglu (Phone: 832-2932)

**Slavic/East European Studies:** Paul Karpuk (Coordinator, Modern Languages Dept.), Gavro Altman, Richard Benfield, Jay Bergman, Stanislaus Blejwas, David Kideckel (Phone: 832-2883)

**Program Overview**

A multidisciplinary program leading to the Master of Science in International Studies, for students who wish either to study a specific area of the world, such as Africa, East Asia, Latin America, the Middle East, Western Europe or Eastern Europe, or to develop a program with a global, theoretical or conceptual perspective, is offered through the International and Area Studies Committee.

**Program**

30 or 33 cr. in International Studies (Plan A, Plan B or Plan C) as follows:

**Common Core (12 cr.):**
- IS 570 Modern World Issues
- IS 571 International Diversity and Integration
- IS 572 Global Economic Integration

**COMM 543 Intercultural Communication**

**Specialization (15 cr.):**

Approved courses in one of African Studies, East Asian Studies, European Union/West European Studies, Latin American Studies, Middle Eastern Studies or Slavic/East European Studies; or approved courses to constitute a cohesive specialization with a global, theoretical or conceptual perspective.

**Research and Capstone Requirements**

(3 or 6 cr.):
- Plan A: IS 598 Research in International Studies and IS 599 Thesis in International Studies or
- Plan B: IS 598 Research in International Studies and comprehensive exam or
- Plan C: IS 598 Research in International Studies and IS 595 Special Project in International Studies

**Language Requirement**

The program also requires competency in a language appropriate to the specialization. This requirement may be fulfilled either by an examination verifying mid-competency level in each of reading, writing, speaking and understanding or by successful completion of the equivalent 18 undergraduate credits.

Note: Provisionally certified teachers choosing this master of science degree program are also expected to complete EDF 500 and 522.

**Advisers**

Initially, on acceptance to the program, students are assigned to the International Studies Curriculum Coordinator for advice. As soon as possible students will be assigned an adviser appropriate to their regional or thematic specialization. This adviser will normally serve as the faculty member supervising the advisee's IS 598 course and thesis, special project or comprehensive examination.
## ACCOUNTING

**Note:** Additional work will be required for graduate credit in 400-level courses.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC 401</td>
<td>FEDERAL INCOME TAX I</td>
<td>3</td>
</tr>
<tr>
<td>Prereq.: AC 212 and permission of instructor. Covers the federal tax structure facing the individual, gives practice in preparing federal tax forms and emphasizes the source of tax law.</td>
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<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC 402</td>
<td>FEDERAL INCOME TAX II</td>
<td>3</td>
</tr>
<tr>
<td>Prereq.: AC 401 or permission of instructor. Detailed course on taxability of corporation income, allowable and unallowable deductions, net operating losses and capital transactions. Also contains material on corporate reorganizations, personal holding companies and potentialities of taxes on undistributed surplus. Includes background of partnership, estate and trust tax law and history of tax legislation.</td>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>AC 403</td>
<td>ESTATE TAXATION AND PROBATE ACCOUNTING</td>
<td>3</td>
</tr>
<tr>
<td>Prereq.: AC 401. A basic course in estate taxation and probate accounting. Area coverage includes post-mortem tax planning, examination of the U.S. estate and fiduciary tax returns, and probate accounting rules.</td>
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</tbody>
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<tr>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>AC 407</td>
<td>ADVANCED ACCOUNTING</td>
<td>3</td>
</tr>
<tr>
<td>Prereq.: AC 313. Partnership accounting, consignments and installation sales, parent and subsidiary accounting, consolidations and mergers, agencies and branches.</td>
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</table>

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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC 408</td>
<td>CONTEMPORARY ACCOUNTING PROBLEMS</td>
<td>3</td>
</tr>
<tr>
<td>Prereq.: Senior standing. Advanced topics in contemporary accounting theory. Integrated review for students majoring in accounting.</td>
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</table>

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<tr>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC 430</td>
<td>ACCOUNTING FOR NON-PROFIT INSTITUTIONS</td>
<td>3</td>
</tr>
<tr>
<td>Prereq.: AC 212 and 311. Previously AC 330. Comprehensive survey of governmental and other non-profit institution accounting as it relates to budgeting, cost accounting and financial reporting. Statutory influences which direct and control operation funds, bonded debt, fixed assets, investments, revenue and expenditure classification, general property taxes and inter-fund relationships are subjected to detailed study.</td>
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</thead>
<tbody>
<tr>
<td>AC 440</td>
<td>ACCOUNTING INFORMATION SYSTEMS</td>
<td>3</td>
</tr>
<tr>
<td>Prereq.: Senior standing. The role of accounting in the analysis, design and implementation of effective information systems is stressed. Methods of collecting accounting data and communicating these data to management's planning and control functions are examined. Developing of internal controls for organizational systems is emphasized. [c]</td>
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<tr>
<th>Course Code</th>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>AC 445</td>
<td>AUDITING</td>
<td>3</td>
</tr>
<tr>
<td>Prereq.: AC 440. Duties and responsibilities of auditor, kinds of audits, review of accounting theory in its application to work of auditor, internal control and relationship to auditing procedures, auditing working papers, financial statements and reports.</td>
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<td></td>
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</tbody>
</table>

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<tr>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC 455</td>
<td>INTERNAL AUDITING</td>
<td>3</td>
</tr>
<tr>
<td>Prereq.: AC 440. Duties and responsibilities of Internal Auditors within the management team of the organization are explored. Topics include the organization of the Internal Audit Department, staff qualification and development and the elements of Internal Auditing.</td>
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</tbody>
</table>

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<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC 510</td>
<td>ACCOUNTING AND CONTROL</td>
<td>3</td>
</tr>
<tr>
<td>Prereq.: AC 210 or 211 or permission of instructor. Previously BUS 510. The utilization of accounting data in the determination of management alternatives. Topics include analysis of financial reports and budgeting.</td>
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</tr>
</tbody>
</table>

## ACTUARIAL SCIENCE

**Note:** Additional work will be required for graduate credit in 400-level courses.

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<tr>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ACTL 465</td>
<td>ACTUARIAL MODELS I</td>
<td>4</td>
</tr>
<tr>
<td>Prereq.: STAT 315. Topics chosen from survival distributions and life tables, life insurance, life annuities, net premiums, premium reserves, multiple life functions and multiple decrement models. F[e]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Symbols
- **F** = Fall
- **S** = Spring
- **SS** = Summer Session
- **WS** = Winter Session
- **IR** = irregular
- (o) = odd year
- (e) = even year
- no symbol = course offered both semesters of the academic year
- [c] = computer-intensive course

**Previous BUS 530. Introduction to financial and management accounting, emphasizing the uses of accounting information for planning, controlling and decision-making activities. Topics include financial statements and their analysis, inventory systems, product costing, standard costs and budgeting.**

**Previous BUS 531. Linking the accounting system with the demands for financial information from managers and other professional employees. Examines the use of accounting information in management, marketing and finance within the global environment. [c]**

**Previous AC 532. Accounting Theory, Research and Policy**

**Previous BUS 533. Study of the conceptual framework of auditing principles, emphasizing recognition, measurement and financial reporting. Current issues facing accounting are explored. Historical and present-day standard setting processes examined.**

**Previous AC 534. Budgetary Planning and Control Systems**

**Previous BUS 535. Advanced Auditing**

**Previous AC 535. Role of budgetary systems in an organization's planning and control activities. Topics include behavioral impact of budgets, responsibility centers, budget preparation and analyzing performance reports.**

**Previous AC 536. International Accounting**

**Previous AC 536. Examines the environmental factors affecting international accounting concepts and standards. Includes financial reporting and other specific accounting and auditing problems. IR**

**Previous AC 537. Information Systems Audit and Control**

**Previous AC 537. Emphasizes the audit and evaluation of controls of information processing in a computerized environment. Covers the auditing standards affecting emerging technologies used in business transactions. Includes statistical applications in tests of controls. [c]**

**Previous AC 539. Current Topics in Accounting**

**Previous AC 539. Topics vary to reflect conditions in the field. May be repeated with different topics for a maximum of six credits.**

**Previous AC 540. Internal Auditing**

**Previous AC 540. Duties and responsibilities of Internal Auditors within the management team of the organization are explored. Topics include the organization of the Internal Audit Department, staff qualification and development and the elements of Internal Auditing.**

**Previous AC 545. Auditing**

**Previous AC 440. Duties and responsibilities of auditor, kinds of audits, review of accounting theory in its application to work of auditor, internal control and relationship to auditing procedures, auditing working papers, financial statements and reports.**

**Previous AC 445. Duties and responsibilities of auditor, kinds of audits, review of accounting theory in its application to work of auditor, internal control and relationship to auditing procedures, auditing working papers, financial statements and reports.**

**Previous AC 455. Internal Auditing**

**Previous AC 440. Duties and responsibilities of Internal Auditors within the management team of the organization are explored. Topics include the organization of the Internal Audit Department, staff qualification and development and the elements of Internal Auditing.**

**Previous AC 510. Accounting and Control**

**Previous AC 210 or 211 or permission of instructor. Previously BUS 510. The utilization of accounting data in the determination of management alternatives. Topics include analysis of financial reports and budgeting.**
COURSE DESCRIPTIONS

ANTH 437  INTERNSHIP IN ANTHROPOLOGY 3
Prereq.: Permission of instructor. Topics chosen from theory of interest, risk theory, demography and graduation. S

ANTH 480  TOPICS IN ACTUARIAL SCIENCE 1–3
Prereq.: ACTL 335 and permission of instructor. Review and extension of the principles of theory of interest, economics and finance as related to the material on the SOA/CAS Course 3 exam. F (o)

ACTL 465  ACTUARIAL MODELS II 4
Prereq.: STAT 416 (may be taken concurrently) and ACTL 465. Continuation of ACTL 465. Topics chosen from survival models, frequency and severity models, compound distribution models, stochastic process models and ruin models. S (o)

ACTL 482  REVIEW—SOA/CAS COURSE 2 1–3
Prereq.: ACTL 335 and permission of instructor. Review and extension of the principles of theory of interest, economics and finance as related to the material on the SOA/CAS Course 2 exam. F (o)

ANTH 450  ARCHAEOLOGICAL FIELD SCHOOL 3–6
Prereq.: Permission of instructor. Development of qualitative research skills central to cultural anthropology through language study, home stays, seminars, speakers and excursions. Normally involves travel outside the United States. IR

ANTH 451  FIELD SCHOOL IN CULTURAL ANTHROPOLOGY 3–6
Prereq.: ANTH 160 or permission of instructor. Examination of human behavior from the perspective of ethology including behavioral responses to our unique cultural environments. S (e)

ANTH 470  ANTHROPOLOGY AND MODERN WORLD ISSUES 3
Prereq.: ANTH 140 or SOC 110 or 111, or permission of instructor. Anthropological approaches to understanding and addressing contemporary world problems such as population, underdevelopment, ecological degradation, war and diplomacy, and cultural extinction. F (e)

ART 408  THE ART OF GREECE IN THE BRONZE AGE 3
Prereq.: ART 110 or 112. Historical development of painting, architecture and sculpture from the New Erath to the end of the Bronze Age. Focus on the art of polishing Minoan and Mycenaean civilizations. IR

ART 409  STUDIES IN ART HISTORY 3
Prereq.: ART 110 or 112. Selected topics in the history of art, announced each semester. Students may not take this course for credit under the same topic more than once.

ART 411  ROMAN ART 3
Prereq.: ART 110 or 112. Historical development of painting, sculpture and architecture from Romulus to Constantine. S

ART 412  ORIENTAL ART 3
Historical development of visual arts of Far Eastern societies. Includes architecture, painting, sculpture and minor arts of China, India, Japan and Korea. IR

ART 414  AMERICAN ART 3
Prereq.: ART 110, 112 or 113. Historical development of painting, sculpture and architecture in America from the 17th century to the present.

ART 416  MODERN ART 3
Prereq.: ART 110, 112 or 113. Historical development of painting, sculpture and architecture from the late 19th century to the present.
COURSE DESCRIPTIONS

ART 420  ISSUES IN CONTEMPORARY AMERICAN ART  3
Prereq.: ART 110, 112 or 113. American Art post-World War II to the present
with emphasis on topics such as post modernism, public sculpture, feminist art,
multiculturalism and contemporary art criticism. Includes visits to Hartford and
New York galleries. (o)

ART 424  ILLUSTRATION III  3
Prereq.: ART 324. Topics in the development of individual media techniques.

ART 430  COLOR DRAWING  3
Prereq.: ART 230 or 252 or 431. Advanced course in drawing using a painterly
approach. Strengthening of individual direction through an exploration of space
composition, color and surface in a variety of color drawing mediums. F

ART 431  LIFE DRAWING I  3
Prereq.: ART 130 or 435. A structural approach to drawing the nude and
clothed model with focus on gesture, proportion, and the figure in the environ­
ment. Majors only.

ART 432  LIFE DRAWING II  3
Prereq.: ART 431 or permission of department chair. Majors only.

ART 435  ADVANCED DRAWING  3
Prereq.: Permission of instructor. Emphasis on development of an expressive use
of line and value. Various materials used: including ink, pencil, conte crayon,
chalk, wire, charcoal and others. Studio and seminar.

ART 441  INTAGLIO II  3
Prereq.: ART 341, graduate standing or permission of instructor. Continuation of
Intaglio I. S

ART 443  SILKSCREEN II  3
Prereq.: ART 343, graduate standing or permission of instructor. Continuation of
Silkcreen I. F

ART 450  ADVANCED WATERCOLOR PAINTING
AND RELATED MEDIA  3
Prereq.: ART 250 or permission of instructor. This course will explore various
watercolor processes and effects unique to each, i.e.: tempera, aquarelle, water
acrylics and colored inks. Historical and contemporary examples of watercolor
techniques will be discussed.

ART 464  DESIGN—HANDCRAFT MATERIALS AND
TECHNIQUES II  3
Prereq.: ART 264 or 435. Continuation of ART 264. Varied hand-crafts, materi­
als and processes are explored as modes of artistic expression.

ART 465  STUDIO TOPICS  1-3
Prereq.: To be stipulated at time of course offering. Selected topics in studio art,
announced each semester. Students may not take this course for credit under the
same topic more than once.

ART 466  JEWELRY—DESIGN  3
Prereq.: ART 120 or 366 or 435. Course exploring the possibilities of materials
and equipment in jewelry and metal work, with emphasis on design.

ART 468  CERAMICS IV  3
Prereq.: ART 460. Thesis-clay and glaze design used to express a statement in form.

ART 470  ADVANCED CERAMICS I  3
Prereq.: ART 468. Emphasis on skills in wheel use, glazing and firing techniques.

ART 490  CURATORSHIP  3
Theory and practice in collection management, gallery and museum program­
ing and exhibition design. On demand.

ART 494  LOCATION STUDIES—ART  3 or 6
Direct contact with cultural resources internationally. Consideration of principles
common to all arts and those unique to art and architecture. Field trips to
exhibits, private collections, artists' ateliers, operas, and museums. Preparatory
reading, discussion, critical analysis and concluding projects. SS

ART 498  INDEPENDENT STUDY  1-6
Prereq.: Formal application to Art Department chair following procedure
approved by Art Department faculty. Individually planned program of inde­
pendent study in Art or Art Education for students who wish to pursue special­
ized areas not covered in regular course offering or to go beyond that provided
for in the program. Must be requested three weeks before new semester.

ART 500  PROBLEMS IN ART EDUCATION  3
Prereq.: 9 credits of approved graduate study or approval of adviser. Required of all
Art concentration and cross-certification graduate students. Designed to orient
students to current issues surrounding the field of art education. The role of art
teacher will be studied from the standpoint of professional growth, art organiza­
tions, administrative structures of schools and professional ethics. S (c)

ART 509  COLOR STUDIES in ART I  3
Prereq.: ART 450 or 452 or equivalent. For the advanced student who wishes to
concentrate more deeply in one or two of the media or technique areas with the
intention of developing personal expression.

ART 511  ADVANCED PAINTING I  3
Prereq.: ART 500. Continuation of ART 550.

ART 560  ADVANCED CERAMICS II  3
Prereq.: ART 469. Various types of firings. Advanced techniques leading to
professional studio potter.

ART 561  ADVANCED CERAMICS III  3
Prereq.: ART 560. Using self-designed clay and glaze to make a mini solo exhibition.

ART 562  ADVANCED SCULPTURE II  3
Prereq.: ART 462 or equivalent. In-depth exploration of one or possibly two
sculptural pro­cesses to be announced. IR

ART 563  ADVANCED SCULPTURE III  3
Prereq.: ART 562. Continuation of ART 562. IR

ART 566  ADVANCED TOPICS in ART  1-6
Prereq.: Department chair's approval, and a minimum of 6 credits in the area
selected for independent study. Maximum credits in any one studio area or in art
education research is 12. Maximum credits permitted during one semester is 6.
Course is only for advanced graduate students who have shown evidence of abili­
ity to complete satisfactorily graduate work in art or art education. The student
does independent studio or research work of advanced nature and works with an
assigned adviser for criticism.

ART 576  INDEPENDENT STUDY IN ART AND/OR
ART EDUCATION  1-6
Prereq.: Department chair's approval, and a minimum of 6 credits in the area
selected for independent study. Maximum credits in any one studio area or in art
education research is 12. Maximum credits permitted during one semester is 6.
Course is only for advanced graduate students who have shown evidence of abili­
ity to complete satisfactorily graduate work in art or art education. The student
does independent studio or research work of advanced nature and works with an
assigned adviser for criticism.

ART 579  EXHIBITION RESEARCH (PLAN C)  3
Prereq.: 21 credits of approved graduate study or recommendation of student's
graduate adviser. Student is expected to carry on research related to exhibition
topic. Credit will be granted when the student's art exhibition is accepted by the
exhibition committee.

ART 598  RESEARCH IN ART EDUCATION  3
Prereq.: 9 credits of approved graduate study or recommendation of student's
adviser. Designed to familiarize student with techniques and resources associated
with research in the field of specialization. Opportunity for practical application
will be provided. F (c)
BIOLOGY

Note: Additional work will be required for graduate credit in 400-level courses.

BIO 401 HUMAN NUTRITION AND METABOLISM 3
Prereq.: BIO 201 and 202, or permission of department chair; CHEM 122. Biochemical and physiological processes that affect the nourishment of humans, including newborns and the aging. Interactions among nutrients, the environment, and the body resulting in perturbations affecting human health are considered. S(o) [c]

BIO 405 ECOLOGY 4
Prereq.: BIO 401 and 202, or permission of department chair. Distribution and abundance of different types of organisms and their physical, chemical and biological features and interactions that determine survival, growth and reproduction in changing environments. Ecological theory and quantitative analyses included in lecture and laboratory. Three hours of lecture and one three-hour laboratory per week. F [c]

BIO 410 ECOLOGICAL PHYSIOLOGY 4
Prereq.: BIO 201 and 202, or permission of department chair; CHEM 250 or 311. A study of animal physiology in which the diversity of physiological adaptations for various habitats is stressed. Three hours of lecture and one three-hour laboratory per week. F(e) [c]

BIO 411 CELLULAR PHYSIOLOGY AND METABOLISM 4
Prereq.: BIO 201 and 202, or permission of department chair; CHEM 250 or 311. Cellular environment, some of the homeostatic mechanisms whereby the cell maintains a steady state. Structure of a cell in terms of its chemical composition and physicochemical and functional organization and certain aspects of cellular metabolism: permeability, respiration and energy metabolism, synthesis, and growth and differentiation. Specialized cellular functions such as excitation and contraction. Three hours of lecture and one three-hour laboratory per week. S [c]

BIO 412 HUMAN PHYSIOLOGY 3
Prereq.: BIO 201 and 202, or permission of department chair; CHEM 250 or 311. Study of the human body and its reactions to internal and external environmental changes. Physiology of the musculoskeletal, nervous, circulatory, respiratory, excretion and endocrine systems is considered. Integrative mechanisms of the systems are emphasized. S [c]

BIO 413 HUMAN PHYSIOLOGY LABORATORY 1
Prereq. or coreq.: BIO 412. Laboratory course to accompany BIO 412. One three-hour laboratory per week. S

BIO 416 IMMUNOLOGY 3
Prereq.: BIO 201 and 202, or permission of department chair. Introduction to the structure of the immune system, the immunoglobulins, antigen-antibody interactions, infection immunity, lymphocytes, histocompatibility and genetic regulation. S [c]

BIO 417 IMMUNOLOGY LABORATORY 1
Prereq. or Coreq.: BIO 416. Introduction to the anatomy and histology of the immune system and an introduction to some immuno-chemical and immunodiagnostic laboratory techniques involving the principles of precipitation, agglutination and immuno-electrophoresis. One three-hour laboratory per week. S

BIO 420 ORNITHOLOGY 4
Prereq.: BIO 201 and 202, or permission of department chair. Life histories, physical and physiological adaptations, evolution, ecology and behavior of birds. Laboratories will include field identification and other behavioral and ecological research techniques. Three hours of lecture and one three-hour field or laboratory period per week. S(e) [c]

BIO 425 AQUATIC PLANT BIOLOGY 4
Prereq.: BIO 201 and 202, or permission of department chair. Ecology and classification of microalgae, macroalgae, and vascular plants from marine, estuarine, and freshwater environments. Laboratories and field trips include collection and identification of plants from Connecticut aquatic habitats. Three hours of lecture and one three-hour laboratory per week. Some Saturday field trips required. F(e) [c]

BIO 434 ECOLOGY OF INLAND WATERS AND ESTUARIES 4
Prereq.: BIO 201 and 202, or permission of department chair; CHEM 122. A comparison of freshwater and estuarine environments with emphasis on physical and chemical parameters influencing the distribution of aquatic organisms, nutrient cycling and factors affecting aquatic productivity. Three hours of lecture and one three-hour laboratory per week. Some Saturday field trips required. F(o) [c]

BIO 436 ENVIRONMENTAL RESOURCES AND MANAGEMENT 3
Prereq.: BIO 201 and 202, or permission of department chair; CHEM 122. Analysis of the interactions of human population-resource depletion-pollution at local to global scales from an environmental management/protection perspective. Emphasis upon better understanding the impacts of over-population and methods for control, significance and loss of biodiversity, aquatic pollution and global climate change. S(e) [c]

BIO 438 AQUATIC POLLUTION 4
Prereq.: BIO 201 and 202, or permission of department chair; CHEM 122. Study of the various types of aquatic pollutants, their sources and control/treatment, and the effects of water pollution upon aquatic ecosystems; as well as Federal and State water pollution regulatory programs. Laboratory will include field collection of water samples and measurement of indicators of water quality. Three hours of lecture and one three-hour laboratory per week. S(o) [c]

BIO 440 EVOLUTION 3
Prereq.: BIO 201 and 202, or permission of department chair. Mechanisms of inter-generational change including mutation, selection and drift; sexual selection; speciation; and extinction. IR [c]

BIO 444 PLANT TAXONOMY 3
Prereq.: BIO 201 and 202, or permission of department chair. Scientific approach to identification and classification of locally occurring plants using taxonomic keys. Includes ferns, fern allies, conifers, and flowering plants with emphasis on the last. Field walks and plant collections required. Two hours of lecture and one three-hour laboratory per week. IR [c]

BIO 449 PLANT PHYSIOLOGY 3
Prereq.: BIO 201 and 202, or permission of department chair. Basic principles of plant function. Emphasis on the soil-plant-air continuum, phloem transport, photosynthesis and mechanisms of plant responses to the environment. IR [c]

BIO 450 INVESTIGATIONS IN PLANT PHYSIOLOGY 1
Prereq. or coreq.: BIO 449 or permission of instructor. Investigative laboratory in plant physiology. Topics include water potential, transpiration, mineral nutrition, phloem transport, photosynthetic and respiratory gas exchange, photosynthetic electron transfer, plant movements and plant hormones. One three-hour lab per week. IR

BIO 468 ARTHROPOD BIOLOGY 4
Prereq.: BIO 201 and 202, or permission of department chair. Systematic approach to arthropods with emphasis on insects. Topics in morphology, physiology, evolution, land economics, importance of various groups are considered. Three hours of lecture and one three-hour laboratory per week. IR

BIO 480 ANIMAL BEHAVIOR 4
Prereq.: BIO 201 and 202, or permission of department chair. Adaptive functions, evolutionary history, control, and development of behavior in vertebrates and invertebrates. Laboratories focus on techniques of observation, experimental design and data analysis. Three hours of lecture and three hours of laboratory per week. F(e) [c]
BIO 481 COMPARATIVE VERTEBRATE ANATOMY 4
Prereq.: BIO 201 and 202, or permission of department chair. Comparative anatomy and functional morphology of representative organ systems of vertebrates. Laboratories include dissection and study of preserved material of representative vertebrates. Two hours of lecture and two-three-hour laboratories per week. IR [c]

BIO 490 STUDIES IN BIOLOGY 1-4
Prereq.: BIO 201 and 202, or permission of department chair. Selected studies in the biological sciences which are not offered presently in the curriculum of the department. Course may be repeated for different topics, but students may not take this course for credit under the same topic more than once. IR [c]

BIO 495 MOLECULAR BIOLOGY 4
Prereq.: BIO 306 or permission of department chair. Introduction to the structure and function of DNA. Emphasis on approaches currently being used to analyze the expression of genes. Examination of regulated gene expression and its relationship to cellular growth and differentiation. Three hours of lecture and one three-hour laboratory per week. IR [c]

BIO 500 SEMINAR IN BIOLOGY 1-2
Prereq.: BIO 201, 202; or permission of department chair. Previously BIO 400. Study of contemporary topics in biology through individual readings, discussions and presentations. IR [c]

BIO 505 Molecular Biology 1

BIO 517 HUMAN ANATOMY, PHYSIOLOGY AND PATHOPHYSIOLOGY 6
Prereq.: BIO 201, CHEM 311 or 550; or permission of department chair. Previously BIO 418. For students in the Biological Sciences: Anesthesia (M.S.) and Biological Sciences: Health Sciences Specialization (M.S.) programs. Functional anatomy, physiology and pathophysiology of man. Review of cell physiology is followed by in-depth study analysis of muscular, circulatory, nervous, respiratory, excretory and endocrine systems with special applications to the health sciences. SS [c]

BIO 506 Biochemistry 3

BIO 518 APPLIED PHYSIOLOGY 3
Prereq.: BIO 412 or 517 (previously BIO 418). For students in anesthesia and health sciences; others require permission of anesthesia program coordinator. A continuation of BIO 517 with emphasis on organ system physiology and pathophysiology. Cardiac, renal and respiratory systems will be stressed. S

BIO 519 Fundamentals of Ecology 3

BIO 528 PHARMACOLOGY 3
Prereq.: BIO 412 or 517 (previously BIO 418), and CHEM 550 (previously CHEM 450). For students in anesthesia and health sciences; others require permission of anesthesia program coordinator. A comprehensive investigation into the pharmacological agents and their utilization with relevance to the health sciences. Special consideration given to pharmacodynamics.

BIO 529 Plant Ecology 3

BIO 540 TOPICS IN ADVANCED BIOLOGY 3-4
Prereq.: Permission of department chair. Selected topics in the biological sciences. Lectures, seminars, discussions, independent readings, reports and laboratory work as appropriate for the topic will be utilized. Four credit hour offerings will include one three-hour laboratory per week. May be repeated with different topics. IR [c]

BIO 562 DEVELOPMENTAL BIOLOGY 3
Prereq.: BIO 306 or permission of department chair. Previously BIO 462. Structural and functional aspects of development of organisms are studied. Emphasis on cellular differentiation and primary morphogenesis. IR [c]

BIO 570 ADVANCED GENETICS 3
Prereq.: BIO 306 or permission of department chair. Study of contemporary genetic research. Readings will be assigned from various texts and journals. IR [c]

BIO 572 LABORATORY ROTATION IN CELL AND MOLECULAR BIOLOGY 1
Prereq.: Permission of department chair. Supervised research in three different cell and molecular biology laboratories as an introduction to modern research methods. One hour of seminar and three hours of research per week. On demand. [c]

BIO 590 RESEARCH PROBLEM 1-4
Prereq.: Written permission of instructor and department chair. Advanced projects or individual student research in biology under the supervision of one or more department members selected by the student and the graduate adviser. Written and oral research report required. May be repeated for a maximum of 6 credits. On demand.

BIO 598 RESEARCH IN BIOLOGY 3
Prereq.: Permission of graduate adviser. Designed to familiarize student with techniques and resources associated with research in the specialization. Opportunity for practical application will be provided. [c]

BIO 599 THESIS 3 or 6
Prereq.: BIO 598 or permission of the thesis adviser. Preparation of the thesis under the supervision of the thesis adviser.

BUSINESS
Note: Additional work will be required for graduate credit in 400-level courses.

BUS 401 MARKETING IN CYBERSPACE 3
Prereq.: MIS 201, MKT 295. Theory and practice of effective Internet research strategies. Exploration of current practices in Internet-based information system technologies. Examination of the Internet as a marketing medium for product distribution and promotion. IR

BUS 595 FIELD STUDIES IN INTERNATIONAL BUSINESS 1-3
Prereq.: Permission of MBA director. Integration of international core business courses in real-world settings. May be repeated for a maximum of six credits. IR

BUSINESS EDUCATION
Note: Additional work will be required for graduate credit in 400-level courses.

BE 410 OFFICE EDUCATION METHODS 3
Prereq.: Senior status, MIS 201, keyboarding proficiency examination, and word processing proficiency examination. IR

BE 450 OFFICE SYSTEMS APPLICATION SOFTWARE AND RECORDS MANAGEMENT 3
Prereq.: BE 410. Survey of selected office application software and evaluation techniques. Includes a discussion of records management, forms design, formatting and layout. F [c]

BE 501 CURRENT PROBLEMS IN BUSINESS EDUCATION 3
Prereq.: Completion of Business Education or Marketing Education certification programs. Designed for experienced teachers. Consideration given to such business education problems as objectives, relationship of vocational to general education, place of business education in the changing secondary school curriculum, work-experience programs, standards of achievement, vocational guidance for business occupations and effect of modern trends and developments. Required of all students taking master's degree in business or marketing education. IR

BE 524 ORGANIZATION AND ADMINISTRATION OF BUSINESS AND MARKETING EDUCATION 3
Prereq.: Permission of Business Education Coordinator. Designed to orient students to organization and administration of typical high school business and marketing education programs. Programs are explained in relation to current federal vocational acts. F

BE 530 TEACHING ACCOUNTING, BASIC BUSINESS, AND MARKETING EDUCATION 3
Prereq.: AC 211, MIS 201. LAW 250, ECON 200, and BE 524 or equivalent. Methods of teaching accounting, basic business, and marketing subjects in secondary schools. Includes planning, materials and evaluation. F [c]
CHEM 460 ENVIRONMENTAL CHEMISTRY 3
Prereq.: CHEM 301, 311 or 450 and 451. Nature and properties of pollutants, their interaction with each other and the environment, preventive and remedial methods of control. Laboratory concerned with sampling and analysis of pollutants. Two lectures and one two-hour laboratory period per week. S

CHEM 432 CHEMISTRY SEMINAR 1
Prereq.: CHEM 312, 321. Participants will prepare written and oral presentations on topics of current interest in various fields of chemistry. May be taken a maximum of three times for credit. S

CHEM 435 LITERATURE OF CHEMISTRY 2
Prereq.: CHEM 301, 311. Survey of English and foreign-language literature of chemistry; preparation of bibliographies and research papers. Journals are available in university library for reference. Two lectures per week. S

CHEM 451 BASIC ORGANIC AND BIOCHEMISTRY LABORATORY 1
Coreq.: CHEM 450. Experimental work to accompany CHEM 450. One laboratory period a week. S

CHEM 454 BIOCHEMISTRY 3
Prereq.: CHEM 312, BIO 122 or equivalent. General principles of biochemistry, chemical constituents of cells, metabolic pathways, energetics and biochemical regulators. Three lectures a week. S

CHEM 455 BIOCHEMISTRY LABORATORY 1
Coreq.: CHEM 454. Experimental work to accompany CHEM 454. One laboratory period a week. S

CHEM 456 TOXICOLOGY 3
Prereq.: BIO 122, CHEM 312. Classes of toxic chemicals, their biotransformation and mechanisms of toxicity in humans. Includes natural and man-made chemicals. Methods of risk assessment, environmental and occupational regulatory standards. F

CHEM 460 PRINCIPLES OF INORGANIC CHEMISTRY 3
Prereq.: CHEM 322. Electronic structure and theories of bonding as they relate to the structures of inorganic compounds. Three lectures a week. F [c]

CHEM 461 DESCRIPTIVE INORGANIC CHEMISTRY 3
Prereq.: CHEM 460. Study of inorganic reactions with emphasis on acid-base, substitution and oxidation-reduction reactions, including those of polymeric, bioinorganic, coordination and organometallic compounds. Three lectures a week. S [c]

CHEM 462 INORGANIC CHEMISTRY LABORATORY 1-2
Prereq.: CHEM 460. Laboratory course concerned with the synthesis and characterization of inorganic compounds. One or two three-hour laboratory periods per week. S [c]

CHEM 456 TOXICOLOGY 3
Prereq.: CHEM 432 or 352 or permission of instructor. Development of oral and written skills needed for conducting business in China with business firms. Study of the cultural attitudes of Chinese business people. (e)

CHIN 411 BUSINESS CHINESE II 3
Prereq.: CHIN 410 or permission of instructor. Additional practice in the oral and written skill needed for conducting business in China; emphasis on commercial translation. (e)

CHIN 475 CLASSICAL CHINESE I 3
Prereq.: CHIN 342 or 352 or permission of instructor. Introduction to classical Chinese literature with an emphasis on etymology, semantics and grammar of classical Chinese. (o)
COURSE DESCRIPTIONS

CHIN 476 CLASSICAL CHINESE II 3
Prereq.: CHIN 475 or equivalent. Masterpieces of classical Chinese literature with an emphasis on the moral teachings of Confucius. (o)

COMMUNICATION

Note: Additional work will be required for graduate credit in 400-level courses.

COMM 427 TELEVISION PROGRAMMING AND PRODUCTION 3
Prereq.: COMM 330 or permission of instructor. Study of broadcasting systems. Use of studio television facilities includes investigation of sound, lighting, graphics, production and on-camera presentation. S

COMM 428 ADVANCED TV PRODUCTION 3
Prereq.: COMM 427. A technique-centered course which focuses on combining TV studio production with field and remote components for broadcast, cable or corporate application. S

COMM 480 TELEVISION DOCUMENTARY PRODUCTION 3
Prereq.: COMM 428 or permission of instructor. Analysis of TV documentary style, techniques and processes with opportunity to build upon TV skills learned in previous TV production courses by producing a TV documentary.

COMM 500 INTRODUCTION TO GRADUATE STUDIES IN ORGANIZATIONAL COMMUNICATION 3
Introduction to the theoretical, mythological and philosophical perspectives that constitute the study of organizational communication. F

COMM 501 THEORIES OF HUMAN COMMUNICATION WITHIN AN ORGANIZATIONAL CONTEXT 3
Prereq.: COMM 500. Critical review of theoretical traditions in communication and information sciences with emphasis on major causal, systems, and rules approaches to the study of organizational and managerial communication. An examination of human communication from the perspective of the social and behavioral sciences, the natural sciences and the humanistic traditions. F

COMM 502 THEORIES OF COMMUNICATION AND INFORMATION MANAGEMENT 3
Prereq.: COMM 500. Focus on the study of relationships among the manager, the organization, and the information environment. Consideration of the psychological, sociological, organizational, and technological factors affecting the manager's use of information with emphasis on the major communication theories involved in matching people to computerized systems. S

COMM 503 RESEARCH METHODS IN COMMUNICATION 3
Prereq.: COMM 500. Study of research methods unique to the investigation of communication processes in organizations such as communication diaries, content analysis, network analysis, interaction profiles and penetration analysis to explore how people interact in the work environment and how that interaction affects organizational performance. F

COMM 504 ORGANIZATIONAL COMMUNICATION AUDITS 3
Prereq.: COMM 501. Study of information/communication flow and patterns, and formal/informal networks. Case studies of relational, environmental and structural communication problems form a basis for discussion. S

COMM 505 SOCIAL AND BEHAVIORAL DIMENSIONS OF PERSUASIVE COMMUNICATION 3
Prereq.: COMM 500. Theories and empirical research related to the influence of audiences external to an organization. F

COMM 506 PRINCIPLES AND PROCESSES OF COMMUNICATION CAMPAIGNS 3
Prereq.: COMM 505. Learning based, persuasion based, and social mobilization approaches to communication campaigns including strategic selection of receiver, message, channel, source factors, program management and evaluation. S

COMM 507 CAMPAIGN MONITORING AND EVALUATION 3
Prereq.: COMM 506. Methods and procedures used to monitor and evaluate communication campaigns. Focuses on the effective definition of campaign objectives as a requirement to measure the success of a campaign. Both quantitative and qualitative methodologies are explored. F

COMM 512 COMMUNICATION AND CHANGE 3
Prereq.: COMM 500. Examination and critical analysis of existing theories and paradigms of communication and development/social change and evaluation of current approaches and methods to the use of communication (Interpersonal, Folk/Traditional, Group and Mass Media) for development/social change objectives. IR

COMM 522 CORPORATE COMMUNICATION 3
Prereq.: COMM 500. Communication of an organization with its investors, customers, and employees. Interpersonal communication, media campaigns and training programs are among the strategies examined. Focus will be on the use of media in public relations and corporate advertising processes and related theoretical and empirical research. F(e)

COMM 543 INTERCULTURAL COMMUNICATION 3
Prereq.: COMM 500. Study and critical examination of theories regarding how communication in and between multinational organizations must be modified to cope with cross-cultural differences. Such cross-cultural differences as those involved in conflict resolution, motivation and managerial styles and their communication implications may be considered. F(o)

COMM 544 STRATEGIES IN NEGOTIATION AND CONFLICT RESOLUTION 3
Prereq.: COMM 500. Study of the theories and empirical research regarding negotiation and conflict resolution strategies and appropriate communication patterns unique to each approach and their impact on an organization's effectiveness. F(e)

COMM 551 POLICY ISSUES IN ORGANIZATIONAL AND MANAGERIAL COMMUNICATION 3
Prereq.: COMM 500. Examines communication's impact on decision-making, planning, organizational policy and ethics. S(e)

COMM 562 COMMUNICATION AND HIGH-SPEED MANAGEMENT 3
Prereq.: COMM 500. Study of theory and empirical research which delineates the communication patterns necessary for the effective use of new high-speed management tools. Complex coordination patterns peculiar to processes of communication among managers and employees resulting from the application of these tools will be examined. S(o)

COMM 585 SPECIAL TOPICS 3
Prereq.: COMM 500. Study of selected topics in organizational and managerial communication. May be repeated once with different topic. IR

COMM 590 INDEPENDENT STUDY 1–3
Prereq.: Completion of Communication Core or permission of instructor. Reading and research in an approved topic under the guidance of a faculty member in the Communication department. May be repeated with different topics for a maximum of six credits. On demand.

COMM 599 THESIS/ SPECIAL PROJECT 3
Prereq.: COMM 500. Preparation of the thesis or special project under the supervision of the thesis adviser.

COMPUTER INFORMATION TECHNOLOGY

CIT 599 INTEGRATIVE EXPERIENCE IN CIT 3
Prereq.: CIT core and specialization, or permission of instructor. Integrating experience in computer science, management information systems and technology. On demand. [c]
COURSE DESCRIPTIONS

COMPUTER SCIENCE

Note: Additional work will be required for graduate credit in 400-level courses.

CS 407 ADVANCED TOPICS IN COMPUTER SCIENCE 1-3
Prereq.: CS 153 and 254 and permission of instructor. This course provides an opportunity to introduce into the curriculum topics of current interest and new courses on an experimental basis. May be repeated with different topics for up to 6 credits. [c]

CS 410 INTRODUCTION TO SOFTWARE ENGINEERING 3
Prereq.: CS 355. Examination of the software development process from the initial requirement analysis to the operation and maintenance of the final system. The scope of the course includes the organization of software development projects, the verification and validation of the system at various stages in its life cycle, the problems of security and privacy and the legal aspects of software development, including software protection and software liability. IR [c]

CS 420 OBJECT-ORIENTED PROGRAMMING SYSTEMS 3
Prereq.: CS 355. Introduction to the theory, concepts and application of object-oriented programming as implemented in today's computing world. This course will include such topics as objects and messages, classes and inheritance, encapsulation and specification, and will present an overview of the currently popular object-oriented system. IR [c]

CS 423 COMPUTER GRAPHICS 3
Prereq.: CS 253, Wire frame and solid graphics in two and three dimensions, data structures for computer graphics, geometrical transformations in computer graphics, raster and vector display device technologies. F

CS 460 DATABASE CONCEPTS 3
Prereq.: CS 253. Data base systems are considered from both the designer's and user's point of view. Physical implementation and data access techniques are studied. IR [c]

CS 462 ARTIFICIAL INTELLIGENCE 3
Prereq.: CS 253. Presentation of artificial intelligence as a coherent body of ideas and methods to acquaint the student with the classic programs in the field and their underlying theory. Students will explore this through problem solving paradigms, logic and theorem proving, language and image understanding, search and control methods and learning. S [c]

CS 463 ALGORITHMS 3
Prereq.: CS 253. Topics include algorithms in combinatorics, integer and real arithmetic, pattern matching, list processing, and artificial intelligence. Algorithmic analysis and domain independent techniques are also considered. IR [c]

CS 464 PROGRAMMING LANGUAGES 3
Prereq.: CS 253. Emphasis on programming languages as one of many tools in the software development effort. Comparison of different language usages of data types, information hiding, control structures, block structure, sub-programs, reentrancy and recursion. IR [c]

CS 465 COMPILER DESIGN 3
Prereq.: CS 355. Current techniques of compiler writing. Introduction to formal grammar and parsing techniques is given. Problems of semantic phase are discussed and some solutions are given. Optimization techniques are discussed. F [c]

CS 473 SIMULATION TECHNIQUES 3
Prereq.: CS 152 or 213 and STAT 215 or 315. Basic principles of simulation methods using digital computers. Topics covered include random number generators, stochastic variate generators, computer models and simulation languages. IR [c]

CS 481 OPERATING SYSTEMS DESIGN 3
Prereq.: CS 355. Theory and design of computer operating systems. Topics include machine and interrupt structure, memory, processor, device and information management. S [c]

CS 483 THEORY OF COMPUTATION 3
Prereq.: MATH 218 and CS 463. Concept of algorithm, correctness and efficiency of algorithm, decidable vs. undecidable problems, recursion, halting prob-
lem, formal languages, context free and context-sensitive grammars, and introduction to automata and parallel algorithms. IR [c]

CS 485 MICROPROCESSORS 3
Prereq.: CS 354. Basic techniques in the design and use of microprocessor software and hardware. Topics include microprocessors, instructions, software and hardware components, applications and future uses. IR [c]

CS 490 COMPUTER COMMUNICATIONS NETWORKS AND DISTRIBUTED PROCESSING 3
Prereq.: CS 253 and 254. Study of networks of interacting computers. The problems, rationale, and possible solution for both distributed processing and distributed data bases will be examined. Includes local networks and multi (micro) processor systems. IR [c]

CS 495 LEGAL, SOCIAL, ETHICAL AND ECONOMIC ISSUES IN COMPUTING 3
Prereq.: Permission of instructor. Topics include privacy, security, law of torts in computing, and legal protection of software. S [c]

CS 498 SENIOR PROJECT 1-3
Prereq.: CS major, senior standing, 21 credits toward major including one emphasis course. Opportunity for student to participate in design and implementation of large problem with small group of people. Problem will be chosen in consultation with instructor and advisor. [c]

CS 499 SEMINAR IN COMPUTER SCIENCE 3
Prereq.: CS major. Opportunity for student to explore topics of current interest not covered in normal curriculum. IR [c]

CS 500 COMPUTER SCIENCE FOR COMPUTER INFORMATION TECHNOLOGY 3
Prereq.: Permission of department chair and program coordinator. Concepts of computer science, including data representation, computational theory, architecture and instruction sets, operating system components and programming paradigms such as principles of control structures, object-oriented programming and Web-based languages.

CS 501 FOUNDATIONS IN COMPUTER SCIENCE I 3
Prereq.: CS 152 or permission of instructor. Software design for structuring and manipulating data. Topics include tree structures, graphs, data abstraction and external sorting. S [c]

CS 502 COMPUTING AND COMMUNICATIONS TECHNOLOGY 3
Prereq.: CS 501. Comprehensive coverage of the concepts of computer networking, and computer architecture and organization required to enable students to understand and efficiently utilize computing and communication resources. Development of distributed computer applications. S [c]

CS 530 ADVANCED SOFTWARE ENGINEERING 3
Prereq.: CS 410, 501, 502. Study of the software lifecycle including requirements analysis, specification, design, coding, testing and maintenance. Includes proofs of correctness and techniques of formal specification. F (o) [c]

CS 550 TOPICS IN HUMAN-COMPUTER INTERACTION 3
Prereq.: CS 501, 502. Study of the design, evaluation and implementation of interactive computing systems for the joint performance of tasks by humans and machines, algorithms and programming of the interface, and engineering concerns and design tradeoffs. Topics include computer-supported cooperative work, modeling intelligence, multimedia systems and user interface design. IR [c]

CS 570 TOPICS IN ARTIFICIAL INTELLIGENCE 3
Prereq.: CS 462, 501, 502. Topics include advanced techniques for symbolic processing, knowledge engineering and building problem solvers. IR [c]

CS 580 TOPICS IN DATABASE SYSTEMS AND APPLICATIONS 3
Prereq.: CS 501, 502. Database technology needed to develop and manage sophisticated database systems. Topics include design of database management
systems, advanced database applications, hypermedia and object-oriented data
base management systems. IR [c]

CS 590  TOPICS IN HIGH PERFORMANCE
COMPUTING AND COMMUNICATIONS  3
Prereq.: CS 481, 501, 502. Design, implementation and evaluation of high per-
formance computing and communications technologies for the development of
distributed multimedia systems. Topics include distributed systems, parallel com-
puting, modern operating systems and network administration. IR [c]

COUNSELOR EDUCATION

CNSL 500  THE DYNAMICS OF GROUP BEHAVIOR  3
Prereq.: Admission to the graduate program and/or permission of department
chair. Experiential approach to more effective interpersonal communication.
Opportunity is offered for personal growth in awareness and understanding both
of self and others, and in the communication of that self-awareness and under-
standing. The orientation of this course is educational. Students enrolled in this
course may be observed by students in CNSL 507.

CNSL 501  THEORIES AND TECHNIQUES IN COUNSELING  6
Prereq.: CNSL 500 (may be taken concurrently). Investigation of theories and
techniques in counseling, including research findings and skill development.

CNSL 503  SUPERVISED COUNSELING PRACTICUM  6
Prereq.: CNSL 501. Supervised clinical experience designed to develop basic
counseling skills with the integration of professional knowledge.

CNSL 504  PROFESSIONAL STUDIES IN COUNSELING  3
Prereq.: Matriculation into the graduate program. Areas of study include: profes-
sional socialization and the role of the professional organizations, licensure or cer-
tification legislation, legal responsibilities and liabilities, ethics and family law,
confidentiality, independent practice and inter-professional cooperation.

CNSL 507  METHODS IN GROUP FACILITATION  3
Prereq.: CNSL 500 and 503. The impact of the facilitator's behavior on a group.
Students will experience leading a group, observe different leadership styles and
didactic presentations on group theory and leader interventions.

CNSL 509  INDEPENDENT STUDY PROJECT IN COUNSELING  3
Prereq.: CNSL 503 and permission of department chair. Systematic study of
problems of special interest in counseling. Students are guided in selection of
topics for study. Can be taken more than once.

CNSL 520  GUIDANCE PRINCIPLES, ORGANIZATION
AND ADMINISTRATION  3
Prereq.: Admission into department. Introduction to principles of guidance in
modern school and study of guidance services, practices, and basic concepts
relating to organization and operation of guidance programs. S

CNSL 521  CAREER COUNSELING AND DEVELOPMENT  3
Prereq.: CNSL 501. Approaches to career counseling and development as it
relates to agency and school settings. Includes relevant career theories, a survey
of instruments utilized in assessing interests, values and career decision-making
abilities and relevant occupational information. F

CNSL 522  APPRAISAL PROCEDURES IN COUNSELING  3
Prereq.: CNSL 501. Survey of standardized appraisal instruments utilized in
assessing factors, such as aptitude intelligence, achievement and interest as it
relates to human service agencies and school counseling. S

CNSL 524  CONSULTING IN THE SCHOOLS  3
Prereq.: CNSL 503 and 520, or permission of department chair. Emphasis on
the learning and practice of specific skills essential to consulting in the schools.
The dynamics of child-parent relationships and their impact on consulting with
parents will be included. F

CNSL 525  MULTI-CULTURAL COUNSELING  3
Study of the principles and techniques in counseling multi-cultural students.
Emphasis will be placed on the delivery of counseling services related to the par-
ticular needs and values of multi-cultural students.

CNSL 526  DEVELOPMENTAL GUIDANCE
AND COUNSELING  3
Prereq.: Admission to the graduate program and/or permission of department
chair. Overview of developmental guidance and counseling, and the role and
function of the school counselor on the elementary, middle/JHS and secondary
levels. Includes the history, philosophy, trends, purposes, objectives and roles
within the schools at each of the three levels. F

CNSL 530  STUDENT DEVELOPMENT IN
HIGHER EDUCATION  3
Prereq.: Admission to the graduate program and/or permission of department
chair. Overview of college student development, including characteristics of con-
temporary students. F

CNSL 531  STUDENT SERVICES IN HIGHER EDUCATION  3
Prereq.: CNSL 530. Overview of student services in higher education including
characteristics of special student populations. S

CNSL 532  PROGRAM DESIGN IN STUDENT SERVICES  3
Prereq.: CNSL 530. Design of experiential education for adults in higher educa-
tion, including needs assessment, creation of developmental programs and learning
communities and program implementation and evaluation. S

CNSL 550  INDEPENDENT STUDY PROJECT
COUNSELING  3
Prereq.: Admission to department. Overview of the philosophy and practice of
rehabilitation counseling. Emphasis on the rehabilitation client, types of disabili-
ties and the life adjustment that disability entails. F

CNSL 561  ADVANCED REHABILITATION COUNSELING  3
Prereq.: CNSL 560 or permission of the department chair. Behavioral and
dynamic principles underlying rehabilitation counseling. Emphasis on disability
and related adjustment issues for the family and community at large will be studied. S

CNSL 562  CASE MANAGEMENT IN REHABILITATION
COUNSELING  1
Prereq.: CNSL 561 or permission of department chair. Theories and techniques
will be presented for working with clients who are involved in the rehabilitation
process. Knowledge of case findings, rehabilitation, plan development, service
delivery and coordination will be included. S

CNSL 563  MEDICAL ASPECTS OF REHABILITATION
COUNSELING  3
Prereq.: CNSL 560 or permission of the department chair. The rehabilitation
counselor's role as a member of the health care team will be studied. General
characteristics of various disability groups and identification of the medical spe-
cialists who serve these groups will be presented. S

CNSL 568  ALCOHOL AND DRUG COUNSELING  3
Prereq.: CNSL 501 or permission of department chairperson. Basic assessment,
treatment and intervention techniques in working with individuals and families
affected by alcohol and other drug abuse.

CNSL 570  COUNSELING WOMEN  3
Prereq.: CNSL 501 or permission of department chair. Application of counsel-
ing theories and techniques as they relate to the issues in women's lives such as
gender roles, family, and career planning.

CNSL 571  MENTAL HEALTH COUNSELING  3
Prereq.: CNSL 501. Principles and practices for assessing, diagnosing, treating
and preventing mental and emotional disorders. Includes general principles for
promoting optimal mental health and human development. On demand.

CNSL 580  TOPICS IN COUNSELING  1-3
Prereq.: Degree candidacy or permission of instructor. Topics will vary each
time the course is offered. Combination of lecture, discussion, inquiry sessions
COURSE DESCRIPTIONS

and student presentation. May be taken more than once for credit under different topics.

CNSL 591 SUPERVISED SCHOOL GUIDANCE INTERNSHIP 3
Prereq.: CNSL 503 and permission of instructor. Series of supervised experiences in the public school setting is provided. Required for school counseling certification. May be repeated for a maximum of 6 credits.

CNSL 592 SUPERVISED INTERNSHIP IN HIGHER EDUCATION 3
Prereq.: CNSL 532 or permission of instructor. Professional experience to prepare persons to enter the student development field in higher education: Emphasis on actual practical experience, student/faculty/administrative interaction, and the special concerns which affect the conduct of student development services. May be repeated for a maximum of 6 credits.

CNSL 594 SUPERVISED CLINICAL PRACTICE—PROFESSIONAL COUNSELING 3
Prereq.: Permission of instructor. Supervised experience in community settings focusing on rehabilitation counseling, mental health counseling or substance abuse counseling. May be repeated for a maximum of 6 credits.

CNSL 595 APPLIED RESEARCH IN COUNSELING 3
Prereq.: ED 598 or PSY 598. Critical review of research in counseling. A research proposal and completed report is required. Should be taken concurrently with field work experience.

CRIMINAL JUSTICE

CJ 501 PROSEMINAR ON THE NATURE OF CRIME 4
Prereq.: Admission to the Criminal Justice program or permission of department chair. Societal, legal and cultural definitions of criminal behavior; theories of crime causation and society's reaction to violation of law. Courses required as special condition for admission to the program must be completed or taken concurrently. F

CJ 510 PROSEMINAR ON LAW AND SOCIAL CONTROL 4
Prereq.: Admission to the Criminal Justice program or permission of department chair. Law as a means of social control, including history and philosophy of law, the interrelationship between law and other social institutions, such as the economy and the policy, and the effects of law and criminal justice policies on the preservation and promotion of inequalities based on social class, race, gender and ethnic identity. Courses required as special condition for admission to the program must be completed or taken concurrently. S

CJ 520 PROSEMINAR ON THE ADMINISTRATION OF JUSTICE 4
Prereq.: Admission to the Criminal Justice program or permission of department chair. Critical analysis of the purpose and efficacy of those institutions which comprise the criminal justice system. Includes an exploration of discretion, ethics and cultural diversity in criminal justice. Courses required as special condition for admission to the program must be completed or taken concurrently. F

CJ 525 PROGRAM PLANNING AND EVALUATION 3
Prereq.: CJ 501, 510, 520; or permission of instructor. Planning and evaluating programs which encourage pro-social behavior of convicted offenders, with emphasis on programs in correctional institutions. Program areas include education, vocational training, substance abuse treatment, parenting and anger management. S

CJ 530 OFFENDER PROFILES 3
Prereq.: CJ 501, 510, 520; or permission of instructor. Provides students with the background and practical knowledge to identify different types of mental illness and personality styles most often encountered among offenders, including sociopathy, poor impulse control, addictive personality and poor management of anger and aggression. F

CJ 533 RESEARCH METHODS IN CRIMINAL JUSTICE 3
Prereq.: Admission to the Criminal Justice program or permission of department chair. Previously CJ 598. Examines methods of scientific inquiry as used in criminal justice. Topics include experimental and non-experimental design, survey research, evaluation research, scaling, sampling and coding. Courses required as special condition for admission to the program must be completed or taken concurrently. S

CJ 535 CORRECTIONAL COUNSELING 3
Prereq.: CJ 530 or permission of instructor. Overview of techniques of counseling as applied to the criminal/juvenile offender. Treatment issues focus on relapse prevention, group treatment, cognitive distortions and negative imagery. Also included are typologies and evaluation of risk levels. IR

CJ 536 FIELD STUDIES IN CRIMINAL JUSTICE 3
Prereq.: CJ 533, completion of 21 credits of approved graduate study; or permission of internship director. Supervised experiential learning within a criminal justice agency. Major research paper required. Integrating theory with practice to include examination and evaluation of agency structure, processes, linkages and effectiveness within the context of a broader criminal justice system.

CJ 539 DELINQUENCY AND CONTROL 3
Prereq.: CJ 501, 510, 520; or permission of instructor. Study of juvenile delinquency from theoretical, conceptual and legal perspectives. Attention given to nature and extent of delinquency and suspected causes of youthful misbehavior. Policy issues, control initiatives, and relevant research are critically analyzed. IR

CJ 570 LEADERSHIP AND SUPERVISION OF CRIMINAL JUSTICE ORGANIZATIONS 3
Prereq.: CJ 501, 510, 520; or permission of instructor. Analysis of contemporary principles, strategies and methods essential to effective management of criminal justice organizations. Topics include budgeting, organizing, decision making, communication and personnel management to include application to paramilitary organizations. S

CJ 575 ORGANIZATIONAL DEVELOPMENT AND EVALUATION OF CRIMINAL JUSTICE ORGANIZATIONS 3
Prereq.: CJ 501, 510, 520; or permission of instructor. Development, implementation and assessment of planned change in criminal justice organizations and system affiliates. Emphasis on the action research model, including assessment of organizational needs; determination of goals; program design, implementation and evaluation within the context of both paramilitary and non-paramilitary structures. S

CJ 580 PUBLIC POLICY IN THE CRIMINAL JUSTICE SYSTEM 3
Prereq.: CJ 501, 510, 520; or permission of instructor. Survey of the major theoretical and empirical studies of public policy as they relate to criminal justice agencies, including policy analysis models; typologies of policy outcomes; agenda setting; and policy formulation, implementation and impact. IR

CJ 599 THESIS 3
Prereq.: CJ 533. Completion of 21 credits of approved graduate study; or permission of thesis advisor. Preparation of the thesis under the supervision of a thesis advisor. On demand.

CRIMINOLOGY

Note: Additional work will be required for graduate credit in 400-level courses.

CRM 433 INDEPENDENT STUDY IN CRIMINAL JUSTICE 1–3
Prereq.: Permission of instructor. Previously CJ 413. Readings and research in selected areas of criminal justice. Student must present a written study proposal to the instructor directing the research prior to registering for the course. May be repeated for a maximum of 3 credits. On demand.

CRM 450 DRUGS AND SOCIETY 3
Prereq.: CRM 110 or SOC 110 or PSY 112, and CRM 222 or SOC 310 or PSY 221 or SW 374; or graduate status. Previously CJSC 450 and CRSC 450. Selected social issues relating to illegal drug use, including international and national drug trafficking, money laundering, drug enforcement, drug-related crime, prevention strategies and legalization. IR
COURSE DESCRIPTIONS

CRM 475 CONTROLLING ANGER AND AGGRESSION 3
Prereq.: CRM 110 or SOC 110 or PSY 112, and CRM 222 or SOC 310 or PSY 221 or SW 374; or graduate status. Multi-disciplinary overview of theory and research on anger and aggression. Topics include the emotion of anger, theories of aggression and intervention strategies. IR

DESIGN (GRAPHIC/INFORMATION)

Note: Additional work will be required for graduate credit in 400-level courses. Note: Students enrolled in the following courses will be assessed a $65 Design Lab Fee: DES 436, 438, 439, 465, 498, 499, 503, 504, 598, 599. Contact the Department at 832-2557 for additional information.

DES 419 HISTORY OF DESIGN 3
Prereq.: Either ART 110, 112 or 113. History and philosophy of design function and aesthetics. Topics include graphic design, industrial design and architectural design.

DES 436 GRAPHIC/INFORMATION DESIGN III 3
Prereq.: DES 322, ART 224. Continuation of DES 322. Additional advanced techniques for the professional practice of graphic/information design. Includes instruction in appropriate computer applications. Campaign and expansive design solutions will be stressed.

DES 437 DESIGN INTERNSHIP 3
Prereq.: DES 322 and permission of instructor. Internship with professional graphic/information design organization.

DES 438 GRAPHIC/INFORMATION DESIGN IV 3
Prereq.: DES 436. Continuation of DES 436. Additional advanced techniques for the professional practice of graphic/information design. Includes instruction in appropriate computer applications. Professional presentation and design for the web will be stressed.

DES 439 CENTRAL DESIGN 3
Prereq.: DES 322, Successful Central Design portfolio review, and permission of instructor. Graphic/information design practice. Features real project and production situations with simulation of a "real world" graphic/information design atmosphere.

DES 465 TOPICS IN GRAPHIC/INFORMATION DESIGN 3
Prereq.: Permission of instructor. Selected topics in graphic/information design. May be repeated with different topics for a maximum of six credits.

DES 498 INDEPENDENT STUDY IN GRAPHIC/INFORMATION DESIGN 1-3
Prereq.: Permission of instructor. Special independent work to meet individual interest in areas not covered by regular curriculum. May include interdisciplinary information design projects. May be repeated with different topics for a maximum of six credits.

DES 499 COMPUTER APPLICATIONS FOR GRAPHIC/INFORMATION DESIGN 3
Prereq.: DES 322 or permission of instructor. Study of the relationship of computer application in contemporary graphic/information design practice. Laboratory exploration of relevant software and its application in the field.

DES 501 GRAPHIC/INFORMATION DESIGN THEORY I 3
Prereq.: Admission to graduate program in Information Design or permission of program coordinator. Critical analysis of the purpose and evolution of graphic/information design theory, integrity and computer application. Includes problem solving.

DES 502 GRAPHIC/INFORMATION DESIGN THEORY II 3
Prereq.: DES 501 and admission to graduate program in Information Design. Continuation of DES 501. Additional theory and applications. Technology, economic and ethical issues will be explored.

DES 503 GRAPHIC/INFORMATION DESIGN PRACTICE I 3
Prereq.: DES 502. Applied design research and practice in graphic/information. Emphasis on creativity, practical problem solving, technical proficiency and presentation. F (c)

DES 504 GRAPHIC/INFORMATION DESIGN PRACTICE II 3
Prereq.: DES 503. Continuation of DES 503. Additional research and practice, portfolios and presentation development. S (c)

DES 520 ADVANCED HISTORY OF DESIGN 3
Prereq.: DES 419 or permission of instructor. Advanced study of the history and philosophy of design. Topics include in-depth study of symbolic meaning, visual awareness as it applies to design, and the creation of visual language in design.

DES 537 ADVANCED DESIGN INTERNSHIP 3
Prereq.: DES 419 or permission of instructor. Study of research methods unique to the professional practice of design. Includes discussion of issues pertaining to conceptual, visual and technological research specific to the design process.

DES 598 RESEARCH METHODS IN DESIGN 3
Prereq.: DES 419 or permission of instructor. Study of research methods unique to the professional practice of design. Includes discussion of issues pertaining to conceptual, visual and technological research specific to the design process.

EARTH SCIENCES

Note: Additional work will be required for graduate credit in 400-level courses.

ESCI 421 THE STRATIGRAPHIC RECORD 4
Prereq.: ESCI 122. Methods of identifying spatial and temporal relationships between fossil assemblages and sedimentary rock types. Three one-hour lectures and one three-hour laboratory per week. F (o)

ESCI 424 GEOMORPHOLOGY 3
Prereq.: ESCI 121. Origin and development of land forms in terms of processes of erosion and relation to geologic structure. Three lectures a week. F (o)

ESCI 430 OCEANOGRAPHY 3
Prereq.: BIO 121, CHEM 121, PHYS 121. Introduction to physical properties and chemical composition of sea water, its topography and circulation, and relationships to activities of plants and animals. Three lectures a week. Field work by arrangement.

ESCI 431 INTRODUCTION TO HYDROGEOLOGY 4
Prereq.: ESCI 121. MATH 122 or 126, and PHYS 121 or 125. Basic hydrologic principles. Overview of hydrologic and geologic relationships of ground and surface water, contamination and cleanup. Fluid mechanics with application to porous media and open channel flow. Quantitative techniques will be used. Three lectures and one two-hour laboratory recitation per week.

ESCI 442 WEATHER ANALYSIS AND FORECASTING II 4
Prereq.: ESCI 342 and 462. National Weather Service Facsimile Products, applications of thickness and thermal wind equations, thermodynamic diagrams and their usefulness, cross-sectional analysis, tlt of pressure systems, quasi-geostrophic theory, performance characteristics of NWS prediction models. Three lecture hours and a two-hour laboratory per week.

ESCI 450 ENVIRONMENTAL GEOLOGY 3
Prereq.: Permission of department chair or instructor. Geologic factors that control or influence human habitat and land use potential. Earthquakes, landslides, floods, groundwater seepage, cave collapse and similar processes are briefly discussed. Attention is focused on causes of major landscape changes in urban areas during the last 25 years and on methods of preventing, avoiding or compensating for geologic hazards.

ESCI 452 INDEPENDENT STUDY IN EARTH SCIENCE 1-4
Prereq.: Approved plan of study by arrangement with supervising instructor and approval of department chair. Special work in laboratory, theory or research to meet individual requirements in areas not covered by regular curriculum. May be taken more than one semester up to a limit of 4 credits.
COURSE DESCRIPTIONS

ESCI 461 PHYSICAL METEOROLOGY
Prereq.: ESCI 129, PHYS 121 or 125 (may be taken concurrently), or permission of instructor. Examination of the physical basis of the earth's atmosphere. Structure, composition, gas laws, atmospheric thermodynamics and hydrostatics, atmospheric stability, solar radiation and the energy budget of the earth. Three lecture hours per week. S(e)

ESCI 462 DYNAMIC METEOROLOGY
Prereq.: ESCI 461, MATH 126 or 221 (may be taken concurrently). Continuation of ESCI 461 with emphasis on dynamic processes of the earth's atmosphere. Equations of motion, geostrophic and gradient winds, thickness and thermal wind, circulation and vorticity, mechanism and influences of pressure changes. Three lecture hours per week. S(e)

ESCI 518 TOPICS IN ASTRONOMY
Prereq.: Prior permission of instructor. Topics will vary each time course is offered. Combination of lecture, discussion, and student seminar presentations. May be taken more than once for credit under different topics.

ESCI 519 TOPICS IN GEOLGY
Prereq.: Prior permission of instructor. Topics will vary each time course is offered. Combination of lecture, discussion, and student seminar presentations. May be taken more than once for credit under different topics.

ESCI 598 RESEARCH IN EARTH SCIENCE
Prereq.: Permission of department chair. Course on theory and practice of conducting research in astronomy, geology, meteorology. Includes study of professional literature, evaluation of data-gathering techniques. Application of statistical methods to data; formulation of multiple working hypotheses and verification of hypotheses. Classic problems in earth sciences are studied.

ESCI 599 THESIS
Prereq.: ESCI 598 and permission of the thesis adviser. Preparation of the thesis under the supervision of the thesis adviser.

ECONOMIC DEVELOPMENT OF JAPAN AND KOREA
Prereq.: ECON 200. Interdisciplinary analysis of special problems in economic development of China, Japan and Korea, with major attention to history, theory, and policies. Actual growth experiences and potentials are compared between the three nations, as well as between East Asia and other parts of the world.

ECONOMIC DEVELOPMENT
Prereq.: ECON 200. Problems of accelerating development in underdeveloped countries and maintaining development in prosperous countries. From viewpoints of theory, history, and policy, this course attempts to explain forces that lead to economic development.

COMPARATIVE ECONOMIC SYSTEMS
Prereq.: ECON 200, 201. Analysis of economic systems, both theoretical and actual. Topics include the economy as a system, classification of economic systems, bases or criteria for comparison of systems, market economies, market socialism and command economies.

LABOR ECONOMICS
Prereq.: ECON 200, 201. Economic analysis of human resources as a factor of production. Special attention is devoted to demographics, labor market structures, wage determination, career decision-making, training and the roles of employee organizations.

MONEY, CREDIT AND BANKING
Prereq.: ECON 200. Money and its functions, including structure of the American banking system, with emphasis on monetary theory and policy.

PUBLIC FINANCE
Prereq.: ECON 200, 201. Analysis of federal revenues and expenditures, including an examination of federal budget concepts, fiscal policy, cost-effectiveness analysis, tax efficiency and equity and debt management problems.

ECONOMIC FORECASTING
Prereq.: ECON 200, 201 and STAT 104 or equivalent. Theory and use of such forecasting techniques as simple and multiple regression, seasonal adjustment, economic indicators, input-output and macroeconomic models. Emphasis will be given to economic applications and the use of the computer.

INDUSTRIAL ORGANIZATION
Prereq.: ECON 201. Study of the structure, conduct and performance of selected U.S. industries. The effects of concentration on prices, outputs, profits and technological change will be analyzed.

GOVERNMENT AND BUSINESS
Prereq.: ECON 201. Role of government in the mixed economy with special emphasis on antitrust laws, regulations and deregulation, social legislation and public enterprise.

MANAGERIAL ECONOMICS
Prereq.: ECON 201. Application of economic theory and quantitative methods to managerial decision-making problems. Topics include decision analysis, forecasting, demand analysis, production and cost analysis, linear programming, break-even analysis and capital theory and budgeting.

HISTORY OF ECONOMIC THOUGHT
Prereq.: ECON 200. 201. Evolution of economic thought from Ancient Greece to current doctrines.

ECONOMETRICS
Prereq.: ECON 200, 201 and STAT 104 or equivalent. Application of statistical methods to economics. Emphasis is placed on statistical inference, regression analysis and real-world applications using the computer. S(e)

ADVANCED TOPICS IN ECONOMICS
Prereq.: ECON 200, 201 or permission of instructor. An examination of advanced selected topics in economics which are not otherwise offered as part of the Department's regular courses. Course may be repeated for different topics for a total of 6 credits.

INDEPENDENT STUDY IN ECONOMICS
Prereq.: Permission of instructor. Students may specialize in projects of an advanced nature not covered by regular course offerings. Supervision is given through periodic conferences with each student and through several group meetings to discuss findings and common problems.

EDUCATION

See also Education — Early Childhood, Education — Elementary, Education — Middle Level, Education — Secondary, Education — Teacher Education, Educational Foundations, Educational Leadership, Educational Technology, Reading, Special Education, Technology Education and Vocational-Technical Education.

Note: Additional work will be required for graduate credit in 400-level courses.
ED 498 INDIVIDUAL STUDY PROJECT 2–6
Prereq.: Permission of department chair. Individual research open only to advanced students and experienced teachers. Systematic study of problem of special interest. Students in either elementary or secondary field are guided in problem selection, data gathering, analysis and interpretation and drawing conclusions. IR

ED 501 PROBE IN EDUCATION 1–3
Prereq.: Permission of faculty adviser. In-service experience designed to meet the specific needs of school personnel.

ED 511 PRINCIPLES OF CURRICULUM DEVELOPMENT 3
Examination of selected programs including stated objectives, organizational patterns, curriculum materials and instructional strategies. This examination will utilize various models of decision making.

ED 515 SCHOOL LAW 3
Teachers study legal bases of chosen profession and develop more adequate understanding of federal, state and local laws applicable to teachers and pupils of public school. Primary emphasis is placed on Connecticut statutes and judicial interpretations.

ED 517 EVALUATION 3
Introduction to the fundamental principles of measurement and evaluation. Emphasis will be placed on the construction of classroom achievement tests, analyzing test results and on interpreting standardized test scores.

ED 540 EDUCATIONAL MOTIVATION AND THE LEARNING PROCESS 3
Multidisciplinary approach to understanding of underachievement and resistance to learning. Emphasis on innovative ways of effecting learning by means of sociological, psychological and educational advances in practice and theory.

ED 545 INTEGRATION OF METHODS OF RESEARCH AND ASSESSMENT 6
Prereq.: Admission to either the full-year Post-Baccalaureate certification program or Professional Program for a dual certification. Examination of traditional and alternative assessment strategies to promote learning. Techniques for analyzing and evaluating qualitative and quantitative research studies and developing skills to design, implement and assess action research projects specific to the internship and school site. S

ED 550 GENDER AND EDUCATION 3
Examination of the experiences of females and males in American schools, including the effects of classroom interaction, curriculum and educational policies. Emphasis on action research for gender equity and the role of women in educational leadership positions. S

ED 552 PROGRAMS AND CURRICULA IN EARLY CHILDHOOD EDUCATION I 3
Prereq.: Matriculation in the M.S. program. Study of the development of developmentally appropriate curricula for children, ages three to eight. Emphasis on integrated curricula, learning centers, effective management, and active parent involvement. On-site observations and interaction with young children required. F

ED 553 FAMILY, SCHOOL AND COMMUNITY PARTNERSHIPS IN EARLY CHILDHOOD EDUCATION 3
Prereq.: Matriculation in the M.S. program. In-depth exploration of impact of family and community on the education of young children. Study of school-child-family relationships which foster healthy development. Examination of comprehensive community and governmental support systems for children and families. S

ED 554 OBSERVATION AND ASSESSMENT IN EARLY CHILDHOOD EDUCATION 3
Prereq.: EDEC 552 and matriculation in graduate program. Study of appropriate assessment of young children's development and progress and their relationship to child-centered curricula and home-school communication. Strategies for assessing children's cognitive/language, social/emotional, and psycho-motor development, play assessment and student portfolios are also included. F

ED 555 ISSUES, TRENDS, RESEARCH IN EARLY CHILDHOOD EDUCATION 3
Prereq.: Admission to the Professional Program. Seminar focusing on the current status of early childhood education at local, state, and national levels. Analysis of current research. Individual pursuit of ideas/questions, small group projects and tutorial dialogue with professor. IR
EDUCATION — ELEMENTARY
Note: Additional work will be required for graduate credit in 400-level courses.

EDEL 422 ELEMENTARY EDUCATION GENERAL METHODS 3
Prereq.: Admission to the Professional Program and EDTE 315 and 420. Methods and models of best practice for teaching content, concepts and skills in elementary schools, including curriculum, lesson and unit planning, assessment and resources appropriate for elementary education. Classroom management in learning communities. Not for credit in graduate degree programs.

EDEL 430 ELEMENTARY EDUCATION STUDENT TEACHING 9
Prereq.: Permission of the Director of Field Experiences. Student teachers in elementary schools work with teachers and children in professional activities. Placement culminates with student teachers assuming responsibility for planning and implementing units of instruction and developing classroom leadership. Full semester of field based work is required. Taken concurrently with Cluster 6 courses. Not for credit in graduate degree programs.

EDEL 485 APPROACHES TO DISCIPLINE IN ELEMENTARY EDUCATION (K-8) 3
Examination of the purposes, processes and strategies of varied approaches to discipline in elementary education, kindergarten through grade eight. S

EDEL 508 CURRENT TRENDS IN ELEMENTARY SCHOOL CURRICULUM 3
Prereq.: Matriculation into M.S. program in Education. Current trends in Elementary School Curriculum. With emphasis on issues, models and processes. Local and state projects will be examined. Not applicable to provisional, Intermediate Administrator/ Supervisor certification.

EDEL 509 EDUCATION AND THE DEVELOPMENT OF CULTURAL UNDERSTANDING 3
Prereq.: Matriculation into M.S. program in Education. Study of attitudes, values and expectations of educators as related to cultural diversity. Strategies presented to develop respect of students for cultural pluralism. Research related to the reduction of racial, ethnic and sex stereotyping and biases is surveyed. S

EDEL 512 ASSESSMENT OF LEARNING 3
Prereq.: Acceptance to Elementary Education program and successful completion of 18 credits in planned program; or permission of department chair. Analysis of instructional practices and their effects on learners. Diverse perspectives are analyzed, including selected conceptual frameworks, effective teaching, literature, research and "wisdom of practice." S

EDEL 531 EDUCATION IN THE INNER CITY 3
Materials, methods and curricular models for education and education programs in the urban context will be examined and analyzed. Emphasis will be placed on application to the public school classroom. F

EDEL 537 SOCIAL STUDIES METHODS (1-6) 3
Prereq.: Teacher certification or permission of instructor. Examines social studies as taught in elementary classrooms, considering both content and process. Approaching material from multiple perspectives, students will design developmentally-appropriate instruction. F

EDEL 591 DESIGNING ACTION RESEARCH IN ELEMENTARY AND EARLY CHILDHOOD EDUCATION 3
Prereq.: Matriculation in either Elementary major (M.S.) or Early Childhood major (M.S.), completion of 21 credits in planned program including ED 598, Plan C designation, and a 3.00 GPA. Students design action research projects having implications for the education of young learners in their own professional settings. Course outcomes include individual proposals specifying problem statement, theoretical framework, resource review, local context description, strategy and evaluation design. F

EDEL 592 IMPLEMENTING AND DOCUMENTING ACTION RESEARCH IN ELEMENTARY AND EARLY CHILDHOOD EDUCATION 3
Prereq.: EDEL 591, and a 3.00 GPA. Students implement strategies proposed in EDEL 591. The final report documents findings and conclusions drawn from collected data and personal insights into their intervention. Presentation supplements the written report. S

EDUCATION — MIDDLE LEVEL
Note: Additional work will be required for graduate credit in 400-level courses.

EDM 414 OVERVIEW OF MIDDLE LEVEL PROGRAMS AND PRACTICES 3
Prereq.: Admission to the Professional Program and EDTE 315. Middle level programs and practices and how they relate to the physical, social, emotional, intellectual and moral development of adolescents in classroom, school and community contexts. Taken concurrently with EDTE 420. Not for credit in graduate degree programs.

EDM 424 METHODS FOR MIDDLE LEVEL TEACHING 3
Prereq.: EDM 414 and EDTE 420. General teaching methods: curriculum, assessment and resources appropriate for middle level learners. Field experience required. Not for credit in graduate degree programs.

EDM 430 MIDDLE LEVEL STUDENT TEACHING 9
Prereq.: Permission of the Director of Field Experiences. Student teachers in middle schools work with teachers and children in professional activities. Placement culminates with student teachers assuming responsibility for planning and implementing units of instruction and developing classroom leadership. Full semester of field based work is required. Taken concurrently with Cluster 6 courses. Not for credit in graduate degree programs.

EDUCATION — SECONDARY
Note: Additional work will be required for graduate credit in 400-level courses.

EDSC 414 PRELIMINARY STUDENT TEACHING (TECHNOLOGY EDUCATION) 6
Prereq.: Admission to the Professional Program in Teacher Education and permission of the Director of Field Experiences. In accordance with the public school schedule, Technology Education students spend approximately an eight-week period in the first semester of the senior year in a public middle school. The Technology Education major demonstrates his or her ability to organize and conduct school learning activities and to work effectively with adolescent youth in a program of technology education. Emphasis on Connecticut teaching competencies in both classroom and laboratory situations.

EDSC 415 STUDENT TEACHING (TECHNOLOGY EDUCATION) 6
Prereq.: Admission to the Professional Program in Teacher Education and permission of the Director of Field Experiences. In accordance with public school schedule, students spend approximately a 16-week period in first semester of senior year in public secondary school; one period of eight weeks in middle or junior high school and second period of eight weeks in senior high school, usually in different communities. The Technology Education major demonstrates the ability to organize and conduct school learning activities and to work effectively with adolescent youth in programs of technology education. Emphasis on Connecticut teaching competencies in both classroom and laboratory situations.

EDSC 420 STUDENT TEACHING — ELEMENTARY MUSIC EDUCATION 4.5
Prereq.: Admission to the Professional Program for Teacher Education and permission of the Director of Field Experiences. Eight-week period in the last semester spent in a music education department of a public elementary school where the student demonstrates the ability to conduct learning activities in music and to work effectively with children.

EDSC 421 STUDENT TEACHING — SECONDARY MUSIC EDUCATION 4.5
Prereq.: Admission to the Professional Program for Teacher Education and permission of the Director of Field Experiences. Eight-week period in the last semester spent in a music education department of a public secondary school where the student demonstrates the ability to conduct learning activities in music and to work effectively with youth.
EDSC 425  PRINCIPLES OF SECONDARY EDUCATION 3
Prereq.: EDSC 256 or EDTE 315; admission to the Professional Program in Teacher Education. General methods of instruction in the middle and high school classroom, including curriculum planning, evaluation and the responsibilities of the teacher in the 7–12 classroom. Not for credit in graduate degree programs.

EDSC 435  SECONDARY EDUCATION STUDENT TEACHING 9
Prereq.: Admission to the Professional Program in Teacher Education and permission of the Director of Field Experiences. Experiences in classrooms of public secondary schools where the student demonstrates the ability to conduct secondary school learning activities and to work effectively with adolescent youth. Not for credit in graduate degree programs.

EDSC 505  INNOVATIONS IN SECONDARY EDUCATION 3
Prereq.: Admission to an M.S. program. Examination of current areas of research in secondary education, including restructuring of high schools, alternatives to tracking, innovations in various subject areas and interdisciplinary studies, team teaching and group practices. F(c)

EDSC 556  INSTRUCTIONAL THEORY AND PRACTICE 3
Prereq.: Admission to an M.S. program. Advanced study of the theoretical bases of instruction, focusing on the analysis of instructional models and their use in the secondary school classroom. S(e)

EDSC 582  SUPERVISION OF SECONDARY SCHOOL TEACHING 6
Supervised teaching experience for graduate students who possess a Durational Shortage Area Permit from the State of Connecticut. Not to be credited towards master's degree. Supervision will continue for sequential semesters.

EDSC 586  SEMINAR IN SECONDARY EDUCATION 3
Examination of issues relevant to the teacher in the middle or high school. Investigation of a specific curricular issue through qualitative methods of inquiry. S(o)

EDUCATION — TEACHER EDUCATION

Note: Additional work will be required for graduate credit in 400-level courses.

EDTE 420  PRACTICUM IN ELEMENTARY EDUCATION II 1
Prereq.: Admission to the Professional Program of Teacher Education, EDTE 320. Taken concurrently with EDEL 415 and RDG 412. Forty-five to 60 hours of on-site experience (two visits per week during regular school hours). Emphasizes teaching experience in an assigned public school setting appropriate to certification level. Includes related seminar. May be repeated for a maximum of two credits with permission of department chair.

EDTE 430  TOPIC SEMINAR IN LEADERSHIP AND LEARNING COMMUNITIES 1
Prereq.: Admission to the Professional Program. Previously ED 430. Examination of current research and theory pertaining to teacher leadership and the development of learning communities in classrooms and schools. Topics include educational reform, professional ethics, diversity, collegiality and competitive professional development. May be repeated for a maximum of two credits. EDTE 502 FOCUSED LEADERSHIP

EDTE 510  METHODS OF INQUIRY INTO PEDAGOGY AND LEADERSHIP IN DIVERSE COMMUNITIES 3
Prereq.: Admission to full-year Post-Baccalaureate certification program. Through inquiry methods, students will explore the world of teaching, learning and leadership in diverse communities. Course includes issues of pluralism, tools and strategies for teachers and teacher empowerment and leadership.

EDTE 530  INTERNSHIP IN PEDAGOGY AND LEADERSHIP I 4
Prereq.: Admission to either the full-year Post-Baccalaureate certification program or Professional Program for a dual certification. Site-based consecutive internship. Practice teaching at a classroom level commensurate with requirements of dual certification and fulfilling the responsibilities of teaching faculty at the school. F

EDF 400  PHILOSOPHY OF EDUCATION 3
Prereq.: Admission in the Professional Program in Teacher Education or permission of the department chair. Major philosophies and their implications for education in the United States. Not for credit in graduate degree programs.

EDF 415  EDUCATIONAL FOUNDATIONS 3
Prereq.: Admission to the Professional Program or permission of department chair. Social and moral contexts of schooling, purposes of education in American society, contemporary educational policy, politics of the policy making process and the role of teachers as leaders. Not for credit in graduate degree programs.

EDF 500  CONTEMPORARY EDUCATIONAL ISSUES 3
Contemporary educational issues and the ways they are affected by social, political, and economic forces of society.

EDF 510  THE SOCIAL, POLITICAL AND CULTURAL CONTEXT OF URBAN SCHOOLS 3
Prereq.: Admission to the Professional Program. Examination of the effects of social, political and cultural realities on schools in urban settings. Consideration of issues confronting urban schools and emerging models for improvement and reform. SS

EDF 516  SCHOOL AND SOCIETY 3
Presentation and analysis of factors, institutions, and events relating to school's role in society. Sociocultural analysis and interpretation of historic development, as well as contemporary influences affecting dynamic role of school in American life today. IR

EDF 521  HISTORY OF EDUCATIONAL IDEAS 3
Philosophical and historical study of education as an important social idea in past and present cultures, exploring its development into modern-institutional form and including a study of major individuals and movements that have made an impact on its current purposes and on cultural forces that affect education, institutions and agencies which relate to the public school and social structure of the school. IR

EDF 522  COMPARATIVE EDUCATION 3
Comparative study of contemporary education in the cultural contexts of selected countries in the major areas of the world. To develop knowledge and understanding of how different educational values and objectives are achieved. Special comparison with education in the United States will be made to provide an international perspective. F

EDF 524  FOUNDATIONS OF CONTEMPORARY THEORIES OF CURRICULUM 3
Study of the social, psychological and philosophical influences that shape the curriculum and a range of curriculum positions in the United States and in other countries. F(e)

EDF 525  HISTORY OF AMERICAN EDUCATION 3
Historical study of the development of education in the United States, with emphasis on the role of social, political and cultural trends that have affected and influenced American public and private schooling. F
EDF 530 MULTICULTURAL EDUCATION  3
Seminar addressing issues related to the education of culturally diverse populations with emphasis on cultural and linguistic diversity in the context of American public schools. F

EDF 538 THE POLITICS OF EDUCATION  3
Introduction to the politics of education and the making of educational policy within our society's political system. Topics include: school governance and the decision-making process; problems of policy-making in bureaucracy, intergovernmental rivalries of local, state and Federal authority, legal and extra-legal influences, ideological conflict and the struggle for change and reform in school institutions. S

EDF 583 SOCIOLOGICAL FOUNDATIONS OF EDUCATION  3
Sociological principles and information applied to problems and situations in education. Emphasis on cultural forces that affect education, institutions and agencies which relate to the public school and social structure of the school. SS

EDF 597 SUPERVISED READINGS IN HISTORY AND PHILOSOPHY OF EDUCATION  1-3
Selected supervised readings in the history and philosophy of education by faculty in collaboration with a student's interests and professional needs. May be repeated for a maximum of three credits. On demand.

EDF 687 SEMINAR IN EDUCATIONAL POLICY STUDIES  3
Education policy and policy-making will be examined utilizing a critical socio-cultural perspective. Students will analyze the formulation and evaluation of local, state and national educational policies. F

EDUCATIONAL LEADERSHIP

EDL 513 SUPERVISION  3
Study of major problems confronting supervisors in improving instruction: interpreting educational objectives to staff and public, coordinating education programs, teacher-supervisor relations, evaluating instruction and supervision of student teachers.

EDL 514 ADMINISTRATION  3
Study of leader's roles in developing programs in education. Major areas include: obligation toward learners, staff, boards of education, and parents: administrative organization. Curriculum development and stimulating research.

EDL 551 CURRICULUM LEADERSHIP  3
Prereq.: ED 511 and graduate matriculation. Study of curriculum leadership with special emphasis on curriculum processes. Curriculum management, decision making and current trends in the field. F, SS

EDL 555 LEADERSHIP FOR CULTURALLY DIVERSE SCHOOLS  3
Study of leadership roles and strategies for developing a positive school climate for diverse cultural and racial groups in urban/suburban schools.

EDL 590 LEADERS AS LEARNERS: EDUCATIONAL LEADERSHIP AND SELF-ASSESSMENT  3
Prereq.: Master's degree, three years teaching experience, application to the Sixth Year Certificate program or permission of department chair. Discussion of self-awareness as the cornerstone of effective leadership. Exploration of State and national standards, learning and leading styles, the impact of cultural and experiential background, and values and beliefs concerning educational leadership. F, S

NOTE: ADMISSION TO 600-LEVEL EDUCATIONAL LEADERSHIP COURSES REQUIRES THE COMPLETION OF THE FOLLOWING PREREQUISITES:
ED 511, EDL 513, EDL 514, ED 540 AND ED 598 OR EQUIVALENT.

EDL 605 LEADERSHIP IN TEACHING AND LEARNING I  3
Prereq.: Admission to the Sixth Year Certificate program. Study of leadership in the teaching and learning process. Focus on supervision of instruction, classroom assessment strategies, and working with diverse learners. Required 35-hour on-site field experience in an urban public school (Sixth Year Certificate students) or research component. F, C

EDL 606 LEADERSHIP IN TEACHING AND LEARNING II  3
Prereq.: EDL 605. Continuation of EDL 605. Includes a second 35-hour on-site field experience in an urban public school (Sixth Year Certificate students) or research component. S, C

EDL 610 SCHOOL LEADERSHIP I  3
Prereq.: Admission to the Sixth Year Certificate program. Emphasis on enhancing students' repertoire of knowledge, skills and attitudes in identifying educational problems and making informed decisions. Required 35-hour on-site field experience in a rural public school setting. F, C

EDL 611 SCHOOL LEADERSHIP II  3
Prereq.: EDL 610. Continuation of EDL 610. Includes a second 35-hour on-site field experience in a rural public school setting. S, C

EDL 615 UNDERSTANDING EXTERNAL ENVIRONMENTS OF SCHOOL LEADERSHIP I  3
Prereq.: Admission to the Sixth Year Certificate program. Knowledge and skills for political and community leadership, including policy development and the impact of cultural and external environments. S

EDL 616 UNDERSTANDING EXTERNAL ENVIRONMENTS OF SCHOOL LEADERSHIP II  3
Prereq.: EDL 615. Continuation of EDL 615. Includes a second 35-hour on-site field experience in a suburban public school setting. S, C

EDL 617 PERSONNEL AND PROGRAM EVALUATION  3
Study of current principles and procedures for the evaluation of school programs and personnel.

EDL 634 SEMINAR IN CURRICULUM DEVELOPMENT  3
Study of curriculum design including the setting of objectives, selection of content material, instructional techniques and program evaluation.

EDL 635 SEMINAR IN SUPERVISION  3
The study of program evaluation including the design of a staff in-service program for developing instructional and organizational competencies.

EDL 636 DYNAMICS OF EDUCATIONAL LEADERSHIP  3
Understanding of the various groups and subgroups to which a supervisor and curriculum specialist relates and of the significance of these relationships for leadership behavior. Demonstration of personal skills necessary to work successfully with groups of adults and conduct a successful one-to-one conference.

EDL 640 THE PRINCIPALS  3
Identifies those skills which exemplify effective principals. Among the topics and skill competencies to be examined are school organization, curricular needs, program and staff development, strategies for institutional change, fiscal management and leadership styles.

EDL 652 ADVANCED TOPICS IN EDUCATIONAL LEADERSHIP  1-3
Prereq.: Admission to the Sixth Year Certificate or Ed.D. program, and permission of instructor. Seminar addressing a specific topic in organizational leadership for educational settings. May be repeated for a total of 6 credits. IR, C

EDL 680 EDUCATIONAL PLANNING  3
Prereq.: Admission to the Sixth Year Certificate program, EDL 606 and permission of instructor. Conceptual and practical methods of decision making within an educational setting to identify, align, assess and modify organizational resources to achieve institutional goals. Emphasis on the comprehensive use of institutional data to build budgets and planning procedures.

EDL 690 INTERNSHIP IN EDUCATIONAL LEADERSHIP I: THEORY AND PRACTICE  2
Prereq.: Admission to the Sixth Year Certificate program, and completion of 18 credits in planned program or permission of instructor. Part one of a supervised administrative internship in an organizational setting where interns apply strategic, instructional, organizational and contextual leadership skills. Students initiate their action plan and professional portfolio. F, C
EDT 511 TOPICS IN EDUCATIONAL TECHNOLOGY 3
Prereq.: EDL 690. Part two of a supervised administrative internship in an organization setting where interns apply strategic, instructional, organizational, and contextual leadership skills. Students will complete their professional portfolio. S [c]

EDT 597 FINAL PROJECT 3
Prereq.: Permission of EDT adviser and completion of 24 credits in planned program. Culminating experience. Students develop an instructional project that demonstrates acquired skills in design, production and evaluation in Educational Technology. SS [c]

EDT 512 COMPUTER-BASED INSTRUCTION 3
Prereq.: EDT 500, 501 or permission of instructor. Application of computer-based strategies for instruction, including interactivity, adaptivity, feedback, branching and evaluation, with emphasis on screen design, developing flowcharts and storyboarding. S [c]

EDT 521 INTERACTIVE MULTIMEDIA FOR INSTRUCTION I 3
Prereq.: EDT 512. Application of multimedia principles emphasizing screen design, branching, instructional and media strategies, using flowcharts, storyboards and evaluation techniques. S [c]

EDT 522 INSTRUCTIONAL DESIGN AND EVALUATION II 3
Prereq.: EDT 500. Examination and application of cognitive theories and new instructional design concepts, such as needs assessment and media strategies. F [c]

EDT 531 INTERACTIVE MULTIMEDIA FOR INSTRUCTION II 3
Prereq.: EDT 521. Production of multimedia through hands-on experiences that include CD-ROM mastering, digital audio and video, animation, graphics, programming and subsequent evaluation procedures for Educational Technology. SS [c]

EDT 532 DISTANCE LEARNING AND NETWORKING 3
Prereq.: Matriculation or permission of instructor. Analysis of distance learning and networking, including hands-on experiences to design, produce, evaluate and manage students' own distance learning and networking programs. S [c]

EDT 597 FINAL PROJECT 3
Prereq.: Permission of EDT adviser and completion of 24 credits in planned program. Culminating experience. Students develop an instructional project that demonstrates acquired skills in design, production and evaluation in Educational Technology. SS [c]

EDL 691 INTERNSHIP IN EDUCATIONAL LEADERSHIP II: RESEARCH AND PRACTICE 2
Prereq.: EDL 690. Part two of a supervised administrative internship in an organization setting where interns apply strategic, instructional, organizational and contextual leadership skills. Students will complete their professional portfolio. S [c]

EDL 697 READINGS AND CONFERENCE 1–3
Prereq.: Admission to the Sixth Year Certificate program and permission of Department Chair. Individual or small group directed study of a specific topic under the supervision of a faculty member. May be repeated with different topics for a total of 6 credits. IR [c]
COURSE DESCRIPTIONS

ET 464 CAD SOLID MODELING AND DESIGN 3
Prereq.: ET 251, 260, 340; or permission of instructor. Computer-aided design and analysis of solid, surface and sheet metal models emphasizing product design. Uses computer software for design, detailing, mass property analysis, dimensional standards, and family tables. Two hours of lecture and one two-hour laboratory per week. S (c)

ET 466 DESIGN FOR MANUFACTURE 3
Prereq.: ET 260, 340 (previously ET 440), 462. TC 446 (taken concurrently). Applications and problem solving course covers contemporary industrial practices for integrating product design with manufacturing process design to produce products which will function in accordance with design intent. Have interchangeable parts and allow economical automated manufacture.

ET 467 CAE APPLIED FINITE ELEMENT ANALYSIS 3
Prereq.: ET 256, 357 and 464. Application of the finite element method to structural engineering problems. Study of plane stress, plane strain, shell and continuum finite elements, mesh generation, proper element density and element interfacing, and composite modeling problems. F (c)

ET 468 COMPOSITE DESIGN AND ANALYSIS 3
Prereq.: ET 467. Study of the design and analysis of composite structures using classical composite theory coupled with the finite element method. New methods of structural redesign using composite materials. F (c)

ET 470 STRUCTURAL STEEL DESIGN 3
Prereq.: TC 356 and ET 397. Introduction to the analysis of steel structures using classical and computer methods. Application of design, fabrication and construction in structural steel using standard specifications. Topics on beams, columns, trusses and frames. F

ET 471 REINFORCED CONCRETE STRUCTURES 3
Prereq.: ET 357, 397. Applications of design and construction in reinforced concrete and timber structures. Topics on beams, columns, slabs, footings, retaining walls, form work and prestressed concrete fundamentals. S

ET 472 TIMBER STRUCTURES 3
Prereq.: ET 397. Study of the physical properties of wood used in structures and architecture. Influence on strength from moisture content, species and preservation treatments are emphasized. Design and construction applications in bridges and buildings. S

ET 475 HYDROLOGY AND STORM DRAINAGE 3
Prereq.: TC 122, ET 352 and 354; or permission of instructor. Engineering topics pertaining to the hydrological cycle. Computational techniques and the use of application software for analysis of rainfall and runoff. Design skills for stormwater mitigation will be applied to course project. S (c)

ET 476 ENVIRONMENTAL TECHNOLOGY 3
Prereq.: CHEM 111 or 121, MATH 115. Environmental effects on air, water and land from construction activities. Case studies with discussion of corrective action. F

ET 497 ENGINEERING ECONOMY 3
Prereq.: MATH 125. Economic analysis of financing, technical or engineering projects as related to the construction and industrial infrastructure facilities. Determination of costs and justification of improvements. F, S, SS

ET 500 TOPICS IN ENGINEERING TECHNOLOGY 3

ET 501 INDEPENDENT STUDY IN ENGINEERING TECHNOLOGY 3
Prereq.: Permission of instructor. Studies of special areas in engineering technology providing for individual research and application. May be repeated with different topics for a maximum of 6 credits. On demand.

ET 517 AUTOMATED ASSEMBLY AND MANUFACTURING CELL DESIGN 3
Prereq.: TC 416, IT 480 and either ET 251 (previously ET 351) or PHYS 121; or permission of instructor. Manufacturing center level programming and programming execution of different automated work cells. CNC mill programming, inventory control and automated assembly at the center level. Design of several work cells to work concurrently on product manufacturing. F (c)

ET 523 CONTEMPORARY ENGINEERING MATERIALS 3
Prereq.: ET 357 or permission of instructor. Analysis of contemporary materials for the applications. Advantages or disadvantages, properties and specifications for product design and manufacturing techniques. Two lectures and one two-hour laboratory per week. S (c)

ET 534 CONCEPTS OF GROUP TECHNOLOGY 3
Prereq.: Permission of instructor. Principles and applications of group technology for the engineering and manufacturing environment. Analysis of part and coding system design for applications in CAD/CAM/GIM and process planning systems. S (c)

ET 542 PRODUCTION COST ESTIMATING 3
Prereq.: ET 360 and 49*, or permission of instructor. Principles and methods for evaluating costs and times crucial to engineering designs. Tooling and production, with application of these principles to case studies and basic engineering design problems. S (c)

ET 550 GLOBAL POSITIONING SYSTEMS APPLICATIONS 3
Prereq.: ET 457. Global Positioning System (GPS) use for control surveying, GIS data acquisition and land surveying applications. Students will gather GPS field data and perform differential processing including static, kinematic, pseudokinematic and real time GPS. F (c)

ET 556 ARCHITECTURAL AND CIVIL ENGINEERING TECHNOLOGY COMPUTER AIDED DESIGN 3
Prereq.: TC 113 and 122. MicroStation CAD software in practical projects. Introduction to 3D design and solid modeling. IR (c)

ET 568 CAE APPLIED FINITE ELEMENT ANALYSIS 3
Prereq.: ET 357 and 464, or permission of instructor. Application of the finite element method to structural problems. S (c)

ET 572 ENGINEERING TECHNOLOGY PROJECT ADMINISTRATION 3
Examination of principles and practices of project administration. Topics include planning, budgeting, permitting, programming, personnel, legal, public involvement, tort liability, emergency handling and dealing with federal and state government requirements. F

ET 575 FACILITIES ENGINEERING 3
Prereq.: Matriculation in MSET program and completion of 15 credits of approved graduate study. Concepts and procedures for obtaining, evaluating and reporting existing and measured data. F (c)

ET 577 RESEARCH IN ENGINEERING TECHNOLOGY 3
Prereq.: ET 592 and permission of project adviser. Technical laboratory project conducted under the supervision of project adviser. Written and oral defense of project required. On demand. (c)

ET 599 THESIS 3
Prereq.: ET 592 and permission of thesis adviser. Preparation of thesis under supervision of adviser. Written and oral defense of research required. On demand. (c)

ENGLISH
Note: Additional work will be required for graduate credit in 400-level courses.

ENG 400 LINGUISTIC ANALYSIS 3
Intensive analyses (syntactic, morphological, phonological) of selected data from English and other languages. Particular emphasis on developing analytical skills. F
COURSE DESCRIPTIONS

ENG 401 ADVANCED COMPOSITION 3
Advanced course in expository writing designed for competent writers who wish to refine their skills. Emphasis on vividness, precision, and impact, with attention to audience and style. (Not applicable to M.A. or M.S. in English programs.)

ENG 403 TECHNICAL WRITING 3
Course designed to assist students in planning, researching, structuring, writing, revising, and editing technical materials. Emphasis on various types of writing drawn from an industrial/professional context: reports, correspondences, directories, manuals, technical/articles. (Not applicable to M.A. or M.S. in English programs.)

ENG 412 EDITING 3
Prereq.: ENG 235 or 236 or permission of instructor. Emphasis on copy editing, headline writing, news judgment, photo handling, newspaper makeup. (Not applicable to M.A. or M.S. in English programs.) IR

ENG 416 MAGAZINE WRITING 3
Prereq.: ENG 235 or 236 or permission of instructor. The process of researching, interviewing for and writing magazine articles: preparation for selling freelance articles. (Not applicable to M.A. or M.S. in English programs.) IR

ENG 418 STUDIES IN JOURNALISM 3
Prereq.: ENG 235 or 236 or permission of instructor. Selected topics in journalism. Students may take this course under different topics for a maximum of 6 credits. (Not applicable to M.A. or M.S. in English programs.) IR

ENG 420 TEACHING ENGLISH IN SECONDARY SCHOOLS 4
Prereq.: ENG 402 and acceptance into the Professional Program of Teacher Education. Methods and materials for teaching English language and literature. Includes 30 hours of guided observations in middle and high school classrooms.

ENG 430 STUDIES IN LINGUISTICS AND THE ENGLISH LANGUAGE 3
Selected topics in linguistics. Students may not take this course under the same topic more than once. IR

ENG 431 THE HISTORY OF THE ENGLISH LANGUAGE 3
History, growth, and structure of English language. IR

ENG 445 AMERICAN DRAMA 3
Development of American drama and its contribution to literature. IR

ENG 448 STUDIES IN AMERICAN LITERATURE 3
Selected topics in American literature. Students may take this course under different topics for a maximum of 6 credits.

ENG 449 MAJOR AMERICAN AUTHOR 3
Intensive study of the writings, life, influence and historical milieu of a major American author. Authors will vary each year. May be repeated under different author subjects for a maximum of six credits.

ENG 450 CHAUCER 3
Readings in Chaucer, with special emphasis on The Canterbury Tales and Troilus and Criseyde. IR

ENG 451 MILTON 3
Readings in Milton's prose and poetry with emphasis on Paradise Lost and Samson Agonistes. IR

ENG 458 STUDIES IN BRITISH LITERATURE 3
Selected topics in British Literature. Students may take this course under different topics for a maximum of 6 credits.

ENG 461 SHAKESPEARE: MAJOR COMEDIES 3
Close analysis of major comedies and pertinent critical problems. IR

ENG 462 SHAKESPEARE: MAJOR TRAGEDIES 3
Close analysis of major tragedies and pertinent critical problems. IR

ENG 463 ELIZABETHAN AND JACOBEAN DRAMA 3
Study of major dramatists from Kyd to Ford, excluding Shakespeare. IR

ENG 464 RESTORATION AND 18th CENTURY DRAMA 3
English drama from 1660-1800, primarily comedy. Readings from works of such dramatists as Wycherley, Etherege, Dryden, Congreve, Vanbrugh, Farquhar, Gay, and Sheridan. IR

ENG 470 THE VICTORIAN NOVEL 3
Representative Victorian novelists with special emphasis on Trollope, Eliot, Dickens, Thackeray, and Hardy. IR

ENG 474 THE CONTEMPORARY AMERICAN NOVEL 3
American novels which have come to prominence since World War II, and the changing cultural environment which they reflect. IR

ENG 475 THE BRITISH NOVEL TO 1832 3
Form and content of the novel with readings selected from DeFoe, Richardson, Fielding, Sterne, Smollet, Austen. Scott and Gothic novels. IR

ENG 476 THE MODERN BRITISH NOVEL 3
Form and content of the novel with readings selected from Joyce, Woolf, Ford, Conrad. Lawrence, Huxley, Forster, Greene, Waugh and others. IR

ENG 477 MODERN BRITISH POETRY 3
Major works of Hardy, Hopkins, Yeats, D.H. Lawrence, Owen, Sassoon, Auden. Dylan Thomas, Larkin, Hughes, and others. IR

ENG 478 MODERN AMERICAN POETRY 3
Study of important American poets from Dickinson to the present. IR

ENG 480 MODERN IRISH LITERATURE 3
Study of the major themes and traditions in Irish writers of the 20th Century. Included will be works by Yeats, Synge, O'Casey, O'Connor, and others. IR

ENG 486 LITERATURE AND FILM 3
Study of films adapted from novels and plays. The course investigates the nature of the relationship of these forms. Attention will be paid to the theory of film with comparison to the aesthetics of the printed word and the live performance. Attendance at screenings required. S

ENG 487 TWENTIETH-CENTURY BRITISH DRAMA 3
Study of major British playwrights of the twentieth century. Selections may be from the works of Shaw, Coward, Maugham, O'Casey, Eliot, Beckett, Osborne, Pinter, Shaffer, Ayckbourn, Churchill. Gray, Hare, Stoppard, and others. IR

ENG 488 STUDIES IN WORLD LITERATURE 3
Selected topics in world literature. Students may take this course under different topics for a maximum of 6 credits.

ENG 490 INDIVIDUAL GUIDED READING 1-3
Prereq.: Permission of the department chair. A conference course for students wishing to follow a planned program of guided reading.

ENG 491 CHILDREN'S LITERATURE 3
Balanced selection of the best literature available to children. Traditional forms of fables, legends, myths, epics, fairy tales, and folk tales of the world; examination of how these represent the universal needs and aspirations of all cultures. Major authors and illustrators included. (May be applicable to M.S. Program — see graduate adviser.)

ENG 492 LITERATURE FOR YOUNG ADULTS 3
Through extensive reading this course examines trends and issues, forms and content, and authors and topics of contemporary books read by and written expressly for adolescents. Recommended for secondary teachers and reading specialists. (Not applicable to M.A. or M.S. in English programs.)

ENG 495 INTERNSHIP 1-6
Prereq.: Permission of faculty adviser and department chair. Intern projects under the guidance of an English faculty adviser and with the permission of the department chair. (Not applicable to M.A. or M.S. in English programs.)

ENG 499 INDIVIDUAL GUIDED READING 1-3
Prereq.: Permission of the department chair. A conference course for students wishing to follow a planned program of guided reading.
COURSE DESCRIPTIONS

ENG 496  TESOL METHODS  3
Principles, methods, and materials for teaching English to non-English speaking students at all levels. Acquisition and practice of basic language teaching skills. Intercultural communication in the ESOL classroom. F

ENG 497  SECOND LANGUAGE ACQUISITION  3
Major theories of language acquisition and their potential application to language teaching. The theoretical bases of second language instruction. S

ENG 498  TESOL PRACTICUM  3
Prereq.: ENG 496. Students will teach ESOL under supervision. S

ENG 500  SEMINAR IN AMERICAN LITERATURE  3
Prereq.: Admission to degree program in English or permission of instructor. Designed to give student seminar experience in selected area of English studies. F

ENG 501  SEMINAR IN BRITISH LITERATURE  3
Prereq.: Admission to degree program in English or permission of instructor. Designed to give student seminar experience in selected area of English studies. S

ENG 512  MODERN SYNTAX  3
Concepts and formalisms in grammar. Problem solving in English syntax. Contemporary developments in syntactic theory. S

ENG 513  MODERN PHONOLOGY  3
Characteristics and organization of sound systems of languages. Special attention to the sound system of English and how it fits into universal patterns. Generative and post-generative phonologies. S

ENG 515  AN INTRODUCTION TO SOCIOLINGUISTICS  3
Examination of the interlocking nature of language and society, with particular emphasis on sociolinguistic theory and field work. F

ENG 520  TEACHING ENGLISH IN SECONDARY SCHOOLS  3
Prereq.: Teaching experience and permission of instructor. Methods and materials for teaching English language, literature and composition. Meets state certification requirements. (Applicable to M.S. in English; not applicable to M.A. in English.) S

ENG 521  TEACHING WRITING IN SECONDARY SCHOOLS  3
Prereq.: Open only to experienced teachers. Exploring ways of motivating writing, organizing writing activities, teaching grammar and mechanics, and evaluating writing in secondary schools while developing personal writing techniques. (Applicable to M.S. in English; not applicable to M.A. in English.) F

ENG 530  SPECIAL TOPICS IN LITERATURE  3
Detailed study of a literary figure, genre, period, or theme. Subject matter will vary from semester to semester. Students may not take this course under the same topic more than once. IR

ENG 533  SECOND LANGUAGE COMPOSITION  3
Psycholinguistics of writing in a second language. Principles, methods, and materials for teaching writing to students of English as a second or foreign language. The second language writing curriculum. S

ENG 535  SECOND LANGUAGE TESTING  3
Linguistic and academic assessment of non-native speakers of English. Determination of language dominance and proficiency of bilinguals. Preparation of language tests. F

ENG 598  RESEARCH IN ENGLISH  3
Research skills in a discipline offered by the English Department. The literature section is a course designed to introduce the techniques and resources of literary research through an examination of the theory, history and practice of literary criticism. The TESOL section covers research topics and methods in TESOL and Applied Linguistics. F

ENG 599  THESIS  3
Prereq.: Admission to M.S. or M.A. program in English or M.S. program in TESOL, a minimum of 15 credits of graduate course work in English, and permission of the department chair. Preparation of the thesis under the supervision of the thesis adviser.

FIN 400  ADVANCED MANAGERIAL FINANCE  3
Prereq.: FIN 301, 310 and 320. An advanced course in financial management of the business firm. Utilizes a case study approach to stress the application of financial management theories. Topics include asset management, investment decisions and financial structure of the firm. F [c]

FIN 410  SECURITIES ANALYSIS  3
Prereq.: FIN 301, 310 and 320. An advanced course in investments with emphasis on security analysis and portfolio management practices. Topics include financial statement analysis, use of derivatives and special techniques employed in forecasting, timing and the development of investment strategies. [c]

FIN 425  FINANCIAL DERIVATIVES  3
Prereq.: FIN 295 and 310, or permission of instructor. Valuation of financial derivatives, including options and futures, applications to portfolio and corporate risk management. F

FIN 430  INTERNATIONAL FINANCIAL MANAGEMENT  3
Prereq.: FIN 295. A study of the principles and practices of corporate finance in an international setting. Explores the primary elements of international monetary economics with emphasis on exchange rate analysis. Major topics of study include exchange and credit risks in international trade, capital budgeting process of the multi-national corporation and the international financial markets. [c]

FIN 490  INDEPENDENT STUDY IN FINANCE  1-3
Prereq.: FIN 301, 310 and 320. Individualized readings and/or research by individuals under the direction of a Finance faculty member. Topics will vary. May be repeated up to a total of 3 credits. On demand. [c]

FIN 496  PRACTICUM IN FINANCE  1-6
Prereq.: Permission of instructor. Students work on a real world project under the direct supervision of a faculty adviser. Projects may be sponsored by a host organization. Student performance is monitored and evaluated in relation to conditions set forth in an approved Project Plan. May be repeated for a maximum of 6 credits. Cannot be used as a Finance directed elective. On demand.

FIN 498  FINANCE SEMINAR  3
Prereq.: Permission of instructor. Course content varies. F

FIN 499  CFA SEMINAR  3
Prereq.: FIN 295, 310, 410 or permission of instructor. Focuses on the advanced investment concepts which are the foundation of Chartered Financial Analyst (CFA) professional designation. Topics include ethical and professional standards, quantitative methods, global markets and instruments, analysis of stock and bond investments and portfolio management. S

FIN 541  INTERNATIONAL FINANCIAL MANAGEMENT  3
Prereq.: Admission to MBA program or permission of MBA director. Previously BUS 541. Basic understanding of the factors and skills necessary to manage exchange rate risk. Financial modeling and forecasting are utilized in strategic and operational planning and in the investment decision process.

FIN 542  MANAGERIAL FINANCE  3
Prereq.: Admission to MBA program or permission of MBA director. Previously BUS 542. Comprehensive study of the application of accounting and investment principles to the financial function in the modern firm. Includes performance measures, budgeting and long-range planning. IR

FIN 549  CURRENT TOPICS IN FINANCE  1-3
Prereq.: Admission to MBA program or permission of MBA director. Previously BUS 549. Financial issues in multinational firms and/or international finance markets. Topics vary to reflect conditions in the field. May be repeated with different topics for a maximum of six credits.
FINE ARTS
Note: Additional work will be required for graduate credit in 400-level courses.

FA 490 INTEGRATING THE FINE ARTS FOR THE YOUNG LEARNER 3
Prereq.: Permission of dept. chair in Art, Theatre or Music. Study of the aesthetic experience, its importance for children and its interrelationship with empirical knowledge. Music, the visual arts and movement will be investigated, with an emphasis on discovering resources and developing techniques for integrating each. S(e)

FRENCH
Note: Additional work will be required for graduate credit in 400-level courses.

FR 441 ADVANCED ORAL PRACTICE 3
Prereq.: Permission of instructor. Taught in French. Open only to non-native speakers of French. Development of fluency in oral self-expression. Speech analysis to improve pronunciation and intonation. F

FR 451 THE STRUCTURE OF MODERN FRENCH 3
Prereq.: Permission of instructor. Taught in French. Assists in the improvement of all aspects of oral expression. Includes study of the sound system, description of word forms, and analysis of syntactic structures. Intensive practice in pronunciation. I

FR 460 ADVANCED GRAMMAR AND COMPOSITION 3
Prereq.: FR 336 or permission of instructor. Taught in French. Written expression of French, particularly in idiomatic-free composition. Designed to develop the ability to express shades of meaning. Comprehensive study of French grammar and levels of style. Use of translation from English. S(e)

FR 474 20TH CENTURY FRENCH LITERATURE 3
Prereq.: FR 302, 336. and permission of instructor. Taught in French. Major works and movements of 20th century literature from Surrealism to Post-Modemism. F(e)

FR 472 STUDIES IN FRENCH CULTURE 3
Prereq.: FR 302, 336, and permission of instructor. Taught in French. Major cultural developments in post-war and contemporary France. Emergence of new forms of self expression, including the New Novel, dialogue between "high" and "low" culture, and minor genres. Emphasis on the mass media. S(o)

FR 510 MEDIEVAL AND RENAISSANCE FRENCH LITERATURE 3
Prereq.: Permission of instructor. Taught in French. Culture, language and literature from the 9th through the 16th centuries and their relation to contemporary society. F(o)

FR 561 TOPICS IN FRENCH LITERATURE 3
Prereq.: Permission of instructor. Taught in French. Detailed study of literary figures, movement, or theme. Subject matter will vary from semester to semester. May be repeated with different topics for a maximum of 6 credits. I

FR 574 17TH CENTURY FRENCH LITERATURE AND CULTURE 3
Prereq.: Permission of instructor. The main currents of 17th century thought in literature, the arts and the sciences, with emphasis on the evolution of classicism. S(e)

FR 581 19TH CENTURY FRENCH LITERATURE 3
Prereq.: Permission of instructor. Taught in French. Major literary currents and works of the 19th century, with emphasis on the Romantic and Symbolist poetry, and the Realist and Naturalist novel. F(c)

FR 588 CONTEMPORARY SOCIETY IN THE FRANCOPHONE WORLD 3
Prereq.: Permission of instructor. Taught in French. Contemporary societies, institutions, traditions and values in the Francophone world. With emphasis on France. S(o)

FR 599 THESIS 3
Prereq.: 21 credits of approved graduate study and permission of adviser. Preparation of the thesis under the supervision of the thesis adviser. On demand.

GEOGRAPHY
Note: Additional work will be required for graduate credit in 400-level courses.

GEOG 414 TEACHING METHODS IN GEOGRAPHY 2-3
Prereq.: Admission to the Professional Program. Concepts, methods and materials for teaching geography. Middle-level certification students selecting the Complementary Subject Matter Area in geography will enroll for two credits; all others will enroll for three credits. F

GEOG 433 ISSUES IN ENVIRONMENTAL PROTECTION 3
Issues in the environmental protection planning process. Topics include air quality, noise, solid waste, hazardous materials, wilderness areas, endangered species, wetlands and land use issues. A single field trip may be required.

GEOG 434 MEXICO, CENTRAL AMERICA AND THE CARIBBEAN 3
Study of our nearest neighbors south of the border, concentrating on people, the land on which they live, and related problems, primarily from a regional point of view. F

GEOG 436 SOUTH AMERICA 3
Survey of the countries of South America with emphasis on people, places and problems. S

GEOG 437 CHINA 3
Physical, economic, political and historical geography of China. Special consideration of her population, resources, agricultural growth and industrial expansion. Discussion of the geographic bases of the expansion of the Chinese State and the contemporary foundation of Chinese national power. F(c)

GEOG 439 URBAN GEOGRAPHY 3
Form, function and evolution of urban settlements with reference to attributes of place. Emphasis also placed on internal structure and regional relationships of cities. Provides a methodological basis for thought involving the planning process, including preservation planning and systems analysis. Personal on-site study of a current urban problem within the state is expected. S

GEOG 440 RURAL LAND USE PLANNING 3
Land use patterns and the planning process in agriculture, transportation, recreation, industry, population and settlement in rural areas. Case studies and field work emphasizing the impact of urbanization on rural Connecticut. F(o)

GEOG 441 COMMUNITY AND REGIONAL PLANNING 3
Philosophies, theories, and principles involved in planning of regions and urban areas. F

GEOG 445 ENVIRONMENTAL PLANNING 3
Prereq.: GEOG 110 or permission of instructor. Examines the environmental impacts of land development and natural constraints on planning and public policy decision-making. Case studies and field work will emphasize aspects of environmental planning in the Greater Hartford region. S

GEOG 446 SUB-SAHARAN AFRICA 3
Relationships between the physical environment and human development in Africa south of the Sahara. S(e)

GEOG 448 RUSSIA & NEIGHBORING REGIONS 3
Environmental, cultural and economic patterns that give character to the various regions of Russia. Its contemporary political economy viewed in spatial and his-
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>GEOG 450</td>
<td>TOURISM PLANNING</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 451</td>
<td>TOURISM DEVELOPMENT IN SOUTHERN NEW ENGLAND</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 452</td>
<td>EUROPEAN UNION</td>
<td>3</td>
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<tr>
<td>GEOG 453</td>
<td>RECREATION PLANNING</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 454</td>
<td>GEOGRAPHY OF TOURISM MARKETING</td>
<td>3</td>
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<tr>
<td>GEOG 455</td>
<td>NEW DIRECTIONS IN TOURISM</td>
<td>3</td>
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<tr>
<td>GEOG 456</td>
<td>READINGS IN GEOGRAPHY</td>
<td>3</td>
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<tr>
<td>GEOG 457</td>
<td>TOPICS IN PHYSICAL GEOGRAPHY</td>
<td>3-6</td>
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<tr>
<td>GEOG 458</td>
<td>GEOGRAPHY OF NATURAL RESOURCES</td>
<td>3</td>
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<tr>
<td>GEOG 459</td>
<td>COMPUTER CARTOGRAPHY</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 460</td>
<td>GIS DESIGN AND IMPLEMENTATION</td>
<td>3</td>
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<tr>
<td>GEOG 461</td>
<td>TOPICS IN PLANNING</td>
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<td>GEOG 462</td>
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<td>GEOG 463</td>
<td>RESEARCH IN GEOGRAPHY</td>
<td>3</td>
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<tr>
<td>GEOG 464</td>
<td>INTERNATIONAL RELATIONS</td>
<td>3</td>
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<td>GEOG 465</td>
<td>HUMAN GEOGRAPHY</td>
<td>3</td>
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<td>GEOG 466</td>
<td>COMPUTER CARTOGRAPHY</td>
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<td>GEOG 468</td>
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<td>GEOG 469</td>
<td>TOPICS IN PLANNING</td>
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<td>GEOG 470</td>
<td>RESEARCH IN GEOGRAPHY</td>
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<td>GEOG 471</td>
<td>INTERNATIONAL RELATIONS</td>
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<td>GEOG 472</td>
<td>HUMAN GEOGRAPHY</td>
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<td>GEOG 473</td>
<td>INTERNATIONAL RELATIONS</td>
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<td>COMPUTER CARTOGRAPHY</td>
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<td>GEOG 475</td>
<td>GIS DESIGN AND IMPLEMENTATION</td>
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<td>TOPICS IN PLANNING</td>
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<td>RESEARCH IN GEOGRAPHY</td>
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<td>GEOG 478</td>
<td>INTERNATIONAL RELATIONS</td>
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Note: Additional work will be required for graduate credit in 400-level courses.
### COURSE DESCRIPTIONS

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>HHSP 491</td>
<td>INTRODUCTION TO CARE/CASE MANAGEMENT</td>
<td>3</td>
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<td>HHSP 492</td>
<td>CLINICAL IMPLEMENTATION OF CARE/CASE MANAGEMENT</td>
<td>3</td>
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<tr>
<td>HHSP 493</td>
<td>PROFESSIONAL ISSUES IN CARE/CASE MANAGEMENT</td>
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<td>HHSP 494</td>
<td>INTRODUCTION TO HOSPICE CARE</td>
<td>3</td>
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<td>HHSP 495</td>
<td>CLINICAL IMPLEMENTATION OF HOSPICE CARE</td>
<td>3</td>
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<tr>
<td>HHSP 496</td>
<td>PROFESSIONAL ISSUES IN HOSPICE CARE</td>
<td>3</td>
</tr>
<tr>
<td>HHSP 500</td>
<td>TOPICS IN HEALTH AND HUMAN SERVICES</td>
<td>1-3</td>
</tr>
</tbody>
</table>

**HISTORY**

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HIST 423</td>
<td>COLONIAL PERIOD OF AMERICAN HISTORY</td>
<td>3</td>
</tr>
<tr>
<td>HIST 424</td>
<td>ESTABLISHMENT OF A NEW NATION</td>
<td>3</td>
</tr>
<tr>
<td>HIST 425</td>
<td>ERA OF NATIONAL DEVELOPMENT</td>
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<tr>
<td>HIST 426</td>
<td>THE UNITED STATES, 1850-1896</td>
<td>3</td>
</tr>
<tr>
<td>HIST 427</td>
<td>THE UNITED STATES, 1890-1933</td>
<td>3</td>
</tr>
<tr>
<td>HIST 428</td>
<td>THE UNITED STATES SINCE 1933</td>
<td>3</td>
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<tr>
<td>HIST 429</td>
<td>WOMEN AND REFORM IN AMERICAN SOCIETY, 1870-1920</td>
<td>3</td>
</tr>
<tr>
<td>HIST 430</td>
<td>ECONOMIC HISTORY OF EUROPE</td>
<td>3</td>
</tr>
<tr>
<td>HIST 431</td>
<td>ANCIENT NORTHEAST AFRICA</td>
<td>3</td>
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<tr>
<td>HIST 432</td>
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<tr>
<td>HIST 433</td>
<td>HISTORICAL PERIOD OF ANCIENT GREECE</td>
<td>3</td>
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<tr>
<td>HIST 434</td>
<td>HISTORICAL PERIOD OF ANCIENT ROME</td>
<td>3</td>
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<td>HIST 435</td>
<td>HISTORICAL PERIOD OF EARLY MEDIEVAL EUROPE</td>
<td>3</td>
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<tr>
<td>HIST 436</td>
<td>HISTORICAL PERIOD OF LATER MEDIEVAL EUROPE</td>
<td>3</td>
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**European History, 1650 to Present**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>HIST 442</td>
<td>EUROPEAN HISTORY, 1650 TO 1815</td>
<td>3</td>
</tr>
<tr>
<td>HIST 443</td>
<td>EUROPEAN HISTORY, 1815 TO 1918</td>
<td>3</td>
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<tr>
<td>HIST 444</td>
<td>EUROPEAN HISTORY, 1918 TO THE PRESENT</td>
<td>3</td>
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<tr>
<td>HIST 445</td>
<td>EUROPEAN INTELLECTUAL HISTORY, 1750-1870</td>
<td>3</td>
</tr>
<tr>
<td>HIST 446</td>
<td>EUROPEAN INTELLECTUAL HISTORY, 1870-PRESENT</td>
<td>3</td>
</tr>
<tr>
<td>HIST 447</td>
<td>HISTORY OF THE SOVIET UNION</td>
<td>3</td>
</tr>
<tr>
<td>HIST 448</td>
<td>STALIN AND STALINISM</td>
<td>3</td>
</tr>
<tr>
<td>HIST 449</td>
<td>HISTORY OF MODERN CHINA</td>
<td>3</td>
</tr>
<tr>
<td>HIST 450</td>
<td>HISTORY OF MODERN JAPAN</td>
<td>3</td>
</tr>
<tr>
<td>HIST 451</td>
<td>CHINESE INTELLECTUAL HISTORY</td>
<td>3</td>
</tr>
<tr>
<td>HIST 452</td>
<td>CHINESE INTELLECTUAL HISTORY</td>
<td>3</td>
</tr>
<tr>
<td>HIST 453</td>
<td>THE FAMILY IN CHINESE HISTORY</td>
<td>3</td>
</tr>
<tr>
<td>HIST 454</td>
<td>UNIFIED STATES SECTIONALISM: THE CLASH OF CULTURES</td>
<td>3</td>
</tr>
</tbody>
</table>
COURSE DESCRIPTIONS

HIST 460  AFRICAN ENSLAVEMENT IN THE AMERICAS  3
Comparative history of slavery in Latin America, the Caribbean and the United States from 1492–1888. F(O)

HIST 463  CONSTITUTIONAL HISTORY OF THE UNITED STATES TO 1900  3
Study of nation’s fundamental law as influenced by political, economic and social forces. F(E)

HIST 465  ECONOMIC HISTORY OF THE UNITED STATES  3
American economy from its agricultural beginnings through stages of its commercial, industrial and financial growth.

HIST 466  HISTORY OF AMERICAN TECHNOLOGY  3
The history and development of technology in America, emphasizing sources of technology, its impact on the work place, on the reorganization of production and management and on change in the larger society. F

HIST 469  AFRICAN AMERICANS IN THE TWENTIETH CENTURY  3
Political, economic, social and cultural developments in Black American since 1900. F(O)

HIST 472  MODERN MIDDLE EAST  3
Historical developments in the 20th century with a special emphasis on political, social and economic conflicts. F

HIST 473  HISTORY OF JUDAISM  3
Analysis of major themes in the historical development of Judaism from ancient times to the present. S

HIST 474  HISTORY OF THE ARAB-ISRAELI CONFLICT  3
History of the Arab-Israeli conflict from the time of Israel’s creation as a modern nation-state until the present. S

HIST 476  AFRICAN HISTORY THROUGH FILM  3
Africa’s past and present are viewed through a series of movies and intensive scholarly discussion of selected topics and themes. Readings are derived from current scholarly research on the various issues discussed. IR

HIST 479  HISTORY OF POLAND: FROM THE PIASTS TO PARTITION, 966 to 1795  3
Previously HIST 350. The medieval Kingdom, the Polish Lithuanian Commonwealth and the Partitions. F(O)

HIST 480  MODERN POLAND  3
Examination of the course of modern Polish history, including the restoration of independence in 1918, World War II, communist rule, Solidarity and the recovery of sovereignty in 1989. F(E)

HIST 481  THE JEWS OF POLAND  3
Prerequisite: HIST 143 or permission of instructor. Topics include immigration and settlement, community development and rights and privileges before 1795, modernization, nationalism, anti-Semitism, independence, Polish-Jewish relations during the holocaust, exodus and marginalization in communist Poland, and the new Polish Jews. F(E)

HIST 482  THE POLISH AMERICAN IMMIGRANT AND ETHNIC COMMUNITY  3
Prerequisite: HIST 262 or permission of instructor. Topics include immigration and settlement in the United States, organizational infrastructure, heroes and myths, homeland politics and national consciousness, labor, class, ethnicity, cultural assimilation and political integration, and stereotypes and ethnic identity. S(O)

HIST 483  HISTORY OF INTER-AMERICAN RELATIONS  3
Inter-American relations from inception of Monroe Doctrine to present. F(E)

HIST 484  HISTORY OF MEXICO  3
Mexico from high culture of Mayans through conquest, colonial period, independence and national development. S(E)

HIST 488  AMERICAN BUSINESS HISTORY  3
Historical examination of the forms and strategies employed in business in America. S(O)

HIST 489  AMERICAN LABOR HISTORY  3
Historical examination of the response of American Labor to technology and the development of a formal institutionalized labor movement. S(E)

HIST 493  DIRECTED READINGS IN HISTORY  3 or 6
Prerequisite: Six credits of 400-level History courses or permission of Department Chair. Individual program of studies for students with special interests and abilities. Topics vary from semester to semester. May be repeated once. Not more than three credits to be taken in one semester. On demand.

HIST 495  HISTORIOGRAPHY  3
Study of historical schools of thought and how historians develop new theories regarding the past. Also focuses on historical methodology and use of primary sources. S

HIST 497  TOPICS IN HISTORY  3
Historical focus on a facet of history in order to help clarify current domestic and/or world developments. May be repeated with different topics for up to 6 credits.

ALL 500-LEVEL COURSES REQUIRE PERMISSION OF INSTRUCTOR

HIST 532  STUDIES IN ANCIENT GREEK AND ROMAN CIVILIZATION  3
Study of selected topics. IR

HIST 540  SEMINAR IN EUROPEAN HISTORY  3 or 6
Selected problems in historical research. IR

HIST 542  SEMINAR IN MODERN RUSSIAN HISTORY  3
Selected topics in 19th- and 20th-century Russia with emphasis on multinational developments. S(O)

HIST 550  SEMINAR ON CHINA IN THE NINETEENTH CENTURY  3
China as she sought to make the transition from a traditional to a modern state. F(E)

HIST 552  SEMINAR ON CHINA IN THE 20TH CENTURY  3
Investigation of the birth and development of communism in China since 1918. S(E)

HIST 560  SEMINAR IN AMERICAN HISTORY  3 or 6
Selected problems in historical research. IR

HIST 565  SEMINAR IN 17th and 18th CENTURY AMERICA  3
Topics in 17th- and 18th-century American history. IR

HIST 566  CIVIL WAR AND RECONSTRUCTION IN THE UNITED STATES  3
Topics and themes of the Civil War and Reconstruction era in the United States. F(E)

HIST 567  THE UNITED STATES IN THE 1920s  3
In-depth study of Age of Disillusionment via directed readings and seminar. S(E)

HIST 568  SEMINAR ON THE NEW DEAL  3
Study of agencies and policies of New Deal and their impact upon institutions of United States. IR

HIST 570  IMMIGRATION IN AMERICAN HISTORY  3
Study of major waves of immigration into United States in 19th and 20th centuries. F(O)

HIST 575  PUBLIC HIST RESEARCH PROJECT  3

HIST 593  DIRECTED STUDY IN HISTORY  3
Prereq.: Permission of graduate adviser and instructor. Selected readings and project appropriate to student’s major field. Open only to students in M.S. program. IR

HIST 598  RESEARCH IN HISTORY  3
Prereq.: Thirty credits in History, including HIST 593. Designed to familiarize students with techniques and resources associated with research in their specialization. Opportunity for practical application will be provided. IR

HIST 599  THESIS  6
Prereq.: Permission of adviser. Preparation of thesis under the supervision of the thesis adviser and second reader.

HUMANITIES
Note: Additional work will be required for graduate credit in 400-level courses.

HUM 490  CULTURE AND CIVILIZATION OF OTHER LANDS  3
Prereq.: Permission of instructor. Approach to better understanding of other lives and cultures as reflected in language, music, literature, art and folklore. IR

HUM 494  FOREIGN STUDY THROUGH TRAVEL  3 or 6
Course will acquaint participants with civilizations of other countries through supervised travel abroad. Attention will be given to special needs and interests of participants. On demand.

INDUSTRIAL TECHNOLOGY
Note: Additional work will be required for graduate credit in 400-level courses.

IT 402  TOPICS IN TECHNOLOGY  1–3
Prereq.: Permission of department chair. An individualized inquiry of comprehensive study into a selected technical area. The student may elect to examine processes, products or developmental aspects of modern industry. Open only to Industrial Technology and ITM majors. Course may be repeated for a maximum of 6 credits for different topics.

IT 410  INDUSTRIAL SAFETY  3
Theory of industrial safety with emphasis upon fundamental concepts in the industrial environment. Emphasis will be placed on the psychological, sociological and physiological aspects of industrial safety.

IT 411  INDUSTRIAL HYGIENE  3
Lectures and laboratory exercises covering evaluation and control of exposure to dust, fumes, mist, vapors, gases, radiation, noise and abnormal temperatures. F

IT 412  PRINCIPLES OF OCCUPATIONAL SAFETY  3
Development of internal policies of a plant in an accident prevention program for its employees. Topics include safety training, job safety analysis, accident investigation, safety promotion and record keeping. On demand.

IT 414  INDUSTRIAL LOSS CONTROL MANAGEMENT  3
Loss control philosophy and techniques. Background information and specific techniques required to develop and implement an effective company-wide and on-site loss control program. Personnel responsibilities and total safety program. S

IT 415  FIRE PROTECTION AND PREVENTION  3
Measures related to safeguarding human life and preservation of property in preventing, detection, extinguishing fires. S

IT 421  EVALUATION TECHNIQUES IN INDUSTRIAL HYGIENE  3
Prereq.: IT 411 or permission from instructor. Continuation of Industrial Hygiene with emphasis on instrumentation, data collection, interpretation and applications to safety standards and regulations. S

IT 422  CONSTRUCTION SAFETY  3
Prereq.: IT 362 or permission of instructor. A study of safety problems in the construction environment with emphasis on the day to day activities of the construction safety coordinator. S

IT 432  WORKER/SUPERVISOR RELATIONS  3
Prereq.: IT 362 or MGT 295 or permission of instructor. To develop the role of worker-supervisor relationships in manufacturing industries by covering such topics as productivity, supervision within contract guides, union/non-union manufacturing conflicts, Method/Time Study implementation. S

IT 456  HAZARDOUS MATERIAL MANAGEMENT  3
Study of environmental regulations and their impact on industrial operations. Emphasis is on application of statutes, regulations and information sources concerning hazardous materials, waste handling and technical decisions pertinent to environmental and safety issues. S

IT 457  CONSTRUCTION SUPERVISION  3
Prereq.: Senior standing. Examination of the role of the construction supervisor. Emphasis on personnel scheduling, time keeping, trade unions, superintendents and the duties of the project manager.

IT 458  PRODUCTIVITY IMPROVEMENT  3
Course deals scientifically with analytical and creative problems affecting time. It covers the principles of methods design and work measurement. The student acquires skill in using motion study techniques and learns how to establish standards. Applications to product design, machine and tool design, process planning, production scheduling, plant layout, budgeting, sales prices, manpower requirements, wage incentives and methods improvement are studied. S

IT 464  CONTINUOUS PROCESS IMPROVEMENT  3
Prereq.: STAT 104. Application of statistical techniques to meet the needs of continuous quality improvement in the industrial environment. Topics include variation, control and capacity. SPC for short run and advanced process control. Emphasis on developing a continuous quality improvement strategy through supplier certification standards. F

IT 480  ROBOTICS  3
Prereq.: Senior standing or permission of instructor. The course provides an overview of the industrial robot to introduce the student to the science of flexible automation. Th: course emphasizes features, capabilities, programming, selection and implementation of industrial robots. F, SS [c]

IT 501  APPLIED NETWORKING TECHNOLOGY  3
Prereq.: TC 113 or permission of instructor. Use of the computer as an industrial tool to enhance productivity. Topics include time compression technologies with groupware, CAD, virtual reality, analysis, rapid prototyping, CAM, robotics and design verification. F

IT 502  HUMAN RELATIONS AND BEHAVIOR IN COMPLEX ORGANIZATIONS  3
Analysis of human relations in technological organizations, including motivation, corporate processes, communication and power.

IT 510  INDUSTRIAL PLANNING AND CONTROL  3
Prereq.: TC 113 or permission of instructor. Use of the computer as an industrial tool to enhance productivity. Topics include time compression technologies with groupware, CAD, virtual reality, analysis, rapid prototyping, CAM, robotics and design verification. F

IT 513  COMPUTER APPLICATIONS FOR THE PROFESSIONAL  3
Prereq.: TC 113 or CS 115 or permission of instructor. Designed for business professionals who need to expand their knowledge of application software. Includes the in-depth application and interrelationship of state-of-the-art managerial software packages. On demand. [c]
## COURSE DESCRIPTIONS

### INTERNATIONAL STUDIES

Note: Additional work will be required for graduate credit in 400-level courses.

**IS 450**  
**INTERNSHIP IN INTERNATIONAL STUDIES**  
Students will work under faculty supervision in an international environment related to their academic track or planned program. Written reports are required. On demand.

**IS 570**  
**MODERN WORLD ISSUES**  
Examination of contemporary world problems such as population, underdevelopment, ecological degradation, war and diplomacy and cultural extinction.

**IS 571**  
**INTERNATIONAL DIVERSITY AND INTEGRATION**  
Study of the institutions and attitudes involved in international integration. Factors which influence this process such as ethnic and cultural diversity will be considered.

**IS 572**  
**GLOBAL ECONOMIC INTEGRATION**  
Prereq.: ECON 200 and 201. Analysis of the global economy stressing integration in economic development and international trade.

**IS 590**  
**GRADUATE FIELD STUDY ABROAD**  
Course taught abroad. May be repeated for a maximum of 6 credits.

**IS 595**  
**SPECIAL PROJECT IN INTERNATIONAL STUDIES**  
Prereq.: IS 598 and permission of instructor. Advanced project in international studies under the supervision of a faculty member. Requirements include preparation of a paper and an oral presentation on the project. On demand.

**IS 596**  
**INDEPENDENT STUDIES**  
Prereq.: Permission of adviser. Independent work in International Studies to meet individual interest in regions or topics not covered in the regular curriculum. Work will be under the supervision of an assigned faculty member. On demand.

**IS 597**  
**GRADUATE SEMINAR IN INTERNATIONAL STUDIES**  
Prereq.: Permission of instructor. Interdisciplinary seminar on one of the world's regions or countries. Aspects of its anthropology, economics, geography, history, government, politics and sociology will be considered in a synthetic approach.

**IS 598**  
**RESEARCH IN INTERNATIONAL STUDIES**  
Prereq.: Permission of adviser. Designed to familiarize students with the techniques and resources associated with research in their specialization. Opportunity for practical applications will be provided. On demand.

**IS 599**  
**THESIS IN INTERNATIONAL STUDIES**  
Preparation of the thesis under supervision of the thesis adviser.

### ITALIAN

Note: Additional work will be required for graduate credit in 400-level courses.

**ITAL 441**  
**ADVANCED ORAL PRACTICE**  

**ITAL 460**  
**ADVANCED WRITTEN ITALIAN**  
Prereq.: ITAL 335 or equivalent. Written expression of Italian, particularly in idiomatic free composition, to establish an appreciation for Italian style and develop the ability to express shades of meaning. On demand.

**ITAL 470**  
**14TH CENTURY ITALIAN LITERATURE**  
Prereq.: ITAL 304 or permission of instructor. Study of the period with special emphasis on Dante, Petrarch, Boccaccio. On demand.
COURSE DESCRIPTIONS

ITAL 476  16TH CENTURY ITALIAN LITERATURE
Pre req.: ITAL 304 or permission of instructor. Taught in Italian. Major works of Italian renaissance. On demand.

ITAL 488  ITALIAN LIFE AND CULTURE
Pre req.: Permission of instructor. Discussion of contemporary Italian society, traditions and values. On demand.

ITAL 561  TOPICS IN ITALIAN LITERATURE
Pre req.: Permission of instructor. Taught in Italian. Study of selected Italian literary works, authors, themes and movements. May be repeated with different topics for a maximum of 9 credits. On demand.

ITAL 571  20TH CENTURY ITALIAN LITERATURE
Pre req.: Permission of instructor. Previously ITAL 471. Taught in Italian. Representative authors and literary movements of the 20th century. IR

ITAL 588  TOPICS IN ITALIAN CULTURAL STUDIES
Pre req.: Permission of instructor. Taught in Italian. Selected topics in Italian cultural history, media studies, social and demographic changes, gender issues and film analysis. May be repeated for a maximum of nine credits. IR

ITAL 599  THESIS
Pre req.: Fifteen credits of approved graduate study and permission of graduate adviser. Preparation of thesis under the supervision of thesis adviser. On demand.

LAW

LAW 522  LEGAL ASPECTS OF BUSINESS AND INDUSTRIAL ORGANIZATIONS
Pre req.: Admission to MBA program or permission of MBA director. Previously BUS 522. Study of the effects of the legal system on managerial decisions. Topics include the legal framework of collective bargaining, antitrust regulations, OSHA, affirmative action and other government laws and regulations. IR

LAW 584  GLOBAL BUSINESS ENVIRONMENT
Pre req.: Admission to MBA program and completion of International Core, or permission of MBA director. Previously FIN 584. Domestic and global environment from a general business perspective related to the legal environment, taxes and the impact of culture, cultural diversity and socialization. IR

MANAGEMENT

Note: Additional work will be required for graduate credit in 400-level courses.

MGT 403  SOCIAL ISSUES FOR MANAGERS
Pre req.: MGT 295. Defines contemporary issues of corporate social responsibility and explores the impact of these issues on managerial decision-making behaviors. Emphasizes contemporary social issues that emerge in the external environment of business. Defines societal expectations of organizations regarding corporate social responsibility.

MGT 425  MANAGEMENT AND COLLECTIVE BARGAINING
Pre req.: MGT 295. Introduction to managerial problems in personnel and labor-management relations. Examination of issues encountered in the management of workers under collective bargaining agreements and in contract administration. Lectures and simulations will be used.

MGT 426  BUSINESS ORGANIZATIONAL BEHAVIOR
Pre req.: MGT 295. A study of human behavior in organizations. Covers topics such as communication, decision making, team development, leadership, motivation and productivity. Attention is given to behavioral science methods, research and findings as applied to organizational management.

MGT 431  COMPENSATION AND BENEFITS
Pre req.: STAT 201. A systematic exploration of compensation theory and practice including job analysis, design, and evaluations; pricing of job structures; wage incentives; profit sharing and fringe benefits and managing compensation systems.

MGT 449  STRATEGIC MANAGEMENT
Pre req.: MGT 295, FIN 295 and MKT 295. An examination of the top-level managerial process of strategic management including strategy formulation and implementation, and environmental and competitive analysis with special emphasis on methods of organizational development to effect change.

MGT 460  STAFFING AND DEVELOPMENT
Pre req.: MGT 305. A study of issues related to the staffing of an organization and development of the organization's employees. Topics include human resource planning, recruitment, selection, placement, training, performance appraisal, equal employment opportunity and related topics.

MGT 462  ISSUES IN HUMAN RESOURCE MANAGEMENT
Pre req.: MGT 305. An in-depth analysis of selected functional responsibilities within the Human Resource Management spectrum. Topics include selection, training, employee and executive compensation plans, employee benefits and other practices of Human Resource professionals and organizations.

MGT 470  ORGANIZING AND MANAGING FOR QUALITY
Pre req.: MGT 295. Examines leading organizational architecture that employs quality management in all activities of the enterprise. Explores how competitive strength is built by enabling the work force to innovate, so that products and service meet global customer standards.

MGT 472  DEVELOPMENTAL MANAGEMENT
Pre req.: MGT 295. An examination of those humanistic managerial approaches which focus upon the interdependencies in organizations that affect their capacities for organizational learning and development. A multi-cultural perspective is taken in building an eclectic understanding of managing.

MGT 473  ORGANIZING AND MANAGING FOR INNOVATION
Pre req.: MGT 345 and 348, or permission of instructor. Explores contemporary approaches for releasing employee, supplier and customer creativity to constantly innovate what and how an organization produces its products and services. IR

MGT 490  MANAGEMENT TOPICS
Pre req.: Permission of instructor. Selected topics in management, organization theory and human resource management. Course content will vary from semester to semester. May be repeated with different topics for a maximum of 6 credits. IR

MGT 494  ENTREPRENEURSHIP
Pre req.: FIN 295 or permission of instructor. Entrepreneurship and its role as a fundamental component of our economic system is discussed. The resources needed to start a new business are outlined as a well-conceived business plan.

MGT 496  PRACTICUM IN MANAGEMENT AND ORGANIZATION
Pre req.: Permission of instructor and meet criteria dependent upon nature of the specific project(s) and permission of the chair of the Management and Organization Department. Students work on a real world project under the direct supervision of a faculty adviser. Projects may be sponsored by a host organization. Student performance is monitored and evaluated in relation to conditions set forth in an approved Project Plan. May be taken for a maximum of 6 credits. On demand.

MGT 498  SEMINAR IN MANAGEMENT
Pre req.: Senior standing and 12 credits in management or permission of instructor. A study of the latest development in management and organizational theory. Emphasis will be on current trends in the theory and practice of management using management literature and research. Course content will vary from semester to semester.

MGT 500  THE ROLE OF MANAGEMENT IN CONTEMPORARY SOCIETY
Study of American industry in its social and political environment. Previously BUS 500. Topics include the structural characteristics and philosophical foundations, ethics, and issues of social responsibility in American business and industry.
MGT 551 MANAGEMENT FOR GLOBAL OPERATIONS 3
Prereq.: Admission to MBA program or permission of MBA director. Previously BUS 551. Focuses on managerial issues, problems and opportunities in the overall operations of businesses competing internationally. Analytic and experiential instructional techniques are utilized.

MGT 552 MANAGEMENT THEORY AND PRACTICE 3
Prereq.: Admission to MBA program or permission of MBA director. Previously BUS 552. Critical study of management theories and applications necessary to manage a modern organization. Special emphasis will be placed on the complexities involved in planning, coordinating, controlling and directing functional areas within organizations. IR

MGT 553 HUMAN RESOURCE MANAGEMENT 3
Prereq.: Admission to MBA program or permission of MBA director. Previously BUS 553. Presentation of various management philosophies and policies concerning the utilization of this resource area; topics include the selection, development and motivation of personnel. IR

MGT 554 MANAGEMENT SYSTEMS AND OPERATIONS 3
Prereq.: Admission to MBA program or permission of MBA director. Previously BUS 554. Systems-oriented approach to operational decision-making appropriate to both manufacturing and service industries. The course focuses on analysis of problems and application of decision-making tools related to the planning and control functions. IR [c]

MGT 555 CURRENT TOPICS IN MANAGEMENT 3
Prereq.: Admission to MBA program or permission of MBA director. Previously BUS 555. Management and/or organizational behavior issues in multinational firms and/or different national markets. Topics vary to reflect conditions in the field. May be repeated with different topics for a maximum of 6 credits. IR

MGT 581 PRODUCTION-DISTRIBUTION PROCESSES 3
Prereq.: Admission to MBA program and completion of International Core, or permission of MBA director. Previously BUS 581. Processes of creating, producing, and distributing products. Integration of disciplines through organizational processes. IR

MGT 582 ORGANIZATIONAL PERFORMANCE 3
Prereq.: Admission to MBA program and completion of International Core, or permission of MBA director. Previously BUS 582. Management of financial and non-financial resources. Financial reporting, analysis, and capital markets with topics such as efficiency, effectiveness, motivation, performance evaluation and incentive systems. IR

MGT 583 ORGANIZATIONAL LEADERSHIP 3
Prereq.: Admission to MBA program and completion of International Core, or permission of MBA director. Previously BUS 583. Strategy (mission and goals) as linked to structure, human behavior, group processes, and motivation. Decision making processes and innovative methodologies, approaches and aids used to support these processes are stressed. IR

MGT 591 GLOBAL STRATEGY 3
Prereq.: Admission to MBA program or permission of MBA director. Previously BUS 591. To be taken during the last semester of the student's planned program. Capstone course that integrates the major elements of functional areas of international business. Global operations are examined from a strategic perspective. IR

MANAGEMENT INFORMATION SYSTEMS
Note: Additional work will be required for graduate credit in 400-level courses.

MIS 400 BUSINESS DECISION ANALYSIS USING KNOWLEDGE BASES 3
Prereq.: MIS 220 or 305 or permission of department chair. Introduction to management information support systems, designed to aid managers and others in the decision-making process. These systems include Decision Support Systems (DSS), Group Decision Support Systems (GDSS), Executive Information Systems (EIS) and Expert Systems (ES). [c]
MIS 515  DATA MANAGEMENT  
Prereq.: Admission to MS-CIT program or permission of department chair. 
Concepts, principles, issues and techniques for managing corporate data 
resources. Techniques for managing the design and development of large database 
systems. Data warehousing, data mining and database administration will be 
emphasized. On demand.

MIS 550  INFORMATION TECHNOLOGY POLICY 
AND STRATEGY  
Prereq.: Admission to MS-CIT program or permission of department chair. 
Strategic use of enterprise information systems and technology for the evolving 
and changing global marketplace. Development and implementation of policies 
and plans to achieve the alignment of information systems, technology and enter-
prise goals. On demand.

MIS 561  INTERNATIONAL MANAGEMENT 
INFORMATION SYSTEMS  
Prereq.: Admission to MBA program or permission of MBA director. Previously 
BUS 561. Examination of the role of information technology in today's business 
environment. Includes both theoretical perspectives as well as case studies custom-
developed from international enterprises. IR [c]

MIS 565  INFORMATION SYSTEMS ANALYSIS AND DESIGN  
Prereq.: Admission to MS-CIT program or permission of department chair. 
Information systems development methods and analysis and design techniques 
with a focus on object-oriented analysis and design. Evaluation and selection of 
systems development. analysis and design methodologies including JAD, RAD, 
UML and object-oriented approaches. On demand.

MIS 569  CURRENT TOPICS IN MANAGEMENT 
INFORMATION SYSTEMS  
1-3  
Prereq.: Admission to MBA program or permission of MBA director. Previously 
BUS 569. Management information systems and information technology issues. 
Topics vary to reflect conditions in the field. May be repeated with different top-
ics for a maximum of six credits.

MARKETING  

Note: Additional work will be required for graduate credit in 400-level courses.

MKT 413  INDUSTRIAL MARKETING  
Prereq.: MKT 295. Organization, principles, policies, procedures and tech-
niques used in effective and efficient buying and selling of materials, equipment, 
and supplies by business and industry. Emphasis on roles of purchasing agents 
in wholesale organizations and buyers in retail establishments.

MKT 423  MARKETING RESEARCH  
Prereq.: MKT 295 and STAT 200. Overview of research methods and proce-
dures used in marketing to help solve marketing problems. Analysis of basic 
research designs and methods of collecting and interpreting data. [c]

MKT 443  ADVANCED CONCEPTS IN RETAILING  
Prereq.: MKT 313 and senior status or instructor's permission. Analysis of cur-
rent problems in retailing by applying principles of merchandising, human rela-
tions, marketing and management via case and/or site. The course will involve 
fieldwork and classroom seminars.

MKT 450  COMPETITIVE STRATEGY  
Prereq.: Senior standing and AC 212, FIN 295, MGT 295, MIS 201 and MKT 
423; or permission of instructor. Achieving and sustaining competitive advan-
tage in a complex, dynamic environment. Case studies, simulated scenarios, 
and/or real world projects are assigned to demonstrate how business functions 
are integrated in making strategic marketing decisions. [c]

MKT 460  EXPORT MARKETING  
Prereq.: MKT 295 and 321 and senior standing, or permission of instructor. 
Opportunities, constraints and complexities in the strategy of marketing prod-
ucts and services in overseas markets. Marketing activities and institutions that 
are unique to export marketing.

MKT 470  MARKETING COMMUNICATIONS CAMPAIGN  
Prereq.: MKT 306 or permission of graduate adviser. Application of marketing 
communication theory. Students learn how an organization integrates its promo-
tion mix elements to present a unified message, and then create a strategic pro-
motion plan for a "real" client. On demand.

MKT 480  MARKETING FOR NON-PROFIT 
ORGANIZATIONS  
Prereq.: MKT 295. A comprehensive study of the techniques used in market-
g as they apply to non-profit organizations such as hospitals, governments, 
social action groups, educational institutions, religious institutions, etc. Topical 
areas to be covered will include market analysis, promotion decisions, market 
information systems and decision-making in non-profit structures.

MKT 571  MARKET PLANNING FOR A GLOBAL 
environment  
Prereq.: Admission to MBA program or permission of MBA director. 
Determining the market potential of nations and regions for market planning 
and decision making. Research and analysis toward formulating entry, develop-
ment and expansion strategies.

MKT 572  MARKETING MANAGEMENT AND STRATEGY  
Prereq.: Admission to MBA program or permission of MBA director. Decision 
problems faced by marketing managers and how to resolve them with currently 
available tools. IR [c]

MKT 579  CURRENT TOPICS IN MARKETING  
1-3  
Prereq.: Admission to MBA program or permission of MBA director. 
Contemporary issues in areas such as market entry, multinational sourcing and 
distribution and market planning. Topics vary to reflect conditions in the field. 
May be repeated with different topics for a maximum of six credits. IR

MARRIAGE AND FAMILY THERAPY

MFT 541  INTRODUCTION TO THEORIES 
OF FAMILY SYSTEMS  
Prereq.: Admission to department. Historical and theoretical underpinnings of 
General Systems Theory as it applies to families and family therapy. Major mod-
els of family therapy will be presented to orient the student to an understanding 
of functional and dysfunctional processes in human interaction. This course lays 
the foundation for the subsequent assessment and treatment courses which focus 
specifically on the major schools of family therapy.

MFT 543  THE FAMILY LIFE CYCLE  
Prereq.: MFT 541. Developmental aspects of the family system over time, delin-
eating critical issues for individual and other subsystems at various stages and 
transition points of the family life cycle. This course covers divorce, remarriage 
and blended families within the various stages a family may experience.

MFT 544  FAMILIES IN CONTEXT: GENDER AND 
CULTURAL DIMENSIONS  
Prereq.: MFT 541. Integral principles of human organization that influence fam-
ily growth and development. Students gain an understanding of ethnicity and 
gender from a systemic framework.

MFT 551  STRUCTURAL/STRATEGIC & BEHAVIORAL 
FAMILY THERAPIES  
Prereq.: MFT 541. Assessment and interventions from the Structural, Strategic 
and Behavioral schools of family therapy are examined. Students learn about 
diagnosis and treatment of human dilemmas and symptomatology within a sys-
temic context.

MFT 552  EXPERIENTIAL, INTERGENERATIONAL AND 
PSYCHODYNAMIC FAMILY THERAPIES  
Prereq.: MFT 551. Assessment and interventions from Experiential, 
Intergenerational and Psychodynamic schools of family therapy are explored. 
Students learn diagnostic and treatment of human dilemmas and symptomatol-
ogy from these schools of therapy.
MATH 404 TOPICS IN MATHEMATICS 1-3
Prereq.: Permission of instructor. Topics in mathematics appropriate for in-service and pre-service teachers of mathematics which are not covered in regular course offerings. May be repeated with different topics for a maximum of 6 credits. IR

MATH 410 EARLY CHILDHOOD MATHEMATICAL METHODS 3
Prereq.: MATH 213 (C- or higher) and admission to the professional program. Concepts underlying contemporary mathematics curriculum for early childhood grades. Developmentally appropriate methods for developing concepts and the meaning of operations and procedures in arithmetic through problem solving. This course is for teacher certification only and graduate credit will not be granted.

MATH 412 ELEMENTARY MATHEMATICAL METHODS 3
Prereq.: MATH 213 (C- or higher) and admission to the Professional Program. Concepts underlying contemporary mathematics curriculum for elementary grades. Developmentally appropriate methods for developing concepts and the meaning of operations and procedures in arithmetic through problem solving. This course is for teacher certification only and graduate credit will not be granted.

MATH 414 MIDDLE LEVEL MATHEMATICS METHODS 2-3
Prereq.: MATH 121 or 122 or 125 (C- or higher); and admission to the Professional Program. Concepts underlying contemporary mathematics curriculum at the middle level with emphasis on both the structure of the mathematics content and the procedures used in teaching for understanding. This course is for teacher certification only and graduate credit will not be granted.

MATH 421 HISTORY OF MATHEMATICS 3
Prereq.: MATH 221 or 305. Development of mathematics is traced from arithmetic of commerce, astronomy, geometry and trigonometry in Babylonia, Egypt, Greece and Rome to the later accomplishments in algebra, geometry and calculus. So

MATH 431 TECHNIQUES IN DIAGNOSIS AND REMEDATION FOR THE TEACHING OF MATHEMATICS—K-12 3
Prereq.: MATH 412, 414 or MATH 327 and student teaching. This course will train early childhood, elementary, middle and secondary teachers in diagnosis and remediation. The course will use a clinical case study approach so that each student will get practical as well as theoretical experience. Topics include identifying the factors related to learning difficulties in mathematics in the cognitive and affective domains, diagnostic tests, identification of the underachiever and case studies.

MATH 440 SELECTED TOPICS IN MATHEMATICS 1-3
Prereq.: Permission of instructor. Selected topics in mathematics covering specialized areas not covered in regular offerings or that go beyond that provided for in the standard curriculum. May be repeated with different topics for a maximum of 6 credits. Se

MATH 441 INTRODUCTION TO CONCEPTS OF ANALYSIS I 3
Prereq.: MATH 113. Equations, inequalities, functions, relations and graphs. F

MATH 442 INTRODUCTION TO CONCEPTS OF ANALYSIS II 3
Prereq.: MATH 441. Extension of MATH 441. Basic concepts of trigonometric functions of angle and of real numbers and analytic geometry including polar coordinates. Introduction to calculus and other selected topics. So

MATH 446 INTRODUCTION TO COMPUTERS AND COMPUTER PROGRAMMING 3
Prereq.: MATH 121 or MATH 125 or MATH 441 or equivalent. Introductory course for those students with a limited mathematics background who desire a basic understanding of a computer, how it relates to everyday life and how to communicate with it. Topics include computer components, computer usage, programming and the computer impact on the many facets of our society. No credit given to Mathematics majors or concentrates (except elementary concentrates) or to students with credit for MATH 221, 4’11 or CS 151. Sc

MATH 449 MATHEMATICS LABORATORY FOR ELEMENTARY SCHOOL 3
Prereq.: MATH 412, 414 or 327 or equivalent and student teaching. Provides teachers in elementary school with the opportunity to make mathematical materials useful in teaching elementary mathematics. Each participant constructs mathematical models and manipulatives appropriate to his/her teaching level and interest. Mathematical projects and educational implications are discussed. Ss

MATH 463 INTRODUCTION TO DIFFERENTIAL EQUATIONS 3
Prereq.: MATH 221. Methods of solution of ordinary differential equations, including the Laplace Transform. Some elementary applications in geometry, physics, and chemistry. So

MATH 468 SYMBOLIC LOGIC 3
Prereq.: MATH 366 or equivalent. Introduction to truth, validity and argument. Methods of deduction, propositional functions and quantifiers, logic of relations, deductive systems and propositional calculus. Se

MATH 469 NUMBER THEORY 3
Prereq.: MATH 366 or equivalent. Elementary theory of numbers. Divisibility, prime numbers, Fundamental Theorem of Arithmetic, congruences, Diophantine equations, quadratic residues, and continued fractions are among topics considered. Fso

MATH 470 MATHEMATICAL METHODS IN OPERATIONS RESEARCH 3
Prereq.: STAT 200 or 215 or 315 and MATH 110 or 228. Selected topics chosen from the areas of linear programming, queuing theory, decision analysis, network analysis, and simulation. Ss

MATH 471 COMPUTER PROGRAMMING 3
Prereq.: MATH 221. Introduction to computer programming, with emphasis on the analysis of classes problems, the design of algorithms for solving them and the
use of computer language for implementation. No credit given to students with credit for CS 151. [c]

MATH 472 COMPUTER ORGANIZATION AND PROGRAMMING 3
Prereq.: CS 151 or MATH 471, and MATH 221. Course introduces concepts of assembler language, machine language, macro-instructions, subroutines, program check out, structure of assemblers, use of an operating system and the design of computer systems. Oriented toward mathematics and Modula II. No credit given to students with credit for CS 254. S(e)

MATH 473 APPLIED ALGEBRA 3
Prereq.: MATH 228 and 366. Applications of abstract and linear algebra to the areas of statistics, computer science, actuarial science and applied mathematics. S(e)

MATH 477 NUMERICAL ANALYSIS 3
Prereq.: MATH 221, and MATH 471 or CS 254. Applications of numerical methods to the solution of various mathematical problems. Topics include the field of complex numbers, complex analytic functions, and homeomorphisms. F(e)

MATH 479 ELEMENTS OF APPLIED MATHEMATICS 3
Prereq.: MATH 221 and permission of instructor. Selected topics from numerical analysis, finite differences, partial differential equations, and other areas of applied mathematics. May be repeated with different topics for a maximum of six credits. S(e)

MATH 483 GENERAL TOPOLOGY 3
Prereq.: MATH 221 and 366. Rigorous study of point-set topology. Topics include set theory, definition and basic properties of topological spaces, continuous functions, and homeomorphisms. F(e)

MATH 486 COMPLEX VARIABLES 3
Prereq.: MATH 221. An introduction to the theory of functions of a complex variable. Topics include the field of complex numbers, complex analytic functions, elementary functions and their mapping properties, integration theory and power series expansion of analytic functions. S(e)

MATH 491 ADVANCED CALCULUS 3
Prereq.: MATH 221. Topics from continuity and differentiability of functions of several variables, exterior differential forms, multiple and iterated integration, line integrals, Green's, Stokes' Theorems. F(e)

MATH 495 PRINCIPLES OF REAL ANALYSIS I 3
Prereq.: MATH 221 and 366. Introduction to functions of a real variable and their properties. Rigorous study of the real number system, topological properties of the real line, Cauchy sequences, limit and continuity properties of a real variable, metric spaces. F(e)

MATH 505 STUDIES IN MATHEMATICS 3
Prereq.: MATH 213. Includes a study of networks. Boolean Algebra, number theory, geometric transformations and their applications and relationships to the elementary and middle school mathematics programs. IR

MATH 515 ABSTRACT ALGEBRA I 3
Prereq.: MATH 366. Extension of basic group theory introduced in MATH 366, including normal subgroups, quotient groups, cyclic groups, permutation groups, classical isomorphism theorems and Sylow theorems. F(e)

MATH 516 ABSTRACT ALGEBRA II 3
Prereq.: MATH 515 or MATH 366. Selected topics from advanced polynomial ring theory, Galois and extension field theory, homological algebra. S(e)

MATH 520 PRINCIPLES OF ANALYSIS II 3
Prereq.: MATH 495. Topics include Riemann-Stieltjes integrals, functions of bounded variation, sequences and series of real numbers, power series. S(e)

MATH 525 HIGHER GEOMETRY 3
Prereq.: MATH 221. Topics from higher-dimensional geometry. Foundations of several geometries and relationship of Euclidean Geometry to other geometries.

MATH 531 BASIC CONCEPTS OF ELEMENTARY SCHOOL MATHEMATICS I 3
Prereq.: MATH 113 (C- or higher) or 213 (C- or higher). Analysis of concepts underlying contemporary mathematics program in elementary school. Emphasis is placed on both structure of mathematical content and procedures used in developing pupil understanding of concepts and processes.

MATH 532 BASIC CONCEPTS OF ELEMENTARY SCHOOL MATHEMATICS II 3
Prereq.: MATH 531, or permission of instructor. Continuation of MATH 531. Topics include those which are presently being taught in the K-8 curriculum with emphasis on content and methodology. With problem solving strategies as the main focus, the course will address geometry, probability and statistics, and developing the algorithms for teaching rationals and irrationals. Curriculum changes in mathematics for the 90's will also be examined S

MATH 540 CURRICULUM PROBLEMS IN SCHOOL MATHEMATICS 3
Current issues in mathematics education. Study of some current major curriculum projects. Content basic to these programs is studied with emphasis on mathematical structure. Opportunity is provided for special investigation into topics of student's interest. S(e)

MATH 543 SECONDARY SCHOOL MATHEMATICS FROM ADVANCED VIEWPOINT 3
Planned for teacher of secondary school mathematics. Major objective is to broaden and deepen teacher's knowledge of mathematics he/she teaches. Topics from secondary school mathematics are critically examined and advanced topics directly related to secondary school mathematics are included. Opportunity for discussion of teaching problems is provided. May be repeated with different topics for a maximum of 6 credits. SS

MATH 580 DIRECTED STUDY IN MATHEMATICS 3
Prereq.: Permission of the instructor. A study of selected topics in mathematics. The area of study will depend on the instructor and the interests and needs of the student(s). May be repeated with different topics to a maximum of 6 credits. IR

MATH 590 SPECIAL PROJECT IN MATHEMATICS 3
Prereq.: Completion of at least 21 credits in the student's planned program of graduate study. The study of an advanced topic in mathematics/mathematics education, approved by the student's graduate advisor and supervised by a faculty member. Requirements include preparation and oral presentation of a paper on the topic. IR

MATH 598 RESEARCH IN MATHEMATICS 3
Prereq.: STAT 453 and permission of adviser. Course designed to familiarize graduate student with techniques and resources associated with research in mathematics and mathematics education. Opportunity for practical application will be provided. S

MATH 599 THESIS 3 or 6
Prereq.: Permission of the adviser. Preparation of thesis under guidance of thesis adviser for students completing master's requirements under M.S. Plan A.

MODERN LANGUAGES
Note: Additional work will be required for graduate credit in 400-level courses.

ML 400 TOPICS IN MODERN LANGUAGES 3
Prereq.: Permission of the instructor. Literary and language topics taught in the target language. May be repeated with different topics for a maximum of 6 credits. On demand.
COURSE DESCRIPTIONS

MUS 470 MUSIC STRUCTURE AND STYLE 3
Prereq.: Permission of the instructor. Study of selected topics in music theory through analysis of representative forms from various style periods. Emphasis on aural awareness through melodic and harmonic dictation. IR

MUS 405 TOPICS IN COMPOSERS 3
Prereq.: Permission of the instructor. Individual study in an area of the student's choice with the consultation of an adviser; may include written project, performance or composition. IR

ML 492 TOPICS IN LANGUAGE TEACHING 1-3
Prereq.: ML 429. Special aspects of language teaching, such as creative uses of the language laboratory and other special aids; individualizing language instruction, teaching of literature and culture in the schools, will be emphasized. Topics may vary from section to section. Course may be repeated with different topics for up to 6 credits. IR

ML 496 INDEPENDENT STUDIES IN MODERN LANGUAGES 3
Prereq.: Permission of instructor. Independent work in language, culture and literature, to meet individual interest in topics not covered in the regular curriculum. Work done under the supervision of a faculty member. On demand.

ML 598 RESEARCH IN MODERN LANGUAGE 3
Prereq.: Admission to the graduate program. Introduction to techniques and resources of literary research through examination of the theory, history and practice of literary criticism. Course should be taken during first 15 credits of graduate study. F(0)

MUSIC

Note: Additional work will be required for graduate credit in 400-level courses. Note: Students enrolled in the following courses will be assessed an Applied Music Fee — $200.00 for 1/2 hour lesson (MUS 577) and $400.00 for full hour lesson (MUS 578). Contact the Department at 832-2912 for additional information.

MUS 400 PROJECT IN MUSIC 1-4
Prereq.: Permission of instructor. Individual study in an area of student's choice. May take the form of performance, composition, paper, or other area to be determined in consultation with a Music Department adviser.

MUS 401 TOPICS IN MUSIC 1-3
Prereq.: Permission of the instructor. Selected topics in music to include specialized areas not covered in regular course offerings. May be repeated with different topics for up to 6 credits. IR

MUS 403 TOPICS IN HISTORICAL MUSICAL GENRES 3
Prereq.: Permission of instructor. Study of a particular music genre through selected stylistic periods. On demand.

MUS 404 TOPICS IN PERFORMANCE 1-3
Prereq.: Permission of instructor. Topics relevant to the performing musician including accompaniment, diction for singers, and performance practice. On demand.

MUS 405 TOPICS IN COMPOSERS 3
Prereq.: Permission of instructor. Historical and analytical study of selected composers and their works. On demand.

MUS 470 MUSIC STRUCTURE AND STYLE 3
Prereq.: Four semesters of undergraduate music theory or demonstrated proficiency on the Music Theory Placement Examination. Survey of the principles of
### COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MUS 512</td>
<td>TOPICS IN STRING PEDAGOGY</td>
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<td></td>
<td>Prereq.: MUS 267 or 268. Intensive study of the elements of pedagogy, with emphasis on program development. May be repeated with different topics for a maximum of 6 credits. SS</td>
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<tr>
<td>MUS 515</td>
<td>TOPICS IN DIGITAL SYNTHESIZER TECHNIQUES</td>
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<tr>
<td></td>
<td>A study of selected aspects of digital synthesizer techniques and their application to the music classroom. May be repeated for a maximum of 6 credits with different content. SS</td>
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<tr>
<td>MUS 526</td>
<td>DEVELOPING CHILDREN'S CHOIRS</td>
<td>2</td>
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<tr>
<td></td>
<td>Prereq.: MUS 315 or permission of instructor. Study of organizational techniques, resource materials and rehearsal techniques for developing children's choirs. SS</td>
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<tr>
<td>MUS 536</td>
<td>TOPICS IN MUSIC TECHNOLOGY</td>
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<td></td>
<td>Prereq.: Undergraduate degree in Music Education. Specialized topics in music technology including computer-assisted instruction, notation, sequencing and an introduction to music hardware and software. May be repeated with different topics for a maximum of 6 credits. SS</td>
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<tr>
<td>MUS 540</td>
<td>ENSEMBLE</td>
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<td></td>
<td>Prereq.: Permission of instructor. Study and performance of ensembles for various combinations. May be repeated for a total of 3 credits toward a degree program.</td>
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<tr>
<td>MUS 551</td>
<td>ORFF SCHULWERK TEACHER TRAINING COURSE LEVEL I</td>
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<tr>
<td></td>
<td>Foundations and principles of the Orff Schulwerk process for teaching music to children; includes training in recorder pedagogy, ostination, bordun and canon. SS</td>
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<tr>
<td>MUS 552</td>
<td>FOLK DANCE AND MOVEMENT ACROSS THE CURRICULUM</td>
<td>2</td>
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<tr>
<td></td>
<td>Multicultural and interdisciplinary course based on traditional folk music and dances. Movement education will be explored. May be repeated with different topics for a maximum of 6 credits. SS</td>
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<tr>
<td>MUS 556</td>
<td>ORFF SCHULWERK TEACHER TRAINING COURSE LEVEL II</td>
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<tr>
<td></td>
<td>Prereq.: MUS 551. A continuation of MUS 551; various accompaniment patterns, orchestrations and modulation. Rhythmic training including irregular rhythms and meters; continuation of soprano recorder and introduction of alto recorder. SS</td>
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<tr>
<td>MUS 557</td>
<td>TOPICS IN GENERAL MUSIC EDUCATION</td>
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<tr>
<td></td>
<td>Prereq.: MUS 310. Study of specialized areas of classroom music throughout the K–12 music program. May be repeated with different topics for a maximum of 6 credits. SS</td>
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<tr>
<td>MUS 559</td>
<td>TOPICS IN HIGH SCHOOL MUSIC CURRICULUM</td>
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<tr>
<td></td>
<td>Prereq.: MUS 315 or 316 or equivalent. Study of selected non-performance curricula for the secondary music teacher. May be repeated with different topics for a maximum of 6 credits. SS</td>
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<tr>
<td>MUS 562</td>
<td>TOPICS IN INSTRUMENT REPAIR</td>
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<tr>
<td></td>
<td>Repair and preventative maintenance of brass, woodwinds and string instruments. May be repeated with different topics for a maximum of 6 credits. SS</td>
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<tr>
<td>MUS 566</td>
<td>GENERAL BAND INSTRUMENT REPAIR</td>
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<tr>
<td></td>
<td>Fundamentals of woodwind and brass emergency/minor repair skills for musicians, including preventative maintenance, minor regulation, cleaning and other related topics. SS</td>
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<tr>
<td>MUS 567</td>
<td>STRING REPAIR</td>
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<td></td>
<td>Fundamentals of violin family repair through lecture, demonstration and lab experience. Areas of emphasis include bridge and peg repair, seam and crack gluing, making and setting of sound posts, instrument cleaning and bow rehairing. SS</td>
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<tr>
<td>MUS 570</td>
<td>TOPICS IN VOCAL TECHNIQUES</td>
<td>2</td>
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<tr>
<td></td>
<td>Prereq.: MUS 259 or equivalent. Study of vocal techniques for selected age groups and/or levels of musical development. May be repeated for maximum of six credits with different content. SS</td>
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<tr>
<td>MUS 572</td>
<td>TOPICS IN LITERATURE FOR BANDS</td>
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<td></td>
<td>Prereq.: MUS 316. Study of selected instrumental literature for specific instrumental ensembles, including elementary, middle and high school bands and wind and jazz ensembles. May be repeated with different topics for a maximum of 6 credits. SS</td>
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<tr>
<td>MUS 574</td>
<td>TOPICS IN ASSESSMENT AND EVALUATION</td>
<td>2</td>
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<td>Study of various methods and evaluation as related to student, teacher and program assessment. May be repeated with different topics for a maximum of 6 credits. SS</td>
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<tr>
<td>MUS 575</td>
<td>TOPICS IN BAND</td>
<td>2</td>
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<td></td>
<td>Prereq.: Graduate standing. Study of selected aspects of the public school band program. May be repeated for a maximum of 6 credits with different content. SS</td>
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<tr>
<td>MUS 577</td>
<td>SECONDARY APPLIED MUSIC</td>
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<td>Prereq.: Permission of instructor. Individual instrumental or vocal instruction in a secondary area of performance. May be taken more than once for credit. Fee: $200 (subject to change).</td>
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<tr>
<td>MUS 578</td>
<td>ADVANCED APPLIED MUSIC</td>
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<td></td>
<td>Individual instrumental or vocal instruction in performance. May be taken more than once for credit. Fee: $400 (subject to change).</td>
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<tr>
<td>MUS 579</td>
<td>TOPICS IN IMPROVISATION</td>
<td>2</td>
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<td></td>
<td>Study of function and usage in specialized areas of improvisation. Development of basic skills in such realms as jazz, classical and world music. May be repeated with different topics for a maximum of 6 credits. SS</td>
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<tr>
<td>MUS 590</td>
<td>SYMPHONY ORCHESTRA</td>
<td>1</td>
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<td>Prereq.: Permission of instructor. Standard symphonic literature will be rehearsed for concert performance. No more than a total of 3 credits from MUS 590, 591 and 592 may be taken for credit towards the degree. SS</td>
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<tr>
<td>MUS 591</td>
<td>CHORUS</td>
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<td>Prereq.: Permission of instructor. Representative chorus works from the great composers will be rehearsed and performed. No more than a total of 3 credits from MUS 590, 591, and 592 may be taken for credit towards the degree. SS</td>
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<tr>
<td>MUS 592</td>
<td>MARCHING BAND-WIND ENSEMBLE</td>
<td>1</td>
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<td>Prereq.: Permission of instructor. Various styles of band music and different compositions studied for performance each semester. No more than a total of 3 credits from MUS 590, 591, and 592 may be taken for credit towards the degree. SS</td>
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<tr>
<td>MUS 597</td>
<td>RECITAL</td>
<td>3</td>
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<td>Prereq.: Permission of adviser and department approval. The preparation and presentation of a recital under the guidance of the appropriate applied music instructor. On demand.</td>
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<tr>
<td>MUS 598</td>
<td>RESEARCH IN MUSIC EDUCATION</td>
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<td>Prereq.: Admission to the graduate program in Music Education (M.S.). Study of research methods used in music education and the primary sources needed to conduct these types of research. IR</td>
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<tr>
<td>MUS 599</td>
<td>THESIS</td>
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<td>Prereq.: Permission of graduate adviser. Preparation of the thesis under the supervision of the thesis adviser.</td>
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</table>

### NURSING

Note: Additional work will be required for graduate credit in 400-level courses.

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<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>NRSE 401</td>
<td>TRENDS AND ISSUES</td>
<td>3</td>
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<tr>
<td></td>
<td>Prereq.: Permission of instructor. Analysis and evaluation of trends and issues in health care delivery and nursing with emphasis on accountable professional behavior.</td>
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<tr>
<td>NRSE 498</td>
<td>SPECIAL STUDIES IN NURSING</td>
<td>1–6</td>
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<tr>
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<td>Prereq.: NRSE 302, 303, 304 and/or permission of instructor. Individualized plan to aid the learner in attainment of professional goals. Plan may consist of directed study of reading, clinical experience, individual instruction, research or other appropriate activities.</td>
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</tbody>
</table>
### NRSE 500 ADVANCED HEALTH EVALUATION
Prereq.: Permission of instructor. Preparation of advanced practice nurses in health assessment and health evaluation. Advanced health assessment and evaluation focus on the individual, family and aggregates across the life span. [c]

### NRSE 501 BASIS OF HUMAN REPRODUCTION
Prereq.: Permission of instructor. Theories and concepts relevant to the human reproduction cycle which serve as a basis for nursing care. Exploration of human embryology patterns of disease. Discussion of implications for nursing practice and research.

### NRSE 503 NURSING THEORY AND SCIENTIFIC INQUIRY
Prereq.: Permission of instructor. Analysis and comparison of selected theories and their origins that provide direction for education, research and practice in nursing. Emphasizes implication of nursing theory as a basis for advanced practice and impact on decision-making.

### NRSE 505 ADVANCED NURSING RESEARCH
Prereq.: Permission of instructor. Synthesis of research and theory relevant to health care. Emphasis on application of the research process and utilization of research in practice.

### NRSE 509 HEALTH CARE DELIVERY SYSTEMS
Prereq.: Matriculation in the MSN Program or permission of instructor. Health care delivery systems and the development of social policy as a context for leadership and advanced nursing practice. Emphasis on nursing responsibility for participation in the development of policy as it affects the quality of health care.

### NRSE 510 THE GERIATRIC NURSE PRACTITIONER IN AMBULATORY/PRIMARY CARE
Prereq.: Matriculation in the MSN Program and permission of instructor. Management of the geriatric client in need of primary health care. Emphasis on comprehensive health promotion, illness prevention and health maintenance of the geriatric client.

### NRSE 512 THE GERIATRIC NURSE PRACTITIONER IN ACUTE CARE SETTINGS
Prereq.: NRSE 510. Care of individuals/families who require intervention for acute disease conditions and those conditions of a complex maturational-situational nature for the geriatric client. Emphasis on the prevention of complications. SS

### NRSE 514 CASE MANAGEMENT AND THE GERIATRIC NURSE PRACTITIONER IN HOME SETTINGs
Prereq.: NRSE 512. Treatment of geriatric clients/families with complex situational/developmental events requiring care in home settings.

### NRSE 516 GERIATRIC/MENTAL HEALTH NURSING WITH INDIVIDUALS
Prereq.: Matriculation in the MSN Program and permission of instructor. Mental health care service continuum from inpatient psychiatric nursing treatment to community psychiatric care. Specialized treatment approaches for the geriatric client will be addressed.

### NRSE 518 GERIATRIC/MENTAL HEALTH NURSING WITH COMMUNITIES AND GROUPS
Prereq.: NRSE 516. Integration of theoretical and practical components of treating geriatric clients. Exploration of systems approach to the assessment and treatment of individual clients within a group context. SS

### NRSE 520 CASE MANAGEMENT AND THE GERIATRIC MENTAL HEALTH NURSE
Prereq.: NRSE 518. Examination of the geriatric/mental nurse practitioner's role as a primary provider, case manager, charge agent, researcher, consultant, liaison and educator.

### NRSE 522 CARE OF WOMEN THROUGHOUT THE LIFE CYCLE IN AMBULATORY/PRIMARY SETTINGs
Prereq.: Matriculation in the MSN Program and permission of instructor. General health care needs of women during the life cycle. Comprehensive health assessment, maintenance and promotion with respect to general health, gynecological and perinatal treatment of women.

### NRSE 524 CARE OF WOMEN THROUGHOUT THE LIFE CYCLE IN ACUTE CARE SETTINGS
Prereq.: NRSE 522. Assessment, education and management of obstetrical, gynecological and perinatal health care needs of women and their families throughout the life cycle in acute care settings. SS

### NRSE 526 CASE MANAGEMENT AND CARE OF WOMEN
Prereq.: NRSE 524. Treatment of women and their families with complex situational/developmental events requiring nursing care. Integration of previous learning and concepts in a complex multifaceted environment will be required.

### NRSE 596 SPECIAL PROJECT IN NURSING EDUCATION
Prereq.: Core courses, enrollment in clinical practicum and approval of adviser. Study of a topic in advanced practice nursing as approved by adviser. Oral presentation and written paper required. On demand.

### NRSE 599 THESIS
Prereq.: Core courses, enrollment in clinical practicum, and approval of thesis adviser. Preparation of the thesis under the supervision of the thesis adviser. On demand.

### PHILOSOPHY
Note: Additional work will be required for graduate credit in 400-level courses.

#### PHIL 401 SEMINAR IN ASIAN PHILOSOPHY
Prereq.: 6 credits in either Asian philosophy, Asian religion or Asian history; or permission of instructor. Study of selected topic as announced. S(o)

#### PHIL 440 PROJECT IN APPLIED ETHICS
Prereq.: PHIL 220, 346 and six credits from PHIL 144, 222, 240, 241, 242, 349, HHSP 246, 341, 342. Research in applied ethics. May include a practicum. S

#### PHIL 492 INDEPENDENT STUDY
1–3
Prereq.: Permission of instructor. Individual research in selected topics. Open to any student who wishes to pursue a topic of special interest for which the student is qualified. On demand.

### PHYSICAL EDUCATION
Note: Additional work will be required for graduate credit in 400-level courses.

#### PE 402 ORGANIZATION AND ADMINISTRATION OF PE
Prereq.: Admission into the Professional Program. Administrative procedures involved in conducting physical education activities, arranging programs, providing facilities, and handling staff-class details, finance, publicity, interscholastic and intramural activities. F

#### PE 405 ELEMENTARY METHODS IN PHYSICAL EDUCATION
Prereq.: PE 272 and admission to the Professional Education Program in Teacher Education. Application of the child-centered, problem-solving approach as a method to learning fundamental concepts of movement. Discussion, observation and laboratory experience will provide theoretical background. An off-campus practicum is included.

#### PE 406 ADAPTED PHYSICAL EDUCATION
Prereq.: PE 214 (C- or higher), 272, 305. Pedagogical skills and knowledge pertaining to physical education for individuals with disabilities and gifted and talented individuals. Emphasis on program planning and teaching effectiveness in the psychomotor domain. F

#### PE 407 HUMAN PERSPECTIVES IN SPORT
Inquiry into the nature and expression of humans in sport. Topics include: the issues of competition and winning, amateurism vs. professionalism, the values of sport, causes and results of spectator behaviors. F

#### PE 410 EXERCISE PHYSIOLOGY
Prereq.: PE 214 (C- or higher). The physiological factors which affect human performance in physical education and athletics will be studied. The acute and
chronic effects of exercise on the respiratory, circulatory and muscular systems will be emphasized.

PE 411 ORGANIZATION AND MANAGEMENT OF HEALTH PROMOTION PROGRAMS 3
Prereq.: Admission to the degree program in Physical Education or graduate status. Management procedures involved in conducting health fitness activities and program implementation. Emphasis on facilities, budgeting, legal liability and risk management. S

PE 415 FITNESS ASSESSMENT AND EXERCISE PREPARATION 3
Prereq.: PE 307, 410, STAT 108 and admission to the degree program in Physical Education or graduate status. Provides an opportunity to study theories, concepts, procedures and techniques necessary for an exercise specialist. Basic understandings of exercise prescription, community programs, intervention and rehabilitation, and cardiac exercise programs will be emphasized.

PE 420 PERCEPTUAL AND MOTOR DEVELOPMENT 3
Prereq.: PE 300, and admission to the degree program in Physical Education or graduate status. Examines the principles of motor learning which affect skill acquisition of secondary and post-secondary school learners. S

PE 422 MOTOR LEARNING 3
Prereq.: PE 420, and admission to the degree program in Physical Education or graduate status. Examines the information concerning motor learning for the young learner. Emphasis upon perceptual-motor learning and development of task analysis. F

PE 425 IMPLEMENTATION AND EVALUATION OF HEALTH PROMOTION PROGRAMS 3
Prereq.: PE 307, 410, STAT 108 and admission to the degree program in Physical Education or graduate status. The development and implementation of health fitness programs in schools, businesses and community agencies. Organization and administration of health fitness programs including the key components of exercise, weight control, nutrition, stress management and low-back pain. F(e)

PE 445 INTERNSHIP IN ATHLETIC TRAINING 6
Prereq.: PE 315, and admission to the Physical Education program. An eight-week period will be spent in an Athletic Department of the public schools or at the college level where the student will demonstrate his/her ability to conduct an athletic training program.

PE 450 PRACTICUM IN EXERCISE SCIENCE 3
Prereq.: PE 375, 415, 425, CS 115 and admission to the degree program in Physical Education or graduate status. Provides an opportunity for students to gain 150 clock hours of field experience in an exercise setting, conducting prescribed exercise programs.

PE 470 INTERNSHIP IN EXERCISE SCIENCE AND HEALTH PROMOTION 6
Prereq.: PE 450 and admission to the degree program in Physical Education or graduate status. Full semester off-campus practical experience in a health and fitness program. Topics include wellness/health promotion, corporate fitness, YMCA, strength and conditioning, sports medicine and cardiac rehabilitation. Enhances professional preparation by offering opportunities to apply fundamental concepts in a work setting.

PE 490 INDEPENDENT STUDY IN PHYSICAL EDUCATION 1–3
Prereq.: Junior standing and permission of department chair. Reading and research in approved topics under the guidance of a member of the department. May be repeated to a total of 3 credits.

PE 500 IMPROVING STUDENT LEARNING IN PHYSICAL EDUCATION 3
Prereq.: Permission of instructor. Components of the effective teaching of physical education are explored. Topics include teacher standards, student performance standards, instructional planning, assessment strategies and reflective practice. S

PE 515 SPORT, PHYSICAL ACTIVITY AND EXERCISE PSYCHOLOGY 3
Identifies principles and guidelines that professionals use to help adults and children participate in and benefit from sport and exercise activities. S

PE 519 SPORT BIOMECHANICS 3
Prereq.: PE 216 or equivalent or permission of instructor. Study of the mechanical analysis of sport skills, in order to improve teaching. The student is provided with a scientific basis for teaching correct form. F(o)

PE 520 CURRENT ISSUES IN PHYSICAL EDUCATION 3
Reviews current trends and issues involved in the teaching of Physical Education in American schools. Emphasis is upon a discussion of new and innovative administrative procedures, programs, trends and problems. S(o)

PE 522 PHYSICAL ACTIVITY AND HEALTH 3
Prereq.: PE 410 or permission of instructor. Study of the hypokinetic diseases of the human organism. Particular emphasis will be given to the beneficial effects of physical activity on the cardiovascular system, weight control, low back pain, longevity and participation of women in sports. S(o)

PE 523 THEORIES OF HIGH LEVEL PERFORMANCE IN SPORT 3
Study of empirical and experimental theories of high level performance. The sciences of physiology, biomechanics, and psychology will be utilized as they affect human performance. F(o)

PE 524 SPORT, PHYSICAL EDUCATION, ATHLETICS AND THE LAW 3
The varied aspects and impact of law in professional sport, physical education, and athletics. Emphasis on negligence, product liability and risk management. F

PE 530 NUTRITION FOR HEALTH, FITNESS AND SPORT PERFORMANCE 3
Prereq.: Permission of instructor. Provides knowledge base of the major nutrients relative to the role that nutrition, complemented by physical activity, may play in the enhancement of health and sport performance. Topics include weight management and eating disorders. SS

PE 598 RESEARCH IN PHYSICAL EDUCATION 3
Prereq.: Permission of the adviser. Designed to familiarize students with techniques and resources associated with research in their specialization. Opportunity for practical application will be provided.

PE 599 THESIS IN PHYSICAL EDUCATION 3
Prereq.: 15 credits of approved graduate study including PE 598. Preparation of the thesis under the supervision of the thesis adviser.

PHYSICS
Note: Additional work will be required for graduate credit in 400-level courses.

PHYS 411 MECHANICS II 3
Prereq.: PHYS 220. Mechanics of continuous media, wave motion, special relativity and introduction to Lagrange's and Hamilton's Equations. IR

PHYS 425 MODERN PHYSICS 3
Prereq.: PHYS 305 or equivalent. Special theory of relativity; quantum aspects of matter and of electromagnetic radiation; hydrogen atom; optical and X-ray spectra. IR

PHYS 442 ELECTROMAGNETICS 3
Prereq.: MATH 222. PHYS 305. Field theory of electromagnetism. Magnetic fields of currents, magnetic materials, electromagnetic induction and Maxwell's Equations. IR

PHYS 450 ADVANCED LABORATORY 1
Prereq.: PHYS 331 and 425. A study of the 400 kv Van de Graaf accelerator, particle detection electronics, and a study of induced nuclear reactions. One three-hour laboratory per week. IR
PHYS 452 INDEPENDENT STUDY IN PHYSICS
Prereq.: Approved plan of study by arrangement with instructor and approval of department chair. Special work in laboratory or theory to meet individual requirements in areas not covered by regular curriculum. May be taken more than one semester up to a limit of 4 credits.

PHYS 470 QUANTUM MECHANICS I
Prereq.: PHYS 425. Limits of classical physics, wave packets and uncertainty, Schrödinger wave equation, eigenfunctions and eigenvalues, one-dimensional potentials, wave mechanics, operator methods. IR

PHYS 471 QUANTUM MECHANICS II
Prereq.: PHYS 470. Three-dimensional Schrödinger equation, angular momentum, radial equation, hydrogen atom, operator matrices and spin, addition of angular momentum, plus additional topics to be chosen by instructor. IR

PHYS 490 TOPICS IN PHYSICS
Selected studies in physics which are not offered presently in the curriculum of the department. Course may be repeated for different topics. No topic may be taken for credit more than once. IR

PHYS 505 MATHEMATICAL PHYSICS
Prereq.: Undergraduate physics minor; MATH 222. Introduction to basic mathematical methods of theoretical physics, such as linear algebra (matrices), vector analysis, partial differential equations, orthogonal functions and complex variables presented with physical illustrations. F

PHYS 598 RESEARCH IN PHYSICS
Prereq.: 15 credits of approved graduate study and permission of department. Course concerned with instrumental techniques of research in physics. Student is to become familiar with the literature of physics and is expected to search journals and report on a specific problem.

PHYS 599 THESIS
Prereq.: PHYS 598 and permission of the adviser. Preparation of the thesis under the supervision of the thesis adviser.

POLITICAL SCIENCE

Note: Additional work will be required for graduate credit in 400-level courses.

PS 415 GOVERNMENT, BUSINESS, AND PUBLIC POLICY
Prereq.: PS 110. Analysis of the pattern of interaction between business and government in the American administrative and political process, with attention to how we as members of society are affected by and may influence this process. S

PS 420 GOVERNMENT AND POLITICS OF LATIN AMERICA
Historical, social, economic and ideological factors impacting contemporary government and politics in Latin America. S(o)

PS 421 GOVERNMENT AND POLITICS OF AFRICA
Historical, social, economic and ideological factors impacting contemporary government and politics in Africa. S(o)

PS 425 ASIAN POLITICS
Prereq.: PS 104. Examination of the government and politics of East and South Asia with major focus on Japan, China and India. Emphasis on historical and cultural forces shaping politics, Western impact on Asia and cross-national comparisons. S

PS 430 THE AMERICAN PRESIDENCY
Prereq.: PS110 or permission of instructor. Office of President and place in the political system, colonial antecedents and modern counterparts. Emphasis on the presidency's functional and institutional development, contemporary role in politics and public policy and interplay between man and office. S

PS 431 THE LEGISLATIVE PROCESS
Prereq.: PS 104, 110 or permission of instructor. Structure, behavior, and operation of U.S. Congress. Comparison with state legislatures. Interrelationships with executive and judicial branches. Problems of popular representation. Analysis of growth and expansion of governmental control through social legislation and administrative rulemaking. IR

PS 432 URBAN POLITICS AND GOVERNMENT
Selected urban conditions and problems such as housing, the racial crisis, power structure, the resolution of conflict, local ideology, intergovernmental relations, partisan politics, group behavior, forms of government, politics of planning, regionalism, transportation and communication. Field research projects. IR

PS 433 TWENTIETH CENTURY POLITICAL THOUGHT
Contemporary approach to politics, such as systems analysis, group theory, game theory, decision making, structural-functional analysis and simulation. F

PS 434 GOVERNMENT AND POLITICS OF THE MIDDLE EAST AND NORTH AFRICA
Historical background, contemporary setting, political processes, and major problems of some countries of the Middle East and North Africa. S

PS 435 RUSSIA AND EASTERN EUROPE
Government and politics of Russia and of selected Eastern European countries, such as Poland, Hungary, Ukraine and Yugoslavia. IR

PS 436 PERSONNEL AND HUMAN RESOURCES IN THE PUBLIC SECTOR
Structure and political role of the Civil Service, evolution of government employment, current personnel policies, rights and responsibilities of the public servant, formal tasks such as examination, recruitment, position classification, training and evaluation, ethics in public service, and collective bargaining. F

PS 439 U.S. MIDDLE EAST POLICY
Examination of the evolution of United States foreign policy towards the Middle East since World War II. Emphasis placed on the sources, determinants and goals of United States policy and the challenges facing the United States in the region. IR

PS 444 THE BUDGETARY PROCESS
Prereq.: PS 110 and 240 (previously PS 340). Examination and analysis of budgeting as an administrative and political process, with attention to technical and reform efforts. F

PS 446 PUBLIC POLICY ANALYSIS AND EVALUATION
Prereq.: Permission of instructor or two courses in political science, geography, economics or sociology; plus completion of, or simultaneous registration in, PS 344 or MATH 125. An investigation in perspectives and methods of measuring public policies.

PS 447 ADMINISTRATIVE LAW
Prereq.: PS 110, PS 331 and 240 (previously PS 340) recommended. Study of administrative agencies and the legal boundaries within which they operate. Constitutional case law and the Uniform Administrative Procedures Act will be applied to agency rule-making and regulation. Current controversies over the role of administrative agencies.

PS 448 THE POLITICS OF HUMAN SERVICES
Study of the politics and administration of government programs that deal with human problems such as poverty, crime, health, manpower development and housing.

PS 480 GOVERNMENT INTERN EXPERIENCE
Prereq.: Junior or senior status with 2.50 grade point average or higher. Students who apply and are admitted to this program are assigned to work in state, local, and federal government departments for a minimum of two days a week. To be taken concurrently with PS 481; not open to students who have completed PS 482 and 483. By application.
COURSE DESCRIPTIONS

PS 481  INTERN SEMINARS AND RESEARCH  3
Prereq.: Junior or senior status with 2.50 grade point average or higher. Open only to students concurrently enrolled in PS 480. Seminars and research projects and papers related to work assignments of PS 480.

PS 482  GOVERNMENT INTERN EXPERIENCE  6
Prereq.: Junior or senior status. A minimum of 3.00 grade point average unless special departmental discretionary exception is approved by the dean of Arts and Sciences. Students who apply and are admitted are assigned to work on a full-time basis in public or political offices. Must be taken concurrently with PS 483 and cannot be taken by students who have completed PS 480 and 481. No more than 3 credits of PS 482 can be credited toward a Political Science major.

PS 490  DIRECTED READINGS IN POLITICAL SCIENCE  3 or 6
Prereq.: Permission of instructor. Individual programs of study for students with special abilities or interests in political science. On demand.

PS 491  ADVANCED STUDIES IN POLITICAL SCIENCE  1-6
Extensive study of selected problems in political science. Students may count no more than six credits toward the 30-credit requirement. By application. On demand.

PS 492  POLICY STUDIES  3
Prereq.: PS 110 and 240 (previously PS 340). Analysis and evaluation of specific policy issues at the state and national levels of government. Topics will vary from year to year. If topics differ, may be taken more than once. IR

PS 561  THEORY OF PUBLIC ORGANIZATION  3
Classic and modern theories of public organization. Examination of questions of organizational structure and process at both the informal and formal levels; attention to the issues of leadership, motivation, public policy formulation, and the role of public organizations in modern democracy. IR

PSYCHOLOGY
Note: Additional work will be required for graduate credit in 400-level courses.

PSY 428  ADULT DEVELOPMENT AND AGING  3
Prereq.: PSY 236. Study of behavior, dynamics and developmental processes from early adulthood through old age and death.

PSY 430  PSYCHOLOGY OF DIVERSITY  3
Prereq.: PSY 112 or permission of instructor. Review of psychological research and theories pertaining to the study of diversity. Implications for clinical work and community education will be discussed. S

PSY 435  ORGANIZATION AND PERSONNEL PSYCHOLOGY  3
Consideration of structure, problems, human behavior and personnel functions in various types of organizations.

PSY 440  MOTIVATION  3
Prereq.: Three courses in psychology. Physiological and psychological variables in selected motivational processes. Problems of measurement, empirical findings and theoretical research. Readings in contemporary literature.

PSY 446  INTRODUCTION TO THE PSYCHOLOGY OF COUNSELING  3
Prereq.: Three courses in psychology. Introduction to the basic assumptions and theoretical approaches in the counseling process. Students wishing to become trained as counselors are advised to contact the Department of Health and Human Service Professions. IR

PSY 448  PSYCHOLOGY OF WOMEN  3
Review of research and theories pertaining to the psychology of women. The dynamic aspects of being female in the development of cognitive, emotional, motivational and social behavior is emphasized. Psycho-social implications and consequences of changing sex roles will be examined.

PSY 450  BIOPSYCHOLOGY  3
Prereq.: Six credits in psychology or permission of instructor. Analysis of relationships between bodily processes and behavior.

PSY 454  DRUGS AND BEHAVIOR  3
Prereq.: PSY 112. Overview of the major classes of psychoactive drugs and their effects on the brain and behavior. Legal drugs, such as alcohol and caffeine, and illegal drugs are considered.

PSY 458  HUMAN NEUROPSYCHOLOGY  3
Prereq.: PSY 330 and 450, or permission of instructor. Relationship between the brain and behavior is examined. Topics include disorders of speech and memory, common neurological disorders such as dementia and stroke and alcohol-related disorders.

PSY 460  BEHAVIOR MODIFICATION: THEORY AND PRACTICE  3
Prereq.: PSY 200 or permission of instructor. Application of learning principles to the modification of both normal and abnormal behavior. The settings for application include areas such as personal, social, and marriage counseling; individual and group psychotherapy, formal and informal education and reeducation; personal, vocational and correctional rehabilitation.

PSY 462  PSYCHOLOGY OF EARLY CHILDHOOD  3
Prereq.: PSY 236. Study and observation of young children (birth to age six), with emphasis on the developmental origins and dynamic processes of behavior within this age range.

PSY 470  THEORIES OF PERSONALITY  3
Prereq.: Three courses in psychology. Nature of personality theory, and critical analysis of major contemporary theories of personality, including empirical evidence relevant to these theories.

PSY 480  PSYCHOLOGY OF DYING AND DEATH  3
Prereq.: PSY 112 or equivalent. Psychological issues of death, dying and suicide. Topics include death and denial, fear of death, grief and bereavement, child’s/adolescent’s views of death. Psychological stages of dying and euthanasia.

PSY 490  HISTORY AND SYSTEMS OF PSYCHOLOGY  3
Prereq.: PSY 112, three other courses in psychology. Historical study with emphasis on general philosophical bases, development of psychology as an experimental science and comparative analysis of principal modes of psychological inquiry.

PSY 496  INTERNSHIP IN PSYCHOLOGICAL APPLICATIONS  3
Prereq.: Written permission of instructor. Supervised work in public and private agencies and institutions requiring the application of psychological principles. A study of appropriate references and a written report of procedures and conclusions required. May be repeated for a total of 6 credits.

PSY 498  TOPICS IN PSYCHOLOGY  1-3
Study of selected topics in psychology. Topics announced each semester. May be repeated under different topics for a total of 6 credits.

PSY 499  INDEPENDENT READING AND RESEARCH IN PSYCHOLOGY  1-3
Prereq.: Written permission of instructor. Directed independent studies in psychology. May be repeated for a total of 6 credits. On demand.

PSY 512  SEMINAR IN DEVELOPMENTAL PSYCHOLOGY  3
Prereq.: PSY 112 or permission of instructor. Study of human development from conception through old age, including analysis of theory and research findings.

PSY 526  PSYCHOLOGY OF LEARNING  3
Prereq.: PSY 512 or equivalent or permission of instructor. Not open to graduate students who have had undergraduate courses in psychology of learning or educational psychology. Introduction to research and theories of learning with emphasis on implications for classroom procedures.
PSY 530  PSYCHOPATHOLOGY  3  
Prereq.: Admission to graduate program in psychology and PSY 330, or permission of instructor. Psychopathological conditions and their etiologies will be considered in the context of differing major theoretical perspectives. In-depth information about the diagnosis and assessment of abnormal behavior will be provided. Recent research will be reviewed. §

PSY 541  HEALTH PSYCHOLOGY  3  
Prereq.: PSY 330 and 450, or permission of instructor. Previously PSY 471. Examination of health-related behaviors including stress, risk factors and methods to improve well-being. Mind-body aspects of pain, addiction and immune system disorders are discussed. S(e)

PSY 545  INTRODUCTION TO CLINICAL PSYCHOLOGY  3  
Prereq.: Admission to M.A. in Psychology or permission of instructor. Survey of current clinical practice, theory and research with an emphasis on ethical issues. F

PSY 546  SHORT-TERM PSYCHOTHERAPY AND HEALTH CARE  3  
Prereq.: PSY 330 or permission of instructor. Examination of American health care system and psychotherapy practice. Topics include description of short-term therapy models, ethics, diversity and controversies. F

PSY 550  INTRODUCTION TO COMMUNITY PSYCHOLOGY  3  
Introduction to the history, central assumptions and methodologies of community psychology. F

PSY 551  PRIMARY PREVENTION  3  
Prereq.: PSY 550. Intensive examination of the theoretical and empirical underpinnings of primary prevention programs in mental health. S

PSY 553  DEVELOPING PREVENTION PROGRAMS  3  
Prereq.: PSY 551 or permission of instructor. Development and operation of prevention/empowerment strategies in institutional and/or community settings. F

PSY 571  PSYCHOLOGY OF WOMEN'S HEALTH  3  
Prereq.: PSY 541 or permission of instructor. Seminar examining psychological theories and research relevant to women's health. Topics include chronic disease, gynecological health, health beliefs and behaviors, minority women, aging, menopause, stress, role strain and coping. S

PSY 590  ADVANCED TOPICS IN PSYCHOLOGY  3  
Prereq.: Admission to M.A. in Psychology or permission of instructor. Study of advanced topics in psychology. Topics will vary and will be announced each semester. May be repeated under different topics for a total of 6 credits. IR

PSY 591  INTERNSHIP IN PREVENTION APPLICATIONS  3  
Prereq.: PSY 553 and permission of instructor. Supervised internship at an agency or institution that provides prevention services. Seminars and evaluations that measure student progress will be conducted by a University supervisor and the cooperating prevention field specialist. On demand.

PSY 596  PSYCHOLOGICAL RESEARCH: DESIGN AND ANALYSIS I  3  
Prereq.: Admission to M.A. program, STAT 215 and PSY 222 or equivalent or permission of instructor. Topics include experimental and quasi-experimental design, program evaluation, single case and survey design, with application of statistical software packages (e.g., SAS). Each student will plan an independent research project. F [c]

PSY 597  PSYCHOLOGICAL RESEARCH: DESIGN AND ANALYSIS II  3  
Prereq.: PSY 596. An overview of research methods in psychology. continued from PSY 596. Each student will complete the independent project proposed in PSY 596. S [c]

PSY 598  RESEARCH IN PSYCHOLOGY  3  
Designed to familiarize student with techniques and resources associated with research in psychology. Opportunity for practical applications. Not open to students enrolled in M.A. in Psychology program except with permission of adviser and Psychology Department chairperson. §(o)

PSY 599  THESIS  3  
Prereq.: 21 credits of graduate work. Students must consult with their adviser before registering for thesis credits. Preparation of the thesis under the supervision of the thesis adviser.

READING

RDG 569  FOLKTELLING ART AND TECHNIQUE  3  
Prereq.: RDG 588. Study of the art and techniques of storytelling. Develop competency in the oral tradition of folktelling. Investigate the planning of study units and activity programs for use in elementary and secondary schools. IR

RDG 578  TEACHING WRITING IN THE ELEMENTARY SCHOOL  3  
An integration of theories, practices and techniques as related to teaching writing in the elementary schools. Students, in conjunction with the instructor, design lessons, construct models, and collect children's writing efforts for their level.

RDG 585  READING IN CONTENT AREA  3  
Prereq.: RDG 412 or 427 or 440. Investigation of materials and procedures used for teaching reading in content area. Special emphasis on vocabulary and comprehension development.

RDG 586  LITERACY INSTRUCTION FOR DIVERSE POPULATIONS I  3  
Prereq.: RDG 315. Current trends and issues on language, ethnicity and social class as they impact on literacy instruction for children of diverse backgrounds with an emphasis on sociolinguistic perspectives. F

RDG 587  BIBLIOTHERAPY  3  
Identification, selection and effective use of books that address problems confronting young people from pre-school age to adolescence. Concerns include physical and mental handicaps, divorce, death, alcoholism, drug abuse, neglect. §

RDG 588  TEACHING CHILDREN'S LITERATURE  3  
Study of wide variety of literature for children. Investigation of the appreciation for literature with children. Competency in storytelling and writing or original stories and poems will also be developed.

RDG 589  CREATIVE LANGUAGE ARTS  3  
Prereq.: RDG 412. Creative aspects of language activities both written and oral for elementary school children are considered toward stimulating such work in the classroom. Essential goals of language arts programs will be studied.

RDG 590  CURRENT TRENDS IN DEVELOPMENTAL READING K-12  3  
Prereq.: RDG 412 or 414 or 427 or 440. Survey of current reading practices and materials in the schools. Emphasis on developmental reading from preschool through high school and into the adult years.

RDG 591  DEVELOPMENTAL READING IN PRIMARY GRADES  3  
Prereq.: RDG 412 or 414 or 427 or 440. Comprehensive study of factors involved in teaching reading readiness, and reading in primary grades; developmental in use of experience stories; introducing first books; developing a sight vocabulary; word recognition techniques and comprehension skills.

RDG 592  MIDDLE SCHOOL LEVEL LITERACY DEVELOPMENT  3  
Prereq.: RDG 315 or 440 or 590 or permission of instructor. Foundations, approaches, materials and techniques for developmental literacy programs at the middle school level. Attention is given to literacy strategies and the use of study skills in both regular and content classrooms. S

RDG 593  DEVELOPMENTAL READING IN SECONDARY SCHOOLS  3  
The Basic Skills Development program in elementary school reviewed. Study of the need for continuing systematic instruction in reading for pupils throughout grades 7-12. Organization of such a program, materials, and methods currently in use, and means of evaluation are considered. F
### Course Descriptions

#### RDG 594 Diagnosis of Reading Difficulties
- **Prereq.:** RDG 590 or 591 or 592. May not be taken concurrently with RDG 595. Study and interpretation of selected tests and instruments useful in analysis of physical, intellectual, social and emotional factors related to reading difficulties.
- **Units:** 3

#### RDG 595 Remedial and Corrective Techniques in Reading
- **Prereq.:** RDG 594. Study of principles of remedial-corrective reading, methods of analysis and interpretation, and materials useful in correction of reading difficulties.
- **Units:** 3

#### RDG 596 Clinical Practices in Reading
- **Prereq.:** RDG 595. Diagnosis and treatment of reading difficulties and disabilities. Case study prepared for pupil tutored during term. Open to MS certification students only.
- **Units:** 6

#### RDG 598 Seminar in Reading Research
- **Prereq.:** 15 credits in graduate reading courses. Advanced studies in reading research as well as basic reading research studies are reviewed. Emphasis will be on the articulation between research findings and reading practices in schools. The significance of the findings of research will be studied through prescribed readings, written and oral reports, and seminar discussion.
- **Units:** 3

#### RDG 667 Multicultural Literature in the Classroom
- **Prereq.:** RDG 588 or ENG 491 or 492. A variety of teaching methods will be studied and applied to multicultural and multiethnic books for children in the elementary and middle grades. The implementation of various teaching methodologies as part of a whole language learning and teaching philosophy will be explored.
- **Units:** 3

#### RDG 675 Reading and Writing as Integrated Process
- **Prereq.:** RDG 412 or 589. Integration of theories, practices and techniques as related to reading-writing in the elementary school. Students, in conjunction with the instructor, design lessons, construct models and collect children's writing efforts for their level.
- **Units:** 3

#### RDG 680 Current Trends and Issues in Reading and Language Arts
- **Prereq.:** M.S. degree and either RDG 590 or 591 or 592. Current trends and current issues in reading and language arts. Focus on recent research and its application to reading and language arts. Courses will focus on recent research and its application to reading and language arts instruction in school settings.
- **Units:** 3

#### RDG 686 Literacy Instruction for Diverse Populations II
- **Prereq.:** RDG 586; RDG 66; permission of instructor. Strategies and techniques for promoting and expanding literacy among children of diverse backgrounds. Models of theoretical frameworks and analytic strategies that address children's diverse educational needs will be practiced.
- **Units:** 3

#### RDG 692 Specialized Diagnosis & Remedial Techniques
- **Prereq.:** RDG 594 and 595. Specialized diagnostic procedures and materials in reading for perceptually, neurologically, and psycholinguistically disabled children. Role of children's literature, bibliography and cultural implications on story content are examined. Consultants from specialized areas, such as medicine and psychology will be used as resource persons.
- **Units:** 3

#### RDG 694 Organization, Administration and Supervision of Reading Programs
- **Prereq.:** 15 credits of graduate study in Reading. Study of patterns of organization, administration, evaluation, and supervision of various types of reading programs in schools.
- **Units:** 3

#### RDG 696 Practicum for Reading and Language Arts Consultants
- **Prereq.:** RDG 596 and 692. Work experience under guidance of certified reading and language arts consultant for an academic year. Experience includes supervision of reading programs, consultation with school personnel, assessment, clinical practice, professional development and applied research.
- **Units:** 6

#### RDG 698 Research Seminar
- **Prereq.:** 24 credits of graduate study in Reading. In-depth individual study of research pertaining to reading materials, programs and methods. Research reports required.
- **Units:** 3

#### RUSSIAN

**Note:** Additional work will be required for graduate credit in 400-level courses.

#### SCI 418 Teaching Science in the Out-Of-Doors
- **Prereq.:** Two science courses. Development of leadership skills and instructional techniques necessary for teaching science in the outdoor classroom. The methods and materials for developing and conducting an outdoor education program in science are discussed. Three hours a week; field studies are required.
- **Units:** 3

#### SCI 420 History of Science
- **Prereq.:** Three courses in science or mathematics or permission of instructor. Historical development of biological and physical science, interdependence of various areas of science and relation of scientific progress to society.
- **Units:** 3

#### SCI 424 Teaching Middle Level Science
- **Prereq.:** Three courses in science or mathematics or permission of instructor. Methods and materials of teaching science at the middle level. Various aspects of the National Science Education Standards, including Project 2061 and the scope, sequence and coordination project will be considered.
- **Units:** 2

#### SCI 452 Independent Study in Science
- **Prereq.:** Approved plan of study by arrangement with the instructor and approval of a science department chair. Includes special work in the laboratory or study of theory to meet the individual requirements in areas not covered by the regular curriculum. May be taken for more than one credit up to a limit of 4 credits. On demand.
- **Units:** 1-3

#### SCI 453 Environmental Interpretation Internship
- **Prereq.:** Prior completion of two field trips to environmental education facilities approved by advisory committee and senior standing. Responsible experiences in an environmental education facility. Before commencing the internship, a plan of the internship must be approved by the Advisory Committee on Environmental Interpretation.
- **Units:** 3

#### SCI 456 Teaching Science to Young Children
- **Prereq.:** Permission of instructor. Previously SCI 556. Develops teaching strategies which assist young children in expanding their awareness, understanding and appreciation of their natural environment. Teachers will learn active involvement techniques and will prepare "hands-on" science curriculum materials for use with children from preschool through grade 3.
- **Units:** 3

#### SCI 485 Studies in Science
- **Prereq.:** Permission of instructor. Selected studies in the sciences which are not offered presently in the curriculum of the science departments. Course may be repeated under different topics, but student may not take this course for credit under the same topic more than once.
- **Units:** 1-3

#### SCI 500 Science, Technology and Society
- **Prereq.:** Three courses in the natural sciences. Discussion of the nature and values of science and technology and their implications for society.
- **Units:** 3
SL 420 BASIC MANUAL COMMUNICATION I 3
Previously SPED 420. Introduction to the Manual Alphabet and American Sign Language of the Deaf designed to provide basic skill in non-verbal communication. F

SOCIAL WORK
Note: Additional work will be required for graduate credit in 400-level courses.

SW 433 INDEPENDENT STUDIES IN SOCIAL WORK 3
Prereq.: Senior standing in the Social Work major and permission of the program director. Student must present a written study proposal to the department chair at least one week prior to registering for this course. Readings and research in selected areas of social work. On demand.

SW 436 HEALTH AND SOCIAL WORK 3
Prereq.: SW 226 and 227 or permission of instructor. Examination of health issues such as cancer, AIDS, Alzheimer's and other disabilities; prevention, treatment and attitudes; policies and programs in both public and private sectors which impinge upon the lives of clients with health problems. IR

SW 437 CHILD WELFARE I 3
Prereq.: SW 226 and 227, or permission of instructor. Examination of the role of the social worker in meeting the needs and protecting the rights of children. IR

SW 438 CHILD WELFARE II 3
Prereq.: SW 226 and 227, or permission of instructor. Examination of current social issues such as war, poverty and divorce, that impact the lives of children. IR

SW 441 PUERTO RICANS IN TRANSITION: A SOCIAL WORK PERSPECTIVE 3
Prereq.: Permission of instructor. Overview of critical areas in understanding the Puerto Rican population on the island and in the U.S. Puerto Rican history, demographic trends, culture, socio-political issues, family and gender roles will be explored, in addition to health, education, employment and poverty. Micro/macro approaches to providing culturally relevant intervention. IR

SW 442 THE SOCIAL CONSEQUENCES OF IMMIGRATION 3
Prereq.: Permission of instructor. Explores the development of immigration policies, social service delivery structures and practices that help social workers provide services to immigrants and refugees. IR

SW 478 CURRENT TOPICS IN SOCIAL WORK 3
Prereq.: Permission of instructor. Analysis and evaluation of special topics in the general field of social work. Topics will vary from year to year. If topics vary, may be taken more than once; not to exceed 6 credits. IR
COURSE DESCRIPTIONS

SOCIOLOGY

Note: Additional work will be required for graduate credit in 400-level courses.

SOC 433 INDEPENDENT STUDIES IN SOCIOLOGY 3
Prereq.: Permission of instructor. Student must present a written study proposal to the department chair at least three weeks prior to registering for this course. Readings and research in selected fields of sociology. On demand.

SOC 440 DEATH AND DYING: SOCIOLOGICAL IMPLICATIONS 3
Prereq.: SOC 110. Different cultural, social, and historical perspectives on death and their impact on social roles and institutional change. Problems faced by the health care profession in meeting the needs of the terminally ill and the bereaved. Student will be required to have a field experience with a terminally ill patient and/or bereaved family. S(e)

SOC 452 ORGANIZATIONS, OCCUPATIONS AND WORK 3
Prereq.: SOC 110 and three additional credits in sociology. Systematic study of large-scale, bureaucratic organizations with emphasis on relations among the organization's members, the organization as a social entity, and its social and physical environment. S

SPANISH

Note: Additional work will be required for graduate credit in 400-level courses.

SPAN 426 THE SPANISH AMERICAN SHORT STORY 3
Prereq.: Permission of instructor. Survey of representative authors and selected works with emphasis on the twentieth century. Course to be taught in Spanish. IR

SPAN 434 WOMEN WRITERS OF THE SPANISH-SPEAKING WORLD 3
Prereq.: Permission of instructor. Taught in Spanish. Discussion of representative works will center around cultural and gender issues. On demand.

SPAN 441 CROSS CULTURAL COMMUNICATION 3
Prereq.: Permission of instructor. Open only to non-native speakers of Spanish. Development of fluency in oral expression. Speech analysis and phonetic theory to improve pronunciation and intonation. Introduction to problems of translation, enhancement of oral competence, and development of cross-cultural understanding. F(e)

SPAN 460 THE STRUCTURE OF THE SPANISH LANGUAGE 3
Prereq.: Permission of instructor. Taught in Spanish. Study of syntactical and morphological aspects of the Spanish language. S(e)

SPAN 461 TOPICS IN SPANISH-AMERICAN LITERATURE 3
Prereq.: Permission of instructor. Taught in Spanish. Detailed study of a literary figure, movement or theme. May be repeated with different topics for a maximum of six credits. IR

SPAN 471 GENERATION OF '98 3
Prereq.: Permission of instructor. Taught in Spanish. Detailed study of some major works of authors such as Unamuno, Baroja, Valle Inclán and Antonio Machado of the Generation of '98 in the context of historical, ideological and aesthetic trends of their time. F(e)

SPAN 472 20TH CENTURY SPANISH LITERATURE 3
Prereq.: Permission of instructor. Taught in Spanish. Representative authors and literary movements of the period following the Generation of '98. S(e)

SPAN 476 CERVANTES 3

SPAN 515 COLONIAL SPANISH-AMERICAN LITERATURE 3
Prereq.: Permission of instructor. Taught in Spanish. Study of major authors and literary works of the Colonial period in their cultural context. IR

SPAN 520 MODERNISMO 3
Prereq.: Permission of instructor. Taught in Spanish. Study of the most significant authors of the Modernista period. IR

SPAN 525 CONTEMPORARY SPANISH-AMERICAN POETRY 3
Prereq.: Permission of instructor. Taught in Spanish. Study of major Spanish-American poets and poetic themes from the period following Modernismo to the present. S(e)

SPAN 530 CONTEMPORARY SPANISH NOVEL 3
Prereq.: Permission of instructor. Taught in Spanish. Study of significant novels from the 1940's to the present. S

SPAN 535 CONTEMPORARY SPANISH-AMERICAN NOVEL 3
Prereq.: Permission of instructor. Taught in Spanish. Study of representative Spanish-American novels from the 1950's to the present. S

SPAN 545 THE SPANISH-AMERICAN ESSAY 3
Prereq.: Permission of instructor. Taught in Spanish. Analysis of major works by authors such as Sarmiento, Martí, Rodó, Reyes, Paz and others. IR

SPAN 551 DRAMA OF THE GOLDEN AGE 3
Prereq.: Permission of instructor. Taught in Spanish. In depth study of representative plays by great dramatists of the Golden Age, including Lope de Vega, Tirso de Molina and Calderón. S(e)

SPAN 553 NINETEENTH CENTURY SPANISH LITERATURE 3
Prereq.: Permission of instructor. Taught in Spanish. Study of Spanish romanticism and realism with a consideration of their historical background. IR

SPAN 561 TOPICS IN HISPANIC LITERATURE 3
Prereq.: Permission of instructor. Detailed study of a literary figure, movement, or theme. Subject will vary from semester to semester. IR

SPAN 588 TOPICS IN THE CONTEMPORARY SPANISH-SPEAKING WORLD 3
Prereq.: Permission of instructor. Taught in Spanish. Contemporary society in the Spanish-speaking world, its institutions, traditions and values.

SPAN 599 THESIS 3
Prereq.: 18 credits completed of approved graduate study program and approval of adviser. Preparation of thesis under the supervision of thesis adviser. On demand.

SPECIAL EDUCATION

Note: Additional work will be required for graduate credit in 400-level courses.

SPED 423 ASSESSMENT, INSTRUCTION AND CURRICULAR ADAPTATIONS FOR PRESCHOOLERS 3
Prereq.: SPED 315 and admission into the Professional Program. Development of Individualized Education Programs, adapting curricula and the utilization of assessment and teaching strategies to promote the development and independence of preschoolers with disabilities in community and integrated school settings. Taken concurrently with EDEC 423. Field experience required.

SPED 430 CHARACTERISTICS AND EDUCATION OF INDIVIDUALS WITH BEHAVIORAL/EMOTIONAL DISORDERS 3
Prereq.: SPED 315. Taken concurrently with SPED 431. Overview of the education of behavioral/emotional disorders. Autistic and attention deficit hyperactivity disorder. Topics include characteristics, identification, etiology, theoretical and educational approaches. Involves field experience component.

SPED 431 BEHAVIOR MANAGEMENT AND SOCIAL SKILLS DEVELOPMENT 3
Prereq.: SPED 315. Taken concurrently with SPED 430. Examination of methodologies for evaluation, assessment, management of student behavior and program planning/instruction utilized in special education settings. Involves field experience component.
COURSE DESCRIPTIONS

SPED 432  CHARACTERISTICS AND EDUCATION OF INDIVIDUALS WITH LEARNING DISABILITIES  3
Prereq.: SPED 315. Overview of the education of students with learning disabilities and traumatic brain injury. Topics include characteristics, identification, etiology, theoretical and educational approaches. Involves field experience component.

SPED 433  EDUCATIONAL ASSESSMENT FOR EXCEPTIONAL LEARNERS  3
Prereq.: Admission to the Professional Program and SPED 432. Examines formal and informal assessment materials and techniques used in evaluating adaptive skills, processing abilities and academic achievement in individuals with learning and/or behavior problems. Topics include procedures for test selection/administration, methods for scoring and interpreting test results. Involves field experience component.

SPED 434  CHARACTERISTICS AND EDUCATION OF INDIVIDUALS WITH DEVELOPMENTAL DISABILITIES  3
Prereq.: Admission to the Professional Program. Taken concurrently with SPED 435. Overview of mental retardation, developmental disabilities, autism and physical disabilities. Topics include identification, etiology, theoretical and educational approaches. Involves field experience component.

SPED 435  CURRICULUM ADAPTATIONS AND TEACHING STRATEGIES FOR LEARNERS WITH EXCEPTIONALITIES  3
Prereq.: SPED 433. Taken concurrently with SPED 434. Techniques for assessing social studies, science and prevocational skills. Involves field experience component.

SPED 436  LANGUAGE ARTS FOR LEARNERS WITH EXCEPTIONALITIES  3
Prereq.: SPED 432, 433. Taken concurrently with SPED 438. Techniques for planning and delivering instruction in the areas of reading, writing and oral language specific to students with special needs.

SPED 437  INTEGRATIVE SEMINAR FOR BEGINNING SPECIAL EDUCATORS  3
Prereq.: SPED 436. Taken concurrently with SPED 439. Examines collaborative strategies for assessment and program planning. Communication skills, professional ethics and codes of conduct will be examined.

SPED 438  STUDENT TEACHING WITH EXCEPTIONAL LEARNERS I  6
Prereq.: Taken concurrently with SPED 436. Supervised teaching in special education classrooms, agencies or institutions. Attendance at on-campus seminars is required. Students must make application to the Director of Field Experiences before October 1 for spring and before March 1 for fall.

SPED 439  STUDENT TEACHING WITH EXCEPTIONAL LEARNERS II  6
Prereq.: SPED 438. Taken concurrently with SPED 437. Supervised teaching in special education classrooms, agencies or institutions at a different age level and with a different exceptionality. Attendance at on-campus seminars is required. Students must make application to the Director of Field Experiences before October 1 for spring and before March 1 for fall.

SPED 498  INDEPENDENT STUDY IN SPECIAL EDUCATION  3
Directed independent studies in special education. May be repeated for a total of 6 credits.

SPED 501  EDUCATION OF THE EXCEPTIONAL LEARNER  3
Examines growth and development of exceptional learners including handicapped, gifted and talented, those who may require special education. Methods for identifying, planning for and working effectively with the special needs population in educational settings. Meets State of Connecticut requirement for teacher certification. Field experience required.

SPED 506  FOUNDATIONS OF LANGUAGE FOR THE EXCEPTIONAL CHILD  3
A review of the basis of language competence in the exceptional child including: phonology, morphology, semantics, syntax and other component factors.

SPED 510  INCLUSIVE EDUCATION  3
Prereq.: Certification in any area of education or permission of instructor. Identification of the issues, legislation and litigation affecting inclusion as a method of integrating special needs children in regular education. Methods and assessment strategies of learning which facilitate inclusion along with alternate curriculum and classroom management strategies will be presented.

SPED 511  BEHAVIORAL/EMOTIONAL DISORDERS  3
Prereq.: SPED 315. Admission to the Graduate School and permission to the Special Education program. Examination of behavioral/emotional disorders, autism, attention deficit hyperactivity disorders and schizophrenia, with emphasis on current issues, classroom practices and contemporary research. Involves field experience component.

SPED 512  LEARNING DISABILITIES  3
Prereq.: SPED 315. Admission to the Graduate School and permission to the Special Education program; or permission of instructor. Examination of developmental disabilities including students with mental retardation, pervasive developmental disorder, cerebral palsy and other physical disabilities, with emphasis on current issues, classroom practices and contemporary research.

SPED 513  DEVELOPMENTAL DISABILITIES  3
Prereq.: Admission to the Graduate School and permission to the Special Education program; or permission of instructor. Examination of developmental disabilities including students with mental retardation, pervasive developmental disorder, cerebral palsy and other physical disabilities, with emphasis on current issues, classroom practices and contemporary research.

SPED 514  COGNITIVE BEHAVIOR MANAGEMENT AND SOCIAL SKILL STRATEGIES  3
Prereq.: SPED 511, 512, 513. Examination of methodologies for evaluation, management of student behavior, program planning, cognitive restructuring and functional behavior analysis utilized in special education settings. Involves field experience component.

SPED 515  ASSESSMENT IN SPECIAL EDUCATION  3
Prereq.: SPED 511, 512, 513. Review of the methods and materials used in the assessing and evaluating the performance of students who may be eligible for special education. Topics include psychometric theory, selecting/administering tests, scoring, interpreting and communicating test results/findings. Involves field experience component.

SPED 516  INSTRUCTIONAL PROGRAMMING FOR STUDENTS WITH EXCEPTIONALITIES  3
Prereq.: SPED 511, 512, 513. Designing the individualized education program (IEP) and subsequent lesson plans in academic and nonacademic areas to meet the needs of exceptional students.

SPED 517  INSTRUCTIONAL METHODS FOR STUDENTS WITH SPECIAL NEEDS—ELEMENTARY  3
Prereq.: SPED 515, 516. Methods associated with planning and implementing instruction, with emphasis on the areas of mathematics, reading, writing and oral language in the elementary grades.

SPED 518  INSTRUCTIONAL METHODS FOR STUDENTS WITH SPECIAL NEEDS—SECONDARY  3
Prereq.: SPED 515, 516. Methods associated with planning and implementing instruction in grades 7 through 12. Issues related to academic content, advocacy/self-determination, vocational transitioning and functional living are also discussed.

SPED 519  ACTION RESEARCH IN SPECIAL EDUCATION  3
Prereq.: ED 598 and completion of 18 credits in Special Education. Introduction to action research in special education. Students will identify a topic, conduct a literature review and formulate an appropriate research plan as part of their preparation for the Special Project requirement of the Master's Degree in Special Education.
SPED 520  SEMINAR FOR SPECIAL EDUCATORS  3
Prereq.: SPED 517 or 518, and permission of the Director of Field Experiences.
Taken concurrently with SPED 521 or 522, or prior to SPED 523 or 524. Examines current issues in special education which affect teaching and learning in the classroom. Issues concerning language, culture, community awareness, sensitivity, communication, professional ethics and codes of conduct will be examined.

SPED 521  STUDENT TEACHING IN SPECIAL EDUCATION — ELEMENTARY  6
Prereq.: SPED 517 or 518, and permission of the Director of Field Experiences. Supervised teaching in elementary special education classrooms, agencies or institutions. Attendance at on-campus seminars is required.

SPED 522  STUDENT TEACHING IN SPECIAL EDUCATION — SECONDARY  6
Prereq.: SPED 517 or 518, and permission of the Director of Field Experiences. Supervised teaching in secondary special education classrooms, agencies or institutions. Attendance at on-campus seminars is required.

SPED 523  PRACTICUM IN SPECIAL EDUCATION — ELEMENTARY  3
Prereq.: SPED 517 or 518, and permission of department chair. Supervised practicum in elementary special education classrooms, agencies or institutions. SS

SPED 524  PRACTICUM IN SPECIAL EDUCATION — SECONDARY  3
Prereq.: SPED 517 or 518, and permission of department chair. Supervised practicum in secondary special education classrooms, agencies or institutions. SS

SPED 530  THE FAMILY, THE SCHOOL, AND THE HANDICAPPED CHILD  3
Examination of issues that arise within families with handicapped children and between these families and school personnel. IR

SPED 532  ADVANCED TOPICS IN EMOTIONAL DISTURBANCES  3
Prereq.: Certification in Special Education. Various models and methodologies for teaching this specific population at both the elementary and secondary level will be addressed. IR

SPED 533  ADVANCED TOPICS IN LEARNING DISABILITIES  3
Prereq.: Certification in Special Education. Overview of current theory and practice in various aspects of learning disabilities including advanced topics in etiology, identification, classification, assessment and programming. IR

SPED 536  INTRODUCTION TO THE AUTISTIC CHILD  3
Historical and current views regarding the characteristics, etiology and prognosis of autism will be examined. Current educational and treatment programs will be reviewed, as well as practical management strategies that can be employed within the classroom, home or institution. IR

SPED 560  CRISIS INTERVENTION IN THE SCHOOLS  3
Prereq.: SPED 315 or 501, or permission of instructor. Basic skill and application of reality-oriented verbal and Life Space Crisis Intervention strategies for educators who address the needs of students experiencing emotional and/or physical crises. IR

SPED 566  PUPIL PERSONNEL SERVICES IN SPECIAL EDUCATION  3
Prereq.: Certification in special education. Federal and state laws and regulations for the handicapped are studied. Emphasis is placed on the theories and processes in pupil personnel services and pupil planning and placement teams. Students in conjunction with the instructor, will evaluate their current professional skills and develop and carry out an independent study to increase their professional competence.

SPED 578  THE JUVENILE OFFENDER AS AN EXCEPTIONAL LEARNER  3
Study of the educational characteristics of the juvenile offender. A review of current educational interventions. F

SPED 580  THE SPECIAL EDUCATION TEACHER AS CONSULTANT  3
Prereq.: Certification in teacher education or special education. Examination of the support services provided to the regular classroom teacher, including programming, management, and monitoring, for the purpose of educating the mildly handicapped child in the "mainstream."

SPED 590  EARLY INTERVENTION FOR INFANTS, TODDLERS, AND PRESCHOOLERS WITH SPECIAL NEEDS  3
Prereq.: Matriculation in M.S. program or permission of instructor. Study of children ages birth to six, with handicaps at-risk for developmental delays. Identification and development of intervention plans for these children and their families. IR

STATISTICS
Note: Additional work will be required for graduate credit in 400-level courses.

STAT 400  STATISTICAL QUALITY CONTROL  3
Prereq.: STAT 216 or 201 or IT 464 or permission of the instructor. Statistical introduction to quality control. Topics include statistical quality, construction and analysis of control charts for variables and attributes, capability analysis, reliability and acceptance sampling. F(e)

STAT 416  MATHEMATICAL STATISTICS II  3
Prereq.: STAT 315. Continuation of theory and applications of statistical inference. Elements of sampling, point and interval estimation of population parameters, tests of hypotheses and the study of multivariate distributions. S

STAT 425  LOSS AND FREQUENCY DISTRIBUTIONS AND CREDIBILITY THEORY  3
Prereq.: STAT 416 (may be taken concurrently). Topics chosen from credibility theory. Loss distributions, simulation and time series. S(e)

STAT 440  BIOSTATISTICAL METHODS  3
Prereq.: STAT 216 or 201 or 453 with permission of the instructor or STAT 416. Statistical methods applied to the analysis of health and biological data with emphasis on multivariate methods. Computer packages assist in the design and interpretation of models fitted to health data. S(e) [c]

STAT 463  APPLIED STOCHASTIC PROCESSES  3
Prereq.: STAT 315 and MATH 228. Introduction to Stochastic Processes. Topics include Markov, Poisson, birth and death. Renewal and stationary processes. Statistical inferences of Markov processes are discussed. F(o)

STAT 453  APPLIED STATISTICAL INFERENCE  3
Prereq.: STAT 104. Statistical techniques used to make inferences in experiments in social, physical and biological sciences and in education and psychology. Topics include populations and samples, tests of significance concerning means, variances and proportions and analysis of variance. No credit given to students with credit for STAT 201 or 216. F

STAT 455  EXPERIMENTAL DESIGN  3
Prereq.: STAT 201 or 216 or 416 or equivalent. Introduction to experimental designs in statistics. Topics include complete randomized blocks. Latin square and factorial experiments. F(o)

STAT 456  STATISTICS LABORATORY  3
Prereq.: CS 151, and STAT 201 or 216 or equivalent. Study of SAS, one of the major statistical packages now available in computer libraries. Includes data manipulation and a study of the SAS statistical procedures and analysis. S(e) [c]
COURSE DESCRIPTIONS

STAT 465  NONPARAMETRIC STATISTICS  3
Prereq.: STAT 201 or 216 or 416. General survey of nonparametric or distribution-free test procedures and estimation techniques. Topics include one-sample, paired-sample, two-sample and k-sample problems as well as regression, correlation and contingency tables. Comparisons with the standard parametric procedures will be made and efficiency and applicability discussed. F(e)

STAT 466  LINEAR MODELS  3
Prereq.: STAT 416 and MATH 228. Introduction to the methods of least squares. Topics include general linear models, least squares estimators, inference and hypothesis testing. F(e)

STAT 470  APPLIED MULTIVARIATE ANALYSIS  3
Prereq.: STAT 216 or 201 or 453 with permission of the instructor or STAT 416. Introduction to analysis of multivariate data with examples from economics, education psychology and health care. Topics include: multivariate normal distribution, Hotelling's T2, multivariate regression, analysis of variance, discriminant analysis, factor analysis and cluster analysis. Computer packages assist in the design and interpretation of multivariate data. S(o) [c]

STAT 475  MATHEMATICAL STATISTICS III  3
Prereq.: STAT 416 or equivalent. Continuation of theory and applications of statistical inference. Advanced topics in the estimation of population parameters and the testing of hypotheses. Introduction to Bayesian methods, regression, correlation, and the analysis of variance. F(c)

STAT 522  Data Mining Methods (3)

STAT 476  TOPICS IN STATISTICS  3
Prereq.: Permission of instructor. Topics depending on interest and qualification of the students will be chosen from sampling theory, decision theory, probability theory, Bayesian statistics, hypothesis testing, time series or advanced topics in other areas. May be repeated under different topics to a maximum of 6 credits. S(o) [c]

STAT 523  Applied Data Mining (3)

STAT 524  Advanced Methods in Data Mining (3)

Note: Additional work will be required for graduate credit in 400-level courses.

TC 405  APPLIED TECHNICAL TOPICS  1-3
Laboratory oriented course of in-depth coverage of a selected technological topic or field of study. Course may be repeated for maximum of 6 cr. for different topics, but students may not take this course for credit under the same topic more than once. IR

TC 414  AUTOMATED ASSEMBLY CELL DESIGN  3
Prereq.: ET 251 (previously ET 351), IT 480. Industrial robotics programming, cell design procedures, product evaluation, feeder selection, cell layout and multi-task end effector design. Emphasis on developing a cost-effective automated assembly cell followed by cell simulation testing and evaluation. F [c]

TC 416  PRINCIPLES OF NUMERICAL CONTROL  3
Prereq.: Permission of instructor. Principles essential for computer numerical control part programming and machine tool operation. Laboratory experiences include word address programming, computer-aided programming and CNC machine tool setup and operation. [c]

TC 436  ADVANCED COMPUTER NUMERICAL CONTROL  3
Prereq.: TC 416 or permission of instructor. Investigation of advanced CNC programming and machining. Laboratory experiences include MacroB and parametric word address programming, 3-D and multi-axis CAM programming and part machining using CNC mills, lathes and wire EDM machine tools. S [c]

TC 442  PRINTING PRODUCTION  3
Prereq.: TC 212. Applied study of pre-production, production and post-production in the printing industry. [c]

TC 443  ELECTRONIC COMMUNICATIONS  3
Prereq.: TC 323. RF transmitting and receiving circuits, amplitude and frequency modulation and detection, phase modulation, antennas, RF transmission lines and data transmissions. Focus on units of measurement. Laboratory experiments cover resonance, modulation, demodulation and transmission channels. S [c]

TC 445  CONSTRUCTION SYSTEMS  3

TC 446  TOOL AND DIE FUNDAMENTALS  3
Prereq.: TC 316. Introductory study of designs and construction of tools, dies and work-holding devices used in tooling for manufacturing. [c]

TC 453  MICROPROCESSORS  3
Prereq.: TC 363. Microprocessor architecture including basic memory design, address decoding and internal register structure, and assembly language programming including addressing modes and instruction set. Laboratory work consists of programming and debugging assignments. S [c]

TC 455  CONSTRUCTION PROJECT MANAGEMENT  3
Prereq.: Senior standing. Examination of the role of Construction Project Manager. Emphasis on administrative procedures, quality control, time and cost control, resource management, field office practices, construction claims processing, job site meetings and correspondence.

TC 462  ADVANCED GRAPHIC ARTS TECHNIQUES  3
Prereq.: TC 442. As in graphic arts industry, course will provide integrated experience of advanced instruction in both letterpress and offset printing. Experiences will include advanced camera work leading to half-tone photography, process color photography and other camera manipulations. Cultural and historical aspects of graphic arts and industrial visitation. [c]

TC 472  INTRODUCTORY AND PUBLICATIONS PHOTOGRAPHY  3
Professional and laboratory course of instructors and students interested in photography. Principles of camera, camera handling, exposure, lighting, taking black and white pictures and slides, composition, developing, printing and enlarging. Darkroom plans and equipment listings will be evaluated. Students will prepare black and white pictures and slides. Field trips to selected photographic studios. Open to all students. F, SS

TC 526  COMPUTER INTEGRATED MANUFACTURING  3
Prereq.: Computer literacy or permission of instructor. Study of the technical implications of computer hardware, software and communications for controlling the manufacturing process. Concepts for systems integration will be introduced relating to the creation, storage, analysis, transmission and modification of design and manufacturing engineering data. Laboratory experience will involve CAD/CAM integration, distributive numerical control and process control. IR

TC 591  INDEPENDENT STUDY IN INDUSTRIAL/ENGINEERING TECHNOLOGY  3
Purpose is to allow students to undertake studies of special areas in industrial/engineering technology which fit their particular program of study. Problems may require individual research in the initiation and application of industrial/engineering technology relating to new areas or fields. Course may be repeated for maximum of 6 credits under different topics, but students may not take this course for credit under the same topic more than once. IR

TC 599  TECHNOLOGICAL ISSUES AND PROBLEMS  3
Extensive study of selected technological issues and problems. Course may be repeated for different topics, but students may not take this course for credit under the same topic more than once. IR

TECHNOLOGY EDUCATION

Note: These are courses designed to develop professional competence; for majors in Technology Education. Courses also suitable as electives for Education, Counseling, and Technology majors.

Note: Additional work will be required for graduate credit in 400-level courses.
COURSE DESCRIPTIONS

TE 400  TEACHING OF TECHNOLOGY EDUCATION  3
Prereq.: Admission into the Professional Program. A professional course which stresses preparation for student teaching, or supervised teaching, and objectives, planning techniques and problems of teaching technology education at the secondary, middle and elementary school levels. Required of all undergraduate majors in technology education, and graduate students in the technology education certification program. This course is a prerequisite to student teaching. F

TE 410  COMMUNICATION SYSTEMS  3
Prereq.: 24 credits of technical (TC) courses including TC 113. 121 and 212; or permission of instructor. Laboratory application of graphic and electronic communication systems which extend human capability with focus on how the individualized components function together as a given system. Research and laboratory activities will include computer graphics, desktop publishing, photography and telecommunications. F(o)

TE 411  ANIMATION GRAPHICS  3
Prereq.: TC 112 or 121 or 122. Using animation software, digitizing equipment, and paint/draw programs to produce two- and three-dimensional presentations, slide shows and videotapes. IR [c]

TE 412  COMPUTER-AIDED PUBLISHING  3
Prereq.: TC 113. Course designed to present and apply the basic concepts of electronic publishing. Instruction and laboratory activities will focus on software usage, applying accepted design techniques and producing appropriate materials for classroom implementation. IR [c]

TE 420  MANUFACTURING SYSTEMS  3
Prereq.: 24 credits of technical (TC) courses including TC 118 and 215; or permission of instructor. Laboratory application of the systems and technical means used to manufacture and construct products. Students will create designs, prototypes, tooling, transport devices. Line production techniques and quality control mechanisms. S(e)

TE 428  RESEARCH AND EXPERIMENTATION  3
Prereq.: Completion of 18 credits of required technical (TC) courses. Planning, directing and evaluating, effective research procedures with emphasis on the application of research and experimentation to the teaching of technology education and its relationship to mathematics, science and social studies. F

TE 430  TRANSPORTATION SYSTEMS  3
Prereq.: 24 credits of technical courses including TC 114 and 214; or permission of instructor. Laboratory application of the systems which extend the means of transportation beyond the physical capability of the human body. Includes terrestrial, atmospheric, marine and space transportation technologies and their social, environmental and economic impact. F(c)

TE 450  TECHNOLOGICAL ENTERPRISE  3
Prereq.: TE 410, 420, and 430; or permission of instructor. Synthesis of the production, transportation and communication systems used to organize and operate an entrepreneurial business endeavor through laboratory application. S(o)

TE 459  TECHNOLOGY EDUCATION IN THE ELEMENTARY SCHOOL  3
Prereq.: Junior standing. Effective for technology education majors who wish to examine technology education activities suitable for elementary school. Integrating such activities with typical grade school curriculums. IR

TE 488  INDEPENDENT STUDIES IN TECHNOLOGY EDUCATION  1-3
Prereq.: Senior or graduate standing and permission of instructor. Directed independent studies in Technology Education for students who wish to pursue specialized areas which are not covered in regular course offerings. May be repeated with different topics for a maximum of 6 credits. On demand.

TE 510  COMPUTER APPLICATIONS FOR TECHNOLOGY EDUCATION  3
Prereq.: TC 121 or equivalent. Use of microcomputer applications as a basis to develop and deliver units of study, laboratory activities, student records, and database management techniques for use in technology education programs. IR [c]

TE 520  READINGS IN TECHNOLOGY  3
Study of the nature of technology from a variety of perspectives. Students will explore, in-depth, the issues relative to the creation, use and control of technology and its impacts on individuals and society. F

TE 540  CURRICULUM MATERIALS IN TECHNOLOGY EDUCATION  3
Preparation of curriculum guides, instruction sheets, lesson plans, tests. Special references, appropriate texts and use of audio-visual material in technology education and vocational-technical education will be studied and evaluated. IR

TE 560  TECHNOLOGICAL DEVELOPMENTS  3
Study of major technological developments in communication, transportation, and production from a historical perspective. Emphasis on how humans moved from the stone age and the major developments along the way. IR

TE 590  TECHNOLOGY EDUCATION FACILITY PLANNING  3
Emphasis will be given to a systems approach to facility and environmental planning for industrial education, including philosophical commitment, effective laboratory design and plant layout, equipment, selection and requisition procedure. IR

TE 595  INDUSTRIAL AND TECHNICAL WORKSHOP  3
Prereq.: Completion of 21 credits in graduate program or permission of instructor. Significant problems and trends in industrial and technical education are explored using research relating to organization, content, and techniques in specific fields. Scholarly investigation of meaningful aspects of industrial education: professional development, technical updating, federal and state legislation relating to industrial education programs and new and experimental programs. IR

TE 596  SPECIAL PROJECT IN TECHNOLOGY EDUCATION  3
Prereq.: 21 credits in planned program and TE 598. Study of an advanced topic in technology education approved by adviser and a special project co-adviser. Requirements include a paper on the topic. At the option of the advisers, an oral presentation may also be required. IR

TE 598  RESEARCH IN TECHNOLOGY EDUCATION  3
Familiarization with techniques and resources associated with research in the student's specialization. Opportunity for practical application will be provided. (To be taken during the first 12 credits of the graduate program.) S

TE 599  TOPICS IN TECHNOLOGY EDUCATION  3
Prereq.: Completion of 21 cr. of graduate work including TE 598 or ED 598, or permission of instructor. An examination of topics, problems or areas of interest to advanced graduate students' professional and/or technological field will be undertaken. May be repeated under different topics for up to 6 credits. IR

THEATRE
Note: Additional work will be required for graduate credit in 400-level courses.

TH 447  ACTING IV  3
Prereq.: TH 347 and departmental permission. Performance considerations in scene study and role development, with emphasis on plays of varying styles and different periods. F(o)
TH 465  CREATIVE DRAMATICS FOR CHILDREN  3  
Trains teachers to develop the imagination, creativity, and communication skills of children ages five through 12. Includes pantomime, theatre games, improvisation and formal theatre experience.  S

TH 480  PROJECTS: DANCE  1–3  
Prereq.: Permission of instructor. Individual projects in choreography, research or production under the guidance of Dance/Theatre staff. IR

TH 481  PROJECTS: SCENERY  1–3  
Prereq.: TH 316 and departmental permission. Individual projects in reading, research or production under guidance of member of theatre staff.

TH 482  PROJECTS: COSTUMING  1–3  
Prereq.: TH 332 and departmental permission. Individual projects in reading, research or production under guidance of member of theatre staff.

TH 483  PROJECTS: ACTING A  1–3  
Prereq.: TH 347 and junior standing and departmental permission. Individual projects in reading, research or production under guidance of member of theatre staff.

TH 484  PROJECTS: ACTING B  1–3  
Prereq.: TH 483 and departmental permission. Individual projects in reading, research or production under guidance of member of theatre staff.

TH 486  PROJECTS: LIGHTING/SOUND, STAGE MANAGEMENT  1–3  
Prereq.: TH 318 and departmental permission. Individual projects in reading, research or production under guidance of member of theatre staff.

TH 487  PROJECTS: RESEARCH  1–3  
Prereq.: TH 374 or departmental permission. Individual projects in reading, research or production under guidance of member of theatre staff.

TH 488  PROJECTS: DIRECTING  3  
Prereq.: Permission of instructor. Individual direction of student production under faculty supervision.

TH 489  STUDIES IN THEATRE/DRAMA  3  
Prereq.: Permission of instructor. Selected area of theatre and/or drama not covered in other courses. Topic varies. May be repeated for credit. IR

TH 490  SUMMER THEATRE WORKSHOP  3  
Prereq.: Permission of instructor. Students work with experienced directors in a summer theatre production workshop learning the craft of acting and performing, culminating in a public performance. May be repeated for a maximum of 6 credits. SS

VTE 450  PRINCIPLES AND ORGANIZATION OF COOPERATIVE WORK EDUCATION  3  
The development and organization of work experience programs at the secondary school level. Examines those activities necessary to establish, maintain, and improve cooperative work education programs. F

VTE 455  LABOR MARKET TRENDS AND STUDENT JOB READINESS  3  
Examines the relationship between cooperative work education, private industry and agencies within the State Department of Labor. Emphasis upon how these organizations interface related instruction and on-the-job training for the cooperative work education student. S

VTE 490  TOPICS IN VOCATIONAL TECHNICAL EDUCATION  1–3  
Special purpose programs designed to meet the needs of selected groups of vocational teachers or directed independent studies for individual students. Provides a mechanism that encourages the vocational instructor to elect, with the guidance of University faculty, job-specific and short-term selective experiences to ensure the instructor's technical expertise. May be repeated on different topics to a maximum of 6 cr. (Contact Dr. Mary Furtado Holloway, School of Technology, prior to registration.) On demand.

VTE 520  SUPERVISION OF VOCATIONAL AND TECHNICAL EDUCATION  3  
Prereq.: Professional Teaching Certificate. Roles and functions of supervisors of vocational and technical education on the local and state level. F

VTE 521  ORGANIZATION AND ADMINISTRATION OF VOCATIONAL AND TECHNICAL EDUCATION  3  
Prereq.: Professional Teaching Certificate. Organizational patterns, administrative practices and legal requirements of federally supported programs in vocational and technical education on the local and state level. S

WOMEN'S STUDIES
Note: Additional work will be required for graduate credit in 400-level courses.

WS 400  FEMINIST THEORY  3  
Prereq.: WS 200 or permission of instructor. Examination of central theoretical and critical concepts, ideas and traditions in the development of feminist theory. S

VOCATIONAL-TECHNICAL EDUCATION
Certification courses
Note: Additional work will be required for graduate credit in 400-level courses.

VTE 400  EVALUATING STUDENT ACHIEVEMENT IN VOCATIONAL TECHNICAL EDUCATION  3  
Prereq.: VTE 113. Procedures for evaluating achievement of instructional objectives with application in occupational education subjects. S

VTE 415  PRINCIPLES OF VOCATIONAL EDUCATION  3  
Introduction to the principles and philosophy of vocational education and its impact on society. A brief historical development of vocational education, supportive legislation, characteristics of the various program field, delivery systems and current issues and problems.

VTE 440  HUMAN RELATIONS IN THE WORKPLACE  3  
A study of human relations with emphasis on self-awareness, role multiplicity and the effect of life stresses on the adult in the workplace. Attitudes, values and communication techniques are explored in the context of effective interpersonal relationships. Concepts of group dynamics and adult learning are addressed with emphasis on recognition and skill development. F
CYNTHIA GUERIN, B.A., Sr. Joseph College; Associate Professor of English Education (1997).

CHRISTIAN G. GUTIERREZ, B.A., Central Connecticut State University; Admissions Representative (1997).

MARGARET HAASE, M.S., Central Connecticut State University; Associate Professor of Industrial Technology (1977).


SYLVIA HALKIN, Ph.D., University of Wisconsin; Associate Professor of Biological Sciences (1992).

PHILIP P. HALLORAN, Ph.D., University of Connecticut; Professor of Mathematical Sciences (1991).

DAVID HARACKIEWICZ, D.P.E., Springfield College; Associate Professor of Physical Education and Health Fitness (1993).

JOHN E. HARMON, Ph.D., Boston University; Professor of Geography (1979).

CHERYL ANNE HARRISON, Ed.D., Harvard University; Assistant Professor of Management and Organization (1997).

JANET A. HARWOOD, R.N., B.S., University of Connecticut; College Health Nurse, Health Service (1993).

ROBERT HAYES, M.Ed., University of Hartford; Assistant Professor of Special Education (1999).


THOMAS HAZUKA, Ph.D., University of Utah; Associate Professor of English (1992).

JON R. HEAGLUND, Ph.D., Boston University; Assistant Professor of English (1998).}

JANE M. HIGGINS, Ph.D., University of Connecticut; Assistant Professor of Special Education (1998).

MARGARET HAASE, M.S., Central Connecticut State University; Assistant Professor of Sociology (1998).

WILLIAM C. JONES, JR., Ph.D., Purdue University; Associate Professor of Architectural Services (1995).

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BARRY H. LEEDS, Ph.D., Ohio University; CSU Professor of English (1968).

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PAULETTE LEMMA, D.Ed., Pennsylvania State University; Interim Associate Professor for Academic Affairs and Coordinator for Graduate Studies and Research (1988).

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INDEX

A
Academic
   Advising .................................................................21
   Honesty ..............................................................16
   Schools ....................................................................8
   Standing, Good ..........................................................15
Accounting Courses .....................................................65
Accreditation ..............................................................2, 9
Actuarial Science Courses ...........................................65
Address, Change of ..................................................23
Administrative
   Officers .................................................................inside front cover, 2
   Staff .......................................................................111
Admissions ...................................................................10
   Appeals ....................................................................12
   Application ............................................................10
   Conditional ............................................................12
   Criteria ....................................................................11
   Deadlines ................................................................10
   International Students ............................................10
   Re-Admission ..........................................................11
   Sixth-Year Certificate ...............................................12
   Teacher Certification Programs .................................11
   Advising .................................................................21
   Affirmative Action ..................................................1, 8
   African Studies .......................................................63
   Alumni Association ..................................................23
   Anesthesia, Program in ............................................28
   Anthropology Courses .............................................66
   Appeals Process for Education Programs ....................48
   Application Deadlines ..............................................10
   Applied Music Fee ....................................................17
   Art Courses ............................................................66
   Art Education Program ..........................................27
   Arts and Sciences, School of (See School of Arts and Sciences)
   Assistantships (See Graduate Assistantships) ..............16
   Attendance ............................................................16
   Audit Fees ..............................................................17

B
Biological Sciences Programs ...........................................28
   Biology Courses .....................................................68
   Blue Chip (See Campus Debit Card Accounts) ..............68
   Board of Trustees ...................................................inside front cover
   Bookstore ..............................................................23
   Business Courses ....................................................69
   Business Education
      Courses ...............................................................69
      Programs ............................................................46
   Business, School of (See School of Business) ...............46
   Courses ....................................................................73
   Adding .................................................................15
   Cancellation ............................................................23
   Descriptions ...........................................................65
   Dropping ...............................................................15
   Enrolling ...............................................................14
   Load for Graduate Assistants ....................................20
   Maximum Load ......................................................14
   Numbering System ................................................14
   Part-time Fee ..........................................................17
   Withdrawing ...........................................................15
   Credit, Transfer of Graduate ....................................16
   Capstone Requirements ...........................................13
   Career Services and Cooperative Education ..................21
   CCSU Center for Caribbean Studies ............................25
   Cell and Molecular Biology
      Post-Baccalaureate Certificate in .........................inside front cover
      Program in ..........................................................29
   Center for Innovation in Teaching and Technology .........59
   Center for Multicultural Research and Education ...........59
   Center for Social Research .......................................42
   Centers, University ..................................................25
   Central Payment Plan ...............................................18
   Certificate Programs, Official ....................................14
   Certification
      Procedures ............................................................48
      Programs .............................................................14
   Certification, Teacher ...............................................9, 11, 14, 46, 47, 53, 57
   Change of
      Name or Address ..................................................23
      Program ...............................................................13
   Changes in Planned Program .....................................12
   Chemistry
      Courses ...............................................................70
      Programs ............................................................30, 40
   Childcare ..................................................................23
   China Resource Center ..............................................25
   Chinese Courses .....................................................70
   Communication
      Courses ...............................................................71
      Program ...............................................................31
   Community Psychology, Program in ............................42
   Comprehensive Examination (Plan B) .........................13
   Computer
      Facilities .............................................................26, 43
      Use ......................................................................16
   Computer Information Technology
      Course .................................................................71
      Program ...............................................................32
   Computer Science Courses .......................................72
   Conditional Admission Program ..................................12
   Conduct .................................................................16
   Connecticut Resident Status ......................................17
   Connecticut State University System ..........................inside front cover
   Continuing Education .............................................21
   Cooperative Education ............................................21
   Copernicus Planetarium and Observatory .....................42
   Copernicus Science Computing Laboratory ..................43
   Counseling Programs ..............................................51
   Counselor Education Courses ....................................73
   Descriptions ...........................................................65
   Dropping ...............................................................15
   Enrolling ...............................................................14
   Load for Graduate Assistants ....................................20
   Maximum Load ......................................................14
   Numbering System ................................................14
   Part-time Fee ..........................................................17
   Withdrawing ...........................................................15
   Credit, Transfer of Graduate ....................................16
Criminal Justice Courses ................................................. 74
Criminology and Criminal Justice Program ...................... 32
Criminology Courses ......................................................... 74
Cultural Resources ............................................................ 26

D
Day Care (See Childcare)
Degree
Candidacy ........................................................................... 13
Requirements ...................................................................... 12
Design (Graphic/Information)
Courses ............................................................................. 75
Program ................................................................................ 33
Design Lab Fee ................................................................. 17
Directions to CCSU .............................................................124

E
Early Childhood Education
Courses ............................................................................... 77
Program in ................................................................. 56
Earth Sciences
Courses ............................................................................... 75
Program (See Physics and Earth Sciences) .........................
East Asian Studies .............................................................. 63
Economics Courses .......................................................... 76
Education and Professional Studies, School of (See School of
Education and Professional Studies)
Education Courses ................................................................ 76
Early Childhood ................................................................. 77
Elementary .......................................................................... 78
Middle Level ........................................................................ 78
Secondary ............................................................................ 78
Teacher ................................................................................ 79
Educational Foundations Courses ...................................... 79
Educational Foundations/Secondary Education. Programs in ...... 56
Educational Leadership
Courses ............................................................................... 80
Program ............................................................................. 48
Educational Technology
Courses ............................................................................... 81
Program in ................................................................. 50
Elementary Education
Courses ............................................................................... 78
Program in .......................................................................... 57, 58
Elihu Burritt Library ............................................................ 26
Emeriti Faculty ..................................................................... 116
Engineering Technology Courses ..................................... 81
English
Courses ............................................................................... 82
Program ............................................................................. 34
Enrolling in Graduate Courses ........................................... 14
Enrollment Center/Office of Continuing Education .......... 21
Enrollment Deposit Fee .................................................... 17
Escort Service ....................................................................... 24
European Union/West European Studies ......................... 63

F
Facilities .............................................................................. 26
Faculty .................................................................................. 111
Emeriti .................................................................................. 116
Federal Subsidized Stafford Loan ...................................... 19
Federal Unsubsidized Stafford Loan ................................... 19

G
General Fee ......................................................................... 17
General Information .......................................................... 23
Geography
Courses ............................................................................... 85
Programs ............................................................................. 35
George R. Muirhead Center for International Education ....... 25
German
Certification in ...................................................................... 38
Course ................................................................................. 86
Good Academic Standing ................................................... 15
Grade Reports ....................................................................... 23
Grades
Appeals .............................................................................. 15
Incomplete ............................................................................ 15
Grading System .................................................................... 15
Graduate
Admissions .......................................................................... 10
Advising .............................................................................. 21
Assistantships ...................................................................... 10, 20, 22, 27, 52
Office .................................................................................... 8
Teacher Certification Programs ............................................ 9, 11, 14, 46, 47, 53, 57
Graduate Programs ........................................................... 9, 27, 45, 47, 61, 63
Withdrawal ........................................................................... 15, 18
Graduate School Forms ....................................................... 5
## INDEX

Graduate Student
- Association .......................................................... 21
- Policies .................................................................... 12
- Services .................................................................. 21
- Graduation ............................................................. 16

### H
Handicapped Services (See Special Student Services)

#### Health Sciences Specialization
- Courses .................................................................... 29
- Programs .................................................................. 50

#### Health Insurance ................................................. 23

#### Health Sciences Specialization ................................. 29

#### Health Service, University ....................................... 22

#### History
- Courses .................................................................... 87
- Programs .................................................................. 36

#### Housing (Residence Life) ........................................ 23

#### Fees ....................................................................... 17

#### Human Relations/Affirmative Action ......................... 8

#### Humanities Courses ............................................. 89

### I
Identification Cards .................................................... 23

#### Immunization Verification ....................................... 24

#### Incomplete Grades ................................................ 24

#### Industrial and Engineering Technology, Institute for .... 62

#### Industrial Technical Management Program ............... 61

#### Industrial Technology Courses ............................... 89

#### Information Design, Programs in ........................... 33

#### Information Services ............................................ 26

#### Information Technology Fee ................................... 17

#### Innovation in Teaching and Technology, Center for .... 59

#### Inquiries .................................................................. 2

#### Institute for Industrial and Engineering Technology .... 62

#### Institute for Science Education ............................... 42

#### Insurance
- Health ..................................................................... 23
- Sickness ................................................................... 17

#### Intensive English Language Program ........................ 11

#### International and Area Studies Program ................. 63

#### International Business Courses .............................. 90

#### International Education, George R. Muirhead Center for 25

#### International Student Services ............................... 22, 25

#### International Students
- Admissions ................................................................ 10
- Applications ........................................................... 10
- Housing .................................................................... 23
- Language Requirements .......................................... 10
- TOEFL ................................................................. 10, 11, 45

#### International Studies Courses ............................... 90

#### Italian
- Certification in .......................................................... 38
- Courses .................................................................... 90
- Specialization in ...................................................... 39

### L
Language Arts Programs (See Reading and Language Arts)

#### Language Learning Center, Multi-Media ................. 43

#### Languages (see Modern Languages) ....................... 43

#### Late Charge .......................................................... 18

#### Latin American Studies ......................................... 63

#### Law Courses .......................................................... 91

Learning Center .......................................................... 22

Librarians .................................................................... 111

Library ....................................................................... 26

Location ..................................................................... 24

### M
Management Courses .................................................... 91

#### Management Information Systems Courses .............. 92

#### Map, campus ........................................................... Inside back cover

#### Marketing Courses ................................................ 93

#### Marriage and Family Therapy
- Courses .................................................................... 93
- Program in ............................................................... 52

#### Master's Degree ...................................................... 9
- Master of Arts ........................................................... 9
- Master of Business Administration ............................ 9
- Master of Science ..................................................... 9
- Master of Science in Industrial Technology Management 9

#### Requirements .......................................................... 13

#### Mathematical Sciences Programs ........................... 37

#### Mathematics Center .............................................. 43

#### Mathematics Courses .......................................... 94

#### MBA Programs ...................................................... 9, 45
- Meal Plan ................................................................. 18

#### Media Center .......................................................... 26

#### Medical History ..................................................... 24

#### Memberships .......................................................... 2

#### Microcomputer Lab ................................................ 26

#### Middle Eastern Studies ......................................... 63

#### Middle Level Education Courses .......................... 78

#### Ministry, Campus .................................................. 21

#### Mission ................................................................... 8

#### Modern Languages Courses ................................ 95
- Chinese .................................................................... 70
- French ...................................................................... 85
- German ..................................................................... 86
- Italian ....................................................................... 90
- Russian ...................................................................... 103
- Spanish ..................................................................... 105

#### Modern Languages Programs ................................ 38

#### Multicultural Research and Education, Center for ..... 59

#### Multi-Media Language Learning Center .................. 43

#### Music Courses ....................................................... 96

#### Music Education Programs .................................... 39

### N
Name, Change of ........................................................ 23

Natural Sciences Program .............................................. 40

New England Regional Student Program ....................... 17

Nursing ....................................................................... 52

#### Courses .................................................................. 97

### O
Observatory ................................................................. 42

Office of Field Experiences ........................................... 59

Official Certificate Programs ........................................ 14

- Post-Baccalaureate Certificate in Cell and Molecular Biology 29
- Post-Baccalaureate Certificate in Pre-Health Studies ........ 30

Ombudsman, University ................................................. 22

On-Campus Room and Meals ....................................... 17

OnlineCSU .................................................................... 24

Organizational Communication, Program in ................. 31
INDEX

Study Abroad ................................................................. 24
Summer Sessions ................................................. 17

T
Table of Contents ...................................................... 6, 7
Teacher Certification (See Certification, Teacher)
Teacher Education
Courses ................................................................. 79
Post-Baccalaureate Work in ................................. 47
Programs ............................................................... 56
Technical Courses .................................................. 108
Technology Education
Courses ................................................................. 108
Programs ............................................................... 61
Technology, School of (See School of Technology)
TESOL Program ................................................... 34, 47, 57
Theatre Courses ..................................................... 109
Thesis Requirement (Plan A) .................................. 13
Transcripts ............................................................. 25
Transfer of Graduate Credit ................................... 16
Tuition ................................................................. 16
   Full-time ......................................................... 17
   Part-time ......................................................... 17
   Payment ......................................................... 18
   Senior Citizens ............................................... 18
   Veterans ......................................................... 18
   Waivers .......................................................... 18

U
University ............................................................... 8
   Calendar ......................................................... 3, 4
   Centers .......................................................... 25
   Directions to .................................................. 124
   Health Service ............................................... 22
   History ............................................................ 8
   Map ............................................................. inside back cover
   Offices ........................................................... 2
   Ombudsman .................................................... 22

V
Veterans .............................................................. 18
   Services ........................................................ 22
   Vocational-Technical Education Courses ................. 110
Voter Registration .................................................. 25

W
Waivers, Tuition and Fee ......................................... 18
Weather Center .................................................... 43
Winter Sessions .................................................... 17
Withdrawing (also see Refund Policy)
   Courses .......................................................... 15
   Full-time Graduate Students ............................ 18
   Graduate Program .......................................... 15
   Part-time Graduate Students ............................ 18
   Women's Center .......................................... 22
   Women's Studies Course ................................ 110
   Writing Center .............................................. 43
DIRECTIONS TO
CENTRAL CONNECTICUT STATE UNIVERSITY

FROM THE NORTH
Take I-91 South to I-84 West to Exit 39A, to Rte. 9 South. Take Exit 29 off Rte. 9 South to Ella Grasso Boulevard and take a right turn to the University. *Alternate Route:* Take I-91 South to I-84 West to Exit 40 (Corbins Corner). As you proceed down the Exit 40 ramp, bear left at the first traffic light. At the next traffic light (facing Sears), turn right onto Route 71 South. The University is approximately three (3) miles away.

FROM THE SOUTHWEST
Take I-95 North to I-91 North to Exit 22 North to Rte. 9 North. Follow Rte. 9 to Exit 29, Cedar Street (Rte. 175). At the traffic light at the end of the ramp, take a left turn to the second traffic light, and take a right turn onto Paul Manafort Drive to the University.

FROM THE SOUTHEAST
Take I-95 South to Rte. 9 North to Exit 29, Cedar Street (Rte. 175). At the traffic light at the end of the ramp, take a left turn to the second traffic light, and take a right turn onto Paul Manafort Drive to the University.

FROM THE EAST
Take I-84 West to Exit 39A to Rte. 9 South. Take Exit 29 off of Rte. 9 South to Ella Grasso Boulevard and take a right turn to the University. *Alternate Route:* Take I-84 West to Exit 40, (Corbins Corner). As you proceed down the Exit 40 ramp, bear left at the first traffic light. At the next traffic light (facing Sears), turn right onto Route 71 South. The University is approximately three (3) miles away.

FROM THE WEST
Take I-84 East to Exit 39A, to Rte. 9 South. Take Exit 29 off of Rte. 9 South to Ella Grasso Boulevard and take a right turn to the University. *Alternate Route:* Take I-84 East to Exit 35, Rte. 72 East (New Britain exit). Follow Rte. 72 East to Rte. 9 North and take Exit 29 to Cedar Street (Rte. 175). At the traffic light at the end of the ramp, take a left turn to the second traffic light, and take a right turn onto Paul Manafort Drive to the University.