

# Keene State College

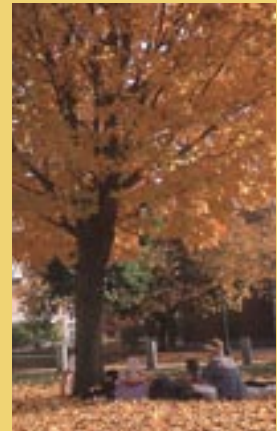
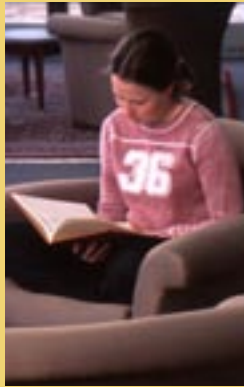
2004-05

UNDERGRADUATE

AND

GRADUATE

CATALOG





# Welcome to the 2004-05 Catalog



In some ways this book is the most important publication that Keene State College produces. Its pages describe a remarkable array of academic programs and courses. But here also is information about policies and resources, along with listings of the faculty, staff, and administrators whose job it is to work with KSC students in an extraordinary educational experience.

Keene State students, please use this book as a vital tool in your progress toward a degree. Keep it on hand for details about program requirements, policies, and resources to help you succeed. But also pick it up now and then just to browse the course listings – to think about what’s essential for your degree, but also to find unexpected subject areas to engage your curiosity. Use this book to help take hold of your college years, as you find the best directions in which to search, to experiment, and to learn.

A handwritten signature in black ink that reads "Stanley J. Yarosewick". The signature is written in a cursive style with a large, stylized 'S' and 'Y'.

Stanley J. Yarosewick  
President

# Inquiries and Visits



We welcome your inquiries about Keene State College. You may contact us by mail or telephone. You may also visit us at [www.keene.edu](http://www.keene.edu). Send letters to a specific person or office at:

Keene State College  
229 Main Street  
Keene, NH 03435

Or call:

1-603-352-1909

1-800-KSC-1909

1-800-RELAYNH (1-800-735-2964) TDD

Visitors are always welcome. The official business hours of the College are Monday through Friday from 8 a.m. to 4:30 p.m. Visits may be arranged through the Office of Admissions by calling 1-800-KSC-1909 or 603-358-2276, or sending e-mail to [admissions@keene.edu](mailto:admissions@keene.edu).

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# What's New for 2004-05

**K**EENE STATE COLLEGE reviews the information published in the Undergraduate and Graduate Catalog on a continuous basis. This process may result in annual revisions to the list of academic programs available; academic program requirements; courses of instruction; and College policies, procedures, and resources. Revisions typically reflect a modification of existing information, but may include additions and deletions as Keene State College faculty and staff implement the adjustments deemed necessary to more effectively fulfill the mission of Keene State College.

Catalog revisions potentially affect students, faculty, and staff. This list of revisions is intended to help students and advisors quickly identify the most significant changes that become effective with the 2004-05 KSC Undergraduate and Graduate Catalog.

## Undergraduate Programs

### *Baccalaureate Degrees*

The most significant revisions include:

**General Education** – Requirements have been restructured as credit minimums in each category. A minimum number of courses per category is no longer stipulated. Course distribution requirements (e.g., one course in Biology, etc.) continue unchanged.

**Film** – BA Film has made the transition to a four-credit program (41-45 credits).

**General Science** – The BA General Science–Elementary Certification and the BA General Science–Middle-School Certification have been reorganized as a single BA

General Science with two options: Elementary and Middle School. A major in General Science is now an eligible second major for students seeking certification in Elementary Education, Early Childhood Education, or Elementary Special Education.

**Management** – BS Management has made the transition to a four-credit program (44 credits). A math competency requirement (by assessment or course completion) has been established.

**Music** – BA Music has added a specialization in Music Technology.

### *Minors*

The Film Studies minor has made the transition to a four-credit program (24 credits).

The Management minor has made the transition to a four-credit program (25 credits).

## Graduate Programs

### *Graduate Degrees*

**Master of Education** – Revisions have been made to the M.Ed. Special Education Option to reflect a collaborative agreement with the College for Lifelong Learning (CLL). Students will now have the opportunity to earn advanced certification in learning disabilities and emotional/behavioral disorders via the CLL Special Education Teacher Training (SETT) Program.

### *Post-Baccalaureate Programs*

**Initial Certification in Special Education** – This option has been established for Special Education certification

to meet the needs of students who intend to pursue initial certification at this level.

## Academic Honesty Policy

The **Academic Honesty Policy** has been revised (see page 167). Full documentation related to the policy is included in the Student Handbook.

## Affirmative Action Statement

Keene State College, in accordance with federal and state laws and regulations, does not discriminate on the basis of race, color, religion, national origin, sex, age, veteran's status, handicap, or sexual orientation in any of its programs or activities. Inquiries regarding this policy should be made to the affirmative action officer, who is also the director of Human Resource Management. Students with special needs may contact the associate vice president for Student Affairs. When necessary, class locations are changed to accommodate the requests of students with disabilities. Further inquiries may also be addressed to: Director, Office of Civil Rights, U.S. Department of Education, Washington, DC 20201.

## Catalog Limitations

This catalog contains policies, programs, and procedures of Keene State College in effect at the time of preparation, January 2004. Keene State College reserves the right to change any of its rules and regulations at any time, including those relating to admission, instruction, and graduation. The right to withdraw curricula and specific courses, alter course content, change the calendar, and impose or increase tuition or other fees similarly is reserved. All changes are effective at such times as the proper authorities determine and may apply not only to prospective students but also to those who are already enrolled in the College. The provisions of this catalog are not, and should not be construed to be, a contract between the student and the College.

## Catalog Contact

As part of an ongoing effort to ensure the accuracy and effectiveness of the information printed in the Catalog, we ask that you direct questions and suggestions regarding Catalog content to Tom Richard at [trichard@keene.edu](mailto:trichard@keene.edu), 358-2326, or MS 2600.

# 2004-05 Academic Calendar

## Fall Semester – 2004

### AUGUST

- 28 Residence halls open for new students at 9 a.m.
- 29 Residence halls open for returning students at 9 a.m.
- 30 Classes and add/drop period begin at 8 a.m.

### SEPTEMBER

- 3 Add/drop period ends at 4:30 P.M.
- 6 Labor Day holiday
- 7 Course withdrawal (W) period begins at 8 a.m.
- 16 Rosh Hashanah\*
- 25 Yom Kippur\*

### OCTOBER

- 8 Midsemester break (one day only) for faculty, students
- 18 Second quarter begins
- 17 Fall Honors Convocation

### NOVEMBER

- 11 Veterans Day holiday observed
- 12 Last day to withdraw from a course
- 23 Classes end at 9:30 p.m.
- 24 Thanksgiving recess begins  
Residence halls close at noon
- 28 Residence halls reopen at 10 a.m.
- 29 Classes resume at 8 a.m.

### DECEMBER

- 10 Classes end at 5 p.m.
- 13 Reading Day  
Final exams begin at 6 p.m.
- 17 Final exams end at 5:30 p.m.
- 18 Residence halls close at noon

## Spring Semester – 2005

### JANUARY

- 16 Residence halls open at 10 a.m.
- 17 Martin Luther King Jr. Day holiday
- 18 Classes and add/drop period begin at 8 a.m.
- 24 Add/drop period ends at 10 p.m.
- 25 Course withdrawal (W) period begins at 8 a.m.

### MARCH

- 7 Fourth quarter begins
- 11 Spring vacation begins at 4:30 p.m.  
Residence halls close at 6 p.m.
- 20 Residence halls reopen at 10 a.m.

- 21 Classes resume at 8 a.m.
- 25 Good Friday\*
- 27 Easter\*

### APRIL

- 8 Last day to withdraw from a course
- 24 Passover\*
- 29 Classes end at 5 p.m.

### MAY

- 2 Reading Day  
Final exams begin at 6 p.m.
- 6 Final exams end at 5:30 p.m.
- 7 Residence halls close at noon, except for graduates  
Spring Honors Convocation 5 p.m.
- 8 Commencement ceremony 1 p.m.  
Residence halls close at 6 p.m.

## Summer Semester I – 2005

### MAY

- 15 Residence halls open at 1 p.m.
- 16 Classes and add/drop period begin at 7:30 a.m.
- 18 Add/drop period ends at 4:30 p.m.
- 19 Course withdrawal (W) period begins at 7:30 a.m.
- 30 Memorial Day holiday

### JUNE

- 10 Course withdrawal period ends
- 24 Classes/exams end at 4:30 p.m.  
Residence halls close at 7 p.m.

## Summer Semester II – 2005

### JUNE

- 26 Residence halls open at 1 p.m.
- 27 Classes and add/drop period begin at 7:30 a.m.
- 29 Add/drop period ends at 4:30 p.m.
- 30 Course withdrawal (W) period begins at 7:30 a.m.

### JULY

- 4 Fourth of July holiday
- 22 Course withdrawal (W) period ends

### AUGUST

- 5 Classes/exams end at 4:30 p.m.  
Residence halls close at 7 p.m.

*\*Not a College holiday but listed here for use in planning College events.*



2004

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AUGUST						
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SEPTEMBER						
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2005

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AUGUST						
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28	29	30	31			

# The College

## Mission

It is the mission of Keene State College to provide and maintain an intellectual environment grounded in the liberal arts that fosters both the personal and professional growth of our students. In support of this mission the College promotes and sustains strong relationships among students, faculty, and staff that emphasize creative and critical thinking, scholarship and research, and a passion for learning. Through a mature commitment to learning and service, students will be able to integrate different forms of scholarship and will graduate with substantive knowledge in a chosen field of study. Through the retention and support of a caring staff and a faculty of effective teachers and active scholars, the College prepares students for success in a complex, interdependent world.

## Campus Values

As a campus community, we value:

- Excellence in teaching, learning, and scholarship,
- Diversity in our curriculum and in our community,
- Creativity and intellectual curiosity,
- Environmental stewardship and sustainability,
- Cultural enrichment,
- Service to the community,
- A healthy balance between mind and body,
- Lifelong learning, and
- An attractive and functional campus environment.

To further these values, we accept the following responsibilities:

- To provide access and educational opportunities to a diverse population,
- To conduct ourselves with dignity and treat others with respect,
- To devote time and attention to mentoring students,

- To sustain a rich intellectual and social environment,
- To protect and preserve the property of others, and
- To enhance the quality of life at Keene State College and the Monadnock region by sharing resources and sustaining the common good.

## Description

Keene State College focuses primarily on undergraduate education and serves the citizens of New Hampshire and the region as a scholarly community of higher learning, offering associate's, bachelor's, and selected master's degrees, and opportunities for continuing education in credit and noncredit programs and courses. Founded in 1909 as Keene Normal School, the institution became Keene Teachers College in 1939 and was named Keene State College in 1963, when it became affiliated with the University System of New Hampshire. Keene State College offers a liberal arts education through programs in the arts, humanities, and sciences, as well as professional programs based in the liberal arts, designed to prepare students for specific careers.

## History

On April 9, 1909, New Hampshire Governor Henry B. Quinby signed legislation creating Keene Normal School, known today as Keene State College. With Jeremiah M. Rhodes as principal, the College opened on September 28 with 27 students enrolled. Programs in secondary education, trades and industries, and home economics were added under President Wallace E. Mason. In 1926, the New Hampshire Legislature granted the school authority to award the bachelor of education degree.

The curricula expanded into four-year programs by 1939, when the institution was officially named Keene

Teachers College. Dr. Lloyd P. Young became president and served for 25 years. Graduate studies were introduced through summer sessions and extension courses following World War II and, by 1951, graduate offerings warranted the granting of the master of education degree.

In 1963, the College was named Keene State College and became an affiliate of the University System of New Hampshire. In that same year, the state legislature authorized the College to develop curricula in the liberal arts and sciences leading to bachelor of arts and bachelor of science degrees.

Dr. Roman J. Zorn became president in 1964 and served until 1969.

Associate in science degree programs began in 1968, and the associate in arts in general studies was introduced in 1974.

Dr. Leo F. Redfern was named the College's fifth president in 1969 and served until August 1979.

Dr. William E. Whybrew served as interim president during the 1979-80 academic year.

Dr. Barbara J. Seelye became the sixth president in 1980 and served until 1986.

Dr. Richard E. Cunningham served as interim president during the 1986-87 academic year.

Dr. Judith A. Sturnick became president in August 1987 and served until September 1993.

Dr. Richard E. Cunningham again served as interim president for the 1993-94 academic year.

Dr. Stanley J. Yarosewick became the eighth president of Keene State College on August 1, 1994.

The campus is located on Main Street in Keene (population 25,000), a small New England city chartered in 1753. Keene is surrounded by hills arising from the Connecticut River, while Mt. Monadnock overlooks the city from 18 miles to the southeast. From its original 20 acres, the campus has expanded to 150 acres, with 70 buildings of traditional and contemporary architecture. Three of the buildings are registered as National Historic Landmarks. The College also owns a camp on Wilson Pond in nearby Swanzey and the 400-acre

Louis Cabot Preserve on Lake Nubanusit in the towns of Nelson and Hancock.

Keene State College currently has an enrollment of 5,235 full- and part-time students, and offers more than 40 major programs of study, as well as individualized study, cooperative education, and study abroad.

## Accreditation

Keene State College is accredited by the New England Association of Schools and Colleges, Inc., a nongovernmental, nationally recognized organization whose affiliated institutions include elementary schools through collegiate institutions offering postgraduate instruction.

Accreditation of an institution by the New England Association indicates that it meets or exceeds criteria for the assessment of institutional quality periodically applied through a peer group review process. An accredited school or college is one which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Accreditation by the New England Association is not partial but applies to the institution as a whole. As such, it is not a guarantee of the quality of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution.

Inquiries regarding the status of an institution's accreditation by the New England Association should be directed to the administrative staff of the school or college. Individuals may also contact the Association:

Commission on Institutions of Higher Education  
New England Association of Schools and Colleges  
209 Burlington Rd.  
Bedford, MA 01730  
781-271-0022

In addition, Keene State is accredited by the New Hampshire State Board of Education, the National Council for Accreditation of Teacher Education, the National Association of Schools of Music, and the Commission for the Accreditation of Allied Health Education Programs.

# Programs of Study

## FOUR-YEAR PROGRAMS

### BACHELOR DEGREES

*BA: Bachelor of Arts*

*BFA: Bachelor of Fine Arts*

*BM: Bachelor of Music*

*BS: Bachelor of Science*

#### American Studies, BA

#### Applied Computer Science, BS\*

#### Art, BA

*options in*

Graphic Design

Studio Art

#### Art, BFA

*options in*

Graphic Design

Graphic Design and Studio Art (Dual  
Option)

Studio Art

#### Biology, BA/BS\*

#### Chemistry, BA\*/BS

#### Chemistry-Physics, BS\*<sup>1</sup>

#### Communication, BA

*options in*

Communication Studies

Philosophy

#### Computer Mathematics, BS

#### Economics, BA

#### Education, BS\*

*options in*

Early Childhood Development\*

Elementary Education\*

Elementary Special Ed.\*

Middle/Junior High Mathematics Ed.\*

Secondary Special Ed.\*

#### Engineering, BS (*transfer programs*)

#### English, BA\*

#### Environmental Studies, BS

*options in*

Environmental Policy

*specializations in*

Economics

Geography

Political Science

Individualized

Environmental Science

*specializations in*

Environmental Biology

Environmental Chemistry

Environmental Geology

Individualized

#### Film Studies, BA

*options in*

Critical Studies

Film Production

#### French, BA\*

#### General Science, BA\*

*options in*

Elementary

Middle School

#### Geography, BA\*<sup>2</sup>

#### Geology, BS\*<sup>3</sup>

#### Health Science, BS

*options in*

Health Promotion and Fitness

Nutrition

Substance Abuse/Addictions

#### History, BA\*<sup>2</sup>

*specializations in*

U.S. History

European History

19th Century Studies

20th Century Studies

#### Individualized Major, BA/BS

#### Journalism, BA

#### Management, BS

#### Mathematics, BA\*

*options in*

Applied Math

Elementary

Middle/Junior High

Pure Math

Secondary

#### Mathematics-Physics, BS

#### Music, BA

*specializations in*

Composition

History & Literature

Music for Elementary Teachers

Music Technology

Theory

#### Music Education, BM\*

*specializations in*

Instrumental

Choral

#### Music Performance, BM

#### Physical Education, BS

*options in*

Athletic Training

Teacher Certification\*

#### Physical Science, BA\*<sup>4</sup>

#### Psychology, BA

*specializations in*

Clinical Counseling

Developmental

Experimental

Personality/Social

DEPARTMENTAL HONORS PROGRAM

#### Safety Studies, BS

**Social Science, BA\*<sup>2</sup>**

**Sociology, BA\*<sup>2</sup>**

**Spanish, BA\***

**Technology Studies, BS**

*options in*

Architectural Technology

Product Design & Development

Technology Education\*

**Theatre and Dance, BA**

*options in*

Acting/Directing

Critical Studies

Dance

Design/Technical Theatre

**Vocational Education, BS\***

*Program is currently under review;  
institutional hold on admissions.*

*\*Majors in which teacher certification is available.*

*Note: All elementary, early childhood, elementary/special, and secondary special education majors must incorporate an additional major into their programs of study.*

<sup>1</sup> Certification is in Chemistry Education or Physical Science Education

<sup>2</sup> Certification is in Social Studies

<sup>3</sup> Certification is in Earth Science Education

<sup>4</sup> Certification is in Physical Science

*Endorsement in Driver Education is also available.*

## MINORS

American Studies

Anthropology

Applied Computer Science

Art

Biology

Chemistry

Communication

Dance

Economics

English

Environmental Studies

Film Studies

French

Geography

Geology

German

History

Holocaust Studies

International Studies

Journalism-Broadcast Media

Journalism-Print Media

Management

Mathematics

Mathematics Education

Music

Philosophy

Physics

Political Science

Psychology

Safety Studies

Sociology

Spanish

Statistics

Technology Studies

Theatre

Women's Studies

Writing

## TWO-YEAR PROGRAMS

### ASSOCIATE DEGREES

*AA: Associate in Arts*

*AS: Associate in Science*

**Applied Computer Science, AS**

**Chemical Dependency, AS**

**General Studies, AA/AS**

**Technology Studies, AS**

## GRADUATE STUDIES

*Certification is available in each graduate program*

### MASTER OF EDUCATION

**Curriculum & Instruction**

**Educational Leadership**

**School Counselor**

**Special Education**

### POST-MASTER'S CERTIFICATION PROGRAM

**Educational Leadership**

**School Counselor**

# Undergraduate Programs

## Academic Program Planning

Education in the liberal arts and sciences and in several professional fields is provided through associate and bachelor's degree programs. These programs include three basic components: **GENERAL EDUCATION REQUIREMENTS**, established by the College, provide breadth and balance; **MAJOR/OPTION/SPECIALIZATION OR CONCENTRATION REQUIREMENTS**, specified by discipline faculty, offer depth of scholarship through specialization in a field of interest; and **ELECTIVES**, selected by the student, provide the opportunity to develop a minor, to fulfill teacher

certification requirements, or to take courses in other areas for personal and professional growth. Detailed descriptions of the various degree programs are found in the following pages of this catalog.

Because curriculum development is a continuing process, program changes may be made after publication of this catalog. Therefore, the College reserves the right to add, change, or delete curricular offerings and/or make curricular refinements. Sometimes changes are necessitated by agencies that accredit the College or certify students. Check with academic disciplines, the Elliot Center, or the Teacher Education Programs Office to learn of any recent changes.



*Debra Rohloff explains her research on internships at the 2003 Academic Excellence Conference.*

# Bachelor's Degree Programs

## Bachelor's Degrees

A liberal education emphasizes breadth and balance in developing intellectual resources and cultural perspectives. It encourages the student to achieve the fullest possible development as a person and as a member of society. It also promotes enlightened citizenship and provides basic preparation for students planning to enter professional or graduate schools or embark on a career. Building on a general education foundation, this degree allows a specialized emphasis while at the same time encouraging social responsibility.

The general aspects of the curriculum are designed to enhance the student's capacity for thought and effective expression, and facilitate both the expansion and the integration of knowledge. Depth of scholarship is developed in the major field of specialization. The goal of a liberal education is the formulation of a philosophy of life based on knowledge and reflection relevant and appropriate to the contemporary world.

The Bachelor of Arts degree consists of a minimum of 120 credit hours.

The Bachelor of Science degree normally consists of 126 credits.

## Definitions

**Major.** A program of study comprising a coherent set of courses and experiences within a discipline, related disciplines, or a professional area, which represents the curricular content of a bachelor's degree. Normally, a bachelor's degree major consists of at least 30 credit hours. Courses required in the major may not be used to fulfill General Education requirements unless specified in the program description.

**Option.** A coherent subset of courses that constitutes a prescribed track within a major. Normally, an option consists of 9 to 48 credit hours.

**Specialization.** An area of special interest comprising a cluster of related courses that are selected by the student

in consultation with an academic advisor. Normally, a specialization consists of 9 to 18 credit hours within a degree option.

## Language Requirement

*for Students with Majors in the Division of Arts and Humanities*

The minimal language requirement for all students with a major in American Studies, Art, Communication, English, Film Studies, French, History, Journalism, Music, Spanish, or Theatre and Dance is proficiency in a language other than English as demonstrated by one of the following:

1. satisfactory completion of one language course other than English at the intermediate level, or higher,
2. satisfactory completion of a standardized examination,
3. transfer/substitution of an appropriate modern language course at the intermediate level from another college or university.

## Process for Awarding Credit

- The successful completion of the departmental examination will be reported by Modern Languages faculty to the appropriate administrative office in the Elliot Center, using the format designated by that office. No credit will be granted to the student for the successful completion of this examination.

- The departmental examination will also be used by Modern Languages faculty as an assessment and placement tool for any students who continue in their language study. Upon the successful completion of FR/GR/SP 202 or higher (typically 315 or, in the case of French and Spanish, 316),\* with a grade of B or higher. All students will be granted credit for those courses in the major or minor that are preliminary to the one at which they were placed (to a maximum of 8 credits). The current configuration of those courses is: FR/GR/SP 201, 202.

\*Typically, 315 is offered in the fall, 316 in the spring. A student who takes the departmental test during the fall semester and whose score exceeds that for 202 would, of necessity, be placed in 316.

The course or courses completed to satisfy the language requirement may be applied as appropriate to the Arts and Humanities component (B) of the General Education requirements.

Questions concerning the language requirement should be directed to the chair of the Modern Languages Department.

## General Education Requirements

### Goals

Every liberally educated person should have familiarity with and facility in natural sciences, mathematics, social sciences, the arts, and the humanities. To achieve this goal, the purpose of general education at Keene State College is to help students cultivate:

- general knowledge in the natural world, the social world, and the world of arts and letters;
- an understanding of their own cultural background and place in human history;
- an understanding of and respect for diversity and cultural differences;
- familiarity with the practice of creative expression;
- an appreciation for the critical importance of ethical and civil behavior and personal responsibility;
- the knowledge and skills necessary to engage as an informed and involved citizen in a democratic society;
- the development of social and personal values;
- life skills which will promote mental, physical, and emotional well-being.

### Competencies

Keene State College students will demonstrate the following basic competencies:

- an ability to communicate effectively with others both orally and in writing;
- an ability to read critically and effectively;
- an ability to reason quantitatively;
- an ability to think critically and creatively;
- fundamental computer skills;
- fundamental research skills.

### Requirements

(*minimum*) 43 credits

General Education at Keene State College has four components: English Language Competence, Arts and

Humanities, Social Sciences, and Sciences/Mathematics. All bachelor's degree programs have the same General Education requirements. In general, the selection of courses for purposes of General Education is open. However, some major programs specify courses because (1) they are required or suggested prerequisites for major courses, (2) the courses are an integral part of the overall goals of the major program, or (3) they fulfill competency standards required for certification and licensing.

### A. English Language Competence

4 credits

Essay Writing (ENG 101), a 4-credit course, is required of all students. It should be completed during the freshman year and is not open to juniors or seniors unless they are transfer students. (This was formerly a 3-credit course. This change will affect the number of credits required for General Education and, in some cases, for graduation and should be discussed with your advisor.)

### B. Arts and Humanities

15 credits

A minimum of 15 credits as follows:

- One course in literature, which may be any 200- or 300-level English course except 202, 203, 204, 208, 301, 302, 303, 304, 308, 312. French 303 and Spanish 303 may also be used to fulfill this requirement.
- One course in History.
- One course in Art, Film Studies, Music, or Theatre and Dance.
- Additional credits in American Studies, Art, Communication, English, Film Studies, History, Journalism, Modern Languages, Music, Philosophy, Theatre and Dance, or an approved interdisciplinary course (WS 201 or an IDAH course).

### C. Social Sciences

12 credits

- A minimum of 12 credits in three or more Social Science disciplines: Anthropology, Economics, Geography, Political Science, Psychology, Sociology, or an approved interdisciplinary course (WS 201 or an IDSS course).

### D. Sciences/Mathematics

12 credits

A minimum of 12 credits as follows:

- One course in Biology.
- One course in a Physical Science: Astronomy, Chemistry, Geology, Meteorology, or Physics.
- Additional credits in Astronomy, Biology, Chemistry, Computer Science, Environmental Studies, Geology, Mathematics, Meteorology, Physics, or an approved interdisciplinary course (designated IDSM).



# American Studies

## *Bachelor of Arts*

The American Studies program at Keene State College is dedicated to providing students with a uniquely flexible, diverse, and integrative liberal arts education. Students who engage in American Studies are engaged in an exciting, challenging interdisciplinary and multidisciplinary exploration of historical and contemporary American culture and the American multicultural identity, including its past and present values, conflicts, and experiences. Working closely with an advisor who is a core faculty member in American Studies, students design their course of study both in core courses and in a range of disciplines/area requirements in American literature, American history and thought, the arts (including film and music), and the social sciences (including sociology, anthropology, political science, geography, and economics).

Guided by faculty devoted to teaching and mentoring, majors and minors gain a rich knowledge and understanding of the American experience; develop a grounding in a variety of disciplines that relate to the study of American culture; learn to read resourcefully and analytically texts in various cultural and historical contexts; and develop the ability to integrate knowledge, perspectives, and methodologies from more than one discipline and make use of interdisciplinary/multidisciplinary approaches to understand and interpret American culture. The American Studies program honors each student's interests and aspirations while emphasizing that all students share the need to develop the knowledge and skills in writing, critical thinking, making connections, and communicating constructively with others—so essential for academic work, careers, and life. Special opportunities exist for internships, both in American Studies courses and in a variety of off-campus settings. Students also have the opportunity to study abroad for a semester, thereby gaining valuable experience in another culture and fresh perspectives on American culture.

American Studies is one of the most useful and versatile majors. The variety of prospective careers for American Studies students includes elementary education; secondary education (Social Studies, English, and American Studies); college teaching; law; business; work in libraries; museums, and historic preservation; newspaper/magazine/broadcast journalism; film/media work; work in federal, state, and local agencies, both public and private; government and politics; nonprofit organizations; writing/editing/publishing; international relations and diplomacy; public relations and advertising; and social services.

## LANGUAGE REQUIREMENT

The student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the Division of Arts and

Humanities. The complete policy statement is located at the beginning of the Bachelor's Degree Programs section of this catalog.

## GENERAL EDUCATION REQUIREMENTS

*(minimum) 43 credits*

Courses, if appropriate, taken for the American Studies major may count toward the Arts and Humanities component (B) or the Social Sciences component (C) of the General Education requirements. Some courses in the major may have required prerequisites that may satisfy either General Education or elective requirements.

## MAJOR REQUIREMENTS

*(minimum) 37 credits*

Each student must confer with a core American Studies faculty member in planning a course of study.

At least four courses in the major must be at the 300 level or higher, including at least one course at the 400 level.

## Core Requirements

AMST 210 Introduction to American Studies

Select *one* of the following:

- AMST 250 Interpreting American Culture
- AMST 290 Special Topics (when appropriate)
- ENG 245 Readings in American Indian Studies
- ENG 280 Cultural Studies (when appropriate)
- ENG 290 Topics (when appropriate)
- ENG 341 Early American Literature
- ENG 342 19th-Century American Literature
- ENG 345 Black American Literature
- ENG 347 Modern American Indian Literature
- ENG 370 Studies in Literatures of the Americas
- ENG 381 Women Writers (when appropriate)

Select *one* of the following:

- AMST 390 Critical Approaches
- AMST 490 Advanced Special Topics
- AMST 495 American Studies Seminar

## AREA REQUIREMENTS

NOTE: Course content must focus on American authors, artists, thinkers, society, etc. AMST 497 (Internship) and AMST 498 (Ind. Study) may be substituted to meet area requirements when appropriate.

Select *three* courses in American History and Thought (*two* must be in American History):

- HIST 253, 261, 262, 265, 266, 269, 290 (when appropriate), 360-367, 393 (when appropriate), 490, 495/498 (when appropriate); PHIL 304, 490/498 (when appropriate)

Select *two* courses in American Literature:

- ENG 240, 280, 290 (when appropriate), AMST 290, ENG 341, 342, 343, 344, 345, 346, 347, 381, 390, 495/498 (when appropriate), SP 330

Select a combined total of *three* courses from American Arts and/or American Social Sciences:

*American Arts*

ART 214, 290, 495/498 (when appropriate)

MU 112, 116, 212, 218

FILM 290, 352, 355, 495/498 (when appropriate)

TAD 355, 495/498 (when appropriate)

*American Social Sciences*

ANTH 313, 315

ECON 455, 490 (when appropriate)

GEOG 203, 341, 343, 345

POSC 211, 221, 322, 332, 341, 381

SOC 305, 321, 325, 370, 425, 450, 472, 475, 490, 498 (when appropriate)

## ELECTIVES

Select courses to reach a total of 120 credits for the degree.

Recommended electives: ECON 329, 340; HIST 341, 342; POSC 205, 322, 401, 405; SOC 326.

## DEGREE REQUIREMENTS

120 credits

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# Applied Computer Science

## *Bachelor of Science*

This program provides students with a thorough grounding in computer programming and information science. Additional course work is required to form a minimal foundation in mathematics and a second discipline. Two additional advanced electives are required. These courses may be applied toward a second major in a non-computer-science field or an academic minor. Students are encouraged to obtain a non-computer-science minor in order to form a foundation of knowledge in another discipline to which Computer Science may be applied. This "dual track" approach prepares graduates for a wide range of government, commercial, and academic pursuits, either in computer/information sciences or in fields in which this discipline is commonly used in application or research. Emphasis is put on consultations with the departmental academic advisor to ensure that electives within and outside the Computer Science discipline meet students', academic, and industry objectives.

With the selection of appropriate CS electives, and completion of education core courses, the requirements of the New Hampshire K-12 computer technology teaching certificate will be satisfied.

## GENERAL EDUCATION REQUIREMENTS

(*minimum*) 43 credits

MATH 141 Introductory Statistics is required to foster the ability to use a computer to solve simple statistical problems and may apply toward the Sciences/Mathematics component (D) of the General Education requirements. Statistics competency may be fulfilled by completing PSYC 251 Psychological Statistics that will then count toward (C) Social Sciences. A science elective will then be taken towards completion of (D) Science/Math, in place of MATH 141 Introductory Statistics.

For teacher certification in Computer Technology Education (K-12), the following courses must be included in the General Education requirements:

One U.S. History course in the Arts and Humanities component (B) and one Geography course in the Social Sciences component (C).

## MAJOR REQUIREMENTS

44 credits

### Programming Core

CS 140 Computer Programming I  
CS 160 PC Hardware Fundamentals  
CS 185 Computer Programming II  
CS 280 Data Structures

### Capstone Course

CS 495 Seminar in Information Systems

### Second Language Requirement

One CS course in a programming language other than primary language taken in CS-140/185/280, and approved by advisor. Current offerings are:

CS 205 Elementary Visual Basic  
CS 220 COBOL  
CS 230 iSeries 400 RPG Programming  
CS 265 Assembly Language

Other courses are available on an irregular basis as the industry changes.

### Upper-Level CS Electives

Four CS 300-level courses, not listed above  
Two CS 400-level courses, not listed above

### Computer Architecture Requirement

One CS course, approved by student's advisor, in a second, non-Windows/NT computer architecture. Currently, this requirement can be satisfied by a course utilizing the iSeries 400 or UNIX operating systems. This course may satisfy this requirement and the above-listed requirements simultaneously or may be a separate elective.

### Supervised Field Experience Requirement

Students are required to complete at least 3 credits in

supervised field experience. CS 293 and/or CS 493 may be taken for 1-3 credits per experience.

## INTERDISCIPLINARY REQUIREMENT

Select *one* of the following:

### 1. Applied Computer Science (18 credits)

a. MATH 120 Intermediate Algebra and Trigonometry (Note: Higher-level mathematics courses, including pre-calculus and calculus, are encouraged and may be taken instead of MATH 120), and

b. Computer content-related electives from non-CS disciplines: Three elective courses (9 credits minimum) in any one single non-CS discipline with no more than one introductory course, to fit the student's interests and skills in any discipline (Computers are in such wide use today, they appear in all disciplines) and

c. Two advanced courses (6 credits minimum) in any one discipline approved by CS faculty. These courses may be in same or different discipline than the above three electives. Normally, students are advised to take these two courses in the same discipline, and continue with other courses as necessary to receive an academic minor. However, exceptions can be made upon consultation with the academic advisor.

### 2. Dual Major (credits vary)

Completion of course work for one of the following teacher certification majors (Note: Completion of student teaching is not required):

Education – Early Childhood Education Option  
Education – Elementary Education Option  
Education – Elementary Special Education Option

### 3. Teacher Certification

The following courses are required for K-12 Computer Technology Certification. The CS courses may be used to fulfill CS major requirements.

#### a. Programming Core

In addition to CS 160 PC Hardware Fundamentals, take CS 161 Microcomputer Systems.

#### b. CS 300-level electives must be filled with:

CS 305 Computer Usage in Educational Settings  
CS 390 Methods: Computer Education\*  
CS 391 Methods: Field Experience \*

*\*Taken concurrently*

#### c. Teacher Education courses

Completion of the following teacher education requirements (Note: MATH 171 may be substituted for MATH 120):

ESEC 100 Introduction to Teaching  
ESEC 150 Development, Exceptionality, & Learning I\*  
ESEC 250 Development, Exceptionality, & Learning II

ESEC 320 Educational Environments/Practices  
ESEC 387 Creating Social Contexts for Learning  
ESEC 450 Seminar – Educational Principles\*\*  
ESEC 465 Student Teaching (elementary)  
ESEC 465 Student Teaching (secondary)

*\*Course requires a minimum of one to three hours of fieldwork in the schools or service learning.*

*\*\*Taken concurrently with Student Teaching*

## ELECTIVES

Select courses to reach a total of 126 credits for the degree.

## DEGREE REQUIREMENTS

126 credits

## Art

### Bachelor of Arts

The Bachelor of Arts degree in Art is designed to meet a variety of student needs through courses in art history, painting, sculpture, printmaking, ceramics, drawing, photography, and graphic design. Through the program's flexibility and rich variety, students are encouraged to develop their skills and broaden their knowledge in courses which can lead to graduate school or a variety of careers in visual art and graphic design. The Studio Art option introduces and fosters the individual development of four major areas of study: Painting, Sculpture, Printmaking, and Ceramics. Throughout introductory, intermediate, and advanced courses, a balance of theoretical and technical knowledge is emphasized. The Studio Art option is designed to enable each student to focus on one of these areas. The Graphic Design option provides students with a foundation in the theory and practice of graphic design. Graphic designers convert concepts into visual language. Graduates from the Graphic Design option are prepared for design-related careers such as publishing, advertising, web design, and multi-media graphics.

### ADMISSIONS CRITERIA

Entrance into the Art major is highly competitive. To become an Art major (Graphic Design and Studio Art options), a portfolio of 10-20 pieces of artwork in studio art or graphic design must be submitted and accepted (see below). Upon acceptance, students will be assigned an Art faculty advisor and within their first year must officially declare their major. Due to the selective nature of the Art program, the number of available openings is limited. All students are accepted to the Art major through the portfolio approval process. It is anticipated that most students who enter the Art major do so directly from high school and will submit

a portfolio of work before they begin classes at Keene State College. Transfer students are also required to submit a portfolio as part of the application process. Based on their artwork produced at other accredited institutions, transfer students may request a waiver of some requirements. Students who are already enrolled at Keene State College with another major or who have not declared a major must also submit a portfolio to be accepted into the Art major. The portfolio for enrolled students must include work from a minimum of two Keene State College art courses. The portfolio acceptance process for enrolled students is conducted at the beginning of the fall and spring semesters. It is highly recommended that enrolled students submit their portfolios by the beginning of their sophomore year at Keene State College.

### PORTFOLIO REQUIREMENTS

1. Ten to twenty pieces of original artwork in Studio Art or Graphic Design.
2. The portfolio should include original artwork in 35mm slide or digital format. Zip and CD-ROM discs should be formatted for the Macintosh operating system and created as a self-running presentation.
3. All slides or discs must be clearly labeled with your name and be numbered.
4. An accompanying numbered informational slide sheet must be included to correspond to the slides or disc. Please indicate each work's title, medium, dimensions, and level of completion (freshman, sophomore, junior, or senior). If the work was completed independently, what was your idea?
5. It is advisable to include examples of your drawing ability.
6. Indicate your area of interest with regard to Studio Art, Graphic Design, or both.
7. Please include your name, address, telephone number, and e-mail address.
8. Please include the following information:
  - a. List the number and description of all art courses taken on the high school or college level.
  - b. List extracurricular activities and interests.
  - c. What are your career goals?
9. Please send portfolio to:  
 Art Department Portfolio Review Committee  
 Art Department Office  
 Keene State College  
 229 Main St  
 Keene NH 03435-2405

Portfolios without the above information will be automatically placed on a waiting list while all other portfolios are

reviewed. After which time, if there any remaining openings, incomplete portfolios will then be considered.

All portfolios will be accepted, refused, or put on a waiting list.

With regard to portfolios on the waiting list, all decisions will be made by April 1.

### GRAPHIC DESIGN RETENTION STANDARD

Graphic Design students will be expected to maintain a cumulative GPA of 3.0 or better in the following four Graphic Design core classes: ART 245, 246, 348, and 349. This GPA evaluation will occur at the end of the semester in which ART 349 is completed. The Graphic Design Coordinator will complete the GPA evaluation.

In addition, a portfolio review of work from the four Graphic Design core classes will occur following the completion of ART 349 Intermediate Graphic Design. A panel of three Graphic Design faculty will conduct this portfolio review.

Graphic Design transfer students must take ART 245, 246, 348, and 349. ART 245 and/or 246 may be substituted for equivalent courses from an accredited institution; however, ART 348 and 349 must be taken at Keene State College. Transfer students will be expected to maintain a cumulative GPA of 3.0 or better in ART 348 and 349 and will be required to submit a portfolio of quality work from these classes at the completion of ART 349 in order to continue in the Graphic Design program.

Students falling below the minimum GPA of 3.0 and not having a quality portfolio of work from these classes will not be allowed to continue in the Graphic Design program.

The Art Department also offers five fellowships for outstanding junior and senior Art majors. The stipend is for one academic year and requires some service to the Art Department on a weekly basis. The application process is conducted annually during the spring semester.

The Art faculty reserves the right to hold occasional pieces of student artwork for a period of up to two years for exhibitions and demonstrations. The greatest possible care is exercised to protect the work.

### LANGUAGE REQUIREMENT

The student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the Division of Arts and Humanities. The complete policy statement is located at the beginning of the Bachelor's Degree Programs section in this catalog.

### GENERAL EDUCATION REQUIREMENTS

*(minimum) 43 credits*

## MAJOR REQUIREMENTS

48 credits

### Foundation Core (12 credits)

ART 102 Two-Dimensional Design  
ART 103 Three-Dimensional Design  
ART 111 Introduction to Art  
ART 125 Drawing I

An Art major must select *one* of the following options:

### Studio Art Option (36 credits)

200-level courses (21 credits)

ART 225 Drawing II  
ART 208 Ceramics I  
ART 226 Painting I  
ART 231 Printmaking I  
ART 244 Sculpture I  
*Two* 200-level Art History courses

300-level courses (9 credits)

ART 325 Drawing III  
*Two* of the following:  
ART 308 Ceramics II  
ART 326 Painting II  
ART 331 Printmaking II  
ART 344 Sculpture II

400-level courses (6 credits)

*One* 400-level Art course  
ART 495 Senior Seminar

### Graphic Design Option (36 credits)

200-level courses (18 credits)

*One* 200-level Art History course  
ART 226 Painting I  
ART 231 Printmaking I  
200-level or above studio elective  
ART 245 Graphic Design Fundamentals  
ART 246 Computers and Design

300-level courses (9 credits)

ART 348 Typography  
ART 349 Intermediate Graphic Design  
ART 350 Electronic Imaging

400-level courses (9 credits)

ART 444 Advanced Graphic Design  
ART 445 Topics in Graphic Design  
ART 448 Portfolio

## ELECTIVES

Select courses to reach a total of 120 credits for the degree.

Students who plan to apply to graduate programs in the visual arts should consider the BFA program.

## DEGREE REQUIREMENTS

120 credits

## Art

### *Bachelor of Fine Arts*

The Bachelor of Fine Arts degree is a highly selective program that is designed to provide students with an intensely comprehensive degree opportunity consisting of a minimum of 72 credits in visual art courses. The BFA degree can lead directly to graduate study (MFA) or to professional careers in the Graphic Design field.

The BFA degree is organized into the following three options:

Graphic Design  
Graphic Design and Studio Art (Dual Option)  
Studio Art

To be eligible for the BFA degree, students must first be accepted into the BA program in Art. Students may apply to the BFA program after the completion of a minimum of 9 courses (27 credits) in art, which must include the Foundation Core. Graphic Design Option and Graphic Design and Studio Art Dual Option applicants must take Art 245 Fundamentals of Graphic Design and Art 348 Typography as part of the 27-credit minimum. A minimum cumulative GPA of 3.0 is required for the art courses. Acceptance to the program is based on an assessment of a portfolio\* of artwork from these courses. The portfolio and a written statement of personal educational goals, along with an official transcript, must be submitted to the BFA Standards Committee. Portfolio reviews are conducted during each spring semester prior to the course selection and registration period.

Transfer students are also eligible to apply for the BFA program provided they meet the admissions standards for the BA degree in Art as well as those for the BFA degree. This must include a review by the Art Faculty of a completed transfer course evaluation of all previously taken art courses.

Once accepted, all BFA candidates must maintain a minimum cumulative GPA of 3.0 in the major (Art courses). The BFA Standards Committee will also conduct mid-level reviews of BFA students after they have enrolled in 6 courses (18 credits) of major requirements. These reviews will be conducted during the spring semester, prior to the course selection and registration period. The purpose of the review is to assess the candidate's progress toward the completion of the degree as well as the development of their artwork. Individuals whose GPA falls below the minimum standard or whose artwork is not on an appropriate level for the BFA will no longer be eligible for the program and will return to the BA program. Students who do not maintain BFA standards will be allowed to reapply provided that the deficiencies have been corrected. BFA candidates must also meet with the BFA Standards Committee prior to the required BFA Senior Exhibition. The committee will

conduct an oral review in which the candidate will outline the rationale of the direction that he/she is planning for the exhibition. All BFA candidates must participate in the BFA Senior Exhibition as a graduation requirement.

#### **\*BFA PORTFOLIO CRITERIA**

1. Portfolios must consist of no fewer than 20 pieces of college-level artwork.
2. All work must be properly labeled with the following information:
  - A. Name
  - B. Medium
  - C. Size (slide and digital portfolios only)
  - D. Course title and date of execution

#### **LANGUAGE REQUIREMENT**

The student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the Division of Arts and Humanities. The complete policy statement is located at the beginning of the Bachelor's Degree Programs section in this catalog.

#### **GENERAL EDUCATION REQUIREMENTS**

*(minimum) 43 credits*

#### **MAJOR REQUIREMENTS**

*72 credits*

##### **Foundation Core (12 credits)**

- ART 102 Two Dimensional Design
- ART 103 Three Dimensional Design
- ART 111 Introduction to Art
- ART 125 Drawing I

##### **Graphic Design Option (60 credits)**

200-level courses (27 credits)

- ART 225 Drawing II
- ART 226 Painting I
- ART 231 Printmaking I
- ART 245 Fundamentals of Graphic Design
- ART 246 Computers and Design
- ART 247 Illustration

200-level (or above) Studio Elective (*Note: ART 224 Photography is suggested*)

Two 200-level Art History Courses

300-level courses (15 credits)

- ART 325 Drawing III
- ART 348 Typography
- ART 349 Intermediate Graphic Design
- ART 350 Electronic Imaging
- ART 351 History of Graphic Design

400-level courses (18 credits)

- ART 444 Advanced Graphic Design
- ART 445 Topics in Graphic Design (2 semesters, 6 credits)

ART 448 Portfolio

ART 496 BFA Senior Studio (2 semesters, 6 credits)

(ART 445 Topics in Graphic Design may be repeated as topics change)

#### **ELECTIVES**

Select courses to reach a total of 120 credits for the degree.

#### **DEGREE REQUIREMENTS**

*120 credits*

#### **Graphic Design and Studio Art Dual Option (60 credits)**

*STUDIO & ART HISTORY COURSES (36 credits)*

200-level courses (21 credits)

- ART 208 Ceramics I
- ART 225 Drawing II
- ART 226 Painting I
- ART 231 Printmaking I
- ART 244 Sculpture I
- Two 200-level Art History courses

300-level courses (6 credits)

ART 325 Drawing III

*One of the following:*

- ART 308 Ceramics II
- ART 326 Painting II
- ART 331 Printmaking II
- ART 344 Sculpture II

400-level courses (9 credits)

- ART 495 Senior Seminar
- ART 496 BFA Senior Studio (2 semesters, 6 credits)

*GRAPHIC DESIGN COURSES (24 credits)*

200-level courses (6 credits)

- ART 245 Graphic Design Fundamentals
- ART 246 Computers and Design

300-level courses (9 credits)

- ART 348 Typography
- ART 349 Intermediate Graphic Design
- ART 350 Electronic Imaging

400-level courses (9 credits)

- ART 444 Advanced Graphic Design
- ART 445 Topics in Graphic Design
- ART 448 Portfolio

#### **ELECTIVES**

Select courses to reach a total of 120 credits for the degree.

#### **DEGREE REQUIREMENTS**

*120 credits*

**Studio Art Option (60 credits)**

200-level courses (30 credits)

ART 208 Ceramics I  
 ART 225 Drawing II (2 semesters, 6 credits)  
 ART 226 Painting I  
 ART 231 Printmaking I  
 ART 244 Sculpture I  
 Studio Elective 200 level or above  
 Three 200-level Art History Courses

300-level courses (12 credits)

ART 325 Drawing III (2 semesters, 6 credits)  
 Two of the following:  
 ART 308 Ceramics II  
 ART 326 Painting II  
 ART 331 Printmaking II  
 ART 344 Sculpture II

400-level courses (18 credits)

Three 400-level Studio Courses  
 ART 495 Senior Seminar  
 ART 496 BFA Senior Studio (2 semesters, 6 credits)

**ELECTIVES**

Select courses to reach a total of 120 credits for the degree.

**DEGREE REQUIREMENTS**

120 credits

## Biology

### *Bachelor of Arts*

The Bachelor of Arts in Biology provides an introduction to the discipline and an opportunity to integrate the study of Biology with another field. In contrast to the B.S. program, the B.A. requires fewer credits in both biology and related sciences, permitting a student to complete a second major or additional courses in another discipline such as Elementary Education, Journalism, Art, Management, or Computer Science; thus, it satisfies the needs of students with a combination of interests.

Students must complete 36 credits in Biology. The introductory chemistry and biology sequences should be taken during the freshman year. Statistics, two semesters of Chemistry, and a semester of Physics or Geology are required; Organic Chemistry and two semesters of Physics and Mathematics or Computer Science are strongly recommended.

**GENERAL EDUCATION REQUIREMENTS**

(minimum) 43 credits

Asterisked courses may be applied toward the Sciences/

Mathematics component (D) of the General Education requirements.

**MAJOR REQUIREMENTS**

51-52 credits

**Introductory Sequence (8 credits)**

\*BIO 151 Life: Diversity  
 \*BIO 152 Life: Diversity Lab  
 \*BIO 153 Life: Processes  
 \*BIO 154 Life: Processes Lab

**Sophomore Core Courses (16-17 credits)**

(C or better in BIO 151 – 154 required to take sophomore core courses)

BIO 251 Genetics  
 BIO 252 Ecology & Evolution  
 BIO 253 Physiology of Plants and Animals or  
 BIO 232/233 Human Anatomy & Physiology II & Lab  
 BIO 254 Cell Biology  
 Two of the following courses:  
 BIO 255 Experimental Genetics  
 BIO 256 Ecology & Evolution Lab  
 BIO 257 Experimental Physiology  
 BIO 280 Research Rotations

**Organismal Courses (4 credits)**

One of the following courses:

BIO 322 Flowering Plant Biology  
 BIO 333 Invertebrate Zoology  
 BIO 334 Vertebrate Zoology  
 BIO 365 Plant Anatomy and Morphology  
 BIO 351 Ornithology  
 BIO 352 Entomology  
 BIO 415 Microbial Diversity

**Upper-level BIO Electives (7-8 credits)**

Choose any 300- or 400-level BIO courses to bring total credits in Biology to 36 credits.

**Related Science/Math Courses (15 credits)**

\*CHEM 111/115 General Chemistry I/Experimental Gen Chem I  
 \*CHEM 112/116 General Chemistry II/Experimental Gen Chem II  
 \*MATH 141 Introductory Statistics  
 One of the following courses:  
 \*PHYS 141 College Physics I  
 \*GEOL 201 Introductory Physical Geology

**ELECTIVES**

Select courses to reach a total of 120 credits for the degree.

**DEGREE REQUIREMENTS**

120 credits

# Biology

## Bachelor of Science

The Bachelor of Science program in Biology is designed to stimulate intellectual and personal growth through an examination of the fundamental properties of living systems, the application of experimental and descriptive methods of discovery, and the consideration of the social, ethical, and aesthetic implications of biological knowledge. The B.S. program also provides undergraduate training for entering technical employment, graduate school, or professions such as medicine, dentistry, veterinary medicine, optometry, teaching, forestry, and wildlife management. After one semester, any Biology major considering graduate or professional school should confer with a Biology advisor to plan a program to meet the student's specific needs and assure entrance into such a school. The introductory sequences in Biology and Chemistry should be completed during the freshman year.

## GENERAL EDUCATION REQUIREMENTS

(minimum 43 credits)

Courses in chemistry, geology, physics, mathematics and biology (BIO 151/152 or 153/154) may apply toward the Sciences/Mathematics component (D) of the General Education requirements.

For teacher certification in Biology (secondary), the following courses must be included in the General Education requirements:

One U.S. History course in the Arts and Humanities component (B);

One Geography course in the Social Sciences component (C).

For teacher certification in Biology, students must take GEOL 201 to satisfy the General Education requirement in Sciences/Mathematics.

## MAJOR REQUIREMENTS

79-80 credits

### Introductory Sequence (8 credits)

BIO 151 Life: Diversity  
BIO 152 Life: Diversity Lab  
BIO 153 Life: Processes  
BIO 154 Life: Processes Lab

### Sophomore Core Courses (16-17 credits)

(C or better in BIO 151-154 required to take sophomore core courses)

BIO 251 Genetics  
BIO 252 Ecology & Evolution  
BIO 253 Physiology of Plants and Animals or  
BIO 232/233 Human Anatomy & Physiol. II & Lab

BIO 254 Cell Biology

Two of the following courses:

BIO 255 Experimental Genetics  
BIO 256 Ecology & Evolution Lab  
BIO 257 Experimental Physiology  
BIO 280 Research Rotations

### Junior/Senior Core Courses (16 credits)

BIO 401 Biochemistry  
BIO 403 Experimental Biochemistry  
BIO 495 Biology Seminar

### Organismal Courses (4 credits)

One of the following courses:

BIO 322 Flowering Plant Biology  
BIO 333 Invertebrate Zoology  
BIO 334 Vertebrate Zoology  
BIO 351 Ornithology  
BIO 352 Entomology  
BIO 365 Plant Evolution  
BIO 415 Microbial Diversity

### One of the following courses or course pairs (5 credits)

BIO 451 Population Ecology and BIO 457 Research Methods: Ecology  
BIO 452 Community and Ecosystem Ecology and BIO 457 Research Methods: Ecology  
BIO 454 Ecological Physiology and BIO 457 Research Methods: Ecology or BIO 458 Research Methods: Physiology  
BIO 455 Comparative Animal Physiology and BIO 458 Research Methods: Physiology  
BIO 405 Molecular Biology  
BIO 408 Developmental Biology  
BIO 409 Neurobiology

### Upper-level BIO Electives (7-8 credits)

Choose any 300- or 400-level BIO courses to bring total credits in Biology to 48 credits.

### Related Science/Math Courses (31 credits)

CHEM 111/115 General Chemistry I/Experimental General Chemistry I  
CHEM 112/116 General Chemistry II/Experimental General Chemistry II  
CHEM 221/225 Organic Chemistry I and Lab  
CHEM 222/226 Organic Chemistry II and Lab  
PHYS 141 College Physics I  
PHYS 142 College Physics II  
MATH 151 Calculus I  
MATH 141 Introductory Statistics

## ELECTIVES

Select courses to reach a total of 126 credits for the degree.



Students are encouraged to include courses in their program according to career objectives as follows:

For environmental biology: CHEM 352/356, GEOL 201 and 202.

For teacher preparation in Biology (secondary), the following courses are required (34 credits):

#### *Orientation*

ESEC 100 Introduction to Teaching

#### *Learners*

ESEC 150 Development, Exceptionality, and Learning I\*

ESEC 250 Development, Exceptionality, and Learning II

#### *Fundamentals*

ESEC 282 Literacy in Content Areas\*

#### *Settings*

ESEC 320 Educational Environments and Practices

#### *Methodology*

ESEC 385 Methods: Secondary

ESEC 386 Methods: Field Experience

#### *Systems*

ESEC 450 Seminar: Educational Principles

#### *Practice*

ESEC 460 Student Teaching

The following course is highly recommended:

#### *Pedagogy*

ESEC 387 Creating Social Contexts for Learning

\*Course requires a minimum of one to three hours of field work in the schools or service learning.

## DEGREE REQUIREMENTS

126 credits

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## Chemistry

### *Bachelor of Arts*

Broadly based in the liberal arts tradition, the B.A. in Chemistry has been designed for students interested in careers in areas that use chemistry as a base, such as the health-related professions, pharmaceutical marketing, secondary science education, chemistry-related industry, and/or entrance to graduate school. By combining this major with any one of a number of minors, considerable flexibility is provided to the student.

## GENERAL EDUCATION REQUIREMENTS

(minimum) 43 credits

Mathematics and Physics courses may apply toward the

Sciences/Mathematics component (D) of the General Education requirements.

For teacher certification in chemistry (secondary), the following courses must be included in the General Education requirements:

A U.S. History course in the Arts and Humanities component (B); a Geography course in the Social Sciences component (C); a Geology course; and PHYS 210 History of Science.

## MAJOR REQUIREMENTS

65 credits

CHEM 111/115-112/116 General Chemistry I, II and Labs

CHEM 221/225-222/226 Organic Chemistry I, II and Labs

CHEM 251/255 Quantitative Analysis and Lab

CHEM 341/345-342/346 Physical Chemistry I, II and Labs

CHEM 401/403 Biochemistry and Lab

CHEM Electives (6 credits)

## Related Fields (23 credits)

BIO 153, 154 [BIO 254 recommended]

MATH 141 Introductory Statistics

MATH 151, 152 Calculus I, II

PHYS 141-142 College Physics I, II

## ELECTIVES

Select courses to reach a total of 120 credits for the degree.

For teacher preparation in Chemistry (secondary), the following courses are required (34 credits):

#### *Orientation*

ESEC 100 Introduction to Teaching

#### *Learners*

ESEC 150 Development, Exceptionality, and Learning I\*

ESEC 250 Development, Exceptionality, and Learning II

#### *Fundamentals*

ESEC 282 Literacy in Content Areas\*

#### *Settings*

ESEC 320 Educational Environments and Practices

#### *Methodology*

ESEC 385: Methods: Secondary

ESEC 386: Methods: Field Experience

#### *Systems*

ESEC 450 Seminar: Education Principles

#### *Practice*

ESEC 460 Student Teaching

The following course is highly recommended:

*Pedagogy*

ESEC 387 Creating Social Contexts for Learning

\*Course requires a minimum of one to three hours of field work in the schools or service learning.

**DEGREE REQUIREMENTS***120 credits*

## Chemistry

### *Bachelor of Science*

The BS in Chemistry should serve as a general preparation for a professional scientist. The major was designed according to guidelines from the American Chemical Society (ACS) to be rigorous, yet flexible enough to allow for preparation for immediate employment, graduate study, or work in an allied profession.

From the introductory through the advanced level of courses, students have access to the instrumentation and facilities of the department. The faculty values a hands-on approach to chemical education. The major is structured to provide a strong background for work culminating in a final year which is flexible enough to allow faculty-directed independent research or interdisciplinary study.

Students considering a major in Chemistry should consult a member of the faculty for advice on the sequence of courses, as the courses in related fields described below are prerequisites for upper-level study.

**GENERAL EDUCATION REQUIREMENTS***(minimum) 43 credits*

Required courses in Math and Physics may apply toward the Sciences/Mathematics component (D) of the General Education requirements. Most students should consider a 200 level biology course for their biology component.

**MAJOR REQUIREMENTS***69 credits***Chemistry (43 credits)**

CHEM 111/115 and CHEM 112/116 General Chemistry I, II and Labs

CHEM 221/225 and CHEM 222/226 Organic Chemistry I, II and Labs

CHEM 251/255 Quantitative Analysis and Lab

CHEM 341/345 and CHEM 342/346 Physical Chemistry I, II and Labs

CHEM 363/365 Inorganic Chemistry and Lab

CHEM 382 Occupational Safety and Health  
CHEM 454/456 Instrumental Analysis and Lab**Electives within the Major (minimum 7 credits)**

Students must take at least 7 credits of chemistry upper-level electives. These may be any 300-level or greater chemistry course. Independent study is encouraged to provide an undergraduate research experience. For students interested in an interdisciplinary focus, 3 of the 7 credits may be from an approved list outside chemistry, including Physics 260 Electronics, Biology 405 Molecular Biology, or Geology 412 Geochemistry.

**Related fields (19 credits)**

MATH 141 Introductory Statistics

MATH 151-152 Calculus I, II

PHYS 141-142 College Physics I, II or

PHYS 241-242 University Physics I, II

**DEGREE REQUIREMENTS***126 credits*

## Chemistry-Physics

### *Bachelor of Science*

In today's changing job market, competency in two or more basic fields of science enhances opportunity for employment and professional growth potential. This major fulfills such a need. This interdisciplinary major provides grounding in two related sciences, with balance in both. By completing the Teacher Education Option outlined below, students are prepared for certification as Chemistry teachers for grades 7-12.\*\*

**GENERAL EDUCATION REQUIREMENTS***(minimum) 43 credits*

For teacher certification in Chemistry, the following courses must be included in the General Education requirements:

A U.S. History course in the Arts and Humanities component (B), and

A Geography course in the Social Sciences component (C).

As prerequisites for major courses, MATH 151, 152, 251 and BIO 153, 154 (Teacher Certification Option) must be completed. These along with the core requirements fulfill the Sciences/Math portion of the General Education requirements.

## MAJOR REQUIREMENTS

### Professional Option (47 credits)

The Professional Option consists of 25 credits in Chemistry and 22 credits in Physics. For graduate study in either field, a few additional courses may be necessary.

CHEM 111/115-112/116 General Chemistry I, II and Labs  
 CHEM 220/224 Fundamental Organic Chemistry & Lab  
 CHEM 341/345 Physical Chemistry I and Lab  
 CHEM Electives (8 credits)  
 PHYS 241, 242, 245 University Physics I, II, III  
 PHYS 260 Electronics  
 PHYS Electives (6 credits; 300-level and above)

### Teacher Certification Option (Secondary) (92 credits)

The Teacher Certification Option for teacher preparation in Chemistry provides grounding in two related physical sciences, with balance in both. It consists of 32 credits in Chemistry, 26 credits in Physics, and 34 credits in Education.

#### CHEMISTRY/PHYSICS REQUIREMENTS (58 credits)

CHEM 111/115-112/116 General Chemistry I, II & Labs  
 CHEM 221/225-222/226 Organic Chemistry I, II and Labs  
 CHEM 251/255 Quantitative Analysis and Lab  
 CHEM 341/345 Physical Chemistry I and Lab *or*  
 CHEM 342/346 Physical chemistry II and Lab  
 CHEM 401 Biochemistry  
 CHEM Electives (3 credits; 300 level and above)  
 PHYS 210 History of Science  
 PHYS 241, 242, 245 (University Physics I, II, III)  
 PHYS 260 Electronics  
 ASTR 307 University Astronomy  
 PHYS 342 Modern Physics  
 PHYS Electives (1 credit)

#### TEACHER EDUCATION REQUIREMENTS (34 credits)

##### Orientation

ESEC 100 Introduction to Teaching

##### Learners

ESEC 150 Development, Exceptionality, and Learning I\*  
 ESEC 250 Development, Exceptionality, and Learning II

##### Fundamentals

ESEC 282 Literacy in Content Areas\*

##### Settings

ESEC 320 Educational Environments and Practices

##### Methodology

ESEC 385: Methods: Secondary  
 ESEC 386: Methods: Field Experience

##### Systems

ESEC 450 Seminar: Education Principles

##### Practice

ESEC 460 Student Teaching

The following course is highly recommended:

##### Pedagogy

ESEC 387 Creating Social Contexts for Learning

\*Course requires a minimum of one to three hours of field work in the schools or service learning.

\*\*Additional certification in Physical Science may be obtained by choosing two additional courses from the following: GEOL 201, 202, 206, MET 225.

## DEGREE REQUIREMENTS

126 credits (Professional Option)

134 credits (Teacher Certification Option)

## Communication

### Bachelor of Arts

The Communication major is an interdisciplinary program combining courses in Communication, Film, Journalism, and Philosophy. The major is designed to take a broad-based, humanities-centered view of the symbolic ways humans create meaning. The program will focus on development of skills as students learn to work with various communication tools improving their own ability to interact effectively with others and on increasing critical awareness as students study the structure, patterns and effects of communication on both themselves and society. Career options for graduates might include public relations, human resources or advocacy, media entertainment, advertising, or sales.

Students majoring in Communication must complete a minimum of thirteen courses (39 credits) in the areas specified below. A grade of C or better must be earned in each course counted toward the major. Communication majors may count courses used for the major toward a minor in Film, Journalism, or Philosophy; however, credits may not be counted twice.

## LANGUAGE REQUIREMENT

The student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the Division of Arts and Humanities. The complete policy statement is located at the beginning of the Bachelor's Degree Programs section in this catalog.

## GENERAL EDUCATION REQUIREMENTS

(minimum) 43 credits

Courses taken for the Communication major may not count toward the Arts and Humanities component (B) of General Education. However, students may take additional courses in Communication, Film, Journalism, or Philosophy to fulfill specific Arts and Humanities requirements of General Education.

## MAJOR REQUIREMENTS

40-46 credits

The application for formal admission to the Communication major typically occurs during the first or second semester of the sophomore year. To be admitted to the major, the student must have completed COMM 175, PHIL 100, and either JRN 200 or FILM 270. The student must earn a grade of at least a C in the three courses and achieve an average GPA of at least 2.5 in the three courses. The student must provide a transcript showing his or her grades to a Communication advisor. If the grade requirements are met, the advisor will sign the declaration of major form which formally admits the student to the major.

## COMMUNICATION CORE

13 credits

Required of all students with a major in Communication:

### Foundations of the Major

*Two courses required*

PHIL 100 Logical Argumentation

COMM 175 Principles of Communication

### Introduction to Film and Journalism

*Two courses required*

FILM 270 Introduction to Film Analysis (4 credits)

JRN 200 Introduction to Mass Media

## 1. Communication Studies Option (27-33 credits)

### ETHICS

*One course required*

COMM 477 Ethics in Communication

JRN/PHIL 322 Media Ethics

PHIL 220 Ethics

### THEORY

*One course required*

COMM 376 Theory of Communication and Rhetoric

FILM 355 Film Theory (4 credits)

JRN 310 Mass Media History and Theory

PHIL 350 Aesthetics

### APPLICATION SEQUENCE

*Select one of the following two-course sequences*

COMM 171 Fundamentals of Speech *and*

COMM 371 Advanced Public Speaking

FILM 250 Film Production I (4 credits) *and*

FILM 350 Film Production II (4 credits)

JRN 201 News Writing I *and*

JRN 301 News Writing II

JRN 201 News Writing I *and*

JRN 302 Broadcast Journalism

PHIL 200 Philosophy and Critical Analysis *and*

PHIL 300 Ancient Philosophy *or*

PHIL 301 Medieval and Renaissance Phil. *or*

PHIL 302 Modern Philosophy *or*

PHIL 304 American Philosophy

PHIL 306 Existentialism *and*

PHIL 406 Existentialism and Film

## BREADTH COURSES

*One course required from each of two different areas*

Courses fulfilling another requirement in the Communication major may not fulfill this requirement.

COMM 171 Fundamentals of Speech

COMM 250 Children and the Media

COMM 275 Interpersonal Communication

COMM 290 Special Topics

COMM 371 Advanced Public Speaking

COMM 375 Business and Professional Communication

FILM 271 Introduction to Film History (4 credits)

JRN 201 News Writing I

JRN 290 Special Topics

JRN 301 News Writing II

JRN 302 Broadcast Journalism

PHIL 300 Ancient Philosophy

PHIL 301 Medieval and Renaissance Philosophy

PHIL 302 Modern Philosophy

PHIL 304 American Philosophy

PHIL 308 Contemporary Philosophy

PHIL 360 Philosophy of Law

## DEPTH COURSES

*Two courses required*

Courses fulfilling another requirement in the Communication major may not fulfill this requirement.

COMM 475 Persuasion

COMM 476 Group Interaction

COMM 490 Advanced Special Topics

COMM 495 Seminar

FILM 352 Film Genres and Directors (4 credits)

FILM 490 Advanced Special Topics (4 credits)

FILM 495 Seminar (4 credits)

JRN 401 Feature Writing

JRN 408 Television Journalism

JRN 410 Public Affairs Reporting

JRN 446 Community Television News

JRN 490 Advanced Special Topics

PHIL 390 Philosophical Masters (if an approved topic)

PHIL 490 Advanced Special Topics (if an approved topic)

## SENIOR PROJECT

*One course required*

COMM 479 Senior Project

## 2. Philosophy Option (27-28 credits)

The Philosophy option provides students with general

coverage of basic philosophical issues while developing student skills in critical and analytical thinking and exposing students to a wide range of historical and ethical manifestations of philosophical beliefs.

### **ETHICS**

PHIL 220 Ethics

### **THEORY & APPLICATION SEQUENCE**

*Three courses required*

PHIL 306 Existentialism

PHIL 350 Aesthetics

PHIL 406 Existentialism and Film

### **BREADTH COURSES**

*Two courses required: one from PHIL and one from either COMM, FILM, or JRN*

COMM 171 Fundamentals of Speech

COMM 250 Children and the Media

COMM 275 Interpersonal Communication

COMM 290 Special Topics

COMM 371 Advanced Public Speaking

COMM 375 Business and Professional Communication

FILM 352 Genres and Directors (4 credits)

JRN 290 Special Topics

JRN 201 News Writing I

JRN 301 News Writing II

JRN 302 Broadcast Journalism

PHIL 300 Ancient Philosophy

PHIL 301 Medieval and Renaissance Philosophy

PHIL 302 Modern Philosophy

PHIL 304 American Philosophy

PHIL 308 Contemporary Philosophy

PHIL 360 Philosophy of Law

### **DEPTH COURSES**

*Two courses required*

PHIL 390 Philosophic Masters

PHIL 490 Advanced Special Topics

PHIL 498 Independent Study

### **SENIOR PROJECT**

Students majoring in Communication with the Philosophy Option may take COMM 479 Senior Project with any faculty member. They must work with a faculty member from Philosophy who agrees to act as project advisor in consultation with the course instructor.

COMM 479 Senior Project

### **ELECTIVES**

Select courses to reach a total of 120 credits for the degree.

### **DEGREE REQUIREMENTS**

*120 credits*

## **Computer Mathematics**

### *Bachelor of Science*

This program provides students with a thorough ground the emphasis in the major is on mathematics, it is those aspects of mathematics which lend themselves most directly to the usefulness of the computer. Graduates of this program have been well prepared for entry level positions in industry and have successfully earned graduate degrees in both mathematics and in computer science.

### **GENERAL EDUCATION REQUIREMENTS**

*(minimum) 43 credits*

The required Physics and Computer Science courses may apply toward the Sciences/Mathematics component (D) of the General Education requirements.

### **MAJOR REQUIREMENTS**

*54 credits*

MATH 151 Calculus I

MATH 152 Calculus II

MATH 231 Linear Algebra

MATH 235 Discrete Mathematics

MATH 251 Calculus III

MATH 260 Numerical Methods

MATH 265 Mathematical Modeling

MATH 361 Differential Equations

CS 140 Computer Programming I

CS 185 Computer Programming II

CS 280 Data Structures

CS 265 Assembly Language

CS 410 Advanced Programming

PHYS 241 University Physics I

MATH/CS Electives (6 credits)

In addition to the above core courses, students must select an additional 6 credits from the MATH and/or CS areas at the 300/400 level. At least one course must be in Math.

### **ELECTIVES**

Select courses to reach a total of 126 credits for the degree.

### **DEGREE REQUIREMENTS**

*126 credits*

## Economics

### *Bachelor of Arts*

This major combines rigorous training both in economic theory and in the application of the tools of economic analysis to critical contemporary issues. Successful candidates for the degree will be well prepared either for graduate school or for employment in business or the public sector.

All majors will complete a four-course sequence which consists of ECON 201 and 202 (in either order), and 301 and 302 (in either order). It is strongly recommended that students take 301 and 302 immediately after 201 and 202. In addition, majors will take ECON 450, which is typically a Fall-only offering. They will select one course in critical studies (320, 350, or 375), and four upper-level economics courses. Finally, ECON 491 is to be taken the Fall Semester of the senior year. The ECON 491 requirement cannot be satisfied through independent study.

### GENERAL EDUCATION REQUIREMENTS

*(minimum) 43 credits*

Economics majors must complete at least one Philosophy course, which may apply toward the Arts and Humanities component (B) of the General Education requirements.

Because the Economics faculty at Keene State College emphasize the relationship of economics to the other social sciences, Economics majors are advised to take at least four courses in three of the following disciplines: Anthropology, Political Science, Psychology, Sociology, and Geography. They may apply toward the Social Sciences component (C) of the General Education requirements or for electives (III). Economics courses used for major credit may not apply toward the Social Sciences component (C) of the General Education requirements.

Introductory statistics (MATH 141 or PSYC 251), which may be applied as appropriate toward the Social Sciences component (B) or the Science/Mathematics component (D) of the General Education requirements, must also be completed.

### MAJOR REQUIREMENTS

*36 credits*

ECON 201 Macroeconomics  
 ECON 202 Microeconomics  
 ECON 301 Intermediate Macroeconomics  
 ECON 302 Intermediate Microeconomics  
 ECON 320 Political Economy *or*  
     ECON 350 Race, Class, and Gender *or*  
     ECON 375 Marxian Economics  
 ECON 450 History of Economic Ideas  
 ECON 491 Research Project

Electives: 12 credits of 300 level or above Economics courses

MATH 141 Introductory Statistics *or*  
 PSYC 251 Psychological Statistics

### ELECTIVES

Select courses to reach a total of 120 credits for the degree.

### DEGREE REQUIREMENTS

*120 credits*

## Education

### *Bachelor of Science*

The Education major has five tracks: Early Childhood Education, Elementary Education, Elementary/Special Education, Middle School Mathematics, and Secondary/Special Education. Recent revisions to the major have focused on infusing development, special education, technology and practice into the program. In addition, care has been taken to systematically integrate field experiences throughout the pre-service program. Students must be prepared to participate in one to three hours per week of service learning or course-related assignments in schools.

Program planning and advising are critical components of the Education program. The course ESEC 100 Introduction to Teaching is offered to first-year students in the fall and spring. This course is designed to involve students in exploring the teaching profession, making preliminary career choices, and planning their years of study at the college. The ROUTE Handbook, required for ESEC 100 and available in the KSC Bookstore, is developed to support students in planning their studies.

In addition, students are urged to select an advisor early in their programs. Admission to Keene State College does not necessarily guarantee admission to Teacher Education, admission to Student Teaching, or eligibility for certification. Policies and deadlines are described under the Teacher Education section of this catalog and also in the ROUTE Handbook. Materials for application to Teacher Education are available in the Teacher Education & Graduate Studies Office in Rhodes Hall.

**Transfer Credits:** Students who wish to transfer credits into a teacher certification option must apply through the Department chair. Ordinarily, no more than four credits from another institution may be applied to satisfy program requirements due to the uniqueness of ESEC courses.

**Second Major:** Students seeking certification in Early Child-

hood, Elementary, and Elementary/Special Education are required to complete a second major. Students may elect to fulfill requirements from any one of the following:

American Studies, Applied Computer Science, Art (portfolio requirement), Biology, Chemistry, Chemistry-Physics, Communication, Computer-Mathematics, Economics, English, Environmental Studies, Film Studies, French, General Science, Geography, Geology, History, Individualized Major, Journalism, Mathematics, Mathematics-Physics, Music (audition required), Psychology, Social Science, Sociology, Spanish, and Theatre and Dance.

Students pursuing a major in Education and certification in Middle/Junior High School Mathematics will complete their second major in mathematics. Students selecting a major in Education and certification in Secondary/Special Education are required to choose a major from those leading to a secondary certification (see Teacher Education section of this catalog).

\*Course requires a minimum of one to three hours of field work in the schools or service learning.

## 1. Early Childhood Development Option

This program provides students with a multidisciplinary understanding of early childhood development. It includes theory and practice with children from infancy through third grade, and fulfills requirements for Birth to Age Eight teacher certification.

### GENERAL EDUCATION REQUIREMENTS

(minimum) 43 credits

In partial fulfillment of the requirements, the following must be taken:

Arts and Humanities (B) – ENG 286 and a course in U.S. History.

Social Sciences (C) – a course in Geography.

Sciences/Mathematics (D) – a science course with a lab; MATH 171.

### SECOND MAJOR REQUIREMENTS

The N.H. State Department of Education, as well as those in many other states, requires that students taking programs of study in education must also have a second major in order to become certified to teach. This requirement provides students with an intensive exposure to an academic area.

One of the following majors must be completed (figures in parentheses are the credit requirements in the major):

American Studies (37), Applied Computer Science (54), Art

(48), Biology (44 or 76), Chemistry (57), Chemistry-Physics (47), Communication (39), Computer Mathematics (52), Economics (36), English (36), Environmental Studies (87-94), Film Studies (40-47), French (47), General Science (50), Geography (36), Geology (40), History (39), Individualized Major (minimum 36), Journalism (48-54), Mathematics (42), Mathematics-Physics (46), Music (48), Psychology (37), Social Science (57), Sociology (36), Spanish (47), or Theatre and Dance (47-50).

### OPTION REQUIREMENTS

40 credits

#### *Orientation*

ESEC 100 Introduction to Teaching

#### *Learners*

ESEC 150 Development, Exceptionality, and Learning I\*

ESEC 250 Development, Exceptionality, and Learning II

#### *Fundamentals*

ESEC 281 Emerging/Evolving Literacy\*

#### *Settings*

ESEC 320 Educational Environments and Practices

#### *Methodology*

ESEC 381 Early Childhood Methods (Birth-Age 8)

ESEC 386 Methods: Field Experience

#### *Pedagogy*

ESEC 387 Creating Social Contexts for Learning

#### *Systems*

ESEC 450 Seminar: Educational Principles

#### *Practice*

ESEC 460 Student Teaching

Those students interested in pursuing dual certification in both Early Childhood Development and Elementary Education must meet with their advisor.

## 2. Elementary Education Option

This option prepares students to teach in elementary schools and in nondepartmentalized middle schools.

### GENERAL EDUCATION REQUIREMENTS

(minimum) 43 credits

In partial fulfillment of the requirements, the following must be taken:

Arts and Humanities (B) – a course in U.S. History; a course in Art; a course in Music.

Social Sciences (C) – a course in Geography.

Sciences/Mathematics (D) – a science course with a lab; MATH 171; MATH 172.

## SECOND MAJOR REQUIREMENTS

One of the following majors must be completed (figures in parentheses are the credit requirements in the major):

American Studies (37), Applied Computer Science (54), Art (48), Biology (44 or 76), Chemistry (57), Chemistry-Physics (47), Communication (39), Computer Mathematics (52), Economics (36), English (36), Environmental Studies (87-94), Film Studies (40-47), French (47), General Science (50), Geography (36), Geology (40), History (39), Individualized Major (minimum 36), Journalism (48-54), Mathematics (42), Mathematics-Physics (46), Music (48), Psychology (37), Social Science (57), Sociology (36), Spanish (47), or Theatre and Dance (47-50).

## OPTION REQUIREMENTS

40 credits

### *Orientation*

ESEC 100 Introduction to Teaching

### *Learners*

ESEC 150 Development, Exceptionality, and Learning I\*

ESEC 250 Development, Exceptionality, and Learning II

### *Fundamentals*

ESEC 281 Emerging/Evolving Literacy\*

### *Settings*

ESEC 320 Educational Environments and Practices

### *Methodology*

ESEC 383 Elementary Methods (K-8)

ESEC 386 Methods: Field Experience

### *Pedagogy*

ESEC 387 Creating Social Contexts for Learning

### *Systems*

ESEC 450 Seminar: Educational Principles

### *Practice*

ESEC 460 Student Teaching

## 3. Middle/Junior High School

### Mathematics Education Option

This option prepares student to teach mathematics in departmentalized settings in grades 4 through 9.

## GENERAL EDUCATION REQUIREMENTS

43 credits

In partial fulfillment of the requirements, the following must be taken:

Arts and Humanities (B) – a course in U.S. History.

Social Sciences (C) – a course in Geography.

Sciences/Mathematics (D) – CS 140; PHYS 241.

## SECOND MAJOR REQUIREMENTS

A major in mathematics must be completed.  
(41–42 credits)

## OPTION REQUIREMENTS

37 credits

### *Orientation*

ESEC 100 Intro to Teaching

### *Learners*

ESEC 150 Development, Exceptionality, and Learning I\*

ESEC 250 Development, Exceptionality, and Learning II

### *Fundamentals*

ESEC 282 Literacy in the Content Areas\*

### *Settings*

ESEC 320 Educational Environments and Practices

### *Methodology*

ESEC 384 Methods: Middle School

ESEC 386 Methods: Field Experience

### *Pedagogy*

ESEC 387 Creating Social Contexts for Learning

### *Systems*

ESEC 450 Seminar: Educational Principles

### *Practice*

ESEC 460: Student Teaching

## 4. Elementary Special Education Option

This option is designed to develop skills in identifying, assessing, and teaching students with mild to moderate special needs in the elementary school setting. Emphasis is on inclusion of students into regular education programs to the extent feasible and on identifying and providing necessary support services.

## GENERAL EDUCATION REQUIREMENTS

43 credits

In partial fulfillment of the requirements, the following must be taken:

Arts and Humanities (B) – a course in U.S. History; a course in Art; a course in Music.

Social Sciences (C) – a course in Geography.

Sciences/Mathematics (D) – a science course with a lab; MATH 171; MATH 172.

## SECOND MAJOR REQUIREMENTS

One of the following majors must be completed (figures in parentheses are the credit requirements in the major):

American Studies (37), Applied Computer Science (54), Art (48), Biology (44 or 76), Chemistry (57), Chemistry-Physics (47), Communication (39), Computer Mathematics (52),



Economics (36), English (36), Environmental Studies (87-94), Film Studies (40-47), French (47), General Science (50), Geography (36), Geology (40), History (39), Individualized Major (minimum 36), Journalism (48-54), Mathematics (42), Mathematics-Physics (46), Music (48), Psychology (37), Social Science (57), Sociology (36), Spanish (47), or Theatre and Dance (47-50).

## OPTION REQUIREMENTS

55 credits

### *Orientation*

ESEC 100 Introduction to Teaching

### *Learners*

ESEC 150 Development, Exceptionality, and Learning I\*

ESEC 250 Development, Exceptionality, and Learning II

### *Fundamentals*

ESEC 281 Emerging/Evolving Literacy\*

### *Settings*

ESEC 320 Educational Environments and Practices

### *Methodology*

ESEC 383 Elementary Methods (K-8)

ESEC 386 Methods: Field Experience

### *Pedagogy*

ESEC 387 Creating Social Contexts for Learning

### *Systems*

ESEC 450 Seminar: Educational Principles

### *Practice*

ESEC 465 Student Teaching

### *Special Education*

SPED 301 Context for Teaching Students with Special Needs

SPED 401 Instruction and Curriculum Design in Special Education

SPED 420 Assessment in Special Education

SPED 430 Methods and Practicum: Elementary

SPED 465 Student Teaching

## 5. Secondary Special Education Option

This option is designed to develop skills in identifying, assessing, and teaching students with mild to moderate special needs in the middle/junior high and high school settings. Emphasis is on inclusion of students into regular education programs to the extent feasible and on identifying and providing necessary support services.

## GENERAL EDUCATION REQUIREMENTS

43 credits

In partial fulfillment of the requirements, the following, must be taken:

Arts and Humanities (B) – a course in U.S. History

Social Sciences (C) – a course in Geography

Sciences/Mathematics (D) – a science course with a lab; MATH 171; MATH 172.

## SECOND MAJOR REQUIREMENTS

One of the following majors must be completed (figures in parentheses are the credit requirements in the major):

Biology (44 or 76), Chemistry (57), English (36), French (47), Geography (36), History (39), Mathematics (42), Music Education (99), Social Science (57), Sociology (36), Spanish (47), Chemistry-Physics (47), Geology (40), Physical Education Teacher Education (51), Technology Education (47).

## OPTION REQUIREMENTS

55 credits

### *Orientation*

ESEC 100 Intro to Teaching

### *Learners*

ESEC 150 Development, Exceptionality, and Learning I\*

ESEC 250 Development, Exceptionality, and Learning II

### *Fundamentals*

ESEC 282 Literacy in Content Areas\*

### *Settings*

ESEC 320 Educational Environments and Practices

### *Methodology*

ESEC 385 Methods: Secondary

ESEC 386 Methods: Field Experience

### *Pedagogy*

ESEC 387 Creating Social Contexts for Learning

### *Systems*

ESEC 450 Seminar: Educational Principles

### *Practice*

SPED 460 Student Teaching (for certification in Secondary Special Education only) or

ESEC 465 and SPED 465 (for dual certification in Secondary Special Education and the subject area of the second major)

### *Special Education*

SPED 301 Context for Teaching Students with Special Needs

SPED 401 Instruction and Curriculum Design in Special Education

SPED 420 Assessment in Special Education

SPED 439 Methods and Practicum: Secondary

SPED 525 Transition Planning and Programming

Additional certification in regular education requires the completion of a six-credit student teaching experience in the area of the student's second major. (Satisfied by ESEC 465/SPED 465)

## DEGREE REQUIREMENTS

126 credits

## Engineering

### (TRANSFER PROGRAMS)

These programs prepare students to transfer to engineering schools after completing general education requirements and foundation courses in mathematics, physics, chemistry, and computer science at Keene State College. Students are given personal advising and assistance in placement at the engineering school of their choice. The College at present has transfer agreements at the University of New Hampshire and Clarkson University, as well as individual transfer arrangements with engineering schools in New England and New York State. In both 2+2 and 3+2 programs, students are encouraged to complete certain engineering science introductory courses at the engineering school during the summer following their sophomore year.

### GENERAL EDUCATION REQUIREMENTS

(minimum) 43 credits

### MAJOR REQUIREMENTS

#### A. 2+2 Program (21-24 credits)

Students transferring after two years at Keene State College receive the appropriate bachelor's degree from their engineering school upon completion of engineering program requirements. Completion of engineering requirements usually takes between two and three years.

The following course list is a general guide. Additional courses are taken in specialty areas like Chemistry, depending on the prospective engineering field, or to meet requirements of a particular engineering school.

#### MATHEMATICS

MATH 151, 152, 251 Calculus Sequence

MATH 361 Differential Equations

#### PHYSICS

PHYS 241, 242, 245 University Physics I, II, III

#### COMPUTER SCIENCE

CS 180 FORTRAN

#### B. 3+2 Program (46 credits)

Students spend three years at Keene State and two years in engineering school and receive a B.S. in Math/Physics from Keene State College and an appropriate B.S. in Engineering. Keene State has a formal 3+2 transfer agreement with Clarkson University in Potsdam, New York. Students who wish to continue receiving Financial Aid must postpone graduation from Keene State until all requirements are fulfilled at both institutions.

CS 180 FORTRAN

MATH 151, 152, 251 Calculus Sequence

MATH 332 Linear Algebra

MATH 361 Differential Equations

MATH 468 Introduction to Applied Mathematics

PHYS 241, 242, 245 University Physics I, II, III

PHYS 260 Electronics

PHYS electives (6 credits; 300-level or higher)

## English

### *Bachelor of Arts*

Students in the English major will study the historical development of English, American, and European literatures, as well as other literary and rhetorical traditions. The department stresses critical thinking, the analysis of texts, clear and effective writing, aesthetic appreciation, and theoretical sophistication. We value small class sizes and personal contact between faculty and students. English majors and minors can expect to work closely with their academic advisors to plan a course of study, and faculty work as mentors, guiding students to consider such opportunities as a semester of study abroad.

In addition to fostering a lifelong appreciation of literature and language, a degree in English provides a range of personal and professional opportunities. Surveys of employers consistently stress the value of the skills we teach: the ability to communicate effectively with others, to think critically and creatively, to read carefully, and to write with clarity and purpose. KSC English majors have gone on to graduate and professional schools; they are working in the field of teaching; they work as writers; and they are employed in publishing, journalism, business, public relations, library science, and many other fields.

Students majoring in this field must complete a minimum of nine courses (36 credits) in English, in addition to ENG 101 Essay Writing and a general education literature course, which do not count toward the major. All English majors must take ENG 209 Literary Analysis, the introduction to the major, before completing 13 credits in English; this course is not open to seniors. Four of the nine required courses must be at the 300 level and three must be at the 400 level (one of which must be a theory course), for a total of seven courses at the 300 and 400 levels. Students must complete one 200-level literature course before taking a 300-level course and one 300-level course before taking a 400-level course. Students must take one course in pre-1789 British literature, and another course must cover pre-1789 in any area.

### LANGUAGE REQUIREMENT

The student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the Division of Arts and Humanities. The complete policy statement appears at

the beginning of the Bachelor's Degree Programs section of this catalog.

## GENERAL EDUCATION REQUIREMENTS

*(minimum) 43 credits*

Modern Language courses may apply toward the Arts and Humanities component (B) of the General Education requirements.

## MAJOR REQUIREMENTS

*36 credits*

ENG 209 Literary Analysis (*Course must be taken before the completion of 13 credits in English*)

You must choose one additional course at the 200 level, four at the 300 level, and three at the 400 level, including a course in theory.

Select *two* of the following courses in British literature (*one from pre-1789 literature*):

- ENG 220 Readings in English Literature
- ENG 321 English Literature: Beginnings to 18th Century
- ENG 322 English Literature: 18th Century to Present
- ENG 323 Medieval Literature
- ENG 324 Chaucer
- ENG 326 Shakespeare: Comedies and Histories
- ENG 327 Shakespeare: Tragedies
- ENG 328 Milton
- ENG 329 19th-Century English Literature
- ENG 330 Studies in British Literature

Select *two* of the following courses in American literature:

- ENG 210 Introduction to American Studies
- ENG 240 Readings in American Literature
- ENG 245 Readings in American Indian Studies
- ENG 341 Early American Literature
- ENG 342 19th-Century American Literature
- ENG 343 20th-Century American Literature
- ENG 344 Studies in American Literature
- ENG 345 Black American Literature
- ENG 346 Transcendentalism
- ENG 347 Modern American Indian Literature

Select *two* of the following courses in multicultural, world, or continental literature:

- ENG 245 Readings in American Indian Studies
- ENG 250 Readings in Continental Literature
- ENG 252 Literature of the Holocaust
- ENG 260 Readings in World Literature
- ENG 261 Classical Literature of Greece
- ENG 345 Black American Literature
- ENG 347 Modern American Indian Literature
- ENG 350 Studies in Continental Literature
- ENG 360 Studies in World Literature
- ENG 370 Studies in Literatures of the Americas

When appropriate, the following courses may be used to fulfill requirements in any of the three categories listed above:

- ENG 280 Cultural Studies
- ENG 285 Genre Studies
- ENG 290 Topics
- ENG 298 Independent Study
- ENG 381 Women Writers
- ENG 390 Studies
- ENG 410 Theory
- ENG 490 Advanced Studies
- ENG 495 Seminar
- ENG 498 Independent Study

Select *one* course in theory:

- ENG 402 Theory and Practice
- ENG 410 Theory

Complete *one* additional English course in any area.

## English Teacher Certification

### GENERAL EDUCATION REQUIREMENTS

For teacher certification in English (secondary), the following courses must be included in the General Education requirements:

one U.S. History course in the Arts and Humanities component (B);

one Geography course in the Social Sciences component (C).

For students seeking certification in English, ENG 209 Literary Analysis may also count toward the general education requirements.

### MAJOR REQUIREMENTS

ENG 312 Descriptive Grammar and one additional course in writing beyond ENG 101 and 209

### EDUCATION REQUIREMENTS

#### Orientation

ESEC 100 Introduction to Teaching

#### Learners

ESEC 150 Development, Exceptionality, and Learning I\*

ESEC 250 Development, Exceptionality, and Learning II

#### Fundamentals

This part of the knowledge base is taken within the English discipline.

#### Settings

ESEC 320 Educational Environments and Practices

#### Methodology

ESEC 385 Methods: Secondary

ESEC 386 Methods: Field Experience

#### Systems

ESEC 450 Seminar: Educational Principles

*Practice*

ESEC 460 Student Teaching

The following course is highly recommended:

*Pedagogy*

ESEC 387 Creating Social Contexts for Learning

\*Course requires a minimum of one to three hours of field work in the schools or service learning.

**ELECTIVES**

Select courses to reach a total of 120 credits for the degree.

**DEGREE REQUIREMENTS***120 credits*

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## Environmental Studies

*Bachelor of Science*

Environmental Studies is an interdisciplinary program comprising courses in Biology, Chemistry, Economics, Geography, Geology, and Political Science. The major is designed with two options, Environmental Policy and Environmental Science, to prepare students for a wide range of environment-related career opportunities. Students intending to major in Environmental Studies should select an advisor and formally declare their major as early as possible, preferably by the end of their first year.

**GENERAL EDUCATION REQUIREMENTS***(minimum) 43 credits*

Because of the interdisciplinary nature of the major and because some required courses are prerequisite to others, the Social Sciences (C) and Sciences/Mathematics components (D) of the General Education requirements (12 credits each) are mostly fulfilled. ENG 202 may apply toward the Arts and Humanities (B) General Education requirements (4 credits). Thus many credits of the major may apply toward completion of General Education requirements.

**MAJOR REQUIREMENTS****Environmental Studies Core (36 credits)**

All Environmental Studies students must take the following core courses, giving them broad exposure to the wide range of fields of environmental study and background for further specialization:

ENST 100 Introduction to Environmental Studies  
 ENST 200 Intermediate Environmental Studies  
 ENST 395 Junior Seminar

ENST 495 Senior Seminar  
 ECON 202 Microeconomics  
 ENG 202 Expository Writing  
 POSC 201 Introduction to Political Science  
 GEOG 204 Physical Geography  
 GEOL 201 Introductory Physical Geology  
 MATH 141 Introductory Statistics  
 BIO 151/152 Life: Diversity and Lab

**Environmental Policy Option (34-36 credits)**

This option is designed for students wishing to acquire a strong environmentally oriented background in the Policy areas. Students completing this option should be prepared to investigate problems, and formulate and implement policies, relating to the environment, or alternatively, to continue environmental policy studies at the graduate level.

POSC 332 Public Policy Analysis  
 ECON 340 Environmental Economics  
 GEOG 330 Natural Resource Management  
 CHEM 103/107 Fundamentals of Chemistry and Lab

*One of the following map skills courses:*

GEOG 221 Maps and Map Reading  
 GEOG 323 Cartography and Surveying  
 GEOG 326 Geographical Information Systems  
 GEOG 327 Introduction to Remote Sensing

*Two of the following Environmental Science Courses:*

BIO 252 Ecology and Evolution  
 CHEM 131 Chemistry and the Environment  
 ENST 210 Energy and Environment  
 GEOL 315 Environmental Geology

**SPECIALIZATION REQUIREMENT:**

12 credits at the 300 level or above in either Economics, Geography, or Political Science, selected in consultation with your advisor; or in an individualized specialization approved by the ENST Steering Committee in advance.

**Environmental Science Option (42-46 credits)**

This option is designed for students wishing to acquire a strong environmentally oriented background in the Natural Science areas. Students completing this option should be prepared to explore and resolve scientific problems relating to the environment, or alternatively, to continue environmental science studies at the graduate level.

BIO 153/154 Life: Processes and Lab  
 CHEM 111/115 and 112/116 General Chemistry I, II and Labs  
 PHYS 141 and 142 College Physics I, II  
 MATH 130 Precalculus or MATH 151 Calculus  
*One from:*  
 GEOL 206 Oceanography  
 MET 225 Meteorology

**SPECIALIZATION REQUIREMENT:**

16-19 credits in either Biology, Chemistry, or Geology as

outlined below; or in an individualized specialization approved by the ENST Steering Committee in advance.

#### *ENVIRONMENTAL BIOLOGY SPECIALIZATION (16-17 credits)*

BIO 252/256 Ecology and Evolution and Lab

BIO 457 Research Methods: Ecology

*One lecture course:*

BIO 251 Genetics

BIO 253 Physiology of Plants and Animals

*One Ecology course:*

BIO 451 Population Ecology

BIO 452 Community and Ecosystems Ecology

BIO 454 Ecological Physiology

*One Organismal course:*

BIO 322 Flowering Plant Biology

BIO 333 Invertebrate Zoology

BIO 334 Vertebrate Zoology

BIO 351 Ornithology

BIO 352 Entomology

#### *ENVIRONMENTAL CHEMISTRY SPECIALIZATION (16-18 credits)*

CHEM 221/225 and 222/226 Organic Chemistry and Lab

CHEM 334/356 Environmental Chemical Analysis and Lab

*One of the following:*

CHEM 382/386 Occupational Safety and Health and Lab

CHEM 401/403 Biochemistry and Lab

BIO 315 General Microbiology

GEOL 412 Geochemistry

#### *ENVIRONMENTAL GEOLOGY SPECIALIZATION (17-19 credits)*

GEOL 202 Historical Geology

*Two of the following "environmental" Geology courses:*

GEOL 315 Environmental Geology

GEOL 412 Geochemistry

GEOL 460 Hydrogeology

*One of the following "structural" Geology courses:*

GEOL 303 Structural Geology

GEOL 306 Stratigraphy

GEOL 309 Geomorphology

*One of the following map skills courses:*

GEOG 323 Cartography and Surveying

GEOG 326 Geographical Information Systems

GEOG 327 Introduction to Remote Sensing

### **ELECTIVES**

Select courses to reach a total of 126 credits for the degree.

### **DEGREE REQUIREMENTS**

*126 credits*

## **Film Studies**

### *Bachelor of Arts*

The Film Studies major balances theoretical and applied course work. Options offer opportunities to prepare for employment in a variety of fields; graduates most often go on to further study or careers in the analysis and/or production of film and television or to careers in areas of the business world such as personnel, counseling, advertising, public relations, and sales.

### **LANGUAGE REQUIREMENT**

The student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the Division of Arts and Humanities. The complete policy statement appears at the beginning of the Bachelor's Degree Programs section of this catalog.

### **GENERAL EDUCATION REQUIREMENTS**

*(minimum) 43 credits*

### **MAJOR REQUIREMENTS**

*41-45 credits*

The Film Studies major provides Critical Studies and Film Production students alike with a strong visual, analytical, and aesthetic background as a common basis for each specialization. The Critical Studies Option offers students an extensive range of courses in film history and theory, treating film as a liberal arts discipline, a mass medium, and a technique of expression. Moderate requirements in film production supplement the primary emphasis on analysis of specific genres, directors, historical periods, and national cinemas. The Film Production Option provides students with intensive hands-on instruction in motion picture production. Courses emphasize technical and aesthetic aspects of narrative filmmaking, including scriptwriting, directing, cinematography, editing, and sound.

### **Film Studies Admission Criteria**

a. An average grade of B (3.00) or better in FILM 250 Film Production I, FILM 270 Introduction to Film Analysis, and FILM 271 Introduction to Film History.

b. Submission for critical assessment of two projects completed during FILM 250 (for Production students) or one paper completed during FILM 270 or FILM 271 (for Critical Studies students).

c. Interview with Film Studies faculty, whose approval is required for admission.

d. When applying to the program, a student must declare which option s/he intends to complete.

e. Upon acceptance into the Film program, students must maintain a GPA within the program curriculum of 2.50, with a minimum grade of C in any required FILM course (those fulfilling either a Core or Option requirement). Students falling below this minimum will be placed on a one-semester probation, after which, if grade criteria have not been met, students will be dismissed from the program. Students may apply for acceptance to the Film program a maximum of two times (thus, students accepted into the program but later dismissed may reapply once). Further applications will not be entertained.

### Film Studies Core (25 credits)

FILM 250 Film Production I  
 FILM 259 Film Studies Credit (one credit)  
 FILM 270 Introduction to Film Analysis  
 FILM 271 Introduction to Film History  
 FILM 352 Film Genres and Directors  
 FILM 355 Film Theory  
 FILM 495 Seminar

### Options (select one):

- a. Film Production** (20 credits)  
 FILM 350 Film Production II  
 FILM 351 Intermediate Production Studio  
 FILM 440 Advanced Production Techniques  
 FILM 450 Film Production III  
 FILM 451 Film Production IV
- b. Critical Studies** (16 credits)  
 FILM 352 Film Genres and Directors  
 FILM 352 Film Genres and Directors  
 FILM 495 Seminar  
 FILM 499 Senior Research Project

### ELECTIVES

Select courses to reach a total of 120 credits for the degree.

### DEGREE REQUIREMENTS

120 credits

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## French

### *Bachelor of Arts*

This major is designed for students who wish to prepare themselves to use French actively in careers in business, government, teaching, or other fields.

French majors are required to earn a minimum of 12 credits in at least one semester (or two summer sessions) of study abroad. Semester study abroad is more typically done in two consecutive summers. Students must take part in one

of the College's approved programs of study in Rennes (semester program), St. Malo (semester and summer programs), or Quebec (semester and summer programs). All students planning to study in a French-speaking country must consult with the National and International Exchange Office and French faculty before program selection to arrange for program approval and transfer of credit.

New students will be assigned to the proper course on the basis of placement interviews with the Modern Language faculty. In general, however, students who have had no prior instruction or experience with a language should register for 101. Students with one or two years of successful high school study should register for 102. Students with three or more years should register for 201. Exceptions to these guidelines will be granted only by the Modern Language faculty.

For proper program advisement, potential majors should consult with a French advisor upon admission to Keene State College.

### LANGUAGE REQUIREMENT

The student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the Division of Arts and Humanities. The complete policy statement is located at the beginning of the section (Bachelor's Degree Programs) in this Catalog.

### GENERAL EDUCATION REQUIREMENTS

(minimum) 43 credits

For teacher certification in French (secondary), the following courses must be included in the General Education requirements: a U.S. History course in the Arts and Humanities component (B) and a Geography course in the Social Sciences component (C).

### MAJOR REQUIREMENTS

44 credits

ML 101 The World of Language  
 FR 201-202 Intermediate French I & II  
 FR 303 Introduction to French Literature  
 FR 315 Conversation in French  
 FR 316 Composition in French  
 FR 320 Commercial French *or*  
 FR 405 Contemporary French Usage  
 FR 350 Study in France or Quebec (minimum of 12 credits)  
 FR 495 Seminar  
 HIST 340 The French Revolution and the Napoleonic Empire *or*  
 HIST 349 France Since 1815  
*Three credits* on French topics selected from courses such as:  
 FR 290 or FR 498 with approval of French faculty.

## ELECTIVES

Select courses to reach a total of 120 credits for the degree.

For teacher preparation in French (secondary), the following courses are required:

### *Orientation*

ESEC 100 Introduction to Teaching

### *Learners*

ESEC 150 Development, Exceptionality, and Learning I\*

ESEC 250 Development, Exceptionality, and Learning II

### *Fundamentals*

ESEC 282 Literacy in Content Areas\*

### *Settings*

ESEC 320 Educational Environments and Practices

### *Methodology*

ESEC 385 Methods: Secondary

ESEC 386 Methods: Field Experience

### *Systems*

ESEC 450 Seminar: Educational Principles

### *Practice*

ESEC 460 Student Teaching

The following course is highly recommended:

### *Pedagogy*

ESEC 387 Creating Social Contexts for Learning

\*Course requires a minimum of one to three hours of field work in the schools or service learning.

## DEGREE REQUIREMENTS

120 credits

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## General Science

### *Bachelor of Arts*

The Bachelor of Arts in General Science provides a broad-based foundation in three major areas: Earth/Space science, Life science and Physical science. It is an ideal major for the pre-service elementary or middle-school teacher as it addresses national recommendations for improving science education with an activity and hands-on focus.

## GENERAL EDUCATION REQUIREMENTS

(minimum) 43 credits

Courses included in the core may apply toward the Sciences/Mathematics component (D) of the General Education requirements.

If you seek Elementary, Early Childhood, or Elementary Special Education certification, please refer to the specific

General Education requirements for each option in the Education section of this catalog.

If you seek Middle School teacher certification, in partial fulfillment of the General Education requirements, the following must be taken:

Arts and Humanities (B) – a course in U.S. History  
Social Sciences (C) – a course in Geography

## MAJOR REQUIREMENTS

All students must complete the core courses and select one of the program options.

### Core (31-32 credits)

ASTR 101 Elementary Astronomy *or*

ASTR 307 University Astronomy (3 credits)

BIO 151 and BIO 152 Life: Diversity & Lab (4 credits)

BIO 153 and BIO 154 Life: Processes & Lab (4 credits)

BIO 252 Ecology & Evolution (3 credits)

GEOL 201 Intro to Physical Geology (4 credits)

GEOL 202 Historical Geology (4 credits)

*One from:*

MATH 120 Applied Algebra & Trigonometry (3 credits)

MATH 130 Precalculus (3 credits)

MATH 151 Calculus I (4 credits)

MET 225 Meteorology (3 credits)

PHYS 201 Phenomenal Science (3 credits)

### 1. Elementary, Early Childhood, or Elementary Special Education Option (19-20 credits)

CHEM 103/107 Fundamentals of Chemistry & Lab (4 credits)

IDSM 301 The Web of Science I (3 credits)

IDSM 401 The Web of Science II (3 credits)

Select *three or more* additional science courses (9-10 credits) at the 200 level or higher.

## TEACHER CERTIFICATION

### REQUIREMENTS (40-55 CREDITS)

If you are pursuing teacher certification (i.e., BS Education with General Science as second major), see requirements for Elementary, Early Childhood, and/or Elementary Special Education options under Education major.

### 2. Middle School Option (14 credits plus specialization or minor)

CHEM 111/115 General Chemistry I & Lab (4 credits)

CHEM 112/116 General Chemistry II & Lab (4 credits)

MATH 141 Introductory Statistics (3 credits)

PHYS 210 History of Science (3 credits)

In addition to the requirements listed above, complete either a specialization or a minor in Biology, Chemistry, or Geology.

#### *a. Specialization*

Complete three or more additional courses at the 200 level

or higher in one of the following areas: Biology, Chemistry, or Geology.

*b. Minor*

Complete the remaining course requirements for a minor in Biology, Chemistry, or Geology.

Refer to the Minors section of the catalog for specific course requirements.

## TEACHER CERTIFICATION REQUIREMENTS (37 CREDITS)

If pursuing teacher certification for Middle School General Science, the following courses are required:

*Orientation*

ESEC 100 Introduction to Teaching (1 credit)

*Learners*

ESEC 150 Development, Exceptionality, and Learning I (3 credits)

ESEC 250 Development, Exceptionality, and Learning II (3 credits)

*Fundamentals*

ESEC 282 Literacy in Content Areas (3 credits)

*Settings*

ESEC 320 Educational Environments and Practices (3 credits)

*Methodology*

ESEC 384 Methods: Middle School (3 credits)

ESEC 386 Methods: Field Experience (3 credits)

*Pedagogy*

ESEC 387 Creating Social Contexts for Learning (3 credits)

*Systems*

ESEC 450 Seminar: Educational Principles (3 credits)

*Practice*

ESEC 460 Student Teaching (12 credits)

## ELECTIVES

Select additional courses, if necessary, to reach a total of 120 credits for the degree.

## DEGREE REQUIREMENTS

120 credits

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## Geography

### *Bachelor of Arts*

Geography, an eclectic discipline dealing with the earth as the habitat of humans, provides a unique opportunity

to learn about interactions between physical and cultural environments. For example, physical geography relies heavily on geology, meteorology, and oceanography. Human geography examines humanity's adaptation to the constantly changing forces of nature, focusing on such issues as population distributions, technology, language, race, location theory, settlement patterns, economic patterns, and resource use systems. Cartography (mapping) is an indispensable tool of the discipline.

Employment opportunities are available for geographers in local, state, and federal agencies concerned with regional planning and environmental impact. Industry employs geographers as researchers, analysts, and consultants. Geography students who complete the teacher education option will be eligible for social studies certification.

The Geography major requires 36 credit hours of Geography courses. Up to three regional courses may be counted toward the major. One statistics course is required and may be used for general education requirements. Students considering graduate work in Geography should develop skills in computer science.

## GENERAL EDUCATION REQUIREMENTS

(minimum) 43 credits

Geography courses taken to satisfy General Education requirements may not apply toward the Geography major.

Geography majors preparing for certification as comprehensive Social Studies teachers must take the following courses in addition to the courses required for the Geography major. The additional courses may also count toward filling General Education requirements. (Note: New Hampshire has no certification to teach Geography only.)

HIST 161-162 Topics in U.S. History I and II, *or*

one course in HIST 360-363;

*and* one course in HIST 364-367.

HIST 111 Traditional World Civilization *and*

HIST 112 Modern World Civilization

ECON 201 Macroeconomics

POSC 201 Introduction to Political Science *or*

POSC 211 U.S. Politics

SOC 101 Introductory Sociology *or*

ANTH 110 Cultural Anthropology

PSYC 101 General Psychology

## MAJOR REQUIREMENTS

36 credits

GEOG 203 Cultural Geography

GEOG 204 Physical Geography

GEOG 395 Seminar I

GEOG 495 Seminar II



One of the following regional courses:

- GEOG 341 Geography of the U.S. (recommended for Teacher Certification)
- GEOG 343 Geography of Canada
- GEOG 345 Geography of Latin America
- GEOG 347 Geography of Europe
- GEOG 349 Geography of Asia
- GEOG 351 Geography of Africa

One of the following geographic skills courses:

- GEOG 323 Cartography and Surveying
- GEOG 324 GIS: ARCVIEW
- GEOG 325 Cartography and Computer Mapping
- GEOG 326 GIS: IDRISI
- GEOG 327 Intro to Remote Sensing

One of the following systematic fields of geography:

- GEOG 303 Political Geography
- GEOG 305 Economic Geography
- GEOG 307 Urban Geography
- GEOG 330 Natural Resource Management
- GEOG 332 Water Resource Geography
- GEOG 405 Land Use Planning
- GEOG 420 Environmental Assessment

One of the following:

- MATH 141 Introductory Statistics
- PSYC 251 Psychological Statistics

Electives in Geography or from the following list to bring the total to 36 credits:

- GEOL 309 Geomorphology
- MET 225 Meteorology
- ANTH 110 Cultural Anthropology

## ELECTIVES

Select courses to reach a total of 120 credits for the degree.

For teacher preparation in Social Studies (secondary), the following courses are required (34 credits):

### *Orientation*

ESEC 100 Introduction to Teaching

### *Learners*

- ESEC 150 Development, Exceptionality, and Learning I\*
- ESEC 250 Development, Exceptionality, and Learning II

### *Fundamentals*

ESEC 282 Literacy in Content Areas\*

### *Settings*

ESEC 320 Educational Environment and Practices

### *Methodology*

- ESEC 385 Methods: Secondary
- ESEC 386 Methods: Field Experience

### *Systems*

ESEC 450 Seminar: Educational Principles

### *Practice*

ESEC 460 Student Teaching

The following course is highly recommended:

### *Pedagogy*

ESEC 387 Creating Social Contexts for Learning

\*Course requires a minimum of one to three hours of field work in the schools or service learning.

## DEGREE REQUIREMENTS

120 credits

## Geology

### *Bachelor of Science*

Geology is the study of the Earth and its environs. It involves detailed consideration of planet Earth's interior and its surface, as well as consideration of the hydrosphere, atmosphere, and setting in space. These studies are central to an understanding of the Earth's past, present, and future environments and the interrelationship between Earth and humanity. Students graduating from this program are prepared for traditional positions with oil and mining companies, and state and federal geological surveys as well as positions in the rapidly growing fields of environmental geology, hydrogeology, resource planning, and engineering and consulting firms, or to enter graduate study. By completing the teacher education option, students are prepared for certification as Earth Science Education teachers in secondary schools.

## GENERAL EDUCATION REQUIREMENTS

(minimum) 43 credits

The following required courses in Biology, Chemistry, Mathematics, and Physics may apply toward the Sciences/Mathematics component (D) of the General Education requirements or electives (III).

BIO 151/152 Life: Diversity and Lab

CHEM 111/115-112/116 General Chemistry I, II and Labs

MATH 151 Calculus I

PHYS 141, 142 College Physics I, II or

PHYS 241, 242 University Physics I and II

Select *one* of the following:

MATH 141 Introductory Statistics

MATH 152 Calculus II

Any course in Computer Science

For teacher certification in Earth Science Education in grades 7-12, the following courses must be included in the General Education requirements:

a U.S. History course in the Arts and Humanities component (B);

a Geography course in the Social Sciences component (C).

## MAJOR REQUIREMENTS

40 credits

GEOL 201 Introductory Physical Geology *or*  
GEOL 100/101 Perspectives of the Earth and Lab

GEOL 202 Historical Geology

GEOL 301 Mineralogy

GEOL 302 Petrology

GEOL 303 Structural Geology

GEOL 305 Paleontology

GEOL 306 Stratigraphy and Sedimentation

Four Geology courses (12 credits) at the 300-level or above.

ASTR 307 may be used to satisfy part of this requirement.

A summer field course is recommended, especially for those planning graduate study.

Select *one* of the following:

GEOG 323 Cartography and Surveying

GEOG 325 Cartography and Computer Mapping

GEOG 326 Geographic Information Systems

GEOG 327 Intro to Remote Sensing

GEOL 206 Oceanography

MET 225 Meteorology

## ELECTIVES

Select courses to reach a total of 120 credits for the degree.

For teacher preparation in Earth Science Education (grades 7-12), the following courses are required (34 credits):

### *Orientation*

ESEC 100 Introduction to Teaching

### *Learners*

ESEC 150 Development, Exceptionality, and Learning I\*

ESEC 250 Development, Exceptionality, and Learning II

### *Fundamentals*

ESEC 282 Literacy in Content Areas\*

### *Settings*

ESEC 320 Educational Environments and Practice

### *Methodology*

ESEC 385 Methods: Secondary

ESEC 386 Methods: Field Experience

### *Systems*

ESEC 450 Seminar: Educational Principles

### *Practice*

ESEC 460 Student Teaching

The following course is highly recommended:

### *Pedagogy*

ESEC 387 Creating Social Contexts for Learning

\*Course requires a minimum of one to three hours of field work in the schools or service learning.

## DEGREE REQUIREMENTS

126 credits

## Health Science

### *Bachelor of Science*

Health Science is an interdisciplinary program comprising courses in Biology, Chemistry, Management, Exercise Science, Health Promotion, Health Fitness, Nutrition, and Substance Abuse and Addictions. The emphasis is on the prevention of physical and emotional distress and illness through the promotion of self-awareness and healthy lifestyle choice. All health science majors must complete the Health Science core, which focuses on both the science of Health as well as the art of Health Promotion. The major is completed by selecting one of three options: Health Promotion and Fitness, Nutrition, or Substance Abuse and Addictions. An application process is required for each of the options within Health Science. Specific requirements and standards are listed for each of the options.

## MAJOR REQUIREMENTS

52 – 71 credits

### Health Science Core (26 credits)

HLSC 100 Drugs, Personal Health & Risk Assessment (1)  
HLSC 101/PE 101 Health and Wellness Trends and Issues (3)

HLSC 102 Introduction to Health Science (1)

HLSC 201/PE 201 Physiology of Exercise (3)

HLSC 318 Life Cycle Nutrition and Wellness (3)

HLSC 380 Alcohol: Model of Chemical Dependency (3)

HLSC 385 Behavior Change Facilitation (3)

HLSC 401 Health Promotion Methods (3)

HLSC 402 Health Promotion Management (3)

HLSC 495 Seminar: Health Science (3)

### 1. Health Promotion and Fitness Option (28 credits)

The Health Promotion and Fitness option prepares students for a variety of careers in Health Promotion, Fitness, and Wellness. Typical career opportunities include exercise physiologist and health promotion and health fitness specialists in worksite, community, commercial, and hospital-based sites.

All students in the Health Promotion and Fitness Program must demonstrate first aid and CPR competencies at the level of American Red Cross Standard First Aid and Adult CPR or take PE 191 during the freshman or sophomore year.

The application process for admission to the Health Promotion and Fitness Option occurs during the spring semester for freshmen and transfers. Each student should take the courses listed below during the first two semesters and apply to be admitted to the Health Promotion and Fitness Option. Enrollment in Health Science major courses will not

be allowed if application has not been made. The review of applicants and notification of the results of this review will be made by the end of that semester. If a student is not accepted, s/he should schedule a consultation with one or more members of the Admissions Committee. During the conference, the student will be notified of any areas of deficiency that need to be addressed. Once admitted, the student must officially declare his or her major through the Elliot Center.

#### **ADMISSION CRITERIA**

Overall GPA of 2.5, major GPA of 2.5, and C or better in the following Health Science courses are required. For transfer students, equivalent transferred courses may be considered if approved by the Admissions Committee.

HLSC 100 Drugs, Personal Health, and Risk Assessment  
HLSC 101/PE 101 Health and Wellness Trends and Issues  
HLSC 102 Introduction to Health Science

#### **GENERAL EDUCATION REQUIREMENTS**

*(minimum) 43 credits*

COMM 171 is a requirement of the major and may apply toward the Arts and Humanities component (B) of the General Education requirements.

PSYC 101 General Psychology is a requirement of the major and may apply toward the Social Sciences component (C) of the General Education requirements.

BIO 230/231 and 232/233 Human Anatomy and Physiology I, II and labs, and CHEM 103/107 Fundamentals of Chemistry & Lab are prerequisites for courses in the major and may apply toward the Sciences/Mathematics component (D) of the General Education requirements. The BIO sequence should be started in the second semester of the freshman year.

#### **HEALTH PROMOTION & FITNESS OPTION REQUIREMENTS**

PE 200 Applied Kinesiology (3)  
PE 243 Resistance Training Program (1)  
HLSC 214 Nutrition Fundamentals (3)  
HLSC 330 Psychology of Health & Physical Activity (3)  
HLSC 332 Fitness Testing (3)  
HLSC 333 Exercise Programming (3)  
HLSC 334 Group Fitness Leadership (1)  
HLSC 372 Practicum: Health Promotion and Fitness (3)  
HLSC 431 Stress Management (3)  
HLSC 472 Advanced Practicum: Health Promotion and Fitness (3)  
MGT 101 Introduction to Management (2)

#### **ELECTIVES**

Select courses to reach a total of 126 credits for the degree.

## **2. Nutrition Option (45 credits)**

The Keene State College Health Science/Nutrition Option is currently granted initial accreditation by the Commission on Accreditation for Dietetics Education of the American Dietetic Association, 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995. The Nutrition Option provides the basic academic preparation necessary to become a registered dietitian (RD). Certification as an RD is often mandatory for professional positions and requires completion of an approved postgraduate supervised practice program.

Typically, a student who successfully completes the ADA-approved curriculum, an ADA-accredited internship or pre-professional practice program, and a registration examination becomes qualified as a health professional responsible for services in areas such as management, clinical or community dietetics, education, consultation, private practice, research, etc.

The application process for admission to the Nutrition Option occurs during the spring semester for freshmen and transfers. Each student should take the courses listed below during the first two semesters and apply to be admitted to the Nutrition Option. Enrollment in Health Science major courses will not be allowed if application has not been made. The review of applicants and notification of the results of this review will be made by the end of that semester. If a student is not accepted, s/he should schedule a consultation with one or more members of the Admissions Committee. During the conference, the student will be notified of any areas of deficiency that need to be addressed. Once admitted, the student must officially declare his or her major through the Elliot Center.

#### **ADMISSION CRITERIA**

Overall GPA of 2.7, major GPA of 2.7, and a C or better in the following Health Science courses are required. For transfer students, equivalent transferred courses may be considered if approved by the Admissions Committee.

HLSC 100 Drugs, Personal Health & Risk Assessment  
HLSC 101/PE 101 Health and Wellness Trends and Issues  
HLSC 102 Introduction to Health Science

#### **GENERAL EDUCATION REQUIREMENTS**

*(minimum) 47 credits*

COMM 171 is a requirement of the major and may apply toward the Arts and Humanities component (B) of the General Education requirements.

PSYC 101 General Psychology is a requirement of the major and may apply toward the Social Sciences component (C) of the General Education requirements.

BIO 230/231 and 232/233 Human Anatomy and Physiology I, II and labs are prerequisites for courses in the major and may apply toward the Sciences/Mathematics compo-

nent (D) of the General Education requirements. The BIO sequence should be started in the second semester of the freshman year.

CHEM 111/115 and 112/116 General Chemistry I and II and lab are prerequisites for courses in the major and may apply toward the Sciences/Mathematics component (D) of the General Education requirements.

### *NUTRITION OPTION REQUIREMENTS*

#### *Nutrition Courses (33 credits)*

HLSC 150 Introduction to the Nutrition Profession (1)  
 HLSC 215 Nutrition Science and Application (3)  
 HLSC 216 Current Topics in Food Culture (4)  
 HLSC 217 Applied Nutrition Science Lab (1)  
 HLSC 310 Food Science (4)  
 HLSC 313/315 Food Service Management/Lab (5)  
 HLSC 319 Life Cycle Nutrition Lab (1)  
 HLSC 410 Experimental Foods (2)  
 HLSC 415 Nutritional Biochemistry (3)  
 HLSC 416/417 Medical Nutrition Therapy/Lab (5)  
 HLSC 419 Nutrition Research Lab (1)  
 HLSC 473 Practicum: Nutrition (3)

#### *Allied Disciplines (12 credits)*

The following required courses are required for ADA certification:

BIO 153/154 Life: Processes and Lab (4)  
 BIO 315 General Microbiology (4)  
 CHEM 220/224 Fundamental Organic Chemistry and Lab (4)

### *ELECTIVES*

Select courses to reach a total of 126 credits for the degree.

## **3. Substance Abuse/Addictions Option (26 credits)**

The Substance Abuse/Addictions Option at Keene State College specifically addresses the needs of public and private human service agencies. Such agencies utilize employees who can recognize chemical dependency issues, use available resources, and facilitate addressing chemical abuse-related problems in multiple settings.

Candidates for this degree and option often come to the program with a high level of interest in the helping professions.

This option provides study of a wide range of health issues as they relate to addictions and chemical dependency. It helps students develop skills that assist clients toward the primary goal of recognition and recovery.

Candidates develop practical skills in recognizing and evaluating chemical dependency indicators and how to treat the illness through various techniques.

Core courses are taught by full-time faculty of the Health Science Department who have professional field experience

(or by practitioners from the community). An internship is required in the field of chemical dependency in the senior year. Work in this program may be applied toward becoming a New Hampshire-licensed Alcohol and Drug Abuse Counselor; however this process is pursued separately through the State Bureau of Substance Abuse Services in Concord.

The application process for admission to the Substance Abuse/Addictions Option occurs during the spring semester for freshmen and transfers. Each student should take the courses listed below during the first two semesters and apply to be admitted to the Substance Abuse/Addictions Option. Enrollment in Health Science major courses will not be allowed if application has not been made. The review of applicants and notification of the results of this review will be made by the end of that semester. If a student is not accepted, s/he should schedule a consultation with one or more members of the Admissions Committee. During the conference, the student will be notified of any areas of deficiency that need to be addressed. Once admitted, the student must officially declare his or her major through the Elliot Center.

### *ADMISSION CRITERIA*

Overall GPA of 2.5, major GPA of 2.5, and a C or better in the following Health Science courses are required. For transfer students, equivalent transferred courses may be considered if approved by the Admissions Committee.

HLSC 100 Drugs, Personal Health & Risk Assessment  
 HLSC 101/PE 101 Health and Wellness Trends and Issues  
 HLSC 102 Introduction to Health Science

### *GENERAL EDUCATION REQUIREMENTS*

*(minimum) 43 credits*

COMM 171 is a requirement of the major and may apply toward the Arts and Humanities component (B) of the General Education requirements.

PSYC 101 General Psychology is a requirement of the major and may apply toward the Social Sciences component (C) of the General Education requirements.

BIO 230/231 and 232/233 Human Anatomy and Physiology I, II and labs, and CHEM 103/107 Fundamentals of Chemistry & Lab are prerequisites for courses in the major and may apply toward the Sciences/Mathematics component (D) of the General Education requirements. The BIO sequence should be started in the second semester of the freshman year.

### *SUBSTANCE ABUSE/ADDICTIONS OPTION REQUIREMENTS*

*26 credits*

HLSC 214 Nutrition Fundamentals (3)  
 HLSC 439 Internship in Chemical Dependency (3)

HLSC 486 Assessment, Diagnosis, and Counseling (3)  
 HLSC 488 Addiction: Prevention to Treatment (3)  
 HLSC 490 Special Topics in Chemical Dependency (6)  
 MGT 101 Introduction to Management (2)  
 Select an additional 6 credits from courses approved by  
 advisor in areas of substance abuse and addictions.

### ELECTIVES

Select courses to reach a total of 126 credits for the degree.

## DEGREE REQUIREMENTS

126 credits

## History

### *Bachelor of Arts*

As a field of study, history provides students with many of the necessary skills for a productive professional career and an intellectually fulfilling life. Toward these ends, the history major attempts to provide students with the ability to think and read critically and analytically; to form sound opinions and support them with logical arguments based on documentary evidence; to communicate ideas effectively; and to conduct historical research. The history major further attempts to provide students with a body of historical knowledge that will enable them to understand contemporary events of local, national and global importance, as well as to understand and appreciate the various cultures and civilizations that make up the world community. Above all, the history major helps to provide students with the means for life-long learning.

By combining the development of specific skills with the acquisition of a body of historical knowledge, the history major prepares students for successful careers in primary and secondary education (history and social studies); business and industry; and government service. The major also prepares students for graduate study in history, law, and other academic and professional fields.

Students majoring in history are required to complete 36 credit hours in history, 18 credits of which must be in one of the following areas of specialization: (1) U.S. History; (2) European History; (3) 19th Century Studies; (4) 20th Century Studies. At least 12 of the 18 credit hours toward the area of specialization must be at the 300 level (or higher). At least 3 of the 18 credit hours must be at the 400 level.

Students majoring in history must also complete History 200: Reading and Writing in History. *Note:* History 200 must be completed before any student (major or non-major) completes 13 credit hours in history.

Students who complete the teacher education option will be eligible for social studies certification.

Students of History are *strongly advised* to acquire reading proficiency in at least one foreign language. Reading knowledge of at least one foreign language is *essential* for all students who intend to apply to graduate school.

## LANGUAGE REQUIREMENT

The student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the Division of Arts and Humanities. The complete policy statement appears at the beginning of the Bachelor's Degree Programs section of this catalog.

## GENERAL EDUCATION REQUIREMENTS

(minimum) 43 credits

History courses completed to fulfill major requirements may also count toward fulfillment of General Education requirements in Arts and Humanities.

History majors preparing for certification as comprehensive Social Studies teachers must complete one course in U.S. History and one course in non-U.S./World History, as well as the additional courses listed below. These additional courses may also count toward fulfillment of General Education requirements in Arts and Humanities. (Note: New Hampshire has no certification to teach History only.)

ECON 201 Macroeconomics  
 GEOG 101 Introduction to World Geography *or*  
 GEOG 105 Geography for Teachers  
 SOC 101 Introductory Sociology *or*  
 ANTH 110 Cultural Anthropology  
 POSC 201 Introduction to Political Science *or*  
 POSC 211 U.S. Politics  
 PSYC 101 General Psychology

## MAJOR REQUIREMENTS

36 credits

6 credits at the 100 level  
 9 credits at the 200 level, including History 200  
 15 credits at the 300 level  
 6 credits at the 400 level

18 credit hours must be completed in one of the following areas of specialization: (1) U.S. History; (2) European History; (3) 19th Century Studies; (4) 20th Century Studies. At least 12 credit hours toward the area of specialization must be at the 300 level (or higher), and at least 3 of the 18 credit hours must be at the 400 level.

All history majors must complete 6 credit hours in non-U.S./non-European History.

## ELECTIVES

Select courses to reach a total of 120 credits for the degree.

For teacher preparation in Social Studies (secondary), the following courses are required (34 credits):

### *Orientation*

ESEC 100 Introduction to Teaching

### *Learners*

ESEC 150 Development, Exceptionality, and Learning I\*

ESEC 250 Development, Exceptionality, and Learning II

### *Fundamentals*

ESEC 282 Literacy in Content Areas\*

### *Settings*

ESEC 320 Educational Environments and Practices

### *Methodology*

ESEC 385 Methods: Secondary

ESEC 386 Methods: Field Experience

### *Systems*

ESEC 450 Seminar: Educational Principles

### *Practice*

ESEC 460 Student Teacher

The following course is highly recommended:

### *Pedagogy*

ESEC 387 Creating Social Contexts for Learning

\*Course requires a minimum of one to three hours of field work in the schools or service learning.

## DEGREE REQUIREMENTS

120 credits

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## Individualized Major

### *Bachelor of Arts or Bachelor of Science*

An individualized major is composed of an interdisciplinary program of studies, appropriately designed (1) to enhance the student's ability to integrate and synthesize content and/or method from two or more academic disciplines and (2) to satisfy an individual student's educational interests or career objectives. It must be identified by a title and list of courses that differ from all existing undergraduate majors currently offered by the college. The application must be completed and submitted prior to the final 30 credits in the degree program.

Traditional and nontraditional students may propose an individualized major by observing the following policies and procedures.

### A. Processing the Individualized Major:

1. Advisory Committee. The student selects an Advisor of Record from the principal discipline and an additional faculty member from each secondary discipline represented in the individualized major. All committee members must be full-time faculty.

2. A meeting of this committee is called to discuss the proposed major and to assist the student in designing the program of studies.

3. The proposed Individualized Major must be signed by the student and co-signed by members of the advisory committee prior to approval by the Associate Vice President for Academic Affairs. Approval must occur at least three weeks prior to registration for the semester during which the individualized major is to be declared.

4. Copies of the approved proposal will be distributed to the student, each member of the advisory committee and the Registrar. The original will be retained in the Office of the Associate Vice President for Academic Affairs.

### B. Completing and/or Modifying the Individualized Major:

1. The student is responsible for (a) completing all General Education Requirements, (b) progressing through the Individualized Major program as approved by the advisory committee and the associate vice president for Academic Affairs, and (c) enrolling in sufficient electives to fulfill credit requirements for the degree.

2. All changes to the Individualized Major must be signed by the advisory committee members and approved by the associate vice president for Academic Affairs. These amendments must be in writing and accompanied by an appropriate rationale.

Each program of study is divided into General Education requirements, the major, and electives. Individualized Major forms are available in the Office of the associate vice president for Academic Affairs and the Academic Advising Center.

## GENERAL EDUCATION REQUIREMENTS

(minimum) 43 credits

Established by the College, the General Education requirements are the same for all bachelor's degree programs. These requirements seek to broaden, deepen, and integrate understanding of the most significant aspects of humanity's heritage. They also enhance the student's capacity for aesthetic enjoyment, critical thinking, creativity, abstract and logical reasoning, and oral and written communication.

It is also recommended that students develop competence in a second language, acquire or enhance computer literacy, select an experiential learning opportunity in which discipline-based knowledge can be applied in a real-life setting, and

continue their general education throughout the bachelor's degree program. All students are urged to complete at least one interdisciplinary course approved for such purposes by the College Senate Curriculum Committee.

## MAJOR REQUIREMENTS

*(minimum) 36 credits*

Whereas major requirements are usually established by the academic discipline, the Individualized Major program of studies is designed by the student in consultation with an advisory committee, subject to approval by the associate vice president for Academic Affairs.

### An Individualized Major:

1. Must consist of at least 36 credits, of which 18 must be numbered 300 or above.
2. Must include courses from a minimum of two academic disciplines. Two disciplines in the major must consist of a minimum of 15 credits each.
3. May include up to 15 credits of Independent Study courses (498).

## ELECTIVES

Select courses to reach a total of 120 credits for a BA and 126 credits for a BS. Selected by the student, elective courses are usually related to personal and professional interests.

## DEGREE REQUIREMENTS

*120-126 credits*

All bachelor's degrees require a minimum of 120 credits. Normally, a BA totals 120 credits and a BS 126 credits.

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# Journalism

## *Bachelor of Arts*

This major is a career program emphasizing the building of skills and the mastering of concepts related to the news media. The program prepares students for careers as writers, reporters, or editors for newspapers, magazines, and electronic and online media.

The curriculum covers the skill areas of journalistic writing, editing and broadcast journalism. It includes (1) at least 27 credit hours of study within Journalism and (2) a minor selected in consultation with an academic advisor.

A grade of C or better must be earned in each Journalism course or Journalism course substitution counted toward the major.

This program provides a survey of the symbolic systems

of print and broadcast media and exploration of one of these systems in depth.

## LANGUAGE REQUIREMENT

The student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the Division of Arts and Humanities. The complete policy statement appears at the beginning of the Bachelor's Degree Programs section of this catalog.

## GENERAL EDUCATION REQUIREMENTS

*(minimum) 43 credits*

## MAJOR REQUIREMENTS

*45-54 credits*

JRN 200 Introduction to Mass Media  
JRN 201 News Writing I-Introductory  
JRN 270-282 Journalism Lab (minimum 2 semesters)  
JRN 290 Topics in Mass Media  
JRN 317 Journalism Research Methods

Select *one* of the following:

JRN 310 Mass Media History and Theory

JRN 322 Media Ethics

Select *one* of the following:

JRN 301 News Writing II

JRN 302 Broadcast Journalism

Select *two* of the following:

JRN 306 News Editing

JRN 308 Radio Journalism

JRN 315 Television News Studio

JRN 401 Feature Writing

JRN 408 TV Journalism

JRN 410 Public Affairs Reporting

JRN 446 Community TV News

Select a minor in consultation with a Journalism academic advisor.

## ELECTIVES

Select courses to reach a total of 120 credits for the degree.

## DEGREE REQUIREMENTS

*120 credits*

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# Management

## *Bachelor of Science*

This career-oriented program, emphasizing management skills and building on a solid foundation in the liberal

arts and sciences, is designed to prepare individuals for management careers in industrial or public organizations and for graduate work.

The Management curriculum develops an analytical and integrative viewpoint toward management through study in the humanities and social sciences. It provides a broad conceptual framework within which a manager will be able to develop alternative approaches to attaining given goals. Students develop the strong administrative, quantitative, and communications skills that modern managers must possess.

### COMPETENCIES IN WRITING, SPEAKING, ECONOMICS, AND STATISTICS

The writing competence requirement is met by satisfactorily completing ENG 101 Essay Writing. The Management faculty strongly recommend, but do not require, ENG 202 Expository Writing. The speaking competence requirement is met by satisfactorily completing COMM 171 Fundamentals of Speech. The economics competence requirement is met by completing ECON 201 Macroeconomics and ECON 202 Microeconomics. Computer Science 101 Introduction to Computer Information Processing is required. MATH 102 Mathematics for Management is required for students with deficiencies in math as assessed by the Management department and the Math Center. Students interested in pursuing a Master of Business Administration degree are encouraged to take MATH 141 Introductory Statistics.

### GENERAL EDUCATION REQUIREMENTS

*(minimum) 43 credits*

Courses in English and Communication may apply toward the Arts and Humanities component (B); courses in Economics may apply toward the Social Sciences component (C); courses in Computer Science and Mathematics may apply toward the Sciences/Mathematics component (D) of the General Education requirements.

### MAJOR REQUIREMENTS

*44 credits*

MGT 101 Introduction to Management (2 credits)  
 MGT 202 Quantitative Decision Making  
 MGT 213 Financial Accounting  
 MGT 214 Managerial Accounting  
 MGT 301 Organizational Theory and Behavior  
 MGT 319 Financial Management  
 MGT 331 Principles of Marketing  
 MGT 381 Management Information Systems  
 MGT 451 Social, Legal, and Political Environment of Business  
 MGT 491 Business Policy and Strategy  
 MGT electives (6 credits at 300 or 400 level)

A maximum of 2 credits can be taken from either Independent Study, Internship, or Cooperative Education.

### ELECTIVES

Select courses to reach a total of 126 credits for the degree.

### DEGREE REQUIREMENTS

*126 credits*

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## Mathematics

### *Bachelor of Arts*

The Bachelor of Arts in Mathematics provides a broad mathematical foundation for work in related areas such as economics or science, for teaching, or for graduate work.

A decision to undertake a Mathematics major should be made no later than the beginning of the sophomore year if the program is to be completed in four years. Students entering as Mathematics majors should take MATH 151 Calculus I as soon as possible.

### GENERAL EDUCATION REQUIREMENTS

*(minimum) 43 credits*

CS 140 and PHYS 241 are required for the major and may apply toward the Sciences/Mathematics component (D) of the General Education requirements.

For teacher preparation in this major, refer to the Teacher Education Programs section of this catalog for courses that must be included in general education.

### MAJOR REQUIREMENTS

*(41 or 42 credits depending on program selected which includes 17 credits from the core courses and 24 or 25 credits from the program options)*

All students must complete the core courses and select one of the program options.

#### Core Courses

\*MATH 141 Introduction to Statistics  
 MATH 151, 152 Calculus I, II  
 MATH 225 Introduction to Abstract Math  
 MATH 231 Linear Algebra

\*This requirement can be fulfilled by completing PSYC 251.

#### 1. Pure Math Option

(recommended for students intending graduate work in mathematics)

MATH 251 Calculus III  
 MATH 331 Modern Algebra  
 MATH 351 Intermediate Analysis



Two mathematics electives at the 230 level or higher.  
Three mathematics electives at the 305 level or higher.

## 2. Applied Math Option

MATH 251 Calculus III  
MATH 265 Mathematical Modeling  
MATH 331 Modern Algebra  
MATH 341 Mathematical Probability  
MATH 361 Differential Equations

Select *one* of:

MATH 242 Applied Statistics  
MATH 260 Numerical Methods

Select *two* of:

MATH 342 Mathematical Statistics  
MATH 453 Complex Variables  
MATH 468 Intro to Applied Math

The following options are for students who intend to teach in K-12 settings:

## 3. Secondary Option

MATH 251 Calculus III  
MATH 265 Mathematical Modeling  
MATH 310 History of Mathematics  
MATH 320 Geometry  
MATH 331 Modern Algebra  
MATH 341 Mathematical Probability  
MATH 351 Intermediate Analysis  
MATH 475 Issues and Trends in Math Education

## 4. Middle/Junior High Option

MATH 235 Discrete Mathematics  
MATH 275 Geometry for K-9 Teachers  
MATH 310 History of Mathematics  
MATH 371 Math Concepts for the Middle School  
MATH 475 Issues and Trends in Math Education

At least *one* of:

MATH 320 Geometry  
MATH 331 Modern Algebra  
MATH 337 Number Theory

Two mathematics electives (minimum 6 credits) at the 200/300 level plus appropriate certification courses

## 5. Elementary Option

MATH 235 Discrete Mathematics  
MATH 275 Geometry for K-9 Teachers  
MATH 310 History of Mathematics  
MATH 475 Issues and Trends in Math Education

At least *one* of:

MATH 320 Geometry  
MATH 331 Modern Algebra  
MATH 337 Number Theory

Three mathematics electives (minimum 9 credits) at the 200/300 level plus appropriate certification courses

## ELECTIVES

Select courses to reach a total of 120 credits for the degree.

For teacher preparation in Mathematics (secondary), the following courses are required (34 credits):

### Orientation

ESEC 100 Introduction to Teaching

### Learners

ESEC 150 Development, Exceptionality, and Learning I\*  
ESEC 250 Development, Exceptionality, and Learning II

### Fundamentals

ESEC 282 Literacy in Content Areas\*

### Settings

ESEC 320 Educational Environments and Practices

### Methodology

ESEC 385 Methods: Secondary  
ESEC 386 Methods: Field Experience

### Systems

ESEC 450 Seminar: Educational Principles

### Practice

ESEC 460 Student Teaching

The following course is highly recommended:

### Pedagogy

ESEC 387 Creating Social Contexts for Learning

\*Course requires a minimum of one to three hours of field work in the schools or service learning.

## DEGREE REQUIREMENTS

120 credits

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## Mathematics-Physics

### Bachelor of Science

This interdisciplinary program provides sufficient ground-work in both mathematics and physics for employment in industry or further study in graduate school.

Students who are interested in an engineering degree may elect this program, complete major requirements within three years, transfer to an engineering school of choice, and be awarded both the B.S. in Math-Physics from Keene State and the appropriate engineering bachelor's degree.

The program is comprised of 21 credits of Mathematics, 22 credits of Physics, and 3 credits of Computer Science.

## GENERAL EDUCATION REQUIREMENTS

(minimum) 43 credits

CS 140, PHYS 241 and one of the 8-credit required sequences in BIO 151/152-153/154, CHEM 111/115-112/116, or GEOL 201-202 may apply toward the Sciences/Mathematics component (D) of the General Education requirements.

**MAJOR REQUIREMENTS***47 credits*

CS 140 Computer Programming  
 MATH 151, 152, 251 Calculus Sequence  
 MATH 231 Linear Algebra  
 MATH 361 Differential Equations  
 MATH 468 Introduction to Applied Mathematics  
 PHYS 241, 242, 245 University Physics I, II, III  
 PHYS 260 Electronics  
 PHYS electives (6 credits, 300-level or higher)

**ELECTIVES**

Select courses to reach a total of 126 credits for the degree.

**DEGREE REQUIREMENTS***126 credits*

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**Music***Bachelor of Arts*

This program provides a broad foundation in music and is also appropriate for students planning on graduate study. Five specializations are available: Composition, History and Literature, Music for Elementary Teachers, Music Technology, and Theory.

A grade of C or better must be earned in each course counted toward the major.

Following an audition for acceptance into the Music degree program, the choice of specialization is determined in consultation with a Music faculty advisor, but all students should begin the theory/sight-singing sequence in the first year.

**LANGUAGE REQUIREMENT**

The student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the Division of Arts and Humanities. The complete policy statement appears at the beginning of the Bachelor's Degree Programs section of this catalog.

**GENERAL EDUCATION REQUIREMENTS***(minimum) 43 credits***MAJOR REQUIREMENTS***45-50 credits***Core (33 credits)**

MU 100 Music Workshop (four semesters)

MU 101, 102, 201, 202 Applied Music (1 credit each)  
 MU 114 Music Cultures of the World  
 MU 118, 119 Functional Piano I, II (2 credits each)  
 Piano majors substitute four semesters (1 credit each) of  
 MU 181 Accompanying  
 MU 151, 152, 251, 252 Music Theory I-IV (2 credits each)—students lacking competence for MU 151 must take MU 131 (MU 131 does not count for the major)  
 MU 161, 162, 261, 262 Aural Skills I-IV (1 credit each)  
 MU 172, 173, 174, 177, or 178 Ensembles (1 credit each, total 4 credits)  
 MU 310 Western Music Before 1750  
 MU 312 Western Music After 1750

**Specialization (select one):***COMPOSITION (14 credits)*

MU 211 Intro to Electronic Music (2 credits)  
 MU 213 Composition I (2 credits)  
 MU 214 Composition II (2 credits)  
 MU 301, 302, 401 Applied Composition (2 credits each)  
 MU 405 Counterpoint (2 credits)

A student completing the Composition specialization is encouraged to consider the following courses as potential open electives:

MU 222 Musical Improvisation (1 credit)  
 MU 223 String Methods I (1 credit)  
 MU 225 Brass Methods I (1 credit)  
 MU 227 Woodwind Methods I (1 credit)  
 MU 229 Percussion Methods I (1 credit)  
 MU 315 Conducting I (2 credits)  
 MU 486 Twentieth-Century Music

*HISTORY AND LITERATURE (12 credits)*

MU 486 Twentieth-Century Music

Select *9 credits* from the following:

MU 112 Latin American Music  
 MU 115 Women in Music  
 MU 212 Music in America  
 MU 218 History of Jazz  
 MU 222 Musical Improvisation (1 credit)  
 MU 235 Performance Literature (2 credits)  
 MU 405 Counterpoint (2 credits)

*MUSIC FOR ELEMENTARY TEACHERS (12 credits)*

MU 207 Teaching Music to Children

Select *nine credits* from the following:

MU 105 Voice Class (1 credit)  
 MU 110 Guitar Class (1 credit)  
 MU 112 Latin American Music  
 MU 115 Women in Music  
 MU 212 Music in America  
 MU 218 History of Jazz  
 MU 222 Musical Improvisation (1 credit)  
 MU 498 Independent Study (1-6 credits)

*MUSIC TECHNOLOGY (13-17 CREDITS)*

MU 211 Introduction to Electronic Music (2 credits)

MU 213 Composition I (2 credits)  
 MU 214 Composition II (2 credits)  
 MU 411 Electronic Music Projects (1 credit each, total 3 credits)

MU 497 Internship in Music Technology (1-4 credits)  
 \*Technology Electives from CS, FILM, TAD (3-4 credits)

\*May be applied to General Education

#### *THEORY (12 CREDITS)*

MU 404 Analytical Techniques (2 credits)

MU 405 Counterpoint (2 credits)

MU 486 Twentieth-Century Music

Select 5 credits from the following:

MU 211 Intro to Electronic Music (2 credits)

MU 213 Composition I (2 credits)

MU 214 Composition II (2 credits)

MU 222 Musical Improvisation (1 credit)

MU 498 Independent Study (1-6 credits)

#### **ELECTIVES**

Select courses to reach a total of 120 credits for the degree. Electives must include 12 credits outside of Music.

#### **DEGREE REQUIREMENTS**

120 credits

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## Music Education

### *Bachelor of Music*

The Music Education curriculum prepares teachers and supervisors of music for kindergarten through grade 12. This major presupposes a high level of interest in and aptitude for music. An audition is required before admission to the program. Upon entering the program, students declare a primary instrument or voice. All students must pass a basic piano skills test before the end of the sophomore year or they will not be permitted to enroll in junior year courses in Music Education. Students must work closely with their advisors in planning for completion of this tightly structured program.

Fourteen credits in Applied Music, including a 30- to 40-minute senior recital, must be in the primary instrument or voice, and must be completed before student teaching. Participation in at least one performing ensemble appropriate to the student's program (chosen from MU 172, 173, 174, 177, 178) is required each semester of applied music study, with the exception of the semester of student teaching.\* Any further exceptions require the approval of the student's advisor, the ensemble director, and the Music faculty.

A grade of C or better must be earned in each course counted toward the major.

*\*Pianists/organists may substitute up to two semesters of MU 171 for these ensembles.*

#### **LANGUAGE REQUIREMENT**

The student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the Division of Arts and Humanities. The complete policy statement appears at the beginning of the Bachelor's Degree Programs section of this Catalog.

#### **GENERAL EDUCATION REQUIREMENTS**

*(minimum) 43 credits*

MU 114 Music Cultures of the World is required and will apply toward the Arts and Humanities component (B) of the General Education requirements. For teacher certification in Music (K-12), the following courses must be included in the General Education requirements: a U.S. History course in the Arts and Humanities component (B) and a Geography course in the Social Sciences component (C).

#### **MAJOR REQUIREMENTS**

99 credits

##### **Teacher Education**

28 credits

For teacher preparation in Music Education (K-12) the following courses are required:

##### *Orientation*

ESEC 100 Introduction to Teaching

##### *Learners*

ESEC 150 Development, Exceptionality, and Learning I\*

ESEC 250 Development, Exceptionality, and Learning II

##### *Fundamentals*

This part of the knowledge base is taken within Music Education (MU 151, MU 152, MU 251, MU 252, MU 161, MU 162, MU 261, MU 262)

##### *Settings*

ESEC 320 Educational Environments and Practices

##### *Methodology*

This part of the knowledge base is taken within Music (MU 357, MU 358, MU 360)

##### *Pedagogy*

ESEC 387 Creating Social Contexts for Learning

##### *Systems*

ESEC 450 Seminar: Educational Principles

##### *Practice*

ESEC 460 Student Teaching

\*Course requires a minimum of one to three hours of field work in the schools or service learning.

## Music Courses

71 credits

MU 100 Music Workshop (7 semesters)  
 MU 101, MU 102, MU 201, MU 202, MU 301, MU 302, MU 401 Applied Music (2 credits each)  
 MU 114 Music Cultures of the World (Applied to General Education)  
 MU 118 Functional Piano I (2 credits)  
 MU 119 Functional Piano II (2 credits)  
 (Piano majors substitute MU 181 Accompanying for MU 118 and MU 119) (Total 4 credits)  
 MU 151 Music Theory I (2 credits)\*  
 MU 152 Music Theory II (2 credits)  
 MU 161 Aural Skills I (1 credit)  
 MU 162 Aural Skills II (1 credit)  
 MU 172, MU 173, MU 174, MU 177, or MU 178 Ensembles (7 credits)  
 MU 220 Technology for Music Educators (3 credits)  
 MU 222 Musical Improvisation (1 credit)  
 MU 223 String Methods I (1 credit)  
 MU 225 Brass Methods I (1 credit)  
 MU 227 Woodwind Methods I (1 credit)  
 MU 229 Percussion Methods I (1 credit)  
 MU 231 Guitar Methods  
 (Guitar majors substitute MU 326) (2 credits)  
 MU 251 Music Theory III (2 credits)  
 MU 252 Music Theory IV (2 credits)  
 MU 261 Aural Skills III (1 credit)  
 MU 262 Aural Skills IV (1 credit)  
 MU 310 Western Music Before 1750 (3 credits)  
 MU 312 Western Music After 1750 (3 credits)  
 MU 315, MU 316 Conducting I, II (2 credits each)  
 MU 357 General Music K-12 (4 credits)\*\*  
 MU 358 Choral Music Education (2 credits)\*\*  
 MU 360 Instrumental Music Education (2 credits)\*\*

\*Students lacking competence for MU 151 must take MU 131. MU 131 does not count for the major.

\*\*Student must average 2.50 to qualify for student teaching.

## Specialization (select one)

6 credits from one specialization:

### INSTRUMENTAL

MU 105 Voice Class (1 credit)  
 MU 172 Concert Choir (1 credit)  
 MU 224 String Methods II (1 credit)  
 MU 226 Brass Methods II (1 credit)  
 MU 228 Woodwind Methods II (1 credit)  
 MU 230 Percussion Methods II (Percussionists substitute a Music elective) (1 credit)

### CHORAL

MU 101, MU 102, MU 201 Applied Music (or appropriate combinations of secondary applied music study totaling 4 credits)  
 MU 237 Vocal Pedagogy

## DEGREE REQUIREMENTS

142 credits

## Music Performance

### Bachelor of Music

This major emphasizes performance proficiency and applied study of a major instrument or voice. It prepares students for careers in performance, independent teaching, or graduate study leading to the Master of Music degree.

Upon successful completion of an audition into the program, students declare a primary instrument or voice; 32 credits of Applied Music must then be taken in the primary instrument or voice. All students must pass a basic piano skills test before the end of the sophomore year or they will not be permitted to proceed with the junior recital. A 30- to 40-minute recital on the primary instrument in the junior year and a 60- to 70-minute recital in the senior year are required. Participation in at least one performing ensemble appropriate to the student's program (chosen from MU 172, MU 173, MU 174, MU 177, MU 178) is required each semester of applied music study.\* Any exceptions require approval of the student's advisor, the ensemble director, and the Music faculty.

A grade of C or better must be earned in each course counted toward the major.

\*Pianists/organists may substitute up to two semesters of MU 171 for these ensembles.

## LANGUAGE REQUIREMENT

The student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the Division of Arts and Humanities. The complete policy statement appears at the beginning of the Bachelor's Degree Programs section of this catalog.

## GENERAL EDUCATION REQUIREMENTS

(minimum) 43 credits

Two of the Humanities courses taken to satisfy the Arts and Humanities component (B) of the General Education requirements must be in Modern Languages for vocalists. Courses in Modern Languages are strongly recommended for instrumentalists.

## MAJOR REQUIREMENTS

86 credits

MU 100 Music Workshop  
 MU 101, MU 102, MU 201, MU 202, MU 301, MU 302, MU 401 and MU 414 Applied Music (32 credits; primary instrument)  
 MU 101, MU 102, MU 201, MU 202, Applied Music (or appropriate combinations of secondary applied music study totaling 4 credits)

MU 114 Music Cultures of the World (3 credits)  
 MU 118 Functional Piano I (2 credits)  
 MU 119 Functional Piano II (2 credits)  
 (Piano majors substitute MU 181 Accompanying for MU 118 and MU 119 for a total 4 credits)  
 MU 151 Music Theory I (2 credits)\*  
 MU 152 Music Theory II (2 credits)  
 MU 161 Aural Skills I (1 credit)  
 MU 162 Aural Skills II (1 credit)  
 MU 172, MU 173, MU 174, MU 177, or MU 178 Ensembles (8 credits)  
 MU 222 Musical Improvisation (1 credit)  
 MU 251 Music Theory III (2 credits)  
 MU 252 Music Theory IV (2 credits)  
 MU 261 Aural Skills III (1 credit)  
 MU 262 Aural Skills IV (1 credit)  
 MU 310 Western Music Before 1750 (3 credits)  
 MU 312 Western Music After 1750 (3 credits)  
 MU 315 Conducting I (2 credits)  
 MU 404 Analytical Techniques in Music (2 credits)  
 MU 486 Twentieth Century Music (3 credits)  
 Music Elective(s) (3 credits total)

*\*Students lacking competence for MU 151 must take MU 131. MU 131 does not count for the major.*

*And:*

**VOCALISTS TAKE:**

MU 237 Vocal Pedagogy

MU 238 Vocal Diction and Literature

**INSTRUMENTALISTS TAKE:**

MU 211 Intro to Electronic Music (2 credits)

or MU 235 Performance Literature (Guitarists and pianists only – 2 credits)

MU 326 Applied Pedagogy (2 credits)

## DEGREE REQUIREMENTS

127-129 credits

# Physical Education

## Bachelor of Science

This interdisciplinary program provides students with multidimensional preparation for a profession in physical education. All students are required to take the Physical Education Core. The major is completed by selecting one of the two options: Athletic Training or Teacher Certification. An application process is required for each option; each has specific requirements and standards. A decision to major in Physical Education should be made no later than the fall semester of the freshman year. For transfers

and students who begin at a later time, one or more additional semesters can be expected.

## GENERAL EDUCATION REQUIREMENTS

(minimum) 43 credits

BIO 230/231 and BIO 232/233 Human Anatomy and Physiology I and II and labs are prerequisites for courses in the major for all Physical Education majors and may apply toward the Sciences/Mathematics component of the General Education requirements. The sequence should be started in the second semester of the freshman year.

All students majoring in Physical Education must also demonstrate math competency at the level of Intermediate Algebra and Trigonometry, or take Math 120 (Sciences/Mathematics component) during the freshman year.

Teacher Certification Option students must take CHEM 100 Introduction to Chemistry (as a prerequisite for BIO 230/231) as the required Physical Sciences course in the Sciences/Mathematics component.

Athletic Training Option students must take PSYC 101 General Psychology as part of the Social Sciences component, and CHEM 103/107 as the required Physical Sciences course in the Sciences/Mathematics component.

For teacher preparation in the Teacher Certification Option of this major, the following courses must be included in the General Education requirements: One U.S. History course in the Arts and Humanities component and one course in Geography in the Social Sciences component.

## MAJOR REQUIREMENTS

67-76 credits

### Physical Education Core (15 credits)

PE 100 Foundations of Physical Education

PE 101/HLSC 101 Health and Wellness: Trends and Issues

PE 200 Applied Kinesiology

PE 201 Physiology of Exercise

PE 460 Measurement and Evaluation in Physical Education

### 1. Athletic Training Option (52 credits)

The Athletic Training Option is a CAAHEP (Commission on Accreditation of Allied Health Education Programs)-accredited undergraduate athletic training education program. Students who graduate with a Physical Education Major/Athletic Training Option are eligible to take the NATA (National Athletic Trainers Association) Certification Examination for Athletic Training. The program prepares students for athletic training positions in educational and clinical settings and for graduate programs in Sports Medicine/Athletic Training, Exercise Physiology, and

Biomechanics. The academic program is highly structured and requires that students begin major course work during their first semester of attendance at Keene State College. Transfers and other students who begin the option at the sophomore or junior year should plan to stay an additional one to three semesters beyond the traditional four-year schedule to complete the program. Any student who competes in a varsity or club sport will not be able to complete the Athletic Training Option because of the conflict of practice times and required athletic training internship hours. Those students who intend to apply for admission to this option must enroll in PE 140 Orientation to Athletic Training for the fall semester and complete specific requirements including athletic training competencies and clinical hours in the Athletic Training Room.

The application process for admission to the Athletic Training Option begins the first week of fall semester for freshmen and transfers. Review of applicants and official notification of the results of this review occur during the spring semester. When a student is not accepted, a consultation will be scheduled with one or more members of the Admissions Committee. During the conference, the student will be notified of any areas of deficiency which need to be addressed. The student will be eligible to reapply for admission during the next year's admission period.

#### *ADMISSION CRITERIA:*

- a. Overall GPA of 2.5; Major GPA of 2.5.
- b. A performance evaluation by the clinical supervisors in the Athletic Training Option based on one semester with a minimum of 50 hours of clinical experience in the Keene State College Training Room.
- c. Successful completion of required competencies including specified rehabilitation protocols, taping/wrapping techniques, and training room procedures.
- d. Recommendation for admission by two Physical Education faculty, one of whom must be a clinical supervisor in the Athletic Training Option.

#### *RETENTION STANDARDS*

Admission to PE 493 Externship: Athletic Training: Students are required to submit letters of intent to register for this course following completion of courses leading up to and including junior-level courses in the Physical Education major/Athletic Training Option. The following criteria will be used:

Completion of a minimum of 90 credits.

Completion of the Athletic Training Option courses listed below with a C or better:

- PE 140 Orientation to Athletic Training
- PE 240 Advanced First Aid
- PE 241 Mechanics of Taping Techniques

- PE 243 Resistance Training Programs
- PE 246 Clinical Palpation
- PE 340 Athletic Training I
- PE 341 Techniques of Manual Testing
- PE 342 Therapeutic Modalities
- PE 343 Clinical Exercise Therapy
- PE 344 Sports Nutrition
- PE 373 Practicum: Athletic Training (3 credits)
- PE 383 Internship: Athletic Training (6 credits)
- PE 440 Athletic Training II
- PE 441 Athletic Training III
- PE 483 Adv. Internship: Athletic Training

Completion of major requirements with a GPA of 2.5.

Cumulative GPA of 2.5.

Transcripts will be reviewed prior to placing students. Deadlines for application are February 15 for the Fall Semester and September 15 for the Spring Semester.

#### *TECHNICAL STANDARDS FOR ADMISSION*

The Athletic Training Option is a rigorous and intense program that places specific requirements and demands on the students enrolled in the program. An objective of this program is to prepare graduates to enter a variety of employment settings and to render care to a wide spectrum of individuals engaged in physical activity. The technical standards set forth by the Athletic Training Option establish the essential qualities considered necessary for students admitted to this program to achieve the knowledge, skills, and competencies of an entry-level athletic trainer, as well as meet the expectations of the program's accrediting agency (CAAHEP). The following abilities and expectations must be met by all students admitted to the Athletic Training Option. In the event a student is unable to fulfill these technical standards, with or without reasonable accommodation, the student will not be admitted into the program.

Compliance with the program's technical standards does not guarantee a student's eligibility for the NATABOC certification exam.

Candidates for selection to the Athletic Training Option must demonstrate:

1. The mental capacity to assimilate, analyze, synthesize, and integrate concepts and problem-solve to formulate assessment and therapeutic judgments and distinguish deviations from the norm.
2. Sufficient postural and neuromuscular control, sensory function, and coordination to perform appropriate physical examinations using accepted techniques and to accurately, safely, and efficiently use equipment and materials during the assessment and treatment of patients.
3. The ability to understand and speak the English language at a level consistent with competent professional practice.

4. The ability to communicate effectively and sensitively with patients and colleagues, including individuals from different cultural and social backgrounds. This includes, but is not limited to, the ability to establish rapport with patients and communicate judgments and treatment information effectively.
5. The ability to record the physical examination results and a treatment plan clearly and accurately.
6. The capacity to maintain composure and continue to function well during periods of high stress.
7. The perseverance, diligence, and commitment to complete the athletic training education program as outlined and sequenced.
8. The flexibility and the ability to adjust to changing situations and uncertainty in clinical situations.
9. The affective skills and appropriate demeanor and rapport relating to professional education and quality patient care.

#### *ATHLETIC TRAINING OPTION REQUIREMENTS*

PE 140 Orientation to Athletic Training  
 PE 240 Advanced First Aid  
 PE 241 Mechanics of Taping Techniques  
 PE 243 Resistance Training Programs  
 PE 246 Clinical Palpation  
 PE 340 Athletic Training I  
 PE 341 Techniques of Manual Testing  
 PE 342 Therapeutic Modalities  
 PE 343 Clinical Exercise Therapy  
 PE 344 Sports Nutrition  
 PE 373 Practicum: Athletic Training (3 credits)  
 PE 383 Internship: Athletic Training (6 credits)  
 PE 440 Athletic Training II  
 PE 441 Athletic Training III  
 PE 443 Administration of Athletic Training  
 PE 473 Advanced Practicum: Athletic Training (3 credits)  
 PE 483 Advanced Internship: Athletic Training (6 credits)  
 PE 493 Externship: Athletic Training (3 credits)

## **2. Teacher Certification Option (61 credits)**

This option is designed to prepare students to teach Physical Education in the public schools and meets all current requirements by the State of New Hampshire for certification in physical education, K-12.

The application process for admission to the Teacher Certification Option begins fall semester of the freshman year. The review of applicants and the official notification of the results of this review would occur at the conclusion of the spring semester of the freshman year. Students applying must have completed PE 100 and PE 101/HLSC 101 from the PE Core and 4 credits of PE Major skills courses. Transfer students may be eligible to apply for admission after one semester at KSC, which must include

a minimum of one course from the PE Core and 2 credit hours of PE Major skills coursework. When a student is not accepted, a consultation may be scheduled with one or more members of the Admissions Committee. During the conference, the student will be notified of any areas of deficiency which need to be addressed. The student will be eligible to reapply for admission during the next year's admission period.

#### *ADMISSION CRITERIA*

Students must submit a portfolio as evidence of each of the following expectations:

##### **Personal Identity:** Biographical Information

**Program Planning and Academic Progress:** Overall GPA of 2.5, Major GPA of 2.5, and C or better in the following PE courses:

PE 100 Foundations  
 PE 101/HLSC 101 Health and Wellness: Trends and Issues  
 PE 278 Racquet Sports  
 PE 286 Basketball  
 PE 288 Soccer/Speedball

**Teaching Skills:** Demonstration of basic competencies in planning, instruction, and reflection.

**Professional Identity:** Documentation of progress in social and leadership skills, personal fitness, professional writing and professional expectations.

NOTE: Acceptance into Teacher Education is a separate process and is required of all students in the Teacher Certification Option. Refer to the Teacher Education/Certification Programs Section of this catalog or go to the Office of Teacher Education Programs for a ROUTE HANDBOOK which describes this process.

#### *A. PHYSICAL EDUCATION COURSES (36 credits)*

PE 250-290 Skills and Techniques: 18 credits in the following courses, which must be taken in sequence as follows:

##### *Freshman Year:*

PE 260 Total Fitness and Conditioning (Fall)  
 PE 288 Soccer/Speedball (Fall)  
 PE 278 Racquet Sports (Spring)  
 PE 286 Basketball (Spring)

##### *Sophomore Year:*

PE 255 Developmental Movement (Fall)  
 PE 283 Gymnastics (Spring)  
 PE 285 Volleyball (Spring)

##### *Junior Year:*

PE 261 Fitness Curriculum for K-12 Learners (Fall)  
 PE 265 Secondary Activities (Fall)  
 PE 282 Track and Field (Fall)  
 PE 287 Softball (Fall)  
 PE 256 Rhythms (Spring)  
 PE 268 Outdoor Skills (Spring)

PE 240 Advanced First Aid  
 PE 360 Teaching Physical Education  
 PE 361 Adapted Physical Education  
 PE 362 Administration of Physical Education programs  
 PE 375 Practicum: Teaching-Elementary (3 credits)  
 PE 376 Practicum: Teaching-Secondary (3 credits)

### *B. TEACHER EDUCATION (25 credits)*

For teacher preparation in Physical Education (K-12) the following courses are required:

#### *Orientation*

ESEC 100 Introduction to Teaching

#### *Learners*

ESEC 150 Development, Exceptionality, and Learning I\*

ESEC 250 Development, Exceptionality, and Learning II

#### *Fundamentals*

This part of the knowledge base is taken within Physical Education. (PE 100, PE 200, PE 201)

#### *Settings*

This part of the knowledge base is taken within Physical Education. (PE 100, PE 360, PE 361, PE 362, PE 375, PE 376)

#### *Methodology*

This part of the knowledge base is taken within Physical Education. (PE 360, PE 375, PE 376)

#### *Pedagogy*

ESEC 387 Creating Social Contexts for Learning

#### *Systems*

ESEC 450 Seminar: Educational Principles

#### *Practice*

ESEC 465 Student Teaching: Elementary (6 credits)

ESEC 465 Student Teaching: Secondary (6 credits)

\*Course requires a minimum of one to three hours of field work in the schools or service learning.

## **ELECTIVES**

Select courses to reach a total of 126 credits for the degree.

## **DEGREE REQUIREMENTS**

126 credits

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# **Physical Science**

## *Bachelor of Arts*

The Bachelor of Arts in Physical Science provides the student seeking Certification in Physical Science Education (Grades 7-12) with a broadly based foundation in the physical sciences which addresses national, regional, and state recom-

mendations for improving physical science education and meets state standards for teaching certification.

Students selecting this program must satisfy all criteria for admission to teacher education/certification and plan accordingly. Please refer to the Teacher Education/Certification Programs section of this catalog.

Students selecting this program should be aware that satisfactory completion of all required courses, including courses in science and courses in education, is required to earn the degree.

## **GENERAL EDUCATION REQUIREMENTS**

*(minimum) 43 credits*

GEOG 204 (Physical Geography) is required and may apply toward the Social Sciences component (C) of the General Education requirements.

MATH 141, 151 are required and may apply toward the Sciences/Mathematics component (D) of the General Education requirements. The Physical Science requirement is satisfied by the major.

## **MAJOR REQUIREMENTS**

*78-79 credits (includes Teacher Education)*

CHEM 111/115 *and* CHEM 112/116 General Chemistry I, II and Labs

CHEM 220/224 Fundamental Organic Chemistry and Lab

CHEM 251/255 Quantitative Analysis and Lab

PHYS 141 *and* PHYS 142 College Physics I & II

PHYS 210 History of Science

ASTR 307 University Astronomy

MET 225 Meteorology

GEOL 201 Introductory Physical Geology

GEOL 202 Historical Geology *or*

GEOL 206 Oceanography

Biology (3 elective credits)

## **TEACHER EDUCATION**

*34 credits*

The education core for teacher preparation in physical science consists of the following required courses:

#### *Orientation*

ESEC 100 Introduction to Teaching

#### *Learners*

ESEC 150 Development, Exceptionality, and Learning I\*

ESEC 250 Development, Exceptionality, and Learning II

#### *Fundamentals*

ESEC 282 Literacy in Content Areas\*

#### *Settings*

ESEC 320 Educational Environments and Practices



*Methodology*

ESEC 385: Methods: Secondary  
ESEC 386: Methods: Field Experience

*Systems*

ESEC 450 Seminar: Education Principles

*Practice*

ESEC 460 Student Teaching

\*Course requires a minimum of one to three hours of field work in the schools or service learning.

**ELECTIVES**

Select courses to reach a total of 120 credits for the degree.

**DEGREE REQUIREMENTS**

120 credits

## Psychology

*Bachelor of Arts*

This major consists of 37 credits in Psychology. It provides an undergraduate program aligned with the four specializations most frequently stressed in graduate schools—Clinical Counseling Psychology, Developmental Psychology, Experimental Psychology, and Personality/Social Psychology.

**GENERAL EDUCATION REQUIREMENTS**

(minimum) 43 credits

One course in psychology may apply toward the Social Sciences component (C) of the General Education requirements, however, it may not count for both the Major and General Education requirements.

**MAJOR REQUIREMENTS**

37 credits

**Admission to the Major**

The application process for formal admission to the psychology major occurs during the first or second semester of the sophomore year, i.e., upon completion of PSYC 101, PSYC 251, and either PSYC 242 or PSYC 253. To be admitted to the major, the student must achieve a minimum GPA of 2.0 in these three courses and be in good academic standing with the College. Before declaring a psychology major, the student must submit a transcript showing his or her grades in these courses to a Psychology advisor for review. If the grade requirements are met, the advisor will sign the declaration of major form, formally admitting the student into the psychology program. Non-majors will

not be allowed to enroll in PSYC 252 Research Methods in Psychology.

**Psychology Core Courses**

PSYC 101 General Psychology  
PSYC 251 Psychological Statistics\*  
PSYC 252 Research Methods in Psychology  
PSYC 253 Brain and Behavior  
PSYC 254 Research Methods Lab  
PSYC 382 History and Systems of Psychology  
PSYC 495 Seminar

\*Students who have already completed MATH 141 may not take PSYC 251 for college credit. These students will use their grade in MATH 141 for admission to the major. Any of these students admitted to the major must take a 3-credit PSYC elective in place of PSYC 251 to fulfill the psychology major credit requirements.

**Specializations**

Select *three* courses from one of the following specializations (9 credits) and one course from each of the remaining three (9 credits):

*A. CLINICAL COUNSELING PSYCHOLOGY*

PSYC 242 Personality  
PSYC 340 Psychological Testing  
PSYC 343 Humanistic and Transpersonal  
PSYC 345 Abnormal Psychology  
PSYC 444 Counseling  
PSYC 447 Clinical Psychology

*B. DEVELOPMENTAL PSYCHOLOGY*

PSYC 311 Child and Adolescent Psychology  
PSYC 314 Adulthood and Aging  
PSYC 332 Ethology  
PSYC 340 Psychological Testing  
PSYC 412 Youth in Transition  
PSYC 425 Psychology of Women

*C. EXPERIMENTAL PSYCHOLOGY*

PSYC 355 Psychology of Learning  
PSYC 357 Cognitive Processes  
PSYC 451 Motivation  
PSYC 453 Sensation and Perception

*D. PERSONALITY/SOCIAL PSYCHOLOGY*

PSYC 221 Social Psychology  
PSYC 242 Personality  
PSYC 321 Cross-Cultural Psychology  
PSYC 340 Psychological Testing  
PSYC 343 Humanistic and Transpersonal Psychology  
PSYC 451 Motivation

**ELECTIVES**

Select courses to reach a total of 120 credits for the degree.

**DEGREE REQUIREMENTS**

120 credits

## Psychology Honors Program

Motivated psychology students may participate in an advanced program of research culminating in graduation with Honors in Psychology. This program allows students to pursue supervised research or applications of psychology in greater depth than provided in course offerings. Students electing to participate in this program complete all requirements for the Psychology major plus 2 credits of PSYC 496 Honors Seminar and 6 credits of PSYC 499 Honors Research during the two semesters of the senior year. These credits may be in lieu of or in addition to elective credits used to fulfill the requirements for the Psychology major.

*Admission to the Honors Program is based on:*

1. **Self-nomination** after completion of 75 credits with an overall grade point average of 3.20.
2. **Support of an Honors Committee** consisting of a faculty sponsor and two other faculty members, one of whom may be from a department other than Psychology. The Honors Committee will review the student's project proposal at the time of enrollment in PSYC 496 and PSYC 499 and, if they approve it, accept the student into the Honors Program.
3. **Completion of, or enrollment in, at least five psychology courses**, including PSYC 251 Psychological Statistics and PSYC 252 Research Methods. Final admission requires successful completion of those Psychology courses enrolled in at the time of application for admission to the Honors Program.

*At the end of the senior year each participant:*

1. Submits a final written report on the Honors work for approval by his or her Honors Committee.
2. Presents the results of his or her work, and responds to questions about the project and its relationship to the larger body of psychological knowledge, in a Colloquium open to the public.
3. Immediately following the Colloquium, the student's Honors Committee votes on whether or not to accept the Honors project.

Students successfully completing all facets of the Honors Program and having an average of 3.20 overall and 3.20 in Psychology will graduate with Honors in Psychology.

## Safety Studies

### *Bachelor of Science*

This major prepares students for a variety of safety and safety-related positions in industry and government. Emphasis is placed on employee protection and cost effective-

ness. Graduates might work in such areas as loss control, risk management, institutional safety, and consulting.

## GENERAL EDUCATION REQUIREMENTS

*(minimum) 43 credits*

CHEM 103/107 Fundamentals of Chemistry and Fundamentals of Chemistry Lab are prerequisites for courses in the major and may apply toward the Sciences/Mathematics component of the General Education requirements. They should be completed during the freshman or sophomore year.

## MAJOR REQUIREMENTS

*42 credits*

### Technology, Design and Safety Core (6 credits)

TDS 181 Safety Awareness (Safety majors must select TDS 181)

Select *one* of the following

TDS 100 Exploring Technology

TDS 140 Introduction to Visual Communication

### Safety Foundation (9 credits)

TDS 284 Industrial Safety

TDS 380 Safety and Health Standards

TDS 381 Legal Aspects of Safety

### Safety Electives (18 credits)

TDS 281 Introduction to Fire Science

TDS 286 Ergonomics

TDS 290 Special Topics

TDS 383 Hazardous Materials

TDS 387 Accident Investigation

TDS 482 Industrial Hygiene

TDS 487 System Safety

TDS 490 Advanced Special Topics

TDS 495 Seminar

TDS Elective

### Management Electives (6 credits)

MGT 101 Introduction to Management

MGT 213 Financial Accounting

MGT 324 Human Resource Management

### Safety Capstone Course (3 credits)

TDS 489 Organization and Administration of Safety Programs

## ELECTIVES

Select courses to reach a total of 126 credits for the degree.

## DEGREE REQUIREMENTS

*126 credits*

## Social Science

### *Bachelor of Arts*

This program provides a broad overview of several liberal arts and sciences. Among other purposes, it is useful as pre-law preparation and graduate work in the policy studies areas. This major also prepares students to be eligible for social studies teacher certification at the secondary level.

### GENERAL EDUCATION REQUIREMENTS

(minimum) 43 credits

Asterisked courses are required for the major, and may be applied toward the Arts and Humanities component (B) or the Social Sciences component (C) of the General Education requirements.

#### ARTS AND HUMANITIES

\*HIST 161 Topics in U.S. History I

\*HIST 162 Topics in U.S. History II

#### SOCIAL SCIENCES

\*ECON 201 Macroeconomics

\*PSYC 101 General Psychology

\*POSC 201 Introduction to Political Science or

POSC 205 Understanding Political Science through Literature and Film

\*SOC 101 Introductory Sociology

### MAJOR REQUIREMENTS

36-39 credits in addition to required courses applied to General Education. Asterisked courses may be applied toward the Arts and Humanities component (B), or the Social Sciences component (C) of the General Education requirements.

#### Core (15-18 credits)

\*HIST 111 World Civilization I

\*HIST 112 World Civilization II

\*ANTH 110 Cultural Anthropology or

ANTH 111 Archeology and Physical Anthropology

\*GEOG 100 Introduction to Geography or

GEOG 101 Introduction to World Geography

SOSC 100 Foundations of Social Science

SOSC 495 Senior Seminar

#### PRIMARY SPECIALIZATION

12 additional credits (at least 9 of them at the 300-400 level) in one of the following disciplines: Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology.

#### SECONDARY SPECIALIZATION

9 additional credits (at least 6 of them at the 300-400 level) in another of the following disciplines: Anthropology, Eco-

nomics, Geography, History, Political Science, Psychology, or Sociology.

### ELECTIVES

Select courses to reach a total of 120 credits for the degree.

#### Teacher Preparation

For teacher preparation in Social Studies (secondary), the following courses are required (34 credits):

#### Orientation

ESEC 100 Introduction to Teaching

#### Learners

ESEC 150 Development, Exceptionality, and Learning I\*

ESEC 250 Development, Exceptionality, and Learning II

#### Fundamentals

ESEC 282 Literacy in Content Areas\*

#### Settings

ESEC 320 Educational Environments and Practices

#### Methodology

ESEC 385 Methods: Secondary

ESEC 386 Methods: Field Experience

#### Systems

ESEC 450 Seminar: Educational Principles

#### Practice

ESEC 460 Student Teaching

The following course is highly recommended:

#### Pedagogy

ESEC 387 Creating Social Contexts for Learning

\*Course requires a minimum of one to three hours of field work in the schools or service learning.

### DEGREE REQUIREMENTS

120 credits

## Sociology

### *Bachelor of Arts*

Sociology searches in systematic ways for answers to questions about human social behavior. Sociologists study values, institutions, organizations, and other social forces that characterize a society. Sociologists also concentrate on how these social forces shape a person's life. To study all of these factors, sociologists use a variety of scientific methods such as surveys, interviews, observation, and historical analysis. By carefully collecting and analyzing this information, sociologists describe and explain how our social world works and how it influences our personal lives. This has turned sociology into a useful tool for solving social as well as personal problems. In fact, sociological research

often helps public and private citizens to understand and solve problems that confront them on a local, national, and international level.

Sociology majors are employed by business, industry, and government in fields such as: human and professional services, criminal justice and the law, marketing and advertising, demography and population studies, social research, medical and health-related areas, political and policy analyses, journalism and publishing, public opinion polling, education and training, family counseling, aging studies, not-for-profit community organizations, community relations, and union contract and negotiating.

This major consists of a minimum of 36 credit hours of Sociology courses.

## GENERAL EDUCATION REQUIREMENTS

*(minimum) 43 credits*

Anthropology and Sociology courses taken to satisfy General Education requirements do not apply toward the Sociology major unless one is seeking a dual major or second degree.

## MAJOR REQUIREMENTS

*36 credits*

SOC 101 Introductory Sociology  
 ANTH 110 Cultural Anthropology  
 SOC 203 Sociology Proseminar  
 SOC 301 Sociological Research Methods  
 SOC 303 Sociological Quantitative Analysis  
 SOC 305 Sociological Theory  
 Select *one* course (3 credits):

SOC 403 Community Research  
 SOC 425 Topics in Ethnic Studies  
 SOC 450 Mind, Self, and Society  
 SOC 460 Topics in Popular Culture  
 SOC 461 White Collar Crime  
 SOC 472 Sociology of Health  
 SOC 475 Social Stratification  
 SOC 477 Sociology of Education  
 SOC 490 Advanced Studies in Sociology

## SOCIOLOGY ELECTIVES

*15 credits*

Fifteen credits in Sociology elective courses must be taken. Six credit hours of Anthropology classes can be used to satisfy this requirement.

Please note that SOC 301 and 303 must be taken at Keene State College to count as core credit unless prior approval is given by the Sociology Department. For transfer students, course equivalency will be determined on a case-by-case basis by the department.

## ELECTIVES

Select courses to reach a total of 120 credits for the degree.

### Social Studies Teacher Certification of Sociology Majors

Sociology majors preparing for certification as comprehensive Social Studies teachers must take the following courses in addition to the courses required for the Sociology major. These additional courses may also count toward satisfying General Education requirements. (Note: New Hampshire has no certification to teach Sociology only.)

HIST 161-162 Topics in U.S. History I and II *or*  
 one course in HIST 360-363 *and* one course in HIST 364-369  
 HIST 111 Traditional World Civilization *and*  
 HIST 112 Modern World Civilization  
 ECON 201 Macroeconomics  
 GEOG 101 Intro to World Geography *or*  
 GEOG 105 Geography for Teachers  
 POSC 201 Intro to Political Science *or*  
 POSC 211 U.S. Politics  
 PSYC 101 General Psychology

For teacher preparation in Social Studies (secondary), the following courses are required (34 credits):

#### *Orientation*

ESEC 100 Introduction to Teaching

#### *Learners*

ESEC 150 Development, Exceptionality, and Learning I\*

ESEC 250 Development, Exceptionality, and Learning II

#### *Fundamentals*

ESEC 282 Literacy in Content Areas\*

#### *Settings*

ESEC 320 Educational Environments and Practices

#### *Methodology*

ESEC 385 Methods: Secondary

ESEC 386 Methods: Field Experience

#### *Systems*

ESEC 450 Seminar: Educational Principles

#### *Practice*

ESEC 460 Student Teaching

The following course is highly recommended:

#### *Pedagogy*

ESEC 387 Creating Social Contexts for Learning

\*Course requires a minimum of one to three hours of field work in the schools or service learning.

## DEGREE REQUIREMENTS

*120 credits*

# Spanish

## *Bachelor of Arts*

This major is designed for students wishing to prepare themselves to use Spanish actively in careers in business, government, social services, teaching or other fields.

The program emphasizes Hispanic culture and communication with Hispanic populations in the United States, Spain, and Latin America. Spanish majors are required to earn a minimum of 12 credits in at least one semester of study abroad, usually during their junior year. Students may take advantage of the College's Direct Exchange program in Ecuador, or choose from among other approved programs in Spain or Latin America. Students planning to study in a Spanish-speaking country must consult with the National and International Exchange Office and Spanish faculty before program selection to arrange for program approval and transfer of credit.

New students will be assigned to the proper course on the basis of placement interviews with the Modern Language faculty. In general, however, students who have had no prior instruction or experience with a language should register for 101. Students with one or two years of successful high school study should register for 102. Students with three or more years should register for 201. Exceptions to these guidelines will be granted only by the Modern Language faculty.

For proper program advisement, potential majors should consult with a Spanish advisor upon admission to Keene State College.

## LANGUAGE REQUIREMENT

The student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the Division of Arts and Humanities. The complete policy statement appears at the beginning of the Bachelor's Degree Programs section of this catalog.

## GENERAL EDUCATION REQUIREMENTS

(minimum) 43 credits

For teacher certification in Spanish (secondary), the following courses must be included in the General Education requirements: a U.S. History course in the Arts and Humanities component (B) and a Geography course in the Social Sciences component (C).

## MAJOR REQUIREMENTS

47 credits

ML 101 The World of Language  
 SP 201-202 Intermediate Spanish I & II  
 SP 303 Introduction to Spanish Literature  
 SP 315 Conversation in Spanish  
 SP 316 Composition in Spanish  
 SP 330 Latinos in the U.S.  
 SP 350 Study in Spain or Latin America (minimum of 12 credits)  
 SP 405 Contemporary Spanish Usage *or*  
 SP 320 Commercial Spanish  
 SP 495 Senior Seminar-Spanish  
 Select *two* courses (6 credits) from the following:  
     GEOG 345 Geography of Latin America  
     ML 290 Selected Topics (when topic concerns Latin America, Caribbean or other Spanish-speaking cultures)  
     MU 112 Latin American Music

## ELECTIVES

Select courses to reach a total of 120 credits for the degree.

For teacher preparation in Spanish (secondary), the following courses are required (34 credits):

### *Orientation*

ESEC 100 Introduction to Teaching

### *Learners*

ESEC 150 Development, Exceptionality, and Learning I\*

ESEC 250 Development, Exceptionality, and Learning II

### *Fundamentals*

ESEC 282 Literacy in Content Areas\*

### *Settings*

ESEC 320 Educational Environments and Practices

### *Methodology*

ESEC 385 Methods: Secondary

ESEC 386 Methods: Field Experience

### *Systems*

ESEC 450 Seminar: Educational Principles

### *Practice*

ESEC 460 Student Teaching

The following course is highly recommended:

### *Pedagogy*

ESEC 387 Creating Social Contexts for Learning

\*Course requires a minimum of one to three hours of field work in the schools or service learning.

## DEGREE REQUIREMENTS

120 credits

## Teacher Education/ Certification Programs

The Keene State College undergraduate Teacher Education program has recently undergone dramatic changes, which make it contemporary and exciting for faculty and students. Teams of faculty have collaborated to integrate human development, special education, technology, and practice into required education courses. Several field experiences have been designed to support the prospective teacher's understanding of students as they engage in the learning process and participate in different instructional settings. Prospective teachers are also encouraged to develop professional portfolios which document their experiences, trace their professional development, and mark their uniqueness as they enter the teaching profession.

In addition to being accredited by the New England Association of Schools and Colleges, the Keene State College Teacher Education programs have received accreditation from the National Council for Accreditation of Teacher Education (NCATE) and the New Hampshire State Board of Education. Students preparing for the teaching profession may choose from one of the following:

**Option I** includes Early Childhood, Elementary Education, Elementary/Special Education, Middle School Mathematics, and Secondary/Special Education (see description under Education).

**Option II** includes several areas (see listing under Secondary options and again under the designated majors) in Secondary Education.

**Option III** includes K-12 Physical Education and K-12 Music Education (see description of programs).

### A. Undergraduate Teacher Preparation

The undergraduate program requires three areas of study. General education provides students with a background in liberal arts. Students need to adhere to the General Education requirements stipulated by Education and the other major they are pursuing. Education coursework focuses on the development of an understanding of the teaching profession, diversity of learners, and effective teaching practices along with a series of supervised pre-professional experiences. The third area of study is a major in a discipline outside of education. Students pursuing Option I will complete two majors as they work to receive a Bachelor of Science in Education: Education (see the Education section of the catalog for further details) and a second major chosen from the Second Major listing. Students selecting Option II will complete their academic major and courses specified under that major that lead to teacher certification. Those students following Option III will major in either Physical or Music Education and enroll in required

education courses. Though the programs appear intensive, it is possible to complete most of them within four years, provided students seek the support of advisors, maintain required grades, and fulfill requirements for acceptance into Teacher Education during the second year.

### 1. POLICIES AND PROCEDURES

The following are thematic to all of the options in Teacher Education:

ESEC 100 Introduction to Teaching is offered to first-year students in the fall or spring. This course is designed to involve students in exploring the teaching profession, making preliminary career choices, and planning their years of study at the College.

PROGRAM PLANNING plays an important role in managing college life and in developing competence as a teacher. Students select a faculty advisor by their second year, declare their major(s), and develop a program of studies to fulfill requirements. The ROUTE Handbook, required for ESEC 100 and available in the KSC Bookstore, is designed to support students in planning their studies.

**ADMISSION TO TEACHER EDUCATION:** Admission to Keene State College does not necessarily guarantee admission to Teacher Education. Materials for application to Teacher Education are available in the Teacher Education and Graduate Studies Office in Rhodes Hall. Students are to meet the following requirements:

Completion of the first three ESEC (ESEC 100, ESEC 150, ESEC 250) courses with a grade of C or better

Two reference checklists

Passing scores (as determined by the State of New Hampshire Department of Education) on the Pre-Professional Skills Test (PRAXIS I)

Completion of 36 credits (12 of which must be from KSC), current transcripts (GPA of 2.5)

Evidence of meeting specified standards in order to pursue certification programs

Payment of \$30

**TRANSFER CREDITS:** Students who wish to transfer credits into a teacher certification option must apply through the Department chair. Ordinarily, no more than four credits from another institution may be applied to satisfy program requirements due to the uniqueness of ESEC courses.

**FIELD EXPERIENCES** begin as early as first year. Students are expected to participate in one to three hours per week of field experience, outside the scheduled classroom times, for ESEC 150 and ESEC 281/282. Other courses prior to the Methods sequence (ESEC 380s) and Student Teaching require some time, but not a specified amount per week.

**ADMISSION TO STUDENT TEACHING:** Students are required to submit letters of intent to student teach following completion of courses leading up to and including 300 level courses in the ESEC (ESEC 281/282, ESEC 320, ESEC 380 series appropriate to certification option) program. The following criteria will be used:

- Completion of a minimum of 90 credits
- Completion of the ESEC courses (from ESEC 100 through ESEC 380s/those methods courses which apply to certification option being pursued) with a C or better and a GPA of 2.5
- Completion of Content Major requirements with GPA of 2.5
- Cumulative GPA equaling 2.5.

Transcripts will be reviewed prior to placing students. Deadlines for application are February 15 for student teaching during the following Fall semester and October 1 for student teaching during the following Spring semester.

**PROFESSIONAL PORTFOLIO:** Students are encouraged to document professional growth, experiences, and reflections through the thoughtful development of a professional portfolio. Suggested guidelines and course assignments will help support the prospective teacher in the development of a portfolio, starting in the first year and culminating during student teaching.

**PROCEDURES FOR APPLYING FOR TEACHER CERTIFICATION:** Application for initial teacher certification in the state of New Hampshire requires completion of a state-approved program of study, completion of a formal application and payment of fee, a favorable recommendation from the Certification Officer in the Teacher Education and Graduate Studies Office, achievement of passing scores on all state of New Hampshire-required standardized exams, completion and submission of the New Hampshire Criminal/Record Release Form, and any other existing state requirements at the time of application. Note: Students interested in obtaining certification in other states must contact appropriate agencies for specific certification requirements.

**TEACHER CERTIFICATION OPTIONS** (for program details consult the designated section of the catalog):

### **Option I (see Education)**

- Early Childhood (birth through age eight)
- Elementary Education (kindergarten through grade 6/8)
- Elementary/Special Education (kindergarten through grade 6/8 plus general special education certification K-12)
- Middle-Junior High School Mathematics (typically grades 4-9)
- Secondary/Special Education (general special education certification K-12, with dual certification option available)

### **Option II (see major area of study)**

- Secondary Education Teacher Certification in the following:

Biology  
Chemistry  
Chemistry-Physics  
Earth Sciences: Geology  
Social Studies (requires additional coursework to one of the following majors)  
    Geography  
    History  
    Social Science  
    Sociology  
English  
French  
Mathematics  
Spanish  
Technology Education

### **Option III (see Music Education or Physical Education)**

- K-12 certification in:  
    Music  
    Physical Education

## **2. PROGRAM REQUIREMENTS**

### **a. General Education**

All teacher education students must include a Geography course in the Social Sciences component (C) as well as a U.S. History course in the Arts and Humanities component (B) of the General Education requirements.

All teacher education certification programs and options have additional unique General Education requirements. See the specific programs for these requirements.

### **b. Teacher Education**

#### *Orientation*

- All teacher education programs  
    ESEC 100 Introduction to Teaching

#### *Learners*

- All teacher education programs  
    ESEC 150 Development, Exceptionality, and Learning I\*  
    ESEC 250 Development, Exceptionality, and Learning II

#### *Fundamentals*

- Early Childhood; Elementary; Elementary-Special Education programs  
    ESEC 281 Emerging/Evolving Literacy\*
- Middle and Secondary programs (except English and Music)  
    ESEC 282 Literacy in the Content Areas\*

#### *Settings*

- All teacher education programs  
    ESEC 320 Educational Environments and Practices

### *Methodology*

- Early Childhood program  
ESEC 381 Early Childhood Methods (Birth-Age 8)
- Elementary; Elementary-Special Education programs  
ESEC 383 Elementary Methods (K-8)
- Middle/Junior High School program  
ESEC 384 Methods: Middle School
- Secondary; Secondary-Special Education Programs (except Technology Education)  
ESEC 385 Methods: Secondary
- All teacher education programs (except K-12 and Technology Education)  
ESEC 386 Methods: Field Experience

### *Pedagogy*

- All teacher education programs (except secondary programs in Arts and Humanities, Social Sciences, and Sciences/Mathematics)  
ESEC 387 Creating Social Contexts for Learning

### *Systems*

- All teacher education programs  
ESEC 450 Seminar: Educational Principles

### *Practice*

- All teacher education programs (except Elementary-Special Education and Secondary-Special Education)  
ESEC 460 Student Teaching (12 credits)
- Secondary-Special Education program  
SPED 460 Student Teaching (12 credits)
- Elementary-Special Education program  
ESEC 465 Student Teaching (6 credits)  
SPED 465 Student Teaching (6 credits)

\*Course requires a minimum of one to three hours of field work in the schools or service learning.

## B. Post-Baccalaureate Teacher Certification Program

This program is designed to provide an opportunity for a person with a bachelor's degree to return to college to become eligible for teacher certification.

The Post-Baccalaureate Teacher Certification Program (PBTCP) offers a full sequence of professional education courses leading to certification in Early Childhood Development (Birth-Age 8), Elementary, Middle-Junior High Mathematics, Secondary, Music (K-12), Physical Education (K-12), and Special Education (see specific course requirements for the sequence of courses). It provides a systematic experience within a manageable time frame for all students.

### 1. Application Policies and Procedures

All application materials must be submitted for review by the Teacher Education and Graduate Studies Office.

*a. An application form* for admission to Teacher Education, including a handwritten statement addressing the reasons for wishing to enter the teaching profession.

*b. An official undergraduate transcript*, indicating the earned bachelor's degree. Evaluation of transcript includes:

- (1) Review of grades,
- (2) Assessment of courses already taken or to be substituted,
- (3) General Education competencies,
- (4) Teacher Education competencies,
- (5) Discipline competencies.

*c. Two letters of recommendation*

*d. Interview*

*e. Admission:* Admission to the program is restricted to a maximum of 30 students in Elementary and Special Education and 25 students in K-12 and Secondary Education each year.

## 2. Advising Practices

There are six phases to the advising program for students.

- a. Admission screening*
- b. Program development*
- c. Faculty advisor from second major*
- d. Pre-Professional Skills Test*
- e. Student Teaching*
- f. Certification application*

## 3. Enrollment

Once admitted, students enroll in the undergraduate sequence of courses in teacher education. Selections are made to meet Early Childhood Development (Birth-Age 8), Elementary, Elementary/Special, Middle-Junior High, K-12 (Music and Physical Education), Special Education, or Secondary Education requirements.

## 4. Post-Baccalaureate Initial Certification in Special Education

The Post-Baccalaureate option for Special Education certification is designed to meet the needs of students who intend to pursue initial certification at this level. The program is a blend of both undergraduate and graduate courses with an emphasis on a yearlong internship experience that can be conducted on-the-job (for students employed in a special education position), or in a field experience planned by an ESEC faculty member. The program is designed to address the shortage of highly qualified special educators in New Hampshire, and will primarily serve three populations: (1) teachers who are working professionals seeking the certification; (2) Alternative 4 (Emergency Licensure) Special Education teachers who are hired and must enroll in an Alternative 1 (e.g., KSC) accredited certification program and complete the program in three years; and (3) post-master's-level students seeking Special Education certification.



Students must earn a C or better grade in each SPED course, and complete the program with a minimum cumulative Grade Point Average of 2.50.

### Course Sequence for Post-Baccalaureate Option for Initial Certification in Special Education *24 or 30 credits*

SPED 301 Context for Teaching Students with Special Needs  
 SPED 401 Instruction & Curriculum Design in Special Education  
 SPED 520 Assessment and Evaluation for Special Education  
 SPED 525 Transaction Planning & Programming  
 SPED 560 Internship in Special Education I (6 credits)  
 SPED 565 Internship in Special Education II (6 or 12 credits)

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## Technology Studies

### *Bachelor of Science*

There are three options available: Architectural Technology, Product Design and Development, and Technology Education.

### GENERAL EDUCATION REQUIREMENTS

*(minimum) 43 credits*

MATH 120 Applied Algebra and Trigonometry is required for the Sciences/Mathematics component (D) of the General Education Requirements.

### MAJOR REQUIREMENTS

*39-42 credits*

#### **Architectural Technology Option (39 credits)**

Provides students with a broad foundation and the flexibility to concentrate in a particular area of interest. By taking additional courses in Art, Environmental Science, or Management, students may prepare for careers in architecture, engineering design, construction management, building sciences, or environmental design. The program emphasizes helping students become effective, creative problem solvers by first achieving a solid understanding of scientific and technical concepts as they relate to architectural technology and then experiencing increasing challenges in design. In the advanced courses, students have the opportunity to design solutions to real problems and to create projects that are actually constructed.

#### **TECHNOLOGY, DESIGN AND SAFETY (TDS) CORE (6 credits)**

Select *two* of the following

TDS 100 Exploring Technology  
 TDS 140 Introduction to Visual Communication  
 TDS 181 Safety Awareness

#### **ARCHITECTURAL TECHNOLOGY FOUNDATION (15 credits)**

TDS 175 Construction Materials and Processes  
 TDS 231 Introduction to Architectural Design  
 TDS 265 Energy and Sustainable Design  
 TDS 331 Intermediate Architectural Design  
 TDS 334 Collaborative Architectural Project

#### **ARCHITECTURAL TECHNOLOGY ELECTIVES (15 credits)**

TDS 290 Special Topics  
 TDS 335 Architectural Systems  
 TDS 365 Solar Design  
 TDS 375 Construction Application  
 TDS 406 Statics and Structural Analysis  
 TDS 436 Architectural material Science  
 TDS 490 Advanced Special Topics

#### **ARCHITECTURAL TECHNOLOGY CAPSTONE COURSE (3 credits)**

TDS 434 Architectural Design Project

#### **MINOR**

Students are encouraged to complete a minor or an organized cluster of courses related to their career interest. Suggested areas are: Applied Computer Science, Management, Art, and Safety Studies.

#### **Product Design and Development Option (39 credits)**

Designed for students interested in technical, scientific, supervisory, and/or managerial areas of industry. Laboratory-based instruction is used to reinforce theoretical concepts. The program's flexible design allows students to customize a program to meet their career needs in CAD-CAM, product design, or electromechanical technologies. Graduates typically assume positions in planning, supply, production, quality control, product design/engineering/evaluation, technical services, marketing, and sales.

#### **TECHNOLOGY, DESIGN AND SAFETY (TDS) CORE (6 credits)**

Select *two* of the following

TDS 100 Exploring Technology  
 TDS 140 Introduction to Visual Communication  
 TDS 181 Safety Awareness

**PRODUCT DESIGN AND DEVELOPMENT  
FOUNDATION (12 credits)**

TDS 101 Manufacturing Processes  
 TDS 110 Electricity and Electronic Fundamentals  
 TDS 152 Product Design I  
 TDS 252 Product Design II

**PRODUCT DESIGN AND DEVELOPMENT  
ELECTIVES (18 credits)**

In consultation with a TDS advisor, students select courses of career interest to form a technical concentration. Possible focus areas include CAD/CAM, mechanical design, electromechanical technology, and product design.

Note: 12 credits must be at the 200 level or above.

Choose from: TDS 113, 121, 153, 160, 170, 210, 212, 214, 217, 218, 222, 228, 251, 253, 257, 270, 290, 311, 312, 313, 320, 328, 352, 353, 410, 420, 421, 422, or 490.

**PRODUCT DESIGN AND DEVELOPMENT  
CAPSTONE (3 credits)**

TDS 400 Manufacturing Enterprise  
 TDS 452 Product Design IV

**MINOR**

Students are encouraged to complete a minor or an organized cluster of courses related to their career interest. Suggested areas: Applied Computer Science, Management, Art, and Safety Studies.

**Technology Education Option (42 credits)**

Provides students with an understanding of the technical, occupational, social, historical, and cultural aspects of industry and technology in order to become effective teachers of Technology Education. The curriculum includes clusters in Manufacturing Systems, Communication Systems, Energy, Power and Transportation Systems, and Construction Systems. Courses in general education, technology, and professional education are closely integrated to provide a balanced educational experience. Successful completion prepares students for Technology Education certification at the middle and secondary levels.

Students in the Architectural Technology Option and Product Design and Development Option are encouraged to pursue minors in Applied Computer Science, Management, Art, or Occupational Safety to supplement their career interests.

**TECHNOLOGY, DESIGN AND SAFETY (TDS) CORE  
(9 credits)**

TDS 100 Exploring Technology  
 TDS 140 Introduction to Visual Communication  
 TDS 181 Safety Awareness

**TECHNOLOGY EDUCATION FOUNDATION  
(12 credits)**

TDS 101 Manufacturing Processes  
 TDS 110 Electricity and Electronic Fundamentals  
 TDS 160 Introduction to Power and Energy  
 TDS 175 Construction Materials and Processes

**TECHNOLOGY EDUCATION ELECTIVES  
(15 credits)**

In consultation with their academic advisor, students must select at least one course from each of the cluster areas of Technology Education to meet teacher certification requirements.

Communication (Select from: 121, 228, 247)  
 Construction (Select from: 231, 375)  
 Manufacturing (Select from: 152, 153, 252, 253)  
 Power and Transportation (Select from: 217, 265, 365)

**TECHNOLOGY EDUCATION CAPSTONE COURSES  
(6 credits)**

TDS 400 Manufacturing Enterprise  
 VE 403 Introduction to Special Needs in Vocational Education

**TEACHER EDUCATION (37 credits)**

*Minimum grade point average requirements:*

- Teacher Education – 2.50 and minimum grade of C in each course
- Technology Education Major – 2.50 and minimum grade of C in each course
- Cumulative GPA of 2.50

**Orientation**

ESEC 100 Introduction to Teaching

**Learners**

ESEC 150 Development, Exceptionality, and Learning I\*  
 ESEC 250 Development, Exceptionality, and Learning II

**Fundamentals**

ESEC 282 Literacy in Content Areas\*

**Settings**

\*\*ESEC 320 Educational Environments and Practices

**Methodology**

ESEC 385 Methods: Secondary  
 ESEC 386 Methods: Field Experience

**Pedagogy**

\*\*ESEC 387 Creating Social Contexts Learning

**Systems**

\*\*ESEC 450 Seminar - Educational Principles  
 Taken concurrently with ESEC 460

**Practice**

\*\*ESEC 460 Student Teaching

\*Course requires a minimum of one to three hours of field work in the schools or service learning.

\*\*Admission to Teacher Education is required for these courses. Refer to Teacher Education Programs Section for guidelines regarding admission to Teacher Education and eligibility for Student Teaching.

## ELECTIVES

Select courses to reach a total of 126 credits for the degree.

## DEGREE REQUIREMENTS

126 credits

# Theatre and Dance

## *Bachelor of Arts*

### *Department of Theatre and Dance Mission Statement*

The Department of Theatre and Dance is dedicated to providing a comprehensive course of study that balances theory and practice within a sound liberal arts education. Because of the collaborative nature of these disciplines, our students gain practical experience in all facets of production and critical engagement. As artists and teachers, our primary focus is to encourage and guide our students as they experience and question the world through theatre and dance.

The Theatre and Dance major balances theoretical and applied course work and gives students the opportunity to specialize in Acting/Directing, Dance, Design/Technical Theatre, or Critical Studies. The Acting/Directing option offers advanced performance work, with a four-semester core acting sequence as well as a wide variety of individual courses in special areas. The Dance option focuses primarily on modern dance technique and theory, dance history and performance. The Design/Technical Theatre option allows students to study design and theatre technology within the framework of both theoretical and practical courses, using the sophisticated facilities of the Redfern Arts Center on Brickyard Pond as a laboratory. The Critical Studies option focuses student study on theatre history, literature, and critical theory, emphasizing Theatre scholarship overall.

## LANGUAGE REQUIREMENT

The student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the Division of Arts and Humanities. The complete policy statement appears at the beginning of the Bachelor's Degree Programs section of this catalog.

## GENERAL EDUCATION REQUIREMENTS

*(minimum) 43 credits*

TAD 101 Introduction to Theatre Arts is required and may apply toward the Arts and Humanities component (B) of General Education Requirements.

## MAJOR REQUIREMENTS

*47-50 credits*

### Theatre and Dance Core (20 credits)

TAD 111 Theatre Movement *or*  
TAD 211 Modern Dance I  
TAD 121 Technical Theatre I  
TAD 122 Technical Theatre II  
TAD 123 Theatre Lab I (1 credit)  
TAD 124 Theatre Lab II (1 credit)  
TAD 162 Design for the Performing Arts  
TAD 201 Acting I  
TAD 495 Seminar

### Curricular Options (select one)

*ACTING/DIRECTING OPTION (30 credits; major total 50)*

TAD 111 Theatre Movement *or* TAD 211 Modern Dance I  
(whichever not taken in core)  
TAD 131 Western Theatre: Hist/Lit I  
TAD 132 Western Theatre: Hist/Lit II  
TAD 202 Acting II  
TAD 231 Western Theatre: Hist/Lit III  
TAD 282 Voice and Diction *or*  
TAD 303 Stage Directing  
TAD 297 Production Credit (1 credit minimum)  
TAD 298 Applied Performance (2 credits minimum)  
TAD 301 Acting III  
TAD 302 Acting IV *or*  
TAD 304 Directing Workshop  
TAD 495 Seminar

*DANCE OPTION (27 credits; major total 47)*

MU 104 Introduction to Music Masterworks  
TAD 212 Modern Dance II (students should take TAD 211 in core)  
TAD 235 Modern Dance History  
TAD 297 Production Credit (1 credit minimum)  
TAD 298 Performance Credit (2 credits minimum)  
TAD 318 Choreography *and* TAD 495 Seminar *or*  
TAD 318 twice  
Select 9 credits from:  
TAD 311 Modern Dance III  
TAD 312 Modern Dance IV  
TAD 411 Modern Dance V  
TAD 412 Modern Dance VI

*DESIGN/TECHNICAL THEATRE OPTION (30 credits; major total 50)*

TAD 131 Western Theatre: Hist/Lit I  
TAD 132 Western Theatre: Hist/Lit II  
TAD 222 Theatre Laboratory III (3 credits)

Select 3 credits from:

TAD 225 Costume Construction  
TAD 265 Rendering for the Theatre *or*  
TAD 364 Scene Painting  
TAD 227 Stage Management *or*  
TAD 303 Stage Directing  
TAD 231 Western Theatre: Hist/Lit III  
TAD 297 Production Credit (2 credits minimum)  
TAD 298 Applied Performance (1 credit minimum)  
TAD 361 Scenic Design *or*  
TAD 363 Costume Design  
TAD 362 Lighting Design  
TAD 495 Seminar

*CRITICAL STUDIES OPTION (27 credits; major total 47)*

TAD 131 Western Theatre: Hist/Lit I  
TAD 132 Western Theatre: Hist/Lit II  
TAD 202 Acting II  
TAD 231 Western Theatre: Hist/Lit III  
TAD 352 Studies in Critical Theory  
TAD 495 Seminar

*Three of the following; at least two must be at the 300 level:*

TAD 212 Modern Dance II  
TAD 235 Modern Dance History  
TAD 290 Special Topics  
TAD 303 Stage Directing

TAD 304 Directing Workshop  
TAD 318 Choreography  
TAD 330 Playwriting  
TAD 361 Scenic Design  
TAD 362 Lighting Design  
TAD 363 Costume Design  
TAD 490 Special Topics  
TAD 498 Independent Study

## ELECTIVES

Select courses to reach a total of 120 credits for the degree.

## DEGREE REQUIREMENTS

*120 credits*

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## Vocational Education

### *Bachelor of Science*

This major prepares students for certification as vocational teachers in secondary schools. Vocational teachers assist students in developing the knowledge and skills to become employable and successful in an occupation.

This program is currently under review. Consequently, there is an institutional hold on all admissions. Contact the Office of Teacher Education and Graduate Studies for alternative ways to obtain certification in vocational education.

# Minors

A MINOR IS A COHERENT SET of courses (normally 18-24 credits) in a discipline or related disciplines other than the major. The major includes, but is not limited to, required components such as option and specialization. A maximum of 9 credits used to complete major requirements may also be used to complete requirements for the minor.

Courses used to satisfy requirements for the minor may also be used to satisfy General Education requirements when such courses meet the established criteria for General Education. Credits earned in courses used to satisfy multiple requirements will count once toward the total number of credits required for graduation.

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## American Studies Minor

21-24 credits

AMST 210 Introduction to American Studies

Select *one* of the following:

- AMST 250 Interpreting American Culture
- AMST 290 Special Topics (when appropriate)
- ENG 240 Readings in American Literature
- ENG 245 Readings in American Indian Studies
- ENG 280 Cultural Studies (when appropriate)
- ENG 290 Topics (when appropriate)
- ENG 341 Early American Literature
- ENG 342 19th Century American Literature
- ENG 345 Black American Literature
- ENG 347 Modern American Indian Literature
- ENG 370 Studies in Literature of the Americas
- ENG 381 Women Writers (when appropriate)

Select *one* of the following:

- AMST 390 Critical Approaches
- AMST 490 Advanced Special Topics
- AMST 495 Seminar (appropriate topic)

Area Studies (three courses)

Student selects *two* courses from one of the following areas, and one course from another of the following areas (refer to list of courses in American Studies Major):

- American Arts
- American History and Thought

American Literature  
American Social Science

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## Anthropology Minor

18 credits

This minor introduces the student to anthropology, the comparative and holistic study of people. It explores the biological, social, and cultural aspects of our species in the past, present, and future. Anthropology attempts to integrate knowledge of human beings and their activities at the highest and most inclusive level. Anthropologists study the patterning of human behaviors, as well as the conditions under which they arise, persist, or disappear, in belief that the knowledge gained from this perspective may be applied to the solution of problems of everyday life in different cultures. It provides global information and thinking skills critical to succeeding in the 21st century in business, research, teaching, advocacy, and public service.

ANTH 110 Cultural Anthropology

ANTH 111 Archaeology and Physical Anthropology

ANTH 212 World Ethnography

ANTH 313 Anthropological Thought

Two 300- or 400-level ANTH electives, or one ANTH and one SOC elective at the 300-level or above.

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## Applied Computer Science Minor

26 credits

The growth of computer usage in society is expected to continue unabated for the foreseeable future. Well-educated as well as well-trained people will be needed. This minor enables liberal arts and sciences and professional studies students to add a career option to their bachelor's degree programs.

CS 140 Computer Programming I (4 credits)

CS 160 Microcomputer Applications

CS 185 Computer Programming II (4 credits)

CS 205 Elementary Visual Basic

or CS 220 COBOL I

or CS 265 Assembly Language

CS 280 Data Structures

CS Elective (300 level)

MATH 120 Intermediate Algebra and Trigonometry  
(Students with a strong mathematics background are advised to take MATH 130 or MATH 151 instead.)

MATH 141 Introductory Statistics\*

\*This requirement can be fulfilled by completing PSYC 251.

## Art Minor

24 credits

ART 102 Two-Dimensional Design

ART 103 Three-Dimensional Design

ART 111 Introduction to Art

ART 125 Drawing I

ART 208 Ceramics I

ART 226 Painting I

ART 231 Printmaking I

One of the following Art History courses:

ART 211 Ancient Art

ART 212 Medieval Art

ART 213 Renaissance and Baroque Art

ART 214 19th and 20th Century Art

ART 290 Topics in Art History

## Biology Minor

24 credits

Designed to permit students majoring in another field to pursue a program of study in the life sciences, this minor includes a set of core courses that introduce the most important concepts in biology as well as upper-level electives dictated by the personal interests of the student.

### Core (16 credits)

BIO 151/152 Life: Diversity and Lab

BIO 153/154 Life: Processes and Lab

BIO 252 Ecology and Evolution

One of the following three lecture courses:

BIO 251 Genetics

BIO 253 Physiology of Plants and Animals

BIO 254 Cell Biology

One of the following three laboratory courses:

BIO 255 Experimental Genetics

BIO 256 Experimental Ecology and Evolution

BIO 257 Experimental Physiology

### Electives

8 Biology credits at the 300 level or higher

## Chemistry Minor

23-28 credits

The Chemistry minor makes it possible for students to pursue their personal interests by selecting upper-level electives in Chemistry. It also permits students majoring in another field to pursue a program of study in the physical sciences.

CHEM 111/115-112/116 General Chemistry I, II and Labs

CHEM 220/224 Fundamental Organic Chemistry and Lab

CHEM 221/225-222/226 Organic Chemistry I and II

CHEM 251-255 Quantitative Analysis and Lab

CHEM electives (6-7 credits at 300 level or above)

## Communication Minor

21 credits

COMM 171 Fundamentals of Speech

PHIL 100 Logical Argumentation

COMM 175 Principles of Communication

COMM 275 Interpersonal Communication

Select *three* additional courses from:

COMM 290 Special Topics

COMM 371 Advanced Public Speaking

COMM 375 Business & Professional Communication

COMM 376 Theory of Communication and Rhetoric

COMM 475 Persuasion

COMM 476 Group Interaction

COMM 477 Ethics in Communication

COMM 490 Advanced Special Topics

COMM 495 Seminar

## Dance Minor

19 credits

TAD 211 or 212 Modern Dance I or II

TAD 318 Choreography or TAD 495 Dance Seminar

Select 9 credits from:

TAD 212 Modern Dance II

TAD 216 Jazz Dance

TAD 311 Modern Dance III

TAD 312 Modern Dance IV

TAD 411 Modern Dance V

TAD 412 Modern Dance VI

(TAD 212, 311, 312, 411, and 412 may be repeated once for credit)

Select 4 credits from:

TAD 121/123 Technical Theatre I and Lab (4 credits)

TAD 162 Design for Performing Arts (3 credits)

TAD 235 Modern Dance History

TAD 297 Production Credit (1 credit)

TAD 298 Applied Performance (1 credit)

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## Economics Minor

21 credits

All minors will complete a three-course sequence which consists of ECON 201 and 202 (in either order) and 301 or 302. It is strongly recommended that students take 301 or 302 immediately after 201 and 202. In addition, minors will take one course which emphasizes either history (ECON 450 or 455) or critical studies (ECON 320, 350, or 375). Finally, the minor will complete three additional upper-level economics courses.

Mathematics competence at the level of MATH 141 Introductory Statistics is highly recommended.

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## English Minor

20 credits

This minor consists of five courses in English. Students must complete ENG 209 Literary Analysis, three literature courses at the 300 level, and one literature course at the 400 level.

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## Environmental Studies Minor

21-22 credits

This minor introduces students to the wide range of fields of environmental study.

ENST 100 Introduction to Environmental Studies

ENST 200 Intermediate Environmental Studies

*Two of the following:*

ECON 340 Environmental Economics

GEOG 330 Natural Resource Management

POSC 332 Public Policy Analysis

*Two of the following:*

BIO 252/256 Ecology and Evolution and lab

CHEM 352/356 Environmental Chemical Analysis and lab

GEOL 315 Environmental Geology

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## Film Studies Minor

24 credits

FILM 250 Film Production I

FILM 270 Introduction to Film Analysis

FILM 271 Introduction to Film History

FILM 352 Film Genres and Directors

FILM 355 Film Theory

FILM 495 Seminar

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## French Minor

20 credits

The French minor serves the needs of students who wish to acquire an active command of French while majoring in another subject. Natural combinations are French with Management, Computer Science, Industrial Chemistry, or Industrial Technology.

New students will be assigned to the proper course on the basis of placement interviews with the Modern Language faculty. In general, however, students who have had no prior instruction or experience with a language should register for 101. Students with one or two years of successful high school study should register for 102. Students with three or more years should register for 201. Exceptions to these guidelines will be granted only by the Modern Language faculty.

ML 101 The World of Language

FR 201–202 Intermediate French I & II

FR 315 Conversation in French

FR 316 Composition in French

FR 405 Contemporary French Usage *or*

FR 320 Commercial French

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## Geography Minor

18-19 credits

GEOG 203 Cultural Geography

GEOG 204 Physical Geography

*One of the following regional courses:*

GEOG 341 Geography of the U.S.

GEOG 343 Geography of Canada

GEOG 345 Geography of Latin America

GEOG 347 Geography of Europe

GEOG 349 Geography of Asia

GEOG 351 Geography of Africa

*One of the following geographic skills courses:*

GEOG 221 Maps and Map Reading

GEOG 323 Cartography and Surveying

GEOG 325 Cartography and Computer Mapping

GEOG 326 Geographic Information Systems

GEOG 327 Introduction to Remote Sensing

*One of the following systematic fields of Geography:*

GEOG 303 Political Geography

GEOG 305 Economic Geography

GEOG 307 Urban Geography

GEOG 330 Natural Resource Management

GEOG Elective

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## Geology Minor

20-22 credits

The Geology minor consists of six courses in Geology:

GEOL 201 Introductory Physical Geology *or*

GEOL 100/101 Perspectives of the Earth and Lab

GEOL 202 Historical Geology

Four additional courses (12-14 credits) at the 300 level or above selected under advisement of Geology faculty and major advisor.

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## German Minor

18 credits

This minor provides students with an active command of German. It is designed to complement any major. Recent minors have had majors in English, History, Management, Music, and ESEC. German minors may elect to study in Germany or Austria during their junior year through the Goethe Institute, the University of Maine's Junior Year in Salzburg or other approved programs. Students planning to study in German-speaking countries must consult with the Office of International Education and German faculty before departure to arrange for program approval and transfer of credit.

New students will be assigned to the proper course on the basis of placement interviews with the Modern Language faculty. In general, however, students who have had no prior instruction or experience with a language should register for 101. Students with one or two years of successful high school study should register for 102. Students with three or more years should register for 201. Exceptions to these guidelines will be granted only by the Modern Language faculty.

ML 101 The World of Language

GER 131 Germany Today *or*

HIST 352 20th Century Germany *or*

HIST 353 Nazi Germany: The Holocaust

GER 201-202 Intermediate German I & II

GER 315 Conversation and Composition

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## History Minor

18 credits

The History minor consists of 18 credits in History. At least 9 credits must be at the 300 level or above. At least 6 credits must be in non-U.S. and non-European History.

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## Holocaust Studies Minor

21-23 credits

The minor in Holocaust Studies combines a core in History with the opportunity for students to explore the Holocaust through film, literature, philosophy, psychology, sociology, and other History offerings. The following curriculum helps students develop a firm knowledge of the Holocaust as an event, and an understanding of its precipitating factors and legacy. With a deeper awareness of such issues as prejudice, discrimination, and racism, students should be better able to analyze contemporary political situations and think critically about ethical responsibility.

### Holocaust Studies (6 credits)

HIST 142: Western Civilization II: 1500 to Present

HIST 252/HOLO 252 The Holocaust

Note: Within the Breadth and Depth sections combined, students must select courses from at least three disciplines.

### Breadth Courses (6-8 credits)

Select *two* of the following:

ENG 252 Literature of the Holocaust (4 credits)

GER 290 20th-Century Culture & Society (Specific title required)

ENG 260 Readings in World Literature: Bible as Literature (Specific title required) (4 credits)

HIST 253 The Second World War

HIST 291 World of the Old Testament

HOLO 290 Topics in Holocaust Studies

PHIL 220 Ethics

PHIL 231 Comparative Religion I

PSYC 221 Social Psychology

WS 290 Women & the Holocaust (Specific title required)

### Depth Courses (9 credits)

Select *three* of the following:

FILM 352 Film Genres: The Holocaust (specific title required) (4 credits)

HIST 351 19th-Century Germany

HIST 353 Nazi Germany & the Holocaust

HOLO 490 Advanced Topics in Holocaust Studies

HOLO 495 Seminar

HOLO 497 Internship

HOLO 498 Independent Study

PHIL 308 Contemporary Philosophy

PHIL 313 Philosophy & the Holocaust

PHIL 360 Philosophy of Law

PSYC 495 Seminar: Psychology of the Holocaust (Specific seminar required)

SOC 326 Holocaust and Genocide



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## International Studies Minor

24-25 credits

This interdisciplinary minor combines a core of international/comparative politics courses with both history and geography area studies to enhance global awareness of spatial, historical, and power relationships. All students who select the International Studies minor must complete the equivalent of one intermediate-level modern language course.

### International Politics (9-10 credits)

POSC 271 International Politics

Select *two* of the following:

ANTH 110 Cultural Anthropology

ECON 415 International and Development Economics

MGT 360 International Management (4 credits)

POSC 294 Cooperative Education (international/comparative focus)

POSC 381 U.S. Foreign Policy

POSC 451 Politics of Developing Areas

POSC 461 Comparative Politics

### Area Studies (9 credits)

GEOG 303 Political Geography

Select *two* of the following:

ANTH 316 Cultures of Southeast Asia

GEOG 345 Geography of Latin America

GEOG 347 Geography of Europe

GEOG 349 Geography of Asia

GEOG 351 Geography of Africa

GEOG 371 Geography Field Trip (abroad)

### History (6 credits)

Select *two* of the following from different areas:

HIST 122 Modern East Asia

HIST 322 The Chinese Revolution

HIST 324 Modern Japan

HIST 343 Europe Since 1945

HIST 352 20th Century Germany

HIST 367 Modern America 1950-Present

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## Journalism Minor –

### Broadcast Media

21-23 credits

This minor serves the needs of students seeking an introduction to journalism in the broadcast media. It combines 19 credits in writing production and broadcast journalism theory with additional electives in writing and the social sciences.

JRN 201 News Writing I – Introductory

\*JRN 302 Broadcast Journalism

Select *two* of the following:

\*JRN 308 Radio Journalism

\*JRN 408 Television Journalism

\*JRN 446 Community Television News

JRN 380 Internship

\*These courses have required labs.

In addition, select 6 credits in writing and social sciences with the approval of a Journalism faculty advisor.

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## Journalism Minor –

### Print Media

20 credits

Students complete 13 credit hours of writing/editing in Journalism and 6 credit hours of related courses.

JRN 201 News Writing I – Introductory

JRN 280 *Equinox* Staff

JRN 301 News Writing II – Reporting

Select *two* of the following:

JRN 306 News Editing

JRN 401 Feature Writing

JRN 410 Public Affairs Reporting

With written approval of a Journalism faculty member, select 6 credits in research methods, statistics, social science, or history.

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## Management Minor

25 credits

To help prepare non-Management majors for careers in business or for graduate study in law or business administration, the Management minor is available.

ECON 201 Macroeconomics

MGT 101 Introduction to Management (2 credits)

MGT 202 Quantitative Decision Making

MGT 213 Financial Accounting

Three of the following:

MGT 301 Organizational Theory and Behavior

MGT 319 Financial Management

MGT 324 Human Resource Management

MGT 331 Principles of Marketing

MGT 345 Operations Management

MGT 381 Management Information Systems

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## Mathematics Minor

24-25 credits

CS 140 Computer Programming (4 credits)

\*MATH 141 Introductory Statistics

MATH 151-152 Calculus I, II

MATH 231 Linear Algebra

MATH 251 Calculus III *or*

MATH 260 Numerical Methods

MATH elective (220 or above)

\*This requirement can be fulfilled by completing PSYC 251.

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## Mathematics Education Minor

23-26 credits

Students starting with MATH 151 may complete a 23-credit minor and need not take MATH 130.

CS 140 Computer Programming I (4 credits)

MATH 130 Precalculus

\*MATH 141 Introductory Statistics

MATH 151 Calculus I

MATH 171 Structure of Number Systems

MATH 172 Application of Number Systems

MATH 275 Geometry for K-9 Teachers *or*

MATH 320 Geometry

MATH 310 History of Mathematics

\*This requirement can be fulfilled by completing PSYC 251.

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## Music Minor

24 credits

The Music minor presupposes a high level of interest and aptitude in music. All students are auditioned before admission to the program.

\*MU 101, 102, 201 Applied Music (6 credits)

MU 114 Music Cultures of the World

MU 118 Functional Piano I (2 credits)

\*\*MU 151 Music Theory I (2 credits)

MU 152 Music Theory II (2 credits)

MU 161 Aural Skills I (1 credit)

MU 162 Aural Skills II (1 credit)

MU 171-178 Ensembles (4 credits)

*One of the following:*

MU 112 Latin American Music

MU 115 Women in Music

MU 212 Music in America

MU 218 History of Jazz

MU 290 Special Topics in Music (minimum total 3 credits)

MU 310 Western Music Before 1750

MU 312 Western Music After 1750

MU 486 20th Century Music

\*Applied Music courses may be taken for 1 or 2 credits each, with additional semesters of study as necessary, for a minimum of 6 credits total.

\*\*Students lacking competence for MU 151 must take MU 131. MU131 does not count for the minor.

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## Philosophy Minor

18 credits

This minor normally comprises six courses. At least three courses must be numbered 300 or above. Distribution requirements may be partially waived by written permission of the Philosophy faculty.

PHIL 100 Logical Argumentation *or*

PHIL 211 Sense and Nonsense

PHIL 231 Comparative Religion I *or*

PHIL 232 Comparative Religion II

Select *one* of the following:

PHIL 220 Ethics

PHIL 322 Media Ethics

PHIL 350 Aesthetics

PHIL 360 Philosophy of Law

Select *two* of the following:

PHIL 300 Ancient Philosophy

PHIL 301 Medieval and Renaissance Philosophy

PHIL 302 Modern Philosophy

PHIL 304 American Philosophy

PHIL 306 Existentialism

PHIL 308 Contemporary Philosophy

PHIL 313 Philosophy and the Holocaust

PHIL 358 History and Philosophy of Science: 1700 to Present

PHIL 393 Topics in History of Ideas

PHIL 406 Existentialism and Film

Select *one* Philosophy elective.

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## Physics Minor

21 credits

PHYS 241, 242, 245 University Physics I, II, III

PHYS 342 Modern Physics

Select *two* of the following:

ASTR 307 University Astronomy

PHYS 330 Thermodynamics

PHYS 339 Classical Mechanics

PHYS 440 Electricity and Magnetism

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## Political Science Minor

18 credits

This minor offers an opportunity for study in Political Science. Beyond POSC 201 Introduction to Political Science, the minor consists of five additional courses (15 credits) in Political Science. Of these electives, one course must be in U.S. Politics/Public Administration and another in International Politics/Comparative Politics, selected in consultation with the Political Science faculty. All other electives must be 300- or 400-level courses. A maximum of 3 credits may be earned from POSC 496/497.

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## Psychology Minor

18 credits

PSYC 101 General Psychology

Select *one* of the following course sequences (6 credits):

PSYC 253 Brain and Behavior *and*

PSYC 355 Psychology of Learning

*or*

PSYC 242 Personality *and either*

PSYC 343 Humanistic and Transpersonal Psychology,

*or*

PSYC 345 Abnormal Psychology

*or*

PSYC 251 Psychological Statistics\* *and*

PSYC 340 Psychological Testing

*or*

PSYC 311 Child and Adolescent Psychology *and*

PSYC 314 Adulthood and Aging

Three Psychology electives at the 300 or 400 level.

\*Students who have already completed MATH 141 may not take PSYC 251 for college credit; therefore, this requirement may be fulfilled by completing MATH 141. Students must take an additional 3-credit PSYC elective in place of PSYC 251 to fulfill the psychology minor credit requirements.

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## Safety Studies Minor

18-19 credits

TDS 181 Safety Awareness

Select a minimum of *four* courses (12 credits) from the following. (Note: CHEM 103/107 Fundamentals of Chemistry and Lab is a prerequisite for TDS 380, 381, 387, 482, and 487.)

CHEM 103/107 Fundamentals of Chemistry and Lab

TDS 281 Introduction to Fire Science

TDS 284 Industrial Safety

TDS 286 Ergonomics

TDS 380 Safety and Health Standards

TDS 381 Legal Aspects of Safety

TDS 383 Hazardous Materials

TDS 387 Accident Investigation

TDS 482 Industrial Hygiene

TDS 487 System Safety

TDS Elective

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## Sociology Minor

19 credits

A minor in Sociology is an excellent supplement to a major in most other fields. The ability to apply a sociological perspective can be beneficial in a variety of careers.

SOC 101 Introductory Sociology

SOC 301 Sociological Research Methods

SOC 305 Sociological Theory

Three additional Sociology electives (minimum total of 9 credits)

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## Spanish Minor

20 credits

The Spanish minor allows students to acquire an active command of Spanish while majoring in another subject. Natural combinations are Spanish with Management, Computer Science, Industrial Chemistry, or Industrial Technology.

New students will be assigned to the proper course on the basis of placement interviews with the Modern Language faculty. In general, however, students who have had no prior instruction or experience with a language should register for 101. Students with one or two years of successful high school study should register for 102. Students with three or more years should register for 201. Exceptions to these guidelines will be granted only by the Modern Language faculty.

SP 201-202 Intermediate Spanish I & II

SP 315 Conversation in Spanish

SP 316 Composition in Spanish

SP 330 Latinos in the U.S.

SP 405 Contemporary Spanish Usage *or*

SP 320 Commercial Spanish

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## Statistics Minor

24 credits

\*MATH 141 Introductory Statistics

MATH 151-152 Calculus I, II (4 credits each)

MATH 242 Applied Statistics

MATH 251 Calculus III (4 credits)

MATH 341 Mathematics Probability

MATH 342 Mathematics Statistics

\*This requirement can be fulfilled by completing PSYC 251.

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## Technology Studies Minor

24 credits

### Technology, Design and Safety (TDS) Core (3 credits)

TDS 100 Exploring Technology

### Technology Studies Electives (21 credits)

Electives must be chosen from Technology Studies courses within the TDS Department. At least one course (3 credits) must be at the 300 level or higher. Safety Studies courses are not to be included in this minor.

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## Theatre Minor

19 credits

Courses taken must include:

*Two* courses from the 100 level

*Two* courses from the 200 level

*Two* courses from the 300-400 level

*One* of the following:

TAD 122 Theatre Laboratory I (Taken concurrently with TAD 121)

TAD 222 Theatre Laboratory III

TAD 297 Production Credit

TAD 298 Applied Performance

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## Women's Studies Minor

21-23 credits

This minor is an interdisciplinary program that explores, from a feminist and global perspective, the contributions, ideas, and experience of women in all areas of society. Faculty and students are actively engaged in examination of and discourse on women's lives in all their diversity, including age, sexual preference, race, ethnicity, and social class.

WS 201 Introduction to Women's Studies

WS 301 Feminist Theory

Select *one* of the following:

WS 495 Seminar

WS 497 Internship

Select *four* courses (at least one from each division: Arts and Humanities, Professional Studies, and Sciences). Special topics may also be available.

*Arts and Humanities*

ENG 203 Women's Writing (4 credits)

ENG 240 Readings in American Literature: Women and Nature (specific title required) (4 credits)

ENG 381 Women Writers (4 credits)

FILM 352 Film Genres and Directors: Contemporary Women Directors (specific title required) (4 credits)

FILM 495 Seminar: Feminist Issues in Film (specific title required) (4 credits)

HIST 269 Women in Modern America

HIST 495 Seminar: Gender in Early North America (specific title required)

MU 115 Women in Music

### *Professional Studies*

ESEC 220 Women and Education

HLSC 220 Women and Health

### *Sciences*

ANTH 315 Women, Gender, and Culture

BIO 101 Women and Science (specific title required)

PSYC 425 Psychology of Women

SOC 321 Women in Society

SOC 345 Sociology of Families

### *Special Topics*

WS 290 Topics in Women's Studies

WS 498 Independent Study

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## Writing Minor

20 credits

The writing minor helps develop an essential skill in ways applicable to any major, and offers students a means of pursuing their own interests in the field. Students may choose to focus primarily on fiction and poetry, may concentrate on nonfiction writing, or may combine these genres. All students are required in the last year of their program to complete and submit a portfolio of revised and selected work.

Select *one*:

ENG 202 Expository Writing

ENG 204 Creative Writing

Select *three* courses (including at least two courses at the 300 level or above):

ENG 202 Expository Writing (if not taken above)

ENG 203 Women's Writing

ENG 204 Creative Writing (if not taken above)

ENG 208 Topics in Writing

ENG 301 Fiction Workshop

ENG 302 Poetry Workshop

ENG 303 Nonfiction Workshop

ENG 304 Writing for Teachers

ENG 308 Advanced Topics in Writing

ENG 402 Theory and Practice

Required of all students:

ENG 405 Writing Minor Portfolio

# Associate Degree Programs

THE COLLEGE OFFERS AN ASSOCIATE IN ARTS DEGREE and several Associate in Science degree programs. The Associate in Arts degree is an Associate in Arts, General Studies. The Associate in Science programs include General Studies, Applied Computer Science, Chemical Dependency, and Technology Studies.

The Associate in Arts and the Associate in Science can be pursued as a two-year terminal degree program, or as a pre-baccalaureate program enabling articulation into a four-year program.

Each program of study includes a concentration, which consists of 18-30 credit hours of related/sequential course work. The concentrations offer the opportunity to develop expertise in an academic discipline or professional area of interest. Courses required in the concentration may not be used to fulfill General Education requirements unless specified in the program description.

It is also recommended that students develop competence in a second language, acquire or enhance computer literacy, and select an experiential learning opportunity in which discipline-based knowledge can be applied in a real-life setting. Students planning to continue their studies in a bachelor's degree program should become familiar with the General Education requirements at that level.

## Degree Requirements

1. All associate degree programs require completion of a minimum of 60 credit hours with a minimum grade point average of 2.0 based on a 4.0 scale.
2. At least 30 credits must be completed at Keene State College.
3. Matriculated baccalaureate students must declare their intention to complete an Associate's degree by filing an Intent to Graduate form prior to completing the final 30 credits of the baccalaureate degree.
4. Existing policies on transfer of credits and credit by examination prevail.
5. All credits taken at Keene State College apply toward calculating the minimum grade point average in accordance with College policies.

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## General Studies

### *Associate in Arts*

#### **GENERAL EDUCATION REQUIREMENTS** (minimum) 31 credits

##### *A. English Language Competence - 4 credits*

ENG 101 Essay Writing

##### *B. Arts and Humanities - 9 credits*

A minimum of nine credits including:

- One course in History
- One course in Art, Film Studies, Music, or Theatre and Dance
- One course in literature — any course in English other than ENG 101, 202, 203, 204, 208, 300-level, or 400-level courses
- Additional credits, if necessary, in Art, English, Film Studies, History, Music, or Theatre and Dance

##### *C. Social Sciences - 9 credits*

A minimum of nine credits from three different social science disciplines: Anthropology, Economics, Geography, Political Science, Psychology, or Sociology

##### *D. Sciences/Mathematics - 9 credits*

A minimum of nine credits including:

- One course in Biology
- One course in Physical Science: Astronomy, Chemistry, Geology, Meteorology, or Physics
- Additional credits in Astronomy, Biology, Chemistry, Computer Science, Environmental Studies, Geology, Mathematics, Meteorology, or Physics

#### **CONCENTRATION REQUIREMENTS** (minimum) 30 credits

Students must complete a minimum of 30 credits in a self-designed concentration; 18 of the 30 credits must be 200-level or higher. The 30-credit self-designed concentration requirement must include a minimum of two disciplines in Arts and Humanities. A minimum of 12 credits must be taken in at least one of the two disciplines.

#### **DEGREE REQUIREMENTS** 61 credits

## General Studies

### *Associate in Science*

#### **GENERAL EDUCATION REQUIREMENTS**

*(minimum) 31 credits*

##### *A. English Language Competence - 4 credits*

ENG 101 Essay Writing

##### *B. Arts and Humanities - 9 credits*

A minimum of nine credits including:

- One course in History
- One course in Art, Film Studies, Music, or Theatre and Dance
- One course in literature — any course in English other than ENG 101, 202, 203, 204, 208, 300-level, or 400-level courses
- Additional credits, if necessary, in Art, English, Film Studies, History, Music, or Theatre and Dance

##### *C. Social Sciences - 9 credits*

A minimum of nine credits from three different social science disciplines: Anthropology, Economics, Geography, Political Science, Psychology, or Sociology

##### *D. Sciences/Mathematics - 9 credits*

A minimum of nine credits including:

- One course in Biology
- One course in Physical Science: Astronomy, Chemistry, Geology, Meteorology, or Physics
- Additional credits in Astronomy, Biology, Chemistry, Computer Science, Environmental Studies, Geology, Mathematics, Meteorology, or Physics

#### **CONCENTRATION REQUIREMENTS**

*(minimum) 30 credits*

Students must complete a minimum of 30 credits in a self-designed concentration; 18 of the 30 credits must be 200-level or higher. The 30-credit self-designed concentration requirement must include a minimum of two disciplines in sciences/mathematics, social sciences, or professional studies. A minimum of 12 credits must be taken in at least one of the two disciplines.

#### **DEGREE REQUIREMENTS**

*61 credits*

## Applied Computer Science

### *Associate in Science*

This two-year concentration prepares students for employment in computer operations. Course work introduces the student to a variety of computer applications in business and industry. This program of study is designed to articulate with the bachelor of science and minor programs in Applied Computer Science.

#### **GENERAL EDUCATION REQUIREMENTS**

*(minimum) 25 credits*

Computer Science and Mathematics courses may also be used to fulfill the Sciences/Mathematics component (D) of the General Education requirements.

##### *A. English Language Competence - 4 credits*

ENG 101 Essay Writing

##### *B. Arts and Humanities - 9 credits*

A minimum of nine credits from at least two of the Arts and Humanities disciplines: American Studies, Art, Communication, English, Film Studies, History, Journalism, Modern Languages, Music, Philosophy, or Theatre and Dance.

##### *C. Social Sciences - 6 credits*

A minimum of six credits from at least two different Social Science disciplines: Anthropology, Economics, Geography, Political Science, Psychology, or Sociology.

##### *D. Sciences/Mathematics - 6 credits*

A minimum of six credits from at least two different Science/Mathematics disciplines: Astronomy, Biology, Chemistry, Computer Science, Environmental Studies, Geology, Mathematics, Meteorology, or Physics.

#### **CONCENTRATION REQUIREMENTS**

*30 credits (minimum)*

##### **Programming Core**

CS 140 Computer Programming I (4 credits)

CS 160 PC Hardware Fundamentals

CS 185 Computer Programming II (4 credits)

CS 280 Data Structures

MATH 120 Intermediate Algebra and Trigonometry (Note: Higher-level mathematics courses, including MATH 130 and 151, are encouraged and may be taken instead of Math 120)

MATH 141 Introduction to Statistics\*

\*This requirement can be fulfilled by completing PSYC 251.

### Second Language Requirement

One CS course must be taken in a programming language other than the primary language taken in CS 140/185/280 and must be approved by advisor.

### Computer Architecture Requirement

One CS course, approved by advisor, in a second, non-Windows computer architecture is required. Currently, this can be satisfied by a course using the iSeries, UNIX, or Linux operating system. If also a programming language, this course may simultaneously satisfy the second language requirement; however, an additional three credits will be required in the event that a student elects to use a single course to satisfy both the computer architecture, and second language requirements.

### CS Electives

One CS 200-level (or higher) course  
One CS 300-level (or higher) course

### ELECTIVES

Select courses to reach a total of 60 credits for the degree.

### DEGREE REQUIREMENTS

60 credits

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## Chemical Dependency

### *Associate in Science*

This concentration provides a basic foundation for further education in alcohol/substance abuse studies. All students must demonstrate competence in first aid.

### GENERAL EDUCATION REQUIREMENTS

(minimum) 25 credits

#### A. English Language Competence - 4 credits

ENG 101 Essay Writing

#### B. Arts and Humanities - 9 credits

A minimum of nine credits from at least two different Arts and Humanities disciplines: American Studies, Art, Communication, English, Film Studies, History, Journalism, Modern Languages, Music, Philosophy, or Theatre and Dance.

#### C. Social Sciences - 6 credits

A minimum of six credits from at least two different the Social Science disciplines: Anthropology, Economics, Geography, Political Science, Psychology, or Sociology.

#### D. Sciences/Mathematics - 6 credits

A minimum of six credits from at least two different Sci-

ence/Mathematics disciplines: Astronomy, Biology, Chemistry, Computer Science, Environmental Studies, Geology, Mathematics, Meteorology, or Physics.

### CONCENTRATION REQUIREMENTS

21 credits

HLSC 380 Alcohol: Model of Chemical Dependency

HLSC 486 Assessment, Diagnosis and Counseling

HLSC 490 Advanced Special Topics

(Topics must be selected from Substance Abuse/Addictions and Chemical Dependency offerings.)

HLSC Elective in Chemical Dependency

Select a total of 9 credits from the following. (A minimum of 3 of these credits must be from HLSC electives in Chemical Dependency.)

HLSC 101 Health and Wellness Trends and Issues

HLSC 214 Nutrition Fundamentals

HLSC Elective in Chemical Dependency

PSYC 221 Social Psychology

PSYC 253 Brain and Behavior

PSYC 311 Child and Adolescent Psychology

PSYC 314 Adulthood and Aging

PSYC 345 Abnormal Psychology

PSYC 444 Counseling

### ELECTIVES

Select courses to reach a total of 60 credits for the degree.

### DEGREE REQUIREMENTS

60 credits

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## Technology Studies

### *Associate in Science*

The two-year Technology Studies Program provides specialized preparation within a very flexible curriculum format for individuals who plan to become technicians in industry. A primary goal of the program is to prepare students for solving the kinds of human and technical problems found in the technological environment. A core requirement is followed by a concentration of courses in CAD-CAM, Product Design, Electro-Mechanical Technologies, or Safety Studies through individual program design done in consultation with an academic advisor.

Although the two-year Technology Studies program is intended to lead to industrial employment, the program is fully transferable into the four-year Technology Studies program at Keene State College.

**GENERAL EDUCATION REQUIREMENTS***(minimum) 25 credits*

MATH 120 Applied Algebra and Trigonometry is required for the Sciences/Mathematics component (D) of the General Education Requirements.

*A. English Language Competence - 4 credits*

ENG 101 Essay Writing

*B. Arts and Humanities - 9 credits*

A minimum of nine credits from at least two of the Arts and Humanities disciplines: American Studies, Art, Communication, English, Film Studies, History, Journalism, Modern Languages, Music, Philosophy, or Theatre and Dance.

*C. Social Sciences - 6 credits*

A minimum of six credits from at least two different Social Science disciplines: Anthropology, Economics, Geography, Political Science, Psychology, or Sociology.

*D. Sciences/Mathematics - 6 credits*

MATH 120 Applied Algebra and Trigonometry

A minimum of *six* credits including:

- MATH 120 Applied Algebra and Trigonometry

- Additional credits in Astronomy, Biology, Chemistry, Computer Science, Environmental Studies, Geology, Meteorology, or Physics

**CONCENTRATION REQUIREMENTS***30 credits***Technology, Design and Safety (TDS) Core (3 credits)**

Select *one* of the following:

TDS 100 Exploring Technology

TDS 140 Introduction to Visual Communication

TDS 181 Safety Awareness

**Technology Studies Electives (27 credits)**

Select at least 27 credits from TDS offerings, 15 of which must be at the 200 level or above.

**ELECTIVES**

Select courses to reach a total of 60 credits for the degree.

**DEGREE REQUIREMENTS***60 credits*



# Graduate Studies

*Educating Students in Context:  
Professional Roles in Research and Practice*

## Purpose of the Graduate Program

The vision for professional educator development at Keene State is "Excellence in initial and advanced preparation of outstanding educational leaders for today and tomorrow." Complementing the vision is the mission: "To meet the need for preparation of outstanding educational leaders who create environments that foster individual exploration of human potential and the development of independent learners and responsible citizens." Together these statements set the agenda for Keene State's Education, Special Education, and Early Childhood (ESEC) faculty and the foundation for related programs of study.

The purpose of the ESEC graduate program is to serve as a mechanism for achieving the professional educator development mission by offering a sequence of course experiences within specialty areas in professional education which is relevant to today's education professionals, is grounded in research, and is established in anticipation of future trends in education. The specialty areas are designed to address national standards and, where certification is recommended, the standards for New Hampshire professional educators.

## Graduate Program Model

### Themes

The three-dimensional model used in the undergraduate teacher preparation program is extended to the graduate program, with a few modifications. The Themes dimension remains unchanged, representing what our faculty hold as essential areas for professional development for emerging or experienced professionals. The overarching graduate program focus—Educating Students in Context: Professional Roles in Research and Practice—embraces the themes in the Teacher Education Theme Web. Fur-

ther, the focus suggests that in the graduate program we are emphasizing the study of students within schools, families, and community contexts in addition to identifying best practices through assessment and evaluation of classroom and school activities. The primary themes around which ESEC professional educator development programs are organized are Self-Esteem and Confidence, Striving for Excellence, Social Responsibility and Ethics, Collaboration in a Community of Learners, Diversity, Life Span Development, Families, Integration of Knowledge, Problem Solving, and Create and Construct Own Knowledge.

### Professional Standards for Program Options

The second dimension of the model in the undergraduate program is the Ideal Teacher Candidate, an articulation of the dimensions of teaching in which graduates of the program should be proficient. At the graduate level this dimension changes slightly to reflect the experience and previous preparation in education and related fields of students in the graduate program. Each of the four specialty area programs is framed by standards from national organizations. These standards specify the knowledge and skill competencies experienced professionals should have, and in that way suggest desired outcomes of the graduate specialty area programs. Each specialty area uses the standards in planning courses and experiences and strives to meet as many standards as possible. Therefore, while Ideal Teacher Candidate is the appropriate title for the outcomes dimension of the undergraduate program model, Professional Standards is more appropriate for the graduate program.

### Orientation and Delivery of the Program

The third dimension of the model is Delivery. While the dimension title is appropriate for both undergraduate and graduate programs, Delivery of the graduate program is very different. The undergraduate model identifies three aspects of the program - General Education, Teacher Education, and Non-Education Major. The graduate program content is more focused in its

Delivery. Students begin graduate studies by exploring the relationships between their career goals and the graduate program in which they are enrolled. In addition, students reflect on the themes related to problem solving, assessment, identifying and validating best practices, writing, technology, and collaboration as well as the Themes related to life span development, social responsibility and ethics, families, self-esteem, reflection, and collaboration.

The second Delivery piece of the graduate program framework is the program option content. The Themes and Professional Standards dimensions require students to engage in experiences that require translation of theory into practice and to demonstrate advanced skills and knowledge in the area of specialization.

Each program option has the following content framework: concepts related to portfolios and portfolio assessment and history, issues, and/or focus in the program option.

The Portfolio Development and Assessment program option background is followed by content in Assessment/Evaluation specific to the program option. Understanding of and proficiency in assessment and evaluation of students are essential elements of professional educator practice and are identified in each of the national standards referenced by program option.

Each program option includes experiences that require students to translate theories related to education into sound educational practices. Emphasis is on interpreting both theory and research revolving around topics identified by the Teacher Education Themes and Professional Standards dimensions.

A final program requirement is a performance activity or internship. The internship requires students to demonstrate competence in skills and knowledge learned in the program option coursework and referenced in the state and national standards. The internship is supervised and assessed by faculty.

Complementing the Introduction to Graduate Studies and the Program Option content are study electives. Students engage in activities that meet their professional goals but are outside the content requirements for their program option.

The graduate program framework has, as a final component, a capstone experience. The Capstone Seminar brings together students in the program option in a

cooperative setting. The Capstone Seminar experience uses the collaborative case study development method and requires student presentations. Students identify a problem area or student on which to focus studies. Others in the class or cohort serve as consultants in the development of viable interventions and the identification of methods for assessing the efficacy of the interventions.

## Program Administration

### Admission to the Graduate Program

Admission to the graduate program requires completion of an application process that includes submission of transcripts for all undergraduate and graduate course work, three letters of recommendation, an admissions essay that outlines the applicant's goals for graduate work, and an application fee. Applicants with a current official teacher certification from any state Department of Education must include a copy with their application. A personal interview is required to complete the application process.

Applicants must have earned a baccalaureate degree with a minimum 2.5 grade point average for all undergraduate course work or must submit an official score report indicating a performance score at or above the 50th percentile on each of the three subtests of the (General) Graduate Record Exam (GRE).

To further demonstrate basic skills competence and the potential to complete graduate-level work, an applicant must submit one of the following:

- Official score report indicating "Passing Scores" on the Praxis I: Pre-Professional Skills Test
- Official score report indicating a performance score at or above the 50th percentile on each of the three subtests of the (General) Graduate Record Exam (GRE)
- Copy of current official teacher certification from any state Department of Education
- Official transcript indicating an earned master's degree

Program options may specify additional admissions criteria. Refer to the specific program option admissions criteria for more information.

Normally, application folders completed by the stated deadline will be evaluated for matriculation for the following semester.

<i>Deadline</i>	<i>Semester of Matriculation</i>
April 1	Fall
December 1	Spring

Keene State College reserves the right to close admissions, irrespective of the stated deadlines. Once accepted, students are required to submit a \$100 nonrefundable enrollment services fee before matriculation.

Program applicants may enroll for core courses—ESEC 601 Research Strategies in Education and ESEC 602 Students, Families, Schools, and Society—at any time before matriculation. In addition, electives may be taken prior to matriculation. However, no more than nine credits, completed at Keene State College or another institution, may be transferred into any graduate program option.

### **Administration of the Program**

The Graduate Program is administered through the Teacher Education and Graduate Studies (TEGS) Office in collaboration with the ESEC faculty and ESEC coordinator(s). The College's Admissions Office coordinates the admissions process and notifies students of acceptance into the graduate program. The Office of the Registrar maintains academic records. The Office of Continuing Education monitors students who enroll in graduate courses but are not matriculated in order to assist nonmatriculated students in the admission and course selection process.

Upon admission to the Graduate Program, the TEGS Office, after consultation with the student and ESEC faculty, identifies an advisor. The TEGS Office monitors matriculated student progress through the program.

The ESEC faculty offers courses in a planned three-year cycle that allows realistic student planning for completion of degree requirements in two to three years. The three-year cycle includes fall, spring, and summer semesters. Courses are offered 4:30-7 p.m. and 7-9:30 p.m. Monday through Thursday during the academic year. Courses may also be offered on a Friday evening-Saturday schedule. Summer session classes include day and evening meetings as well as weeklong institutes. Classes typically have at least eight and up to 20 students enrolled in order to provide faculty attention to student needs appropriate for graduate study.

### **Electives**

Electives for the graduate program are designed to provide each graduate student with experiences that

are appropriate for their professional portfolio plans but are not studies in depth in specialty areas. Each elective course includes an identification of the Teacher Education Themes and Professional Standards dimension elements to which it relates. Electives are selected and organized around four overarching themes: Research, Assessment, Curriculum Development, and Human Development.

Elective courses are offered during the academic year and during the two summer sessions to facilitate student planning and completion of the program. Elective course offerings are planned one year in advance, with many scheduled for summer sessions. Electives will vary from 1 to 3 credits numbered at the 500 or 600 level.

### **Degree Requirements**

- The minimum course requirements must be completed as specified in the program, with an average grade of B or higher (3.0 on a scale of 4.0). No grade less than C is acceptable, and no more than two grades less than a B count toward the degree. The Forgiveness Policy does not apply to courses taken for graduate credit.
- The residence requirement for graduate students must be fulfilled (normally completed by taking at least 80 percent of credits through Keene State College courses).
- An Intent to Graduate Form must be submitted to the TEGS Office during the first two weeks of the semester before the semester of graduation.
- Payment of the graduation fee is required.

### **Transfer of Credit**

Matriculated students may submit a Transfer of Credit Request form to the TEGS Office. Keene State College may accept up to nine transfer credits provided these credits apply to a candidate's graduate program and are approved by the student's advisor and/or the ESEC faculty chair. Only credits are transferred, not grades. Transfer courses do not count toward the 3.0 grade point average required for program completion. Transcripts must indicate that the student was enrolled in a graduate-level course in an appropriately accredited institution. Grades below a B (3.0 on a scale of 4.0) are not acceptable for transfer into graduate programs. Normally, courses taken more than seven years before the date of matriculation may not be transferred into a graduate program.

## Time Limitations

The statute of limitations (total time period in which to complete a graduate program) is six calendar years from the date of official admission for programs that require 30 credits or more to complete, or four calendar years for those programs that require 29 or fewer credits. Students may petition the director of Graduate Programs and the graduate dean for one additional year.

## Graduate Course Policy

A graduate student may elect to apply up to, but no more than, six credits of 300-and 400-level courses in their graduate program. Students taking 300-and 400-level courses for use in a graduate program must receive approval, prior to enrolling in such a course, from the graduate advisor and the director of the TEGS Office. Forms are available in the TEGS Office.

## Course Load

A matriculated graduate student is considered to be full-time when he or she registers for nine or more credits in a given term. Registration for less than nine credits results in part-time status. Course load is a significant determining factor regarding eligibility for financial aid. Contact the Student Financial Services Office for additional information.

## Academic Dismissal

Graduate students who fail to maintain a 3.0 cumulative grade point average (on a 4.0 scale) are subject to academic dismissal. Students may also be dismissed for lack of professionalism, attitude and aptitude for

professed occupational goals, and other criteria established by the degree program.

## Earning a Second Graduate Degree

Those presently holding a master's degree may earn an additional master's degree in a different area by completing all requirements for the second degree. Candidates for a second graduate degree should apply through the regular admissions process. Existing policies regarding transfer of credit apply.

## Assistantships/Financial Aid

A limited amount of grant and loan money is available for financial aid for graduate students. Submit a Free Application for Federal Student Aid (FAFSA) by March 1. Then contact the Keene State Office of Student Financial Services. A limited number of graduate assistantships are available to matriculated graduate students. Benefits include a \$3,000 annual stipend, plus waiver of tuition for six approved courses (normally 18 credit hours) for the academic year. Twenty hours of work per week are expected of recipients. Applications are available from the TEGS Office.

## Leave of Absence

Written requests for a leave of absence may be addressed to the director of the TEGS Office. If the request is granted, the student assumes responsibility for fulfilling all official withdrawal procedures, including a specification of the intended date of return. No readmission procedure will be required when the College has granted an official leave.

# Graduate Programs

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## Master of Education

### Special Education Option

Keene State College is committed to offering professionals in the region opportunities to pursue professional development, advanced graduate studies, and advanced certification in Learning Disabilities and Emotional/Behavioral Disorders. To ensure graduate opportunities in the Special Education Option, Keene State has entered into a collaborative agreement with the College for Lifelong Learning (CLL). This joint effort gives professionals the opportunity to engage in dialogue with colleagues in the area and pursue development of their own interests and expertise. Students seeking initial general special education certification should refer to the post-baccalaureate program or undergraduate program.

The Special Education Option in the master's program is designed to support professionals on their journeys to enhance competence as special educators, pursue certification in learning disabilities and emotional and behavior disorders, and earn a graduate degree. The course work is divided into two segments. The "Introduction to Graduate Studies" works with students to develop an understanding of how to evaluate existing research and design classroom-based action research. They also investigate perspectives that examine how students, families, schools, and society impact their roles. The "Special Education Option" begins by guiding the professional through self-reflection and goal setting in light of professional standards and current issues that constitute the context for special education. Students engage in the CLL modules to develop and demonstrate professional competence in the advanced certification areas. They are also encouraged to enroll in elective courses that correspond with their professional goals. When students are awarded advanced certification in Learning Disabilities and Emotional/Behavioral Disorders, they will submit materials to demonstrate professional competence for graduate credit. The last course in the Special Education Option connects students' work with collaborative efforts in the schools. The "Capstone Experience" requires graduate students to develop their own school-based projects.

Intensive studies focusing on special education topics that lead to advanced certification in learning disabilities and emotional/behavior disorders are completed in conjunction with the CLL Special Education Teacher Training (SETT) Program. This part of the program revolves around school-based, independent learning defined by a set of six to seven modules. The modules are designed to allow the professional to work both independently and under the supervision of a mentor professional. Students engaged in the SETT program are provided with a course syllabus, a timeline to gauge independent work, related tasks and readings, and rubrics to evaluate performance. Texts, articles, and related assignments are designed to provide participants with background information. In addition, field-based requirements allow for connections with site-based activity, giving professionals opportunity to apply different ideas with feedback from their supervisors. The CLL SETT Program leads to New Hampshire certification.

### Admissions Criteria

Ideally, candidates will begin their graduate studies at KSC or enter the two programs concurrently. Students are required to submit one application packet, which will be reviewed by Keene State College for admissions into the master's degree program and by CLL for acceptance to engage in the independent modules leading to advanced certification through the SETT program. Students may be accepted or provisionally accepted, depending on their undergraduate GPA scores and quality of application materials.

Upon acceptance to each of the programs, students will be assigned to two advisors. For the KSC graduate program, candidates are to meet with an advisor to project a timeline for their work, discuss options, and complete a program planning sheet. For the CLL SETT program, students are to meet with their assigned advisor in that program to discuss securing school support and a mentor, participating in field supervision, making effective use of the modules, and signing a contract for completion.

### Admissions to Advanced Graduate Studies

Successful candidates for admission to the KSC master's degree program Special Education Option must meet the

criteria for admission to the graduate program and also have:

- General special education certification or a comparable initial certification in special education
- A minimum of one year's full-time teaching experience
- A personal interview with a KSC faculty member

### **Admissions to Advanced Certification in Special Education**

Successful candidates for admission to the SETT Program must fulfill expectations defined by CLL. This requires completion of:

- Application
- Essay
- Interview with the director of SETT
- Submission of references

Candidates will be evaluated in terms of a minimum of a 2.7 GPA in undergraduate school, effective writing skills (organization, clarity, fluency, and technical qualities), and evidence of self-direction.

### **Special Education Option Requirements**

*INTRODUCTION TO GRADUATE STUDIES (5 credits)*

ESEC 601 Research Strategies in Education (3 credits)

ESEC 602 Students, Families, Schools, and Society (2 credits)

*SPECIAL EDUCATION OPTION (22 credits)\**

ESECSP 610 Portfolio Development and Assessment (1 credit)

ESECSP 612 Demonstrated Certification Competence (18 credits)

ESECSP 661 Collaboration and Service Delivery Options (3 credits)

*ELECTIVES (9 credits)*

Students are encouraged to participate in Institutes and offerings in other KSC graduate programs that serve to enhance their understanding of serving students with special needs.

*CAPSTONE EXPERIENCE (3 credits)*

ESEC 699 Capstone

**TOTAL**

**39 CREDITS**

## **School Counselor Option**

The School Counselor Option in the master's program in education encourages the development of school counselors who are actively involved in school transformation and see themselves as agents of change, who are making a positive difference in students' lives. This program promotes the enhancement and development of school counseling skills and strategies. Developmental, ecological/systematic, and multicultural perspectives provide the theoretical frameworks for the program.

A developmental perspective focuses on the needs, tasks, and challenges of children and adolescents at each stage in their growth. An ecological/systematic perspective prepares future counselors to work effectively with those systems that form the context of students' lives. These systems include the school, family, and community, with its array of support and intervention strategies. An ecological perspective also considers the impact of community, national, and global events on students and the spectrum of effective school counselors' responses to these events.

A multicultural perspective is expressed by the commitment to preparing counselors who can work sensitively and effectively with diverse populations, including the full range of cultural, ethnic, gender related, class, and racial diversity that exists in schools and in society. This emphasis includes careful attention to the entire range of learning differences and styles of the student population.

Since school counselors work with students in a variety of contexts, they need to have skills in individual counseling, small group guidance and counseling, and classroom guidance. Leadership in facilitating communication and team building among faculty and staff members and with families and students are critical components of the school counselor's role. Effective leadership requires interpersonal and consultation skills and the ability to mediate and resolve conflicts. Skills in behavior management, crisis intervention, and referral and provision of services are crucial, as is an understanding of how to work with learning differences and emotional and health-related problems.

School counselors need to be well grounded in current ethical and legal standards. Ethical practice must be infused in and guide all of their work. Awareness of the guidelines of professional organizations is of utmost importance. Legal and ethical considerations include understanding the parameters surrounding confidentiality; knowing one's own biases and limits, when it is necessary to consult with colleagues, and when to refer cases to another individual or agency. An ethical school counselor actively seeks to continuously learn more about this ever-growing field

and is careful to seek appropriate peer review and clinical supervision throughout his or her career.

The School Counselor Option is field based; each course requires students to apply course content to a school or counseling context. The program is also sequential in design, with each course cluster providing a base for subsequent courses, all revolving around the Themes and Professional Standards dimensions of the graduate program conceptual Framework. Two semester-long School Counselor Internships (elementary and secondary) include a weekly seminar and require students to demonstrate mastery-level counseling in a school setting. Program flexibility and individualization occur with the courses as students design and try out interventions based on interpretations of theory and research into identified best practices.

In concert with the graduate program conceptual framework and the professional educator development mission, students in the program are instructed in ways to “create environments that foster individual exploration of human potential” through study of theory and the applications of theory to practice. Knowledge and competency statements adapted from the American School Counselor Association (ASCA) and the Council for the Accreditation of Counseling and Related Educational Programs (CACREP) provide the framework for program outcomes (Professional Standards dimension of the conceptual framework).

### Admissions Criteria

Successful candidates for admission to the School Counselor Option must meet the criteria for admission to the graduate program and have a personal interview with a Keene State College School Counselor faculty or admissions staff member.

### School Counselor Option Requirements

Program prerequisite (to be completed prior to internship): A minimum of at least one course in child/adolescent development.

#### *INTRODUCTION TO GRADUATE STUDIES (5 credits)*

ESEC 601 Research Strategies in Education  
ESEC 602 Students, Families, Schools, and Society  
(2 credits)

#### *SCHOOL COUNSELOR OPTION (28 credits)*

ESECSC 610 Program Orientation/Portfolio Development (1 credit)

ESECSC 622 School Counseling: Roles, Responsibilities, and Interventions

ESECSC 626 Professional Seminar for School Counseling

ESECSC 631 Assessment and Evaluation for School Counselors

ESECSC 641 Career Development

ESECSC 651 Methods and Skills of Counseling

ESECSC 652 Group Counseling in Schools

ESECSC 662 School Counseling: Theoretical Foundations

ESECSC 696 Internship: Elementary

ESECSC 697 Internship: Secondary

#### *ELECTIVES (3 credits)*

Graduate-level courses to be determined in consultation with faculty advisor.

#### *CAPSTONE EXPERIENCE (3 credits)*

ESEC 699 Capstone

**TOTAL**

**39 CREDITS**

## Educational Leadership Option

School principals are leaders who function in many roles to meet the diverse needs of individuals and groups in an increasingly complex society and a rapidly evolving world. To lead effectively, school principals must be prepared with the knowledge, skills, and ethical understandings necessary to create an environment that promotes human potential in terms of learning and citizenship.

The literature defines leadership as a direction-setting task. People who lead engage in visioning, purposing and agenda setting. At the core is the principal's role in the development of shared strategic visions for schools. Shared visions are the basis of a school's culture and values, which suggests that leaders are people who facilitate the development of shared visions and thus create desired changes in culture and values (National Policy Board for Educational Administration, 1993).

A developmental and ecological perspective provides the theoretical framework for the program. The overriding theme of leadership drives the vision of school principal preparation. The developmental framework focuses on the needs, tasks, and challenges of children, adolescents, and adults in the school setting. The ecological perspective prepares future principals to work effectively with those systems that comprise and have an interrelationship with schools. These systems include school, family, community, and state, national, and global organizations.

A multicultural perspective is expressed by the commitment to prepare principals who can work effectively with

diverse populations of children, adolescents, and adults. This emphasis encompasses sensitivity to individuals in an organizational setting.

School principals work with students, teachers, other professionals, paraprofessionals, staff members, parents, board members, community members, and central office personnel in a variety of curricular and co-curricular planning and activities. Leadership, team building, and communication skills are crucial to working with all constituencies, including large groups, small groups, and individuals in conferencing.

Thorough understandings of what makes organizations effective; of motivation, human development, learning, and learning styles; and of mediation and conflict resolution, oral and written communication, and delegation are integral components to the program.

School principals must be models of and knowledgeable about ethical and legal standards and must be capable of applying those concepts in the complexities of a school setting. They must have knowledge of the legal and ethical parameters regarding confidentiality, personal and group safety, personal biases and limits, consultation with colleagues, and the need to refer an issue to another individual, central office, or outside agency.

The Educational Leadership Option has two tracks. The first is the traditional program that requires students to satisfactorily progress through a series of courses that are offered within the semester format. Typically, courses meet once per week during the academic year and twice per week during summer sessions.

A second track is the Principal Residency Network (PRN), a 12-month, full-time residency track. Students enroll full-time, create individual learning plans referencing state and national standards, and develop portfolios with evidence of completion of the learning plans. PRN students are assigned to mentor principals selected by the program option faculty. After acceptance into the Educational Leadership Option, an additional application step is required. Information on PRN is available from the TEGS office or program option faculty.

### Admissions Criteria

Successful candidates for admission to the Educational Leadership Option must meet the criteria for admission to the graduate program and also have:

- a minimum of two years' full-time teaching experience (for Principalship Certification, three years of full-time teaching experience are required) and
- a personal interview with an Educational Leadership faculty or admissions staff member.

## Educational Leadership Option Requirements

### *INTRODUCTION TO GRADUATE STUDIES (5 credits)*

ESEC 601 Research Strategies in Education

ESEC 602 Students, Families, Schools, and Society  
(2 credits)

### *EDUCATIONAL LEADERSHIP OPTION (22 credits)*

ESECEL 610 Portfolio Development and Assessment  
(1 credit)

ESECEL 621 Organizational Leadership

ESECEL 622 School Effectiveness and Reform

ESECEL 631 Staff Selection, Supervision and Evaluation

ESECEL 641 School Law

ESECEL 652 Budget and Facility Management

ESECEL 697 Internship

ESECEL 697 Internship

### *ELECTIVES (6 credits)*

Graduate-level courses

### *CAPSTONE EXPERIENCE (3 credits)*

ESEC 699 Capstone

**TOTAL**

**36 CREDITS**

## Curriculum and Instruction Option

The Curriculum and Instruction (C & I) Option in the master's program in education promotes the development and enhancement of teaching competencies and strategies appropriate for regular classroom teachers. In concert with the graduate program conceptual framework and the professional educator development mission, students in the program are instructed in ways to "create environments that foster individual exploration of human potential" through study of theory and the applications of theory to practice. The standards from the National Board of Professional Teaching Standards serve as the basis for the program outcomes (Professional Standards dimension of the conceptual framework).

To align with both the professional educator development mission and these standards, the C & I Option has two tracks. The Professional Development track is for education professionals who are currently working in regular classrooms. The course content is designed to extend current teaching skills and knowledge with an emphasis in the areas of multiculturalism, ethics, social responsibility, and relationships. This track includes an extensive review of the foundations for American public education and contemporary redesign and reform movements. Since assessment of students, classrooms, and systems is essential



for providing developmentally appropriate educational experiences for students, a course that focuses on assessment strategies is included. A series of courses follows, each dealing with an aspect of the teacher's role in the regular classroom in depth. An internship concludes the C & I Professional Development track.

The Certification - World Education Links (WEL) track of the C & I Option is designed for students with a bachelor's degree in a liberal arts discipline and life experiences that have led them to seek an initial teaching certificate in Early Childhood Education, Elementary Education, Middle School Mathematics, Physical Education, Music Education, or a secondary certification area currently offered at the College.

All students in the WEL program must be enrolled full-time and are placed in a field setting for an entire public school year (August to June). Students develop individual learning plans referenced to state and national standards for teachers. A mentor teacher in the classroom in which the student is assigned provides critical instruction and guidance in the development of a portfolio documenting competence in certification standards and completion of the individual learning plan. Students meet as a cohort every Friday and on selected Saturdays during the fall and spring semesters. Courses in the Certification - WEL track are offered only to full-time graduate students.

The WEL program track requires an initial review of previous course work to determine missing competencies in undergraduate liberal arts areas required to meet state standards for teacher certification. Activities requiring acquisition of missing competencies are prescribed and are typically demonstrated in the classroom.

The Certification-WEL track includes content and experiences that address both the Teacher Education Themes and the New Hampshire State Standards for Teacher Certification. In addition to the content in portfolio development and assessment, design and reform of American education, assessment in the classroom context, and curriculum development, students enrolled in the C & I Certification-WEL track are required to gain competence in life span development and classroom instructional management. Literacy and methods experiences at the level appropriate for the level of certification being sought are also required. Students who successfully complete all requirements in this program option receive the master of education degree and are recommended for initial teacher certification. Those students enrolled in this program who wish to pursue initial certification in general special education must take the undergraduate coursework associated with that certification.

## Admissions Criteria -

### Professional Development Track

Candidates for admission to the Curriculum and Instruction Professional Development Track must meet the criteria for admission to the graduate program and also have:

- a teaching certificate and
- a minimum of 1 year's full-time teaching experience or equivalent.

### C & I OPTION REQUIREMENTS - PROFESSIONAL DEVELOPMENT TRACK

Introduction to Graduate Studies (5 credits)  
ESEC 601 Research Strategies in Education  
ESEC 602 Students, Families, Schools, and Society  
(2 credits)

### C & I OPTION - PROFESSIONAL DEVELOPMENT TRACK (19 credits)

ESECCI 610 Portfolio Development and Assessment  
(1 credit)  
ESECCI 621 Design and Reform of American Education  
ESECCI 631 Assessment and Evaluation in Schools  
ESECCI 641 Applied Learning Theory  
ESECCI 651 Curriculum Development  
ESECCI 661 Collaboration and Service Delivery Options  
ESECCI 697 Internship

### ELECTIVES (9 credits)

Graduate-level courses

### CAPSTONE EXPERIENCE (3 credits)

ESEC 699 Capstone

## TOTAL

**36 CREDITS**

## Admissions Criteria - Certification Track

Candidates for admission to the Curriculum and Instruction Certification Track must meet the criteria for admission to the graduate program and complete a program-planning sheet for the graduate program.

### C & I OPTION REQUIREMENTS - CERTIFICATION TRACK

Introduction to Graduate Studies (5 credits)  
ESEC 601 Research Strategies in Education  
ESEC 602 Students, Families, Schools, and Society  
(2 credits)

C & I OPTION - CERTIFICATION TRACK (31 credits)  
ESECCI 610 Portfolio Development and Assessment (1 credit)

ESECCI 621 Design and Reform of American Education  
 ESECCI 630 Life-span Development  
 ESECCI 631 Assessment and Evaluation in Schools  
 ESECCI 651 Curriculum Development  
 ESECCI 686 Field Placement (no credit)  
 ESECCI 687 Classroom/Instructional Management  
 ESECCI 696 Student Teaching (15 credits)

**TOTAL 36 CREDITS**

*Initial Certification Courses\**

For Early Childhood Certification, ESEC 281, ESEC 381 and ESEC 382 are required

For Elementary Certification, ESEC 281, ESEC 382 and ESEC 383 are required

For Middle School Certification, ESEC 282, ESEC 384 are required

For Secondary Certification, ESEC 282 and ESEC 385 are required

For Physical Education and Music Education Certifications, see program requirements in this catalog.

**TOTAL UNDERGRADUATE 6-9 CREDITS**

**TOTAL FOR CERTIFICATION 42-45 CREDITS**

*\*General Special Education Certification may be earned together with Elementary Certification by adding the post-baccalaureate special education course requirements (SPED 301, SPED 420, SPED 430) and additional field placement time for instructing students with special needs.*

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## Post-Master's Certification Programs

For individuals currently holding a master's degree who wish to become certifiable as a school principal or school counselor, post-master's certification programs are available as follows:

### Educational Leadership (22 credits)

ESECEL 610 Portfolio Development and Assessment (1 credit)  
 ESECEL 621 Organizational Leadership  
 ESECEL 622 School Effectiveness and Reform  
 ESECEL 631 Staff Selection, Supervision and Evaluation  
 ESECEL 641 School Law  
 ESECEL 652 Budget and Facility Management  
 ESECEL 697 Principal Internship  
 ESECEL 697 Principal Internship

### School Counselor (25 credits)

ESECSC 610 Program Orientation/Portfolio Development (1 credit)  
 ESECSC 622 School Counseling: Roles, Responsibilities, and Interventions  
 ESECSC 631 Assessment and Evaluation in Schools  
 ESECSC 641 Career Development  
 ESECSC 651 Methods and Skills of Counseling  
 ESECSC 652 Group Counseling in Schools  
 ESECSC 662 School Counseling: Theoretical Foundations  
 ESECSC 696 Internship: Elementary  
 ESECSC 697 Internship: Secondary

# Courses of Instruction

**B**ECAUSE CURRICULUM DEVELOPMENT is a continuous process, there may have been course changes subsequent to the publishing of this catalog. Therefore, the College reserves the right to add, change, or delete curricular offerings and/or make curricular refinements. Some changes are necessitated by agencies that accredit the College or award certificates to students. Check with the appropriate academic discipline to learn of any recent changes.

## Course Availability

As a service to students and those who advise students, the College provides information regarding the semester a course is expected to be offered. The information is included in the course description. Please note that course schedule information is subject to change without notification. Furthermore, the inclusion of information as to when courses are typically offered does not constitute a contract between students and the College.

## Course Numbering System

All courses carry three credits unless otherwise indicated. Prerequisites, if there are any, are listed at the end of each course description.

For courses numbered below 100, credits do not apply toward graduation.

**100- and 200-level courses** are introductory and intermediate courses usually taken during the freshman and sophomore years.

**300- and 400-level courses** are upper division courses, usually taken by juniors and seniors.

**500-level courses** are graduate courses but are open to senior undergraduates with permission of the appropriate divisional dean.

**600-level courses** are graduate courses only; they are not open to undergraduates.

**Experimental courses** are identified as 199 (basic), 399 (advanced), and 599 (graduate). They may be offered with permission of the discipline faculty, the appropriate divisional dean, and the vice president for Academic Affairs. Normally these courses are not repeated.

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## American Studies

### AMST 210 INTRODUCTION TO AMERICAN STUDIES

4 credits

An interdisciplinary introduction to the nature, methodology, resources, premises, and problems of the American experience. Usually focuses on a particular decade. (Course also listed as ENG 210.) May be repeated once for credit as topics change. *Fall, Spring*

### AMST 250 INTERPRETING AMERICAN CULTURE

4 credits

Course combines perspectives of social sciences and humanities to help students understand American culture in diverse contexts. Myths and realities of American subcultures are also examined. May be repeated once for credit as topics change. *Annually*

### AMST 290 SPECIAL TOPICS

4 credits

Exploration of topics in American Studies. May be repeated as topics change. *Spring*

### AMST 298 INDEPENDENT STUDY

1-8 credits

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent required of the instructor who will supervise the independent study. Repeatable to a total of 8 credits.

### AMST 390 CRITICAL APPROACHES

4 credits

Exploration of selected aspects of the American experience viewed from one or more critical perspectives. When appropriate, also listed as ENG 390 or a 400-level English course. May be repeated as topics change. *Every two years*

### AMST 490 ADVANCED SPECIAL TOPICS

4 credits

Exploration of advanced topics in American Studies. May be repeated as topics change. *Occasionally*

**AMST 495 SEMINAR***4 credits*

An interdisciplinary examination of a selected period, theme or issue of importance to understanding the American experience. Prerequisite: junior standing and permission of instructor. (Course may be team taught. When appropriate, also listed as ENG 495.) May be repeated for credit as topics change. *Every two years*

**AMST 497 INTERNSHIP***1-4 credits*

Experience in the field providing an opportunity to explore and reflect on work/professional options related to American Studies. Settings may be museums, historical/preservation/restoration organizations, libraries/archives, media, schools, environmental groups, social services, or other related fields. May be repeated to a maximum of 8 credits. Permission of American Studies coordinator, approval and appropriate supervision by core faculty.

**AMST 498 INDEPENDENT STUDY***1-8 credits*

Intensive study of an issue, problem, or topic related to American Studies. Consent required of the instructor who will supervise the independent study. Repeatable to a total of 8 credits.

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## Anthropology

**ANTH 110 CULTURAL ANTHROPOLOGY**

Introduction to anthropological knowledge and understanding of human cultures and societies. Cross-cultural comparison and review of kin-based as well as nation-state societies. *Fall, Spring*

**ANTH 111 ARCHEOLOGY AND PHYSICAL ANTHROPOLOGY**

An introduction to the biological and cultural evolution of human beings. In addition to the prehistoric record, the course will cover primatology, human variation, and problems of theory and practice in archeology. *Spring*

**ANTH 212 WORLD ETHNOGRAPHY**

Ethnographies are descriptions of cultural systems based on anthropological fieldwork and informed by ethnology (cross-cultural comparison). In this course, students read ethnographies to understand the diversity of cultures. They also examine strengths and weaknesses of ethnography as a means of describing and explaining culture and cultural diversity. Prerequisite: ANTH 110. *Fall*

**ANTH 290 TOPICS IN ANTHROPOLOGY**

Selected topics in anthropology. May be repeated as topics change to a maximum of 6 credits. Prerequisite: ANTH 110. *Occasionally*

**ANTH 313 ANTHROPOLOGICAL THOUGHT**

Anthropology, throughout its history, has attempted to understand the similarities and differences among human populations and their cultures. This course will examine different

anthropological schools of thought in regard to how cultures should be studied and understood. Prerequisite: ANTH 212, or permission of instructor. *Fall*

**ANTH 315 WOMEN, GENDER, AND CULTURE**

An examination of the ideology and social reality of gender, and specifically women cross-culturally. The course covers various theoretical approaches and explores the ethnographic literature. Prerequisite: ANTH 110, or permission of instructor. *Fall*

**ANTH 316 CULTURES OF SOUTHEAST ASIA**

A cultural anthropological investigation of the diversity of cultures in Southeast Asia. Focuses on the large variety of economic and religious traditions in the area and how these interrelate. Prerequisite: ANTH 110, or permission of instructor. *Spring, odd years*

**ANTH 390 STUDIES IN ANTHROPOLOGY**

Intensive study of selected topics in anthropology. May be repeated as topics change to a maximum of 6 credits. Prerequisite: ANTH 110. *Occasionally*

**ANTH 417 HEALING, REPRODUCTION, AND CULTURE**

A seminar that examines beliefs about health, sickness, human reproduction and the body across cultures. Students will explore, through ethnography and documentary, the influence of culture and politics on indigenous (e.g., shamanism), alternative, and western biomedical systems as well as on childbirth, menstruation, and menopause. Prerequisite: ANTH 212. *Spring, even years*

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## Art

**ART 102 TWO-DIMENSIONAL DESIGN**

Emphasizes specific and in-depth study of two-dimensional design and explores visual communication, primary design concepts, graphic arts, and the language of color. Studio projects will be completed outside of class. May be repeated for credit with approval of instructor. *Fall, Spring*

**ART 103 THREE-DIMENSIONAL DESIGN**

A comprehensive exploration of the properties of natural and human-made volumes and spaces. Projects involve sculptural objects and architectural and environmental design. Studio projects are completed outside of class. May be repeated for credit with approval of instructor. *Fall, Spring*

**ART 111 INTRODUCTION TO ART**

A study of the unique features of art and aesthetic experience designed to promote an understanding of artists and their works. Includes materials and techniques of artists, as well as the psychological and cultural aspects of artists in society. *Fall, Spring*

**ART 125 DRAWING I**

The practice of representational drawing emphasizing linear and form description with drawing media. Develops skills for

all students, including Art majors. May be repeated for credit with approval of instructor. *Fall, Spring*

### **ART 208 CERAMICS I**

Design and construction of wheel and handbuilt pottery, including the preparation of glazes and the process of firing. May be repeated for credit with approval of instructor. *Fall, Spring*

### **ART 211 ANCIENT ART**

The history of Western art from Paleolithic cave paintings through Roman Imperial architecture. Prerequisite: ART 111. *Spring 2004, 2006*

### **ART 212 MEDIEVAL ART**

The history of Western art from early Christian catacomb paintings through Gothic cathedral architecture. Prerequisite: ART 111. *Fall 2004*

### **ART 213 RENAISSANCE AND BAROQUE ART**

The history of Western art from Florentine early Renaissance sculpture through French Rococo architecture. Prerequisite: ART 111. *Spring 2005*

### **ART 214 19TH AND 20TH CENTURY ART**

The history of Western art from English Romantic architecture through American Pop Art painting. Prerequisite: ART 111. *Fall 2003, 2005*

### **ART 224 PHOTOGRAPHY**

A study of black and white photography and the application of the medium to individual expression. Includes a working knowledge of camera operation, black and white film developing, and paper printing. Prerequisite: a 35mm camera or larger. May be repeated for credit with approval of instructor. *Fall, Spring*

### **ART 225 DRAWING II**

Advanced studio work in pencil, ink, charcoal, and chalk from still life and figure models. May be repeated for credit with approval of instructor. Prerequisite: ART 125. *Fall, Spring*

### **ART 226 PAINTING I**

An introductory course in oil painting with emphasis on color, shape, light, and texture as they affect the art of painting. Basic compositions of a representational nature and creative experimentation are encouraged. A technical understanding of the oil painting medium is also presented. Prerequisites: ART 102 and 125 or permission of instructor. *Fall, Spring*

### **ART 227 WATERCOLOR PAINTING**

The study and practice of watercolor, including historical and contemporary approaches. Prerequisites: ART 102 and 125 or permission of instructor. May be repeated for credit with approval of instructor. *Fall 2003*

### **ART 228 FIGURE DRAWING LAB**

*1 credit*

The practice of drawing from the model emphasizing gesture drawing and longer poses. Students are encouraged to work independently in a variety of media. Instruction from the professor comes with individual student needs. May be

repeated for credit. May not be substituted for ART 125, ART 225, or ART 325. Prerequisite: ART 125.

### **ART 231 PRINTMAKING I**

A survey of the techniques and history of printmaking. Investigation of relief and intaglio printmaking process. Covers both black and white and color printing processes. Prerequisites: ART 102 and 125, or permission of instructor. *Fall, Spring*

### **ART 244 SCULPTURE I**

A comprehensive exploration in the fundamentals of sculpture using processes such as carving, casting, modeling, assemblage, and welding. Emphasis on developing standards in sculptural technique and personal expression. *Fall, Spring*

### **ART 245 GRAPHIC DESIGN FUNDAMENTALS**

Students are introduced to the vocabulary, principles, tools, and techniques of the design profession. Assignments focus on message communication using typography, image, and layout. Critiques help students identify focus and aptitude for design work. Prerequisites: ART 102 and ART 125. *Fall, Spring*

### **ART 246 COMPUTERS AND DESIGN**

This course introduces beginners to computer design using QuarkXPress and scanning and image manipulation. Students produce computer-generated layouts. Prerequisite: ART 245. Must be taken concurrently with ART 348. *Fall, Spring*

### **ART 247 ILLUSTRATION**

Students will explore traditional and electronic solutions for creating illustrations. Methods of making images that have design applications for editorial, advertising, and information graphics are explored. 2-hour lecture, 2-hour lab. Prerequisites: ART 246. *Spring*

### **ART 290 TOPICS IN ART HISTORY**

Subjects vary according to current scholarship and events in Art. Emphasis on topics not usually offered in regular courses of instruction. Prerequisite: ART 111. May be repeated for credit as topics change.

### **ART 298 INDEPENDENT STUDY**

*1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent required of the instructor who will supervise the independent study. Repeatable to a total of 6 credits. *Fall, Spring*

### **ART 308 CERAMICS II**

The design and construction of both wheel and handbuilt pottery problems in conjunction with the history of pottery. Prerequisite: ART 208 or permission of instructor. May be repeated for credit with approval of instructor. *Spring*

### **ART 325 DRAWING III**

Special graphic studies involving independent projects and research. Emphasis is on the unique personal attitudes and interests of the student. Prerequisites: ART 125 and ART 225 or permission of instructor. May be repeated for credit with approval of instructor. *Fall, Spring*

**ART 326 PAINTING II**

Advanced studio work in painting media. Will explore either figure or landscape subjects. Traditional and contemporary approaches emphasized. Students are encouraged to explore their own interests regarding the subject. May be repeated for credit as subject matter changes. Prerequisites: ART 225 and ART 226, or permission of instructor. *Fall, Spring*

**ART 331 PRINTMAKING II**

An in-depth investigation of the technical and conceptual aspects of selected printmaking processes. Emphasis will be placed on the development of one or more of the following printmaking mediums: intaglio, lithography, relief, mixed media, and photo printmaking. May be repeated for credit with approval of instructor. Prerequisites: ART 225 and ART 231. *Spring*

**ART 344 SCULPTURE II**

A comprehensive investigation of the technical and conceptual aspects of selected processes associated with contemporary sculptural construction. Emphasis is placed on individual creativity and style. Prerequisite: ART 244. May be repeated for credit with approval of instructor. *Spring*

**ART 348 TYPOGRAPHY**

Students study type as graphic form and means of communication. Through related projects, students analyze the design and use of letterforms and the use of typographic grids. 2-hour lecture, 2-hour lab. Prerequisites: ART 245. Must be taken concurrently with ART 246. *Fall, Spring*

**ART 349 INTERMEDIATE GRAPHIC DESIGN**

Explores identity systems and informational design. Emphasis involves the study, research and exploration of various design processes with computer-added graphics that relate to multi-component graphic design problems and complex information. 2-hour lecture, 2-hour lab. Prerequisites: ART 246 and ART 348. Recommended to take concurrently with ART 350. *Fall, Spring*

**ART 350 ELECTRONIC IMAGING**

Students apply computer skills to produce complex computer-generated designs. Students explore text and image manipulation using Illustrator, Photoshop, etc. Service bureau output methods are discussed and applied. 2-hour lecture, 2-hour lab. Prerequisites: ART 246, and ART 348. Recommended to be taken concurrently with ART 349. *Fall, Spring*

**ART 351 HISTORY OF GRAPHIC DESIGN**

This studio-based course is a thorough investigation into the history of graphic design. Students learn to research and structure information through visual organization of image and text. Individually designed projects explain the progression of design history. 2-hour lecture, 2-hour lab. Prerequisites: ART 349. *Fall*

**ART 408 CERAMICS III**

Advanced study of wheel and handbuilt pottery problems, including theory and principles of claybodies, glazes, kiln

construction and firing. Prerequisite: ART 308 or permission of instructor. May be repeated for credit with permission of instructor. *Fall*

**ART 426 PAINTING III**

Advanced and independent study of painting. Students must be sufficiently advanced in the understanding of art to design, initiate, and carry to a successful conclusion their own research with the assistance of the instructor and invited critics. Prerequisite: ART 326 or permission of instructor. May be repeated for credit with the permission of the instructor. *Spring*

**ART 444 ADVANCED GRAPHIC DESIGN**

Advanced exploration in visual communication design. Selected projects emphasize theoretical research in semiotics. Students are encouraged to experiment with different design processes and integration of expressive forms, communicative functions, and advanced computer technologies. Emphasis on originality, concept and portfolio pieces. 2-hour lecture, 2-hour lab. Prerequisites: ART 349, ART 350, and ART 445. *Fall*

**ART 445 TOPICS IN GRAPHIC DESIGN**

Includes identification of problem, definition of objectives, establishment of design strategies, and production of prototypes. Critiques guide students to professional quality results. May be repeated as topics change. Prerequisite: ART 349. *Fall, Spring*

**ART 448 GRAPHIC DESIGN PORTFOLIO**

Seminar in planning and preparation of personal presentation and professional portfolio. Students develop professional-quality design pieces and ancillary documentation of their work. Portfolios of professional designers are reviewed and discussed. Prerequisites: ART 444, and last semester senior status. *Spring*

**ART 490 ADVANCED STUDIO TOPICS**

Advanced study and research in a specific studio discipline. Emphasis is placed on individual theoretical development. May be repeated for credit with approval of instructor. Prerequisite: To be determined as topics change or permission of instructor. *Fall*

**ART 492 ART HISTORY SEMINAR**

Advanced study in art history and aesthetics. Subjects vary according to contemporary scholarship. Emphasis is placed on theory rather than historical chronology. May be repeated for credit as topics change. Prerequisites: ART 111 and one of the following courses: ART 211, 212, 213, 214, 290 or permission of instructor. *Spring*

**ART 495 SENIOR SEMINAR**

Topics will include the discussion and criticism of contemporary visual art through gallery visits, readings and guest speakers. The course will also focus on the planning and preparation of the senior exhibition as well as the development of portfolios, resumes, slide photography and career opportunities. Prerequisites: Art major, senior status. *Spring*

**ART 496 BFA SENIOR STUDIO**

Independent advanced studio work in preparation for the BFA Senior Exhibition. Individuals will work directly with their BFA Advisors to develop a body of work consistent with

their BFA option. May be repeated for a maximum of 6 credits. Prerequisites: Senior BFA standing. *Fall, Spring*

### **ART 497 GRAPHIC DESIGN INTERNSHIP**

3-6 credits

A seminar and experiential learning opportunity to integrate graphic design theory with practice through on-the-job experience. Seminar meetings provide discussion topics and sharing of work place experiences. Prerequisites: ART 245, 246, 348, and 349. Repeatable to a maximum of 12 credits. *Fall, Spring*

### **ART 498 INDEPENDENT STUDY**

1-6 credits

An opportunity for a qualified student to research and study a selected topic in art history, studio art, or graphic design in consultation with a faculty member. Prerequisite: Senior Art major status and permission of both the instructor and the Art Department chair. Repeatable to a total of 6 credits. *Fall, Spring*

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## Astronomy

### **ASTR 101 ELEMENTARY ASTRONOMY**

Survey course presenting a quantitative and descriptive view of current knowledge in the field and the methods used to acquire data. Historical and cultural perspective, tools of the astronomer, underlying astrophysical principles, solar and recently-obtained geological and planetary data, and origin and evolution of the universe, galaxies, stars, and planets. Occasional planetarium and observing sessions augment lectures. *Spring*

### **ASTR 298 INDEPENDENT STUDY**

1-6 credits

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent required of the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

### **ASTR 307 UNIVERSITY ASTRONOMY**

An in-depth study of contemporary astronomy. Emphasis on deep space objects, their properties and evolution; methods of data acquisition and analysis; cosmology, planetary geology, lunar, and solar research. Occasional planetarium and viewing sessions augment lectures. Prerequisite: MATH 120 or equivalent. Some Physics or physical science is desirable.

### **ASTR 498 INDEPENDENT STUDY**

1-6 credits

Intensive study of an issue, problem, or topic related to astronomy. Consent required of the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

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## Biology

### **BIO 101 TOPICS IN BIOLOGY**

An exploration of biological issues and methods for nonmajors. Applying basic principles to modern problems, the course

may focus on a theme such as Evolution and Conservation of Biodiversity; Plants and Society; or Ecology and Environmental Issues. Can be repeated for credit as topics change. *Fall, Spring*

### **BIO 102 TOPICS IN HUMAN BIOLOGY**

An exploration of topics related to human biology for nonmajors. Applying basic principles to modern problems, the course may focus on themes such as Human Physiology; Genetics and Society; Biology of Disease; or Women's Health. Can be repeated for credit as topics change. *Fall, Spring*

### **BIO 104 TOPICS IN INVESTIGATIVE BIOLOGY**

4 credits

An integrated laboratory/lecture course for nonmajors that explores biological topics through hands-on investigative activities. Will focus on a theme, such as the forensic sciences or ecology, and will require use of the scientific method to further understanding of key concepts. Will satisfy the lab science requirement for Education majors. *Fall, Spring*

### **BIO 151 LIFE: DIVERSITY**

An introduction to living organisms, emphasizing the principles of adaptation and diversity, with examples from the five kingdoms. Topics include systematics, Mendelian genetics, life cycles, evolution, and ecology. Designed for nonmajors and majors. Lab (BIO 152) required for Biology majors. *Fall*

### **BIO 152 LIFE: DIVERSITY LAB**

1 credit

Explorations into the world of living organisms. Laboratory and field projects providing first-hand experience with organisms, the methods of biology, and the process of scientific inquiry. Prerequisite: concurrent or prior enrollment in BIO 151. *Fall*

### **BIO 153 LIFE: PROCESSES**

Biological mechanisms at the cellular and molecular level. Topics include cell structure and function, macromolecular structure and function, molecular genetics, cellular respiration and photosynthesis. Lab (BIO 154) required for Biology majors. Background in basic chemistry is recommended. *Spring*

### **BIO 154 LIFE: PROCESSES LAB**

1 credit

Explorations into the world of living organisms. Experimental analysis of structure and function in cells and organisms. Prerequisite: Concurrent or prior enrollment in BIO 153. *Spring*

### **BIO 230 HUMAN ANATOMY AND PHYSIOLOGY I**

Structure and function of the human body, for students in physical education and allied health programs. Body organization and terminology, basic chemistry, the cell, histology, integumentary, skeletal, muscular, sensory, central, and somatic nervous systems. Prerequisite: CHEM 100, CHEM 103, or CHEM 111, depending on requirements of a student's major. *Spring*

### **BIO 231 HUMAN ANATOMY AND PHYSIOLOGY I LAB**

1 credit

Structure and function of the human body investigated through experimentation, dissection, models, and skeletons. Topics

include body organization, terminology, microscopy, the cell and transport mechanisms, histology, reflexes, and the integumentary, skeletomuscular, central nervous, somatic nervous, and sensory systems. Prerequisite: BIO 230 (or concurrent). *Spring*

### **BIO 232 HUMAN ANATOMY AND PHYSIOLOGY II**

Continuation of BIO 230. Structure and function of the endocrine, cardiovascular, immune, respiratory, digestive, urinary, reproductive, and autonomic nervous systems, and consideration of metabolism, nutrition, heredity, and regulation of temperature, fluid, electrolytes, and acid-base balance. Prerequisite: BIO 230. *Fall*

### **BIO 233 HUMAN ANATOMY AND PHYSIOLOGY II LAB**

*1 credit*

Structure and function of the human body investigated through experimentation, dissection, models and skeletons. Topics include the endocrine, cardiovascular, lymphatic, immune, respiratory, digestive, urinary, and reproductive systems. Prerequisite: BIO 232 (or concurrent). *Fall*

### **BIO 251 GENETICS**

A survey of the development of ideas on variation and heredity, the chromosomal and molecular basis of inheritance; medical, agricultural and social implications of genetics, population genetics and evolutionary change. Quantitative analysis and stochastic reasoning emphasized. Prerequisites: Grades of C or higher in BIO 151 and BIO 153. Knowledge of algebra is recommended. *Fall, Spring*

### **BIO 252 ECOLOGY AND EVOLUTION**

This course emphasizes evolutionary, biological, and physical processes explaining the abundance and distribution of organisms. Basic evolutionary theory and ecological concepts at the individual, population, community and ecosystem levels are covered. Prerequisites: Grades of C or higher in BIO 151. *Fall*

### **BIO 253 PHYSIOLOGY OF PLANTS AND ANIMALS**

An introduction to fundamental physiological processes of plants and animals. Topics may include gas exchange, water and ion balance, nutrient uptake and energy balance, and control systems. Prerequisites: Grades of C or higher in BIO 151 and BIO 153. *Spring*

### **BIO 254 CELL BIOLOGY**

An exploration of biochemical and physiological principles underlying eukaryotic cell structure and function. Topics include cell evolution; cell theory; the cell cycle; cell structure; cellular transport and motility; cell signaling and cell death. Prerequisites: Grades of C or higher in BIO 151 and BIO 153. *Spring*

### **BIO 255 EXPERIMENTAL GENETICS**

*2 credits*

The experimental analysis of heredity through individual or small team laboratory projects. Significant out-of-class work is required. Prerequisite: Grades of C or higher in BIO 152 and BIO 154; pre- or co-requisite: BIO 251. *Fall, Spring*

### **BIO 256 EXPERIMENTAL ECOLOGY AND EVOLUTION**

*2 credits*

Laboratory, field work, and computer modeling in ecology and evolution emphasizing experimental design, data analysis and interpretation, scientific writing, and critical analysis of ecological literature. Prerequisites: Grades of C or higher in BIO 152 and BIO 154; MATH 141; and pre- or co-requisite: BIO 252. *Fall*

### **BIO 257 EXPERIMENTAL PHYSIOLOGY**

*2 credits*

Laboratory exercises designed to reinforce fundamental principles of physiology and engage students in scientific investigation. Prerequisites: Grades of C or higher in BIO 152 and BIO 154. *Spring*

### **BIO 280 RESEARCH ROTATIONS**

Rotation through three research areas engaging students in the process of science using modern techniques and ideas spanning molecular/cellular to ecological/evolutionary biology. Two 3-hour laboratory sessions weekly. Prerequisites: Grades of C or higher in BIO 152, and BIO 154. MATH 141 strongly recommended. *Fall, Spring*

### **BIO 290 SPECIAL TOPICS**

*1-4 credits*

Exploration and analysis of major topics of biology, such as human genetics, algae and fungi, marine biology, freshwater ecology, and biological aspects of sexual reproduction. Prerequisite: permission of instructor.

### **BIO 294 COOPERATIVE EDUCATION**

*1-6 credits*

Introductory work-learning experience related to career interests, for which compensation may be received. Placements arranged and supervised by Cooperative Education with approval and evaluation by full-time faculty. Elective credit only (normally 20 hours/credit) to maximum of 12 credits per degree program. Prerequisites: 24 total credits earned, 2.0 cumulative GPA, and permission of instructor. Graded Pass/Fail.

### **BIO 298 INDEPENDENT STUDY**

*1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent required of the instructor who will supervise the independent study. Repeatable to a total of 6 credits. *Fall, Spring*

### **BIO 315 GENERAL MICROBIOLOGY**

*4 credits*

An introduction to the microbial world: the nature of microorganisms and their role in the biosphere and in human life, including health and disease, food and technology. Laboratory includes aseptic transfer, isolation, enumeration, identification and control of microorganisms. Prerequisites: BIO 153/154 and CHEM 220 or 221. *Fall*

### **BIO 322 FLOWERING PLANT BIOLOGY**

*4 credits*

Plant systematics integrates taxonomy (identification, nomenclature, and classification of flowering plants), evolution,



(speciation, reproductive biology, adaptation, convergence, biogeography), and phylogenetics (phenetics, cladistics, morphology and molecules). Lab emphasizes representative flowering plant families and genera of New England, keys and plant collecting. Prerequisites: Grades of C or higher in BIO 151/152 and BIO 153/154. *Spring*

### **BIO 333 INVERTEBRATE ZOOLOGY**

4 credits

Lecture and laboratory course focusing on the behavior, ecology, anatomy, physiology, evolution, taxonomy, and natural history of invertebrates. Occasional field trips. 3-hour lecture, 2-hour lab. Prerequisite: Grades of C or better in BIO 151/152 and BIO 153/154. *Fall, alternate years*

### **BIO 334 VERTEBRATE ZOOLOGY**

4 credits

Lecture and laboratory course focusing on vertebrate anatomy, physiology, behavior, ecology, natural history, evolution, and systematics. Occasional field trips. 3-hour lecture, 2-hour lab. Prerequisite: Grades of C or better in BIO 151/152 and BIO 153/154. *Spring, alternate years*

### **BIO 340 EVOLUTION**

A discussion of the evolutionary forces as understood from Darwin to the present. Evolutionary theory is the main emphasis, rather than descriptions of changes in form and function for animal or plant groups. Prerequisite: Grades of C or better in BIO 151/152 and BIO 153/154. *Spring*

### **BIO 351 ORNITHOLOGY**

4 credits

Avian anatomy, physiology, behavior, life histories, ecology, conservation, systematics and phylogeny. Ornithological research methods, species identification, and field observation. Three hours lecture, three hours lab, field trips. Prerequisite: Grades of C or better in BIO 151/152 and BIO 153/154. *Summer, occasionally*

### **BIO 352 ENTOMOLOGY**

The anatomy, physiology, and life cycle of the more important species of insects. Attention is given to ecological and economic aspects. 2-hour lecture, 2-hour lab, field trips. Prerequisite: Grades of C or better in BIO 151/152 and BIO 153/154. *Occasionally*

### **BIO 365 PLANT EVOLUTION**

4 credits

Traces the evolutionary history of the plant kingdom. Emphasis is on molecular studies, and changes in structure and function in the transition from aquatic life to terrestrial adaptations of early vascular plants, first seed plants, and radiation of flowering plants. Prerequisites: Grades of C or higher in BIO 151/152 and BIO 153/154. *Fall, alternate years*

### **BIO 401 BIOCHEMISTRY**

Explores the relationship between structure and function of macromolecules and other biologically active compounds to metabolism and the utilization of energy by the cell. Prerequisites: CHEM 222/226, and BIO 254 or permission of instructor. (Course also listed as CHEM 401.) *Fall*

### **BIO 403 EXPERIMENTAL BIOCHEMISTRY**

2 credits

Practical experience in biochemical laboratory manipulations. Concepts relating to proteins, carbohydrates, lipids and other biologically active compounds. Prerequisite or co-requisite: BIO/CHEM 401 (Course also listed as CHEM 403). *Fall*

### **BIO 405 MOLECULAR BIOLOGY**

5 credits

Lecture and laboratory course covering the structure and organization of DNA; DNA replication, repair and modification; transcription and RNA processing; protein biosynthesis; transcriptional and post-transcriptional control mechanisms, using examples from prokaryotes, eukaryotes and viruses. Experimentation in modern recombinant DNA techniques. Prerequisite: BIO 401/403. *Spring*

### **BIO 408 DEVELOPMENTAL BIOLOGY**

5 credits

The processes governing development of form and function in eukaryotes, with emphasis on molecular and cellular interactions. Lab involves research on molecular and cellular control of development. Prerequisites: BIO 254, BIO 401/403. *Fall, alternate years*

### **BIO 409 NEUROBIOLOGY**

5 credits

The molecular, cellular and system-level interactions governing the function of the nervous system. Topics include membrane biophysics, synaptic integration, signal processing, neuroendocrinology and comparative neuroanatomy. Prerequisites: BIO 253, 254, 257, 401, 403. *Occasionally*

### **BIO 415 MICROBIAL DIVERSITY**

4 credits

The evolution, diversity and ecology of prokaryotic and eukaryotic microorganisms. Thematic emphasis on microbes as specialized cells, and microbial communities as complex metabolic and ecological systems with global implications. Topics include molecular phylogenies, metabolic diversity, early evolution, and symbiotic associations. Lecture and lab. Prerequisites: BIO 251, 254, and 315. *Spring, alternate years*

### **BIO 440 EVOLUTION OF EARTH AND LIFE**

The origin and evolution of the earth and its inhabitants, emphasizing the interrelationships of the planet and its biosphere. Topics will include the origins of cellular and multicellular life and the causes and significance of mass extinctions. Also listed as GEOL 440. Prerequisites: BIO 252 or BIO 340, and GEOL 201; or BIO 151/152, GEOL 201 and GEOL 202; or permission of instructor. *Spring, alternate years*

### **BIO 451 POPULATION ECOLOGY**

Study of the interactions of organisms with their biotic and abiotic environment. Emphasizing factors and processes that influence organisms within and between populations. Prerequisites: BIO 252, MATH 141; and BIO 256 or 257. *Spring, alternate years*

### **BIO 452 COMMUNITY AND ECOSYSTEM ECOLOGY**

Study of the interactions of organisms with their biotic and abiotic environment. Emphasizing structure of and function

within biological communities and ecosystems. Some exploration of the biological basis of current global environmental problems. Prerequisites: BIO 252, MATH 141; and BIO 256 or 257. *Fall, alternate years*

#### **BIO 454 ECOLOGICAL PHYSIOLOGY**

Use of physiological data to better understand the distribution, abundance, and evolution of organisms. This course will examine the physiological responses of plants or animals to environmental stressors. Prerequisites: BIO 252, 253; and BIO 256 or 257. *Spring, alternate years*

#### **BIO 455 COMPARATIVE ANIMAL PHYSIOLOGY**

An investigation of how various animals function in their environment through the comparison of different strategies for solving fundamental physiological problems. Topics include gas exchange, muscle and nerve physiology, and digestion. Prerequisites: BIO 253, 401, 403; and BIO 256 or 257. *Fall, alternate years*

#### **BIO 457 RESEARCH METHODS: ECOLOGY**

2 credits

Laboratory and field work in ecology emphasizing experimental design, data analysis and interpretation, scientific writing, and critical analysis of recent ecological literature. Prerequisites: MATH 141 and pre- or co-requisite: BIO 451 or BIO 452.

#### **BIO 458 RESEARCH METHODS: PHYSIOLOGY**

2 credits

Laboratory work in the physiology of animals or plants emphasizing experimental design, data analysis and interpretation, scientific writing, and use of scientific literature. Prerequisites: MATH 141 and pre- or co-requisite: BIO 454 or BIO 455.

#### **BIO 490 ADVANCED SPECIAL TOPICS**

1-4 credits

Exploration and analysis of major topics of Biology, such as microtechnique, vertebrate and invertebrate zoology, plant physiology, algae, and biological aspects of sexual reproduction. Prerequisite: permission of instructor.

#### **BIO 494 ADVANCED COOPERATIVE EDUCATION**

1-6 credits

Sequential work-learning experience for which compensation may be received. Placements arranged and supervised by Cooperative Education with approval and evaluation by full-time faculty. Elective credit (normally 120 hours/credit) to maximum of 12 credits per degree program. Prerequisites: BIO 294, 2.0 cumulative GPA, Declaration of Major, and permission of instructor. May be repeated for credit. Graded Pass/Fail.

#### **BIO 495 BIOLOGY SEMINAR**

2 credits

Capstone experience that refines basic skills and concepts through an exploration of specific themes in scientific literature. Course work emphasizes analysis, synthesis, organization and oral communication. Students lead classroom discussions; active participation is essential. Prerequisites: Senior standing and two 400-level Biology courses. *Spring*

#### **BIO 498 INDEPENDENT STUDY**

1-6 credits

Advanced independent study related to experimental aspects of various fields of Biology. The student is required to initiate a research project and to submit a written progress report. One-hour conference. Prerequisites: two advanced courses in Biology. May be repeated up to a maximum of 6 credits.

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## **Chemistry**

#### **CHEM 100 INTRODUCTION TO CHEMISTRY**

Basic chemical principles, with emphasis on everyday life. Matter, energy, atomic and molecular structure, bonding, states of matter, equilibrium, solutions, and problem solving. *Fall, Spring*

#### **CHEM 103 FUNDAMENTALS OF CHEMISTRY**

Survey of general chemical principles. A quantitative and qualitative review of matter including atomic and molecular structure, bonding, reaction chemistry and chemical equilibria. Knowledge of algebra, exponentials, and logarithms expected. (Not open toward a major program in Biology, Chemistry, Geology, or Chemistry/Physics.) Co-requisite: CHEM 107 or permission of instructor. *Fall, Spring*

#### **CHEM 107 FUNDAMENTALS OF CHEMISTRY LAB**

1 credit

Experimental principles and basic concepts of chemistry. Evaluation of data related to the quantitative and qualitative investigation of matter. 3-hour lab. (Not open toward a major program in Biology, Chemistry, Geology, or Chemistry/Physics.) Prerequisite: Corequisite: CHEM 103 or permission of instructor. *Fall, Spring*

#### **CHEM 111 GENERAL CHEMISTRY I**

The first course in a one-year sequence covering fundamental principles and concepts, including stoichiometry, atomic and molecular structure, periodicity and thermochemistry. Previous chemistry recommended. For students who plan to take further chemistry courses. Knowledge of algebra, exponentials and logarithms expected. Prerequisite: Concurrent or prior enrollment in CHEM 115 or permission of instructor. *Fall*

#### **CHEM 112 GENERAL CHEMISTRY II**

The second course in a one-year sequence covering bonding, atomic and molecular structure, solutions, chemical equilibria, kinetics, acid-base equilibria, qualitative and quantitative analysis. For students who plan to take further chemistry courses. Prerequisite: CHEM 111 and CHEM 115, concurrent or prior enrollment in CHEM 116, or permission of instructor. *Spring*

#### **CHEM 115 GENERAL CHEMISTRY LAB I**

1 credit

The first of a two-semester laboratory sequence in General Chemistry. Topics include chemical separations and synthesis, energetics, gases, radioactivity, and periodicity. For students who plan to take further chemistry courses. Co-requisite: CHEM 111 or permission of instructor. *Fall*

**CHEM 116 GENERAL CHEMISTRY LAB II***1 credit*

The second of a two-semester laboratory sequence in General Chemistry. Topics include equilibrium, kinetics, acid-base equilibria, qualitative and quantitative analysis. For students who plan to take further chemistry courses. Prerequisite: CHEM 115. Corequisite: CHEM 112 or permission of instructor. *Spring*

**CHEM 131 CHEMISTRY & THE ENVIRONMENT**

A chemistry-oriented study of various environmental topics, including normal and abnormal environmental chemistry, environmental laws and regulations, the energy problem, water, air, and soil pollution, radiation, chemical hazards, risk assessment, etc. Prerequisite: CHEM 100 or permission of instructor. (Not open toward a major program in Biology, Chemistry, Geology, or Chemistry/Physics.) *Fall*

**CHEM 220 FUNDAMENTAL ORGANIC CHEMISTRY**

Fundamental introduction to the functional aspects of organic compounds, with emphasis on the biochemical relevance of structural and chemical properties. Designed for those for whom one semester of organic chemistry is sufficient. Prerequisite: CHEM 103 and CHEM 107, or CHEM 112 and CHEM 116, or permission of instructor. Corequisite: CHEM 224. *Fall*

**CHEM 221 ORGANIC CHEMISTRY I**

The first of a two-course sequence in organic chemistry, emphasizing modern concepts and problem-solving in structure, synthesis and mechanism, based on a functional group approach. Theoretical and practical aspects of modern spectroscopy supports its use in the laboratory course. Prerequisite: CHEM 112 and CHEM 116 or permission of instructor. Corequisite: CHEM 225. *Fall*

**CHEM 222 ORGANIC CHEMISTRY II**

The second of a two-course sequence in organic chemistry, emphasizing modern concepts and problem-solving in structure, synthesis and mechanism, based on a functional group approach. Theoretical and practical aspects of modern spectroscopy supports its use in the laboratory course. Prerequisite: CHEM 221 and CHEM 225 or permission of instructor. Corequisite: CHEM 226. *Spring*

**CHEM 224 FUNDAMENTAL ORGANIC CHEMISTRY LAB***1 credit*

A laboratory course covering basic concepts in experimental organic chemistry include synthetic, spectroscopic and chromatographic techniques. Prerequisite CHEM 103 and CHEM 107, or CHEM 112 and CHEM 116, or permission of instructor. Corequisite: CHEM 220. *Fall*

**CHEM 225 ORGANIC CHEMISTRY LAB I***1 credit*

Practical laboratory experience in organic chemistry, including instrumental methods and concepts in molecular synthesis and mechanistic study. Basic techniques, multistep synthesis and mechanistic experiments are enhanced by use of spectroscopic and chromatographic tools. Corequisite: CHEM 221. *Fall*

**CHEM 226 ORGANIC CHEMISTRY LAB II***1 credit*

Practical organic chemistry, including instrumental methods and concepts in molecular synthesis and mechanistic study. Group work and experiment design are highlighted. Prerequisite: CHEM 225. Corequisite: CHEM 222. *Spring*

**CHEM 251 QUANTITATIVE ANALYSIS**

Basic principles of quantitative chemical analysis, including approximately equal treatment of wet chemical and instrumental methods. Topics include data handling, quality assurance, basic electronics, and the computerization of the laboratory. Prerequisite: CHEM 112 or permission of instructor. Corequisite: CHEM 255. *Fall*

**CHEM 255 EXPERIMENTAL QUANTITATIVE ANALYSIS***2 credits*

Experience in the application of theory to the analysis of simple and complex samples, including atomic absorption, gas and liquid chromatographic methods. Requires computer-assisted data reduction. Corequisite: CHEM 251. *Fall*

**CHEM 294 COOPERATIVE EDUCATION***1-6 credits*

Introductory work-learning experience related to career interests, for which compensation may be received. Placements are arranged and supervised by Cooperative Education with approval and evaluation by full-time faculty. Elective credit only (normally 40 hours/credit) to maximum of 12 credits per degree program. Prerequisites: 24 total credits earned, 2.0 cumulative GPA, and permission of instructor. Graded Pass/Fail. *Fall, Spring*

**CHEM 298 INDEPENDENT STUDY***1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent required of the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

**CHEM 321 ORGANIC CHEMISTRY III**

One-semester continuation of CHEM 221-222, extending modern concepts in structure and mechanism, as well as synthesis. Corequisite: CHEM 325. Prerequisite: CHEM 222 or permission of instructor. *Occasionally*

**CHEM 325 EXPERIMENTAL ORGANIC CHEMISTRY III***1 credit*

Third semester of organic labs. Corequisite: CHEM 321. *Occasionally*

**CHEM 333 MEDICINAL CHEMISTRY**

Where do drugs come from? How do they work? These questions are addressed from an organic chemical perspective. Topics covered include the action and synthesis of antimicrobials, heart drugs, hormones, and others. Prerequisites: CHEM 221/225 and 222/226 or permission of instructor. *Spring*

**CHEM 341 PHYSICAL CHEMISTRY I**

Introduction to quantum chemistry and its applications to atomic and molecular electronic structure, and spectroscopy. Prerequisites: MATH 141, 151 and 152, PHYS 141 and 142, and CHEM 112/CHEM 116 or permission of instructor. CHEM 251 and MATH 251 desirable, but not required. Corequisite: CHEM 345. *Fall*

**CHEM 342 PHYSICAL CHEMISTRY II**

Properties of gases, liquids, solids, and solutions. Thermodynamics, chemical and phase equilibria, conductance, electrical potentials, and kinetics. Prerequisites: MATH 141, 151 and 152, PHYS 141 and 142, CHEM 251/CHEM 255 or permission of instructor. MATH 251 desirable, but not required. Corequisite: CHEM 346. *Spring*

**CHEM 345 PHYSICAL CHEMISTRY LAB I**

2 credits

Experimental work illustrating the principles of chemistry; emphasis on theoretical and experimental measurement in quantum chemistry, atomic and molecular spectroscopy. Prerequisites: MATH 141, 151 and 152, PHYS 141 and 142, and CHEM 112/CHEM 116 or permission of instructor. ECorequisite: CHEM 341. *Fall*

**CHEM 346 PHYSICAL CHEMISTRY LAB II**

2 credits

Experimental work illustrating the principles of chemistry; emphasis on the measurement of thermodynamic properties, chemical and phase equilibria, electric potentials and kinetics. Prerequisite: MATH 141, 151 and 152, PHYS 141 and 142, CHEM 251/CHEM 255. Corequisite: CHEM 342. *Spring*

**CHEM 352 ENVIRONMENTAL CHEMICAL ANALYSIS**

An interdisciplinary view of the subject, including its complexity, history, environmental laws and regulations, chemical hazards and risk assessment, biohazards, analytes and matrices, sampling, wet and instrumental methods, data handling and quality assurance, and legal aspects. Prerequisite: CHEM 112 or permission of instructor. Corequisite: CHEM 356. *Spring*

**CHEM 356 ENVIRONMENTAL ANALYSIS LAB**

2 credits

A five-hour, field-oriented laboratory, including orientation, "real-world" sampling, lab analysis, and computer-assisted data collection and reduction. Includes chain-of-custody, calibration, quality assurance, air and water sampling, with emphasis on chromatography and other instrumental techniques. Prerequisite: CHEM 116 or permission of the instructor. Corequisite: CHEM 352. *Spring*

**CHEM 363 INORGANIC CHEMISTRY**

Modern structural and theoretical concepts and their applications to inorganic reactions and compounds. Prerequisites: CHEM 221/CHEM 225, CHEM 222/CHEM 226, CHEM 341/CHEM 345, and CHEM 342/CHEM 346 or permission of instructor. Corequisite: CHEM 365. *Fall, alternate years*

**CHEM 365 INORGANIC CHEMISTRY LAB**

1 credit

Practical inorganic chemistry, including instrumental methods and concepts in molecular synthesis of coordination and main

group compounds. Corequisite: CHEM 363 or permission of instructor. *Fall, alternate years*

**CHEM 371 INDUSTRIAL CHEMISTRY**

Introduction to the practice of chemistry on the industrial scale. Includes material and energy accounting, process economics, development, optimization, and introduction to the patent process all as related to selected inorganic and/or organic processes and emerging technologies. Prerequisite: CHEM 221/CHEM 225 and CHEM 222/CHEM 226 or permission of instructor. *Fall*

**CHEM 373 POLYMER CHEMISTRY**

Introduction to polymeric materials and polymer chemistry. Includes methods of polymerization, polymer characterization, physical and chemical properties of polymers, test methodologies and uses of various commercially important polymeric materials. Prerequisite: CHEM 222/CHEM 226 or permission of instructor. *Spring, alternate years*

**CHEM 382 OCCUPATIONAL SAFETY AND HEALTH**

Study of occupational safety and health resources, laws, and standards. Covers chemical, biological, radiological, electrical, mechanical, and physical hazards, their evaluation and control. Emphasizes chemical hazards. Students who desire a laboratory may take CHEM 386. Prerequisites: BIO 101 or higher and CHEM 100 or higher, or permission of instructor. *Spring*

**CHEM 386 INDUSTRIAL HYGIENE LAB**

1 credit

Laboratory and on-location experience, including gaseous, liquid, and particulate matter analyses. 3 hour lab/meeting. Prerequisite: CHEM 122/126 or permission of instructor. Corequisite: CHEM 382. *Spring*

**CHEM 401 BIOCHEMISTRY**

Explores the relationship between structure and function of macromolecules and other biologically active compounds to metabolism and the utilization of energy by the cell. Prerequisites: CHEM 221/CHEM 225, CHEM 222/CHEM 226, and BIO 153/154 or permission of instructor. BIO 254 recommended. Corequisite: CHEM 403. Course also listed as BIO 401. *Fall*

**CHEM 403 EXPERIMENTAL BIOCHEMISTRY**

2 credits

Practical experience in biochemical laboratory manipulations. Concepts relating to proteins, carbohydrates, lipids and other biologically active compounds. Pre- or corequisites: CHEM 401 and BIO 153/154 or permission of instructor. BIO 254 recommended. Course also listed as BIO 403. *Fall*

**CHEM 454 INSTRUMENTAL ANALYSIS**

Theory and practice of currently important methods of analysis. Emphasis on principles, applicability, economics of methods, and computerization. Methods include visible, UV, IR, and atomic absorption spectroscopy, emission methods, electro-analytical techniques, gas, liquid, and ion chromatography, resonance and mass spectrometries. Prerequisite: CHEM 221/225, CHEM 222/226, CHEM 251/255, CHEM 341/345, and CHEM 342/346 or permission of instructor. Corequisite: CHEM 456. *Spring*

**CHEM 456 INSTRUMENTAL ANALYSIS LAB***2 credits*

Experience with modern instrumentation, including chromatographic, electrochemical, spectroscopic, and irradiative techniques. Prerequisites: CHEM 255, CHEM 345, and CHEM 346, or permission of instructor. Corequisite: CHEM 454. *Spring*

**CHEM 461 X-RAY CRYSTALLOGRAPHY***4 credits*

Principles of X-ray crystallography as applied to molecular structure determination. Introductory and advanced methods for X-ray structure analysis including computer molecular mechanics modeling and database retrieval practice. Prerequisites: CHEM 112, CHEM 116, and one semester of organic chemistry, or permission of instructor. 3-hour lecture, 2-hour lab. *Spring, alternate years*

**CHEM 481 LABORATORY TEACHING PRACTICUM***2-3 credits*

Teaching of a college chemistry laboratory under the guidance of a mentor. Students participate in the preparation, instruction and evaluation necessary for effective teaching in an experimental laboratory setting. Permission of instructor required. *Fall, Spring*

**CHEM 490 ADVANCED SPECIAL TOPICS***1-4 credits*

Advanced topics in chemistry such as forensic chemistry, radiochemistry, solid state chemistry, bio-organic chemistry or others. May be repeated for credit as topics change. Prerequisites: CHEM 222, one chemistry at 300 level or higher, and permission of instructor. *Fall, Spring*

**CHEM 494 ADVANCED COOPERATIVE EDUCATION***1-6 credits*

Sequential work-learning experience for which compensation may be received. Placements arranged and supervised by Cooperative Education with approval and evaluation by full-time faculty. Elective credit (normally 40 hours/credit) to maximum of 12 credits per degree program. Prerequisites: CHEM 294, 2.0 cumulative GPA, Declaration of Major, and permission of instructor. May be repeated for credit. Graded Pass/Fail. *Fall, Spring*

**CHEM 495 SEMINAR***1 credit*

Reports and discussions of recent work in inorganic, organic, analytical, physical, environmental, and biological chemistry. Participation by students, faculty, and visitors in written and oral presentations. 1 hour class conference. Prerequisites: two advanced courses in chemistry or permission of instructor. May be taken for a maximum of 12 credits. *Fall, Spring*

**CHEM 498 INDEPENDENT STUDY***1-6 credits*

Advanced study of various fields of chemistry through individual reading, writing, or laboratory work. Requires a research project conducted under the supervision of Chemistry faculty

and a written report. 1 hour conference. May be repeated for a maximum of 6 credits.

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**Communication****COMM 171 FUNDAMENTALS OF SPEECH**

Through experience in a variety of speaking situations, students gain self-confidence in organization of thought and self-expression. Not open to juniors and seniors except by permission. *Fall, Spring*

**COMM 175 PRINCIPLES OF COMMUNICATION**

A survey of the basic principles and theories of communication. Includes interpersonal communication, verbal and nonverbal processes, the application of logic to issues of communication, and small group interaction. Prerequisite: PHIL 100. *Fall, Spring*

**COMM 250 CHILDREN AND THE MEDIA**

The relationship of children and their development to their use of the mass media including television, radio, magazines, and the Internet. This course is a reading and writing course. May be used to fulfill the JRN 290 requirement for the Journalism major and the breadth requirement for the Communication major as either COMM 250 or JRN 290. Prerequisite: JRN 200. *Fall*

**COMM 275 INTERPERSONAL COMMUNICATION**

Advanced study and application of the principles of interpersonal communication: communication ethics, family relationships, problem solving, nonverbal communication, and small-group communication. Prerequisite: COMM 175, or permission of instructor. *Fall, Spring*

**COMM 280 RADIO TRAINING***1 credit*

Required for all on-air WKNH members. This course teaches the basics of board operation, FCC regulation and station policy. *Fall, Spring*

**COMM 281 RADIO STATION MANAGEMENT**

A laboratory experience working at WKNH in such positions as general manager, business manager or programming director. Prerequisite: permission of instructor.

**COMM 290 SPECIAL TOPICS**

An exploration of areas not covered by the regular curriculum. Content depends on available faculty. May be repeated for credit.

**COMM 294 COOPERATIVE EDUCATION***1-6 credits*

Introductory work-learning experience related to career interests, for which compensation may be received. Placements arranged and supervised by Cooperative Education with approval and evaluation by full-time faculty. Elective credit only (normally 120 hours/credit) to maximum 12 credits per degree program. Prerequisites: 24 total credits earned, 2.0 cumulative GPA, and permission of instructor. Graded Pass/Fail.

**COMM 298 INDEPENDENT STUDY***1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent required of the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

**COMM 371 ADVANCED PUBLIC SPEAKING**

Advanced study of the theory and practice of public speaking. The student gains proficiency through the study of diction, articulation, and organization of thought processes, semantics, and word selection. Practical application through experience in public speaking. Prerequisite: B or higher grade in COMM 171 and junior standing or permission of instructor. *Fall, Spring*

**COMM 372 INTERCULTURAL COMMUNICATION**

This course applies interpersonal and intercultural theories toward understanding intercultural communication and toward fostering intercultural communication competence. Prerequisite: COMM 275 and completion of the A & H language requirement. *Spring*

**COMM 375 BUSINESS AND PROFESSIONAL COMMUNICATION**

Communication and problem-solving in business and professional settings. Includes case study, analysis, research, and interviewing. Prerequisites: COMM 171, COMM 175, and junior standing or permission of instructor. *Fall, Spring*

**COMM 376 THEORY OF COMMUNICATION AND RHETORIC**

A survey of the major theories and methodologies of communication and rhetoric and their application to the analysis and appraisal of discourse. Prerequisite: COMM 175. *Spring*

**COMM 379 INTERNSHIP***3-6 credits*

A supervised, contracted experience applying communication theory and skills in a professional setting. Internships are arranged by the student with approval from Communication faculty. On-site and faculty supervision are required. Prerequisites: 9 credits in Communication and permission of instructor.

**COMM 474 CORPORATE/INSTRUCTIONAL VIDEO**

Students will study the aesthetic and practical aspects of producing videotapes to instruct or persuade in educational and business environments. Students will learn project planning, scripting, production, and post-production techniques, and will produce videotape projects. Prerequisite: JRN 302 or permission of instructor. *Alternate years*

**COMM 475 PERSUASION**

Contemporary approaches to persuasion theory and an examination of past and current persuasive efforts. Research, writing, and speaking required. Prerequisites: two courses in Communication and permission of instructor. *Fall, alternate years*

**COMM 476 GROUP INTERACTION**

Group dynamics, interaction, problem-solving, and leadership. Case study, analysis, and research are required. Prerequisites: one course in Communication, or permission of instructor. *Spring*

**COMM 477 ETHICS IN COMMUNICATION**

Ethical values as they apply to interpersonal communication, public speaking, business and professional communication, persuasive techniques, and group interaction. Students develop methods of ethical analysis through discussion, lecture, experiential activities, observation, case studies, and research papers. Prerequisites: COMM 175 and COMM 275, or permission of the instructor. *Fall*

**COMM 479 SENIOR PROJECT**

An individual research or application project for Communication majors. Students will design and implement a project which will complete their study of Communication. Prerequisites: COMM 175 and COMM 376 or JRN 310 or PHIL 350 or FILM 355, and permission of instructor. *Fall, Spring*

**COMM 490 ADVANCED SPECIAL TOPICS**

An exploration of areas not covered by the regular curriculum. Content depends on available faculty. May be repeated for credit.

**COMM 495 SEMINAR**

Intensive study of a particular Communication theme or topic. May be repeated for credit as topics change. Prerequisites: A COMM course related to seminar topic and junior standing, or permission of instructor.

**COMM 498 INDEPENDENT STUDY***1-6 credits*

Intensive study of an issue, problem, or topic related to Communication. May be repeated for a total of 6 credits. Prerequisites: junior standing and permission of instructor.

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## Computer Science

**CS 101 INTRODUCTION TO COMPUTER INFORMATION PROCESSING**

An introductory course in the academic use of computers. Includes Internet, e-mail, the Information Highway, information resources, components for student computer systems, the campus computing environment, computer operation fundamentals, computer ethics and the law, and selective software applications. Not open to students who have taken CS 102. *Fall, Spring, Summer*

**CS 102 TECHNOLOGY IN TEACHING**

An introductory course in the use of technology, including computers. Includes the Internet, e-mail, information resources, components of computer systems and operation fundamentals, computer ethics and the law, and selective software applications. Prerequisite: Enrollment in ESEC program. Not available to students who have taken CS 101.

**CS 110 COMPUTER WORKSHOP***1 credit*

Computer software applications. Not available for general education credit. May be retaken with permission of instructor.

**CS 140 COMPUTER PROGRAMMING I***4 credits*

Introduction to problem-solving methods and algorithm development using the latest programming language. Emphasizes good programming techniques for designing, coding, debugging, and documenting programs. *Fall, Spring, Summer*

**CS 150 WEB PAGE CONSTRUCTION I**

Preliminary course in web page design using HTML and other web page development software. Course covers looking critically at the design of web pages, learning the basics of HTML and how programming can aid in the creation of HTML web pages. Additional topics may be covered. Prerequisite: CS 101 or CS 102 or CS 140. *Annually*

**CS 160 PC HARDWARE FUNDAMENTALS**

A course in the general interaction of a microcomputer system: hardware, operating system, and application software. For people who will purchase, support, or maintain PC systems. Content will reflect current hardware, software, and Internet standards. Prerequisite: CS 101, CS 102, or CS 140. Not available to students who have taken CS 161. *Fall, Spring*

**CS 161 MICROCOMPUTER SYSTEMS***1 credit*

A course in usage of Macintosh computer systems, including hardware, operating systems, and limited application software in an educational setting. Prerequisite: CS 101, CS 102, or CS 140. *Fall*

**CS 169 INTRODUCTION TO ISERIES 400**

Introduction to the operations of the iSeries 400 midrange computer system. Topics include User Interface, displays, online help, object management, object concepts, CL commands, message handling, security, authorization, work management, and job control of input, output, and batch job queries. *Annually*

**CS 170 ISERIES SYSTEMS DEVELOPMENT**

An introduction to the basic architecture, facilities, and tools of the iSeries Midrange Computer. Covers CL syntax, spool file concepts, SEU, PDM, SDA, Query400, DFU, DDS, CPYF, database concepts including physical and logical files, Operations Navigator, and basic CL programming. Prerequisite: a C or higher grade in CS 140 or CS 169, or permission of instructor. *Fall, Spring*

**CS 185 COMPUTER PROGRAMMING II***4 credits*

Extends the CS 140 concepts to include arrays, methods, sorting, searching, dynamic memory, objects, and self-referencing objects. Prerequisite: a C or higher grade in CS 140. *Fall, Spring*

**CS 205 ELEMENTARY VISUAL BASIC**

An introduction to designing a windows interface for a desktop computer. Students will learn to program in an event-driven environment which integrates visual design with functional and

structured programming. Applications created are windows programs. Prerequisite: C or higher grade in CS 185. *Fall, Spring*

**CS 220 COBOL**

Introduction to the business-oriented language COBOL. Covers the reading and writing of data manipulation including search and sort routines; table creation and processing; and processing including master/transaction file updating. Prerequisite: CS 170 or C or higher grade in CS 185. *Fall, even years*

**CS 221 ADVANCED COBOL**

Introduces the concepts of interactive COBOL programming. Course covers table and array processing, sub-file techniques, and screen processing. Students are taught structured programming techniques to create modularly functional programs. Prerequisite: C or higher grade in CS 220. *Spring, odd years*

**CS 230 RPG IV**

Covers concepts and programming techniques of RPG IV. Covers file, data, and calculation specifications, command structure, looping constructs, subroutines, physical and logical file creation, file access, record manipulation, interactive applications, and file maintenance. Prerequisite: CS 170 or C or higher grade in CS 185 or permission of instructor. *Fall*

**CS 231 ADVANCED RPG IV**

Covers RGPIV advanced topics, including advanced interactive techniques, table and array processing, subfiles, using the CALL statement, subprocedures, passing data between programs, APIs, and using data areas and data queues. Prerequisite: C or higher grade in CS 230. *Spring, even years*

**CS 260 COMPUTER USER SUPPORT**

Introduction to computer user support. Topics covered include end user support, training, help desk operation, customer support, and troubleshooting. Prerequisite: CS 101, CS 102, or CS 140.

**CS 265 ASSEMBLY LANGUAGE**

Introduction to programming at the lowest software level using assembly language. Proper use of registers, basic CPU operations, and the efficient use of low-level system resources are emphasized. Some digital logic concepts may also be introduced. Prerequisite: C or higher grade in CS 185. *Fall*

**CS 280 DATA STRUCTURES**

Develops discipline in program design especially for larger programs. Study of data organization through stacks, queues, linked lists, pointer type files, binary trees. Instruction on computer management of data. Course work done in C language. Prerequisite: C or higher grade in CS 185. *Fall, Spring*

**CS 290 SPECIAL TOPICS***1-3 credits*

Elementary topics as determined by changes taking place in the discipline. Repeatable as topics change. Prerequisite: minimum of 6 credits in CS. *Fall, Spring, Summer*

**CS 293 SUPERVISED FIELD EXPERIENCE***1-3 credits*

Allows students to participate in field experience, combining theory with practice. Prerequisites: 6 credits in CS and

permission of instructor. May be repeated. However, the total number of credits earned in CS 293 and CS 493 may not exceed 9. *Fall, Spring, Summer*

### **CS 294 COOPERATIVE EDUCATION**

*1-6 credits*

Introductory work-learning experience related to career interests, for which compensation may be received. Placements arranged and supervised by Cooperative Education with approval and evaluation by full-time faculty. Elective credit only (normally 120 hours/credit) to maximum of 12 credits per degree program. Prerequisites: 24 total credits earned, 2.0 cumulative GPA, and permission of instructor. Graded Pass/Fail.

### **CS 298 INDEPENDENT STUDY**

*1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent required of the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

### **CS 305 COMPUTER USE IN EDUCATIONAL SETTINGS**

Examines practical uses of technology in various educational settings. Discussion and study of effective computer usage practices. Prerequisites: Teacher Certification students and CS 280 or CS 185 and permission of instructor. *Annually*

### **CS 310 COMPUTER ARCHITECTURE**

Explores fundamental concepts of computer architecture, including basic logic elements, binary arithmetic, CPU design, and ALU design. May also include topics such as hardware compilation, microcode, content-addressable memories, and parallel architectures. Prerequisite: CS 280. *Spring*

### **CS 320 OPERATING SYSTEMS**

Operating systems programming techniques are examined. Areas of concentration are multiprogramming, managing memory, communicating with input/output devices, synchronizing and communicating with processes, managing time, processing various classes of interrupts, and scheduling the processor. Command languages and utility usage covered. Includes UNIX and Windows techniques. Prerequisite: CS 280. *Spring*

### **CS 340 INTERNET PROGRAMMING**

The art and science of programming for WWW Internet applications from a client-side perspective. Basic and advanced HTML will be covered, along with Java and possibly some CGI scripting. Some experience with the Internet and UNIX usage is desirable. Prerequisite: CS 280. *Fall*

### **CS 350 SYSTEMS ANALYSIS**

Introduction to fundamentals of systems analysis and design. Discusses the role of the systems analyst, with emphasis on written and oral communication, and the life cycle concept in business systems. Emphasizes structured design techniques. Requires detailed systems development case study. Prerequisites: CS 220, CS 280, or CS 185; MGT 101 and MGT 213; and permission of instructor. *Fall, alternate years.*

### **CS 360 DATA BASE MANAGEMENT**

Theoretical foundation of modern data base systems concentrating on practical use of relational data base management systems to model, design and implement business and commercial systems. Does not use any specific language. Includes SQL, normalization, and rational algebra. Prerequisite: CS 280. *Fall*

### **CS 362 ISERIES 400 DBMS/SQL**

Course includes DB2 competencies, DDS, Physical/Logical files and SQL. Manipulating data to extract required information using database manager software. Topics: designing a database, creating it, loading data, and access, plus relational theory, referential integrity, joining, indexing, triggers, and constraints. Prerequisites: CS 170 and one of the following: CS 280 or CS 220 or CS 230. *Annually*

### **CS 367 ISERIES 400 CL PROGRAMMING**

Prepares students with an understanding of Control Language (CL) programming message handling, and debugging techniques. Students also introduced to advanced techniques such as OPNQQRYF creating custom commands and applying contextual help to those unique commands. Prerequisites: CS 170 and CS 280, or permission of instructor. *Annually*

### **CS 370 DECISION SUPPORT SYSTEMS**

Study of managers' computer-based decision support activities. Stresses quantitative methods currently used with computer-based systems, such as linear programming and statistical methods, simulation, and modeling. Prerequisites: CS 280 or CS 185, MGT 101 and MGT 213, MATH 120 and MATH 141, and permission of instructor. *Fall, alternate years*

### **CS 385 DESIGN AND ANALYSIS OF ALGORITHMS**

Design and analysis of algorithms. Analysis will concentrate on using time and space complexity to compare implementations of an algorithm. Design will consist of learning a selection of tools for algorithmic problem solving such as divide-and-conquer, the greedy method, and dynamic programming. Prerequisite: CS 280. *Spring*

### **CS 390 METHODS: COMPUTER EDUCATION**

Effective teaching skills, including lesson/unit planning, execution, classroom management, interpersonal relationships, and professional role development. Also covers general teaching strategies and curriculum planning. Prerequisites: CS 280 and admission to Teacher Education.

### **CS 391 METHODS: FIELD EXPERIENCE**

Provides an opportunity for students to plan, teach, and evaluate lessons and units in a K-12 environment; apply knowledge of students and the school environment; and understand the role of computer technology education within the school and district curriculum. Prerequisite: CS 390.

### **CS 405 ADVANCED VISUAL BASIC**

The study of event-driven applications which will lead toward object, class, and collection programming techniques, multiple-document interface, OLE controls, database connections, ActiveX component development, and web connections. Prerequisite: C or higher grade in CS 205. *Spring*



**CS 407 ISERIES 400 VISUAL RPG**

Visual Age RPG (VARPG) is IBM's programming RPG personal computer (PC) development environment. Course covers development and programming of client/server applications for the WWW using RPG IV Syntax. Prerequisite: CS 231. *Occasionally*

**CS 410 ADVANCED PROGRAMMING**

The study of advanced programming techniques of timely interest. Topics may include object-oriented techniques, special-purpose languages, or advanced design techniques. Continued development of problem-solving and programming skills. Prerequisite: CS 280. *Spring*

**CS 420 ISERIES 400 VISUAL JAVA**

Visual Age JAVA is IBM's programming JAVA personal computer (PC) development environment. Course covers development and programming of client/server applications for the web using JAVA. Prerequisites: CS 170 and CS 280. *Fall*

**CS 421 WEB SERVLETS**

Course covers development and creation of servlets, applets running in a web server environment, using IBM's Visual Age JAVA. Prerequisite: CS 340 or CS 410. *Spring*

**CS 430 PRINCIPLES OF PROGRAMMING LANGUAGES**

Theoretical foundations of modern programming languages, concentrating on topics that aid in the analysis and evaluation of programming languages. Probable topics include data types, control structures, abstraction, parameter-passing, variables, and strong typing. Prerequisite: CS 280. *Alternate years*

**CS 440 PROJECT DEVELOPMENT AND MANAGEMENT**

Combines skills of programming, systems analysis, data base, and decision support, and puts them into practice through the analysis, design, and implementation of a large group automation project, emphasizing classic project control principles of planning, coordination, communication, and estimation. Prerequisite: CS 350. *Alternate years*

**CS 450 TELECOMMUNICATIONS**

An introduction to data communications concepts and terminology. Telecommunications designs, distributed information systems, the communications environment, protocols, regulatory issues, pricing, and management. Prerequisite: CS 280. *Annually*

**CS 455 TCP/IP**

Course provides basic knowledge about the TCP/IP protocol suite and services. Protocols from the different layers in the TCP/IP protocol stack are discussed, such as ARP, RARP, ICMP, IP, TCP, UDP, FTP, TELNET, HTTP, SMTP, RIP, and OSPF. A number of hands-on exercises are included. Prerequisite: C or higher grade in CS 280, or permission of instructor. *Fall*

**CS 490 ADVANCED SPECIAL TOPICS**

*1-3 credits*

Advanced topics as determined by changes taking place in the discipline. Repeatable as topics change. Prerequisite: minimum of 12 credits in CS. *Fall, Spring, Summer*

**CS 493 ADVANCED SUPERVISED FIELD EXPERIENCE**

*1-3 credits*

Allows students to participate in advanced field experiences, combining course knowledge and theory with practice. Prerequisites: 12 credits in CS and permission of instructor. May be repeated; however, the total number of credits earned in CS 293 and CS 493 may not exceed 9. May not be applied to the upper-level CS electives requirement. *Fall, Spring, Summer*

**CS 494 ADVANCED COOPERATIVE EDUCATION**

*1-6 credits*

Sequential work-learning experience for which compensation may be received. Placements arranged and supervised by Cooperative Education with approval and evaluation by full-time faculty. Elective credit (normally 120 hours/credit) to maximum of 12 credits per degree program. Prerequisites: CS 294, 2.0 cumulative GPA, Declaration of Major, and permission of instructor. May be repeated for credit. Graded Pass/Fail.

**CS 495 SEMINAR**

Provides students with the opportunity to do a significant research project. A paper is required in a current computer science field. Prerequisites: 9 credit hours of CS 300- and 400-level courses. *Fall, Spring*

**CS 498 INDEPENDENT STUDY**

*1-6 credits*

Individual research into selected topics in computer studies under the direction of a faculty member. Prerequisites: six credits in CS and permission of instructor. May be repeated to a total of 6 credits. A maximum of 3 credits may be applied to the upper-level CS elective requirement.

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## Economics

**ECON 100 INTRODUCTORY ECONOMICS**

Introduction to the "economic" way of thinking. Selected topics are used to illustrate the application of economic reasoning to real-world phenomena. Topics are examined in a historical context where appropriate. This course does not count toward the Economics major or the Management department competency in economics. *Fall, Spring*

**ECON 201 MACROECONOMICS**

An introduction to the functioning of the United States economy as a whole and the effect of government policies upon its performance. *Fall, Spring*

**ECON 202 MICROECONOMICS**

An introduction to the functions of the component parts of the economy. An analysis of the consumer, industry, markets, and the use of resources. *Fall, Spring*

**ECON 290 SPECIAL TOPICS**

Economics survey course for non-majors. Includes topics not covered in other listed courses, e.g., current and historical economic issues. This course may not be used to satisfy requirements for the minor in Economics. May be repeated as topics change.

**ECON 298 INDEPENDENT STUDY***1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent is required of the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

**ECON 301 INTERMEDIATE MACROECONOMICS**

Concepts and measurement of national income and expenditures, employment, interest rates, and price levels; alternative approaches to national income determination and economic growth; monetary and fiscal policy. Prerequisites: ECON 201 and ECON 202. *Fall*

**ECON 302 INTERMEDIATE MICROECONOMICS**

Concentrates on market models, income distribution, and general equilibrium. Prerequisites: ECON 201 and ECON 202. *Spring*

**ECON 320 POLITICAL ECONOMY**

Surveys a selected range of alternative approaches to economic theory and their respective assessments of contemporary economic issues. Particular attention is paid to comparing the theoretical assumptions and policy conclusions of these approaches with those of orthodox economic theories. Prerequisites: ECON 201 and ECON 202. *Fall, to be announced*

**ECON 329 LABOR ECONOMICS**

Human labor resources and their utilization, with particular reference to labor unions, collective bargaining, and related public policies. Labor history and the issues of employment, production, price levels, and patterns of income distribution. Prerequisites: ECON 201 and ECON 202. *Fall*

**ECON 340 ENVIRONMENTAL ECONOMICS**

Detailed evaluation of policy alternatives for environmental protection with regard to other economic goals. Prerequisite: ECON 202. *Fall*

**ECON 350 RACE, CLASS, AND GENDER**

Contrasts Neoclassical, institutionalist, and radical perspectives on economic topics of race, class, and/or gender. Specific topics may include theories and empirical evidence on: discrimination, the household and social reproduction, income distribution, and the role of the state. Prerequisite: ECON 100, 201, or 202. *Fall*

**ECON 361 PUBLIC FINANCE**

Basic problems underlying public revenues and public expenditures; budgetary theory and procedures; tax theory and reform; debt management policy; fiscal policy at both federal and state levels. Prerequisites: ECON 201 and 202. *Spring*

**ECON 363 MONEY AND BANKING**

An analysis of the structure and function of monetary and banking systems with special reference to contemporary mon-

etary theories, problems, and policies. Prerequisites: ECON 201 and 202. *Fall or Spring*

**ECON 375 MARXIAN ECONOMICS**

A detailed examination of the economic theories of Marx and later economists within the Marxian school, including Marxian critiques of capitalist development and the contribution of this school to contemporary applications in socialist economics. Prerequisites: ECON 201 and ECON 202. *Spring, to be announced*

**ECON 415 INTERNATIONAL AND DEVELOPMENTAL ECONOMICS**

Examines international trade and finance, world political economy, and the economics of developing nations in the 20th century. Balance of payments, international monetary problems, the evolving interdependence of developed and less developed countries, and the specific economic problems of the latter are also studied. Prerequisites: ECON 201 and ECON 202. *Fall or Spring, to be announced*

**ECON 420 ECONOMETRICS**

The theory of economic model building, both determinate and stochastic, together with the essential analytical methods. Where possible, these models are used to analyze current real-world economic conditions. Prerequisites: ECON 201, ECON 202, and MATH 141. *Spring, to be announced*

**ECON 450 HISTORY OF ECONOMIC IDEAS**

A history of economic ideas from the Middle Ages to the present, including readings of classic works with reference to the history of economic conditions that helped engender these ideas. Prerequisites: ECON 201 and ECON 202. *Spring*

**ECON 455 U.S. ECONOMIC HISTORY**

The development of the U.S. economy from its colonial origins to modern times, including the slave system, ties with Europe, and the subsequent development of industry, banking, and commerce. Prerequisites: ECON 201 and ECON 202. *Fall or Spring, to be announced*

**ECON 490 ADVANCED SPECIAL TOPICS**

Topics not covered in other listed courses; e.g., current and historical economic issues, student group research projects, student-and faculty-initiated topics, etc. Prerequisites: ECON 201 and 202 and permission of instructor.

**ECON 491 RESEARCH PROJECT**

A term project, scheduled for fall semester of senior year, involving original research of a subject approved by the Economics faculty. *Fall*

**ECON 498 INDEPENDENT STUDY***1-6 credits*

Individual research on selected topics in economics under direction of a faculty member. Prerequisites: ECON 201 and ECON 202 and permission of instructor. May be repeated to a total of 6 credits.

## Education/Special Education/ Early Childhood

*Courses with an asterisk require a minimum of one to three hours of field work in the schools or service learning.*

### ESEC 100 INTRODUCTION TO TEACHING

*1 credit*

Orientation to the teaching profession as a career choice. Current issues are explored through the voices and stories of teachers. KSC program requirements, teacher certification, and development of professional portfolios are introduced. Not open to juniors or seniors except by permission. *Fall, Spring*

### ESEC 150 DEVELOPMENT, EXCEPTIONALITY AND LEARNING I\*

Development, learning, and diversity of children (birth through the primary grades) from developmental, special educational, and multicultural perspectives. Focus on interaction among children, families, and schools. Prerequisite: ESEC 100 (must be taken prior to or concurrently with ESEC 150). *Fall, Spring, Summer*

### ESEC 220 WOMEN AND EDUCATION

An exploration of women's quest for equal educational opportunities as students and teachers. Historical and current issues are analyzed. Biographies, literature, and texts are researched. *Spring*

### ESEC 250 DEVELOPMENT, EXCEPTIONALITY AND LEARNING II

Development, learning, and diversity of children and adolescents (intermediate grades through high school) from developmental, special educational, and multicultural perspectives. Shifts perspectives from college student to beginning educator using a professional framework. Prerequisite: ESEC 100 and ESEC 150. *Fall, Spring, Summer*

### ESEC 281 EMERGING/EVOLVING LITERACY\*

Practical approaches to creating literacy environments in which children can grow and develop as listeners, speakers, readers, and writers. Emphasis on addressing the diverse needs of learners using curricular and technological adaptations across the curriculum. Prerequisite: Admission to Teacher Education. *Fall, Spring*

### ESEC 282 LITERACY IN THE CONTENT AREAS\*

Selection of effective practices based on characteristics of adolescents as readers, writers, speakers, and listeners. Emphasis on applying study skills, research approaches, and time/task management in content areas, and addressing the diverse needs of learners using curricular and technological adaptations. Prerequisite: ESEC 150. *Fall, Spring*

### ESEC 290 SPECIAL TOPICS IN EDUCATION

*1-3 credits*

Study of a selected topic in education. May be repeated as topics change. Prerequisite: Permission of instructor. *Occasionally*

### ESEC 298 INDEPENDENT STUDY

*1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent required of the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

### ESEC 320 EDUCATION ENVIRONMENTS/PRACTICES

Teachers' roles, tasks, and responsibilities in designing, organizing, and managing delivery of instruction. Preservice teachers will examine authentic assessment (portfolio), uses of technology, structure of lessons and thematic units, and curriculum adaptations to accommodate diverse learners. Prerequisite: admission to Teacher Education. *Fall, Spring, Summer*

### ESEC 381 EARLY CHILDHOOD METHODS (BIRTH-AGE 8)

*6 credits*

Developmentally appropriate content, materials, and methods of instruction for children birth to grade three. Explores various approaches to instruction, including adaptation for diverse learners, with emphasis on implementation during field placement. Corequisite: ESEC 386, 387. Prerequisite: admission to Teacher Education, ESEC 281, 320, 2.5 GPA for ESEC courses, academic major, and overall. *Fall, Spring*

### ESEC 383 ELEMENTARY METHODS (K-8)

*6 credits*

Developmentally appropriate content, materials, and methods of instruction for children grades kindergarten through grade eight. Explores various approaches to instruction, including adaptation for diverse learners, with emphasis on implementation during field placement. Corequisite: ESEC 386, 387. Prerequisite: ESEC 281, 320, 2.5 GPA for ESEC courses, academic major, and overall. *Fall, Spring*

### ESEC 384 METHODS: MIDDLE SCHOOL

Developmentally appropriate content, materials, and methods of instruction used with children in grades six through nine. Exploration of a variety of approaches to interaction and instruction, including adaptations for diverse learners, with emphasis on implementation in field placement. Prerequisite: admission to Teacher Education, ESEC 320. *Fall*

### ESEC 385 METHODS: SECONDARY

Developmentally appropriate content, materials, and methods of instruction used with children in grades 9-12. Exploration of a variety of approaches to interaction and instruction, including adaptations for diverse learners, with emphasis on implementation in field placement. Prerequisite: admission to Teacher Education, ESEC 320. *Fall*

### ESEC 386 METHODS: FIELD EXPERIENCE

Participation in a classroom applying the methods, content, and materials covered in the appropriate methods course. Students develop an awareness of the teacher as a professional and of the requirements, numerous duties, and effort necessary for effective teaching. Corequisite: Methods. Prerequisite: admission to Teacher Education. *Fall, Spring*

**ESEC 387 CREATING SOCIAL CONTEXTS FOR LEARNING**

Effects of social/emotional/behavioral development on children and adolescents and their ability to learn. Focus on prevention and intervention strategies to support learning success. Corequisite: Methods. Prerequisite: admission to Teacher Education. *Fall, Spring*

**ESEC 450 SEMINAR: EDUCATIONAL PRINCIPLES**

Current social issues affecting education. Overview of influence of historical and philosophical perspectives on education. Focus on ethics, legal, and professional identity issues. Corequisite: Student Teaching. *Fall, Spring*

**ESEC 460 STUDENT TEACHING**

*12 credits*

Full-time placement in educational setting(s) appropriate to intended certification. Supervision provided by college supervisor and field-based professional towards mastery of principles, attitudes, and techniques for successful teaching. Graded Pass/Fail. Prerequisite: permission of Teacher Education Office. *Fall, Spring*

**ESEC 465 STUDENT TEACHING**

*6 credits*

Full-time placement in educational setting(s) appropriate to intended certification. Supervision provided by college supervisor and field-based professional towards mastery of principles, attitudes, and techniques for successful teaching. Graded Pass/Fail. Prerequisite: permission of Teacher Education Office. *Fall, Spring*

**ESEC 490 ADVANCED SPECIAL TOPICS IN EDUCATION**

*1-3 credits*

Study of a selected topic in education at an advanced level. May be repeated as topics change. Prerequisite: Permission of instructor. *Occasionally*

**ESEC 495 SEMINAR**

*1-3 credits*

Group study of topics in selected area of education. Elective credit only. Prerequisites: senior status and permission of instructor. *Fall, Spring*

**ESEC 498 INDEPENDENT STUDY**

*1-6 credits*

Intensive study of an educational problem encountered in a school or community. Prerequisite: permission of instructor. May be repeated to a total of 6 credits. *Fall, Spring*

**ESEC 560 INTERNSHIP: TEACHING**

*12 credits*

A clinical experience in which students who are under contract within a school district or agency acquire fuller understanding of the principles, attitudes and techniques related to a successful teaching career. Prerequisite: permission of Teacher Education Office. *Fall, Spring*

**ESEC 565 INTERNSHIP: TEACHING**

*6 credits*

A clinical experience in which students who are under contract within a school district or agency acquire fuller understanding of the principles, attitudes and techniques related to a successful teaching career. Prerequisite: permission of Teacher Education Office. *Fall, Spring*

**ESEC 595 SEMINAR**

*1-3 credits*

Group study of topics in selected area of education. Elective credit only. For graduate students, or seniors with permission of divisional dean. *Fall, Spring*

**ESEC 601 RESEARCH STRATEGIES IN EDUCATION**

Strategies for identifying, developing, analyzing, and evaluating educational interventions. Emphasis on accessing and evaluating resources for intervention ideas. Introduction to statistical concepts related to assessment, professional ethics. *Fall, Spring*

**ESEC 602 STUDENTS, FAMILIES, SCHOOLS, AND SOCIETY**

*2 credits*

Cross-disciplinary course emphasizing current issues in public education and professional roles in schools. Team building and collaboration methods emphasized together with social responsibility and ethics. *Fall*

**ESEC 661 INTEGRATING READING AND LANGUAGE ARTS**

This course will address teaching and learning strategies for integrating all the language arts areas: reading, writing, listening, and speaking. Prerequisite: a reading course, or permission of instructor.

**ESEC 690 ADVANCED SPECIAL TOPICS IN EDUCATION**

*1-3 credits*

Study of a selected topic in education at the graduate level. May be repeated as topics change. Prerequisite: Permission of instructor. *Occasionally*

**ESEC 698 INDEPENDENT/DIRECTED STUDY**

*1-3 credits*

Intensive study of an educational problem encountered in a school or community. Offered as Directed Study if designed by the faculty member or Independent Study if proposed by the student. Prerequisite: permission of instructor. *Fall, Spring*

**ESEC 699 CAPSTONE**

Development of a comprehensive case study of a student, classroom, or school in collaboration with students in each of the specialty areas. Prerequisites: Admission to graduate program and 30 hours of specialty area course work. *Fall*

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## Education: Curriculum and Instruction

### ESECCI 610 PORTFOLIO DEVELOPMENT AND ASSESSMENT

*1 credit*

Portfolio development procedures and assessing strategies. Requires C & I students to begin development of professional portfolio, including plan for professional development aligned with national standards to be achieved through M.Ed. study. Prerequisite: admission to graduate program or permission of instructor. *Fall*

### ESECCI 621 DESIGN AND REFORM OF AMERICAN EDUCATION

Advanced study through original sources of philosophies of American education and reform movements. Emphasis on current reform efforts and strategies. Prerequisite: admission to graduate program or permission of instructor. *Summer*

### ESECCI 630 LIFE SPAN DEVELOPMENT

Examination of human development from conception through the aging process. Emphasis on understanding the physical, cognitive, language, social, and emotional domains as well as ecological and cultural context. Contemporary theories of development and learning are explored and applied to educational settings to define developmentally appropriate practice. Study of individuals with special needs is included. Prerequisite: admission to graduate program or permission of instructor. *Fall*

### ESECCI 631 ASSESSMENT AND EVALUATION IN SCHOOLS

Focus on understanding the diagnostic process and developing the necessary skills for collaboration in a team setting with parents and professionals. Includes formal and informal assessment approaches. Prerequisite: admission to graduate program. *Fall*

### ESECCI 641 APPLIED LEARNING THEORY

Study of contemporary learning theories and translations of theory to educational practice. Learning styles, multiple intelligence theory, brain behavior research included. Prerequisite: admission to graduate program and ESECCI 631 or permission of instructor. *Spring*

### ESECCI 651 CURRICULUM DEVELOPMENT

Examination of different models of curriculum development. Includes study of context, delivery, standards and frameworks in all academic areas. Prerequisite: admission to graduate program, ESECCI 631, ESECCI 641, or permission of instructor. *Summer*

### ESECCI 661 COLLABORATION AND SERVICE DELIVERY OPTIONS

Examination of the cooperative nature of the roles of classroom teachers and special educators and implications for delivering instruction and related support services. Emphasis on devel-

oping working relationships. Course addresses collaboration skills for participating in change efforts, working with families, pre-referral, IEP development, co-teaching, and supervision of paraprofessionals. Prerequisite: admission to graduate program or permission of instructor, ESECCI 610, ESECCI 621, ESECCI 631. Cross-listed with ESECSP 661. *Spring*

### ESECCI 686 FIELD PLACEMENT

*no credit*

Direct work in classrooms applying content, skill, and materials learned in methods course(s). Emphasis on acquiring understanding of the role of the teacher in implementing curriculum and accommodating diverse learners. Hours and activities documented in a professional portfolio. Corequisite: appropriate undergraduate methods course. Prerequisite: admission to graduate program. *Fall, Spring*

### ESECCI 687 CLASSROOM/INSTRUCTIONAL MANAGEMENT

Study of approaches to organizing and maintaining a classroom environment that supports student learning. Emphasis on developing a comprehensive approach to managing instruction in cognitive, social, and physical domains. Includes strategies for successful inclusion of students with special needs. Prerequisite: admission to graduate program. *Fall*

### ESECCI 696 STUDENT TEACHING

*15 credits*

Full-time placement in educational setting(s) appropriate to certification sought. Supervision provided by college supervisor and field-based professional. Development of principles, attitudes, and techniques for successful teaching. Seminar included. Within this experience students will complete a project that synthesizes the entire program. Graded Pass/Fail. Prerequisite: Successful completion of all program requirements in the Curriculum & Instruction Option Certification-WEL Track. *Spring*

### ESECCI 697 INTERNSHIP

Supervised practice related to focus of student's professional portfolio development. Prerequisite: admission to graduate program and completion of all other C & I Option course requirements. *Spring*

### ESECCI 698 INDEPENDENT/DIRECTED STUDY

*1-3 credits*

Intensive study of an educational problem encountered in a school or community. Offered as Directed Study if designed by the faculty member or Independent Study if proposed by the student. Prerequisite: permission of instructor.

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## Education: Educational Leadership

### ESECEL 610 PORTFOLIO DEVELOPMENT AND ASSESSMENT

*1 credit*

Portfolio development procedures and assessment strategies. Requires Educational Leadership students to begin develop-

ment of professional portfolio, including plan for professional development achieved through M.Ed. study. Prerequisite: admission to graduate program or permission of instructor. *Fall*

### **ESECEL 621 ORGANIZATIONAL LEADERSHIP**

Leadership theory and organizational theory and development as they relate to the school principal's instructional role. Special emphasis on vision and mission, group process, collaboration with parents, community members and other professionals including special educators, change and the change process, motivation, decision making, problem solving and conflict management. Prerequisite: admission to graduate program or permission of instructor. *Fall*

### **ESECEL 622 SCHOOL EFFECTIVENESS AND REFORM**

Emphasis on current school reform efforts and change strategies. Processes and procedures for program development and evaluation, and school effectiveness. A study of how to improve school culture and instructional climate. Prerequisite: admission to graduate program or permission of instructor. *Summer*

### **ESECEL 631 STAFF SELECTION, SUPERVISION AND EVALUATION**

Recruiting, inducting, and mentoring school personnel. Observation methods and conferencing techniques are practiced in the process of supervision and evaluation of school personnel. Related legal and personnel issues are discussed. Prerequisite: admission to graduate program or permission of instructor. *Spring*

### **ESECEL 641 SCHOOL LAW**

Legal rights, duties, and responsibilities of school personnel. School facilities, teaching contracts, personnel practices, special education, school safety, and ethical and legal practices are included. Local, state, and federal statutes are researched. Prerequisite: admission to graduate program or permission of instructor. *Spring*

### **ESECEL 652 BUDGET AND FACILITY MANAGEMENT**

Study of and participation in the school budget process. Emphasis will be placed on budget development and management, state regulations and federal influences. Development of health, safety, curricular and co-curricular perspectives in building and facility management. Prerequisite: admission to graduate program or permission of instructor.

### **ESECEL 697 PRINCIPAL INTERNSHIP**

A supervised practical experience in educational leadership with seminar sessions addressing six national standards for educational leaders. This internship is to include participation in two levels of schooling: elementary, middle, or high school. Prerequisite: Completion of or current enrollment in required ESECEL courses or permission of instructor. Program requires the course be repeated for a total of six credits. *Fall, Spring*

### **ESECEL 698 INDEPENDENT/DIRECTED STUDY** 1-3 credits

Intensive study of an educational problem encountered in a school or community. Offered as Directed Study if designed

by the faculty member or Independent Study if proposed by the student. Prerequisite: permission of instructor.

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## **Education: School Counselor**

### **ESECSC 610 PROGRAM ORIENTATION/ PORTFOLIO ASSESSMENT**

1 credit

Focus of course is to orient students to School Counseling program and profession of School Counseling, to create a strong cohort group, and to begin assessment of student strengths and challenges. Prerequisite: admission to graduate program or permission of instructor. *Fall*

### **ESECSC 622 SCHOOL COUNSELING: ROLES, RESPONSIBILITIES, AND INTERVENTIONS**

Examines role of the school counselor in relation to philosophy and curriculum of school. Emphasis on defining professional responsibilities and relationships among counselor, teacher, administrator, student, and family in delivery of school counseling services. Prerequisites: admission to graduate program or permission of instructor and ESECSC 610 (may be taken concurrently) *Fall*

### **ESECSC 626 PROFESSIONAL SEMINAR**

This course integrates a focus on personal and professional issues in an environment of continuous feedback and self-reflection. Content areas focus on critical issues in school counseling. Prerequisite: admission to graduate program or permission of instructor. Corequisite: ESECSC 610. *Fall*

### **ESECSC 631 ASSESSMENT AND EVALUATION FOR SCHOOL COUNSELORS**

Focus on theory and practice of assessment for school counselors. Includes formal and informal assessment approaches, as well as how these approaches will inform effective interventions. Emphasis is on developing the necessary skills for collaboration in a team setting with families and professionals. Prerequisites: ESECSC 610 and ESECSC 622. *Spring*

### **ESECSC 641 CAREER DEVELOPMENT**

Explores career development theories. Examines and evaluates career materials as they relate to school philosophy and curriculum. Prerequisites: admission to graduate program and ESECSC 622; for nonmatriculated students, permission of instructor. *Summer*

### **ESECSC 651 METHODS AND SKILLS OF COUNSELING**

Emphasizes the practice of ethical counseling skills integrating developmental, multicultural and ecological perspectives. Includes role-playing, videotaping, and analysis/evaluation by self, peers, and instructor. Prerequisites: admission to graduate program or permission of instructor, and ESECSC 610 (may be taken concurrently). *Fall*

### **ESECSC 652 GROUP COUNSELING IN SCHOOLS**

Introduces skills, knowledge base, and practice of group counseling in schools. Focuses on ethical issues, developmental per-

spectives, working with diverse populations; current research. Includes experiential components including co-facilitation of a group in a school. Prerequisites: ESEC 601 (may be taken concurrently), ESECSC 610, 622, 651.

### **ESECSC 662 SCHOOL COUNSELING: THEORETICAL FOUNDATIONS**

An exploration of major theoretical approaches to school counseling. Emphasis is on the formulation of perspectives on emotional growth and development, as well as the helping relationship. Includes case studies that illustrate strategies for intervention from an ecological perspective. Prerequisites: ESECSC 610, 622. *Spring*

### **ESECSC 696 INTERNSHIP: ELEMENTARY SCHOOL**

Weekly seminar in conjunction with supervised practice in required, semester long, minimum 250-hour elementary / middle school counseling internship. Cannot be taken in conjunction with ESEC 697. Prerequisites: Completion of all required school counseling program courses (ESEC 699 and electives may be taken concurrently) and permission of School Counseling faculty. *Fall, Spring*

### **ESECSC 697 INTERNSHIP: SECONDARY SCHOOL**

Weekly seminar in conjunction with supervised practice in required, semester long, minimum 250-hour elementary / middle school counseling internship. Cannot be taken in conjunction with ESEC 696. Prerequisites: Completion of all required school counseling program courses (ESEC 699 and electives may be taken concurrently) and permission of School Counseling faculty. *Fall, Spring*

### **ESECSC 698 INDEPENDENT/DIRECTED STUDY** *1-3 credits*

Intensive study of an educational problem encountered in a school or community. Offered as Directed Study if designed by the faculty member or Independent Study in proposed by the student. Prerequisite: permission of instructor.

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## **Education: Special Education**

### **ESECSP 610 PORTFOLIO DEVELOPMENT AND ASSESSMENT**

*1 credit*

Portfolio development procedures and assessment strategies. Requires students seeking advanced certification in special education to begin development of professional portfolio, including plan for professional development achieved through M.Ed. study. Prerequisite: admission to graduate program or permission of instructor. *Fall*

### **ESECSP 612 DEMONSTRATED CERTIFICATION COMPETENCE**

*18 credits*

Students with advanced certification in Learning Disabilities and Emotional and Behavior Disorders obtained in conjunction with the College for Lifelong Learning are awarded 18 credits

for documented field-based learning experiences. Graduate credit is contingent on completion of required modules and evidence of certification.

### **ESECSP 621 CONTEXT FOR SPECIAL EDUCATION**

Exploration of current issues in special education based on historical context of philosophy, legislation, litigation, models of service delivery, and future trends. Prerequisite: admission to graduate program or permission of instructor. *Fall*

### **ESECSP 661 COLLABORATION AND SERVICE DELIVERY OPTIONS**

Examination of the cooperative nature of the roles of classroom teachers and special educators and implications for delivering instruction and related support services. Emphasis on developing working relationships. Course addresses collaboration skills for participating in change efforts, working with families, pre-referral, IEP development, co-teaching, and supervision of paraprofessionals. Prerequisites: admission to graduate program or permission of instructor, ESECSP 610, ESECSP 621, and ESECSP 631. Cross-listed with ESECCI 661. *Spring*

### **ESECSP 697 INTERNSHIP**

Supervised practice related to focus of student's professional portfolio development. Prerequisites: admission to graduate program, all required ESECSP specialty area courses. *Spring*

### **ESECSP 698 INDEPENDENT/DIRECTED STUDY** *1-3 credits*

Intensive study of an educational problem encountered in a school or community. Offered as Directed Study if designed by the faculty member or Independent Study if proposed by the student. Prerequisite: permission of instructor.

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## **English**

### **ENG 101 ESSAY WRITING**

*4 credits*

Extensive practice in college-level writing and reading. Students will write a variety of papers, including a documented essay, read and respond critically to professional and student writing, and develop critical thinking skills. ENG 101 is a prerequisite for all other English courses. ENG 101 should be completed during the freshman year and is not open to juniors or seniors unless they are transfer students. *Fall, Spring*

### **ENG 202 EXPOSITORY WRITING**

*4 credits*

Extensive writing and reading of various types of expository essays and other prose forms. Emphasis on stylistic techniques and rhetorical devices. Prerequisite: ENG 101. *Fall, Spring*

### **ENG 203 WOMEN'S WRITING**

*4 credits*

Focuses on effective rhetorical strategies for communicating women's experiences, opinions, and knowledge, as well as personal, political, and feminist issues. Prerequisite: ENG 101. *Fall*

**ENG 204 CREATIVE WRITING***4 credits*

Introduction to the basic strategies and techniques of writing fiction and verse. Assigned exercises, accompanied by readings, discussed in class. Opportunity to develop creative and critical skills through assignments and independent work. Prerequisite: ENG 101. *Fall, Spring*

**ENG 208 TOPICS IN WRITING***4 credits*

Selected topics in specific areas of creative, nonfiction, professional, or other modes of writing. May be repeated once as topics change. Prerequisite: ENG 101. *Annually*

**ENG 209 LITERARY ANALYSIS***4 credits*

Designed primarily and required for those intending to major in English, this course concentrates on writing critical essays and analyzing types of narrative, poetry, drama, and experimental texts. Serves to introduce students to literary themes. Must be taken prior to completion of 75 credits. Prerequisite: ENG 101. *Fall, Spring*

**ENG 210 INTRODUCTION TO AMERICAN STUDIES***4 credits*

An interdisciplinary introduction of the nature, methodology, resources, premises, and problems of the American experience. Usually focuses on a particular decade. (Course also listed as AMST 210.) May be repeated once for credit as topics change. Prerequisite: ENG 101. *Fall, Spring*

**ENG 220 READINGS IN BRITISH LITERATURE***4 credits*

Examines a particular period or literary movement, or the works of a particular author or group of authors from the British Isles, or a recurring theme in fiction or other literary forms. May be repeated once as topics change. Prerequisite: ENG 101. *Fall, Spring*

**ENG 240 READINGS IN AMERICAN LITERATURE***4 credits*

An introduction to significant writers of the U.S. and their works, which may include fiction, drama, poetry, and non-fiction prose. May explore a particular theme, period, genre, group of writers. May be repeated once as topics change. Prerequisite: ENG 101. *Fall, Spring*

**ENG 245 READINGS IN AMERICAN INDIAN STUDIES***4 credits*

An interdisciplinary introduction to American Indian studies through oral/written literature, music, art, history, and spirituality. Usually focuses on a particular culture or geographical area. Prerequisite: ENG 101. *Fall*

**ENG 250 READINGS IN CONTINENTAL LITERATURE***4 credits*

Examines literature from Europe. Students read works by authors such as Dante, Christine de Pizan, Cervantes, Mme de

Lafayette, Goethe, Flaubert, Dostoyevsky, Beckett, Kafka, and Yourcenar. May be repeated once as topics change. Prerequisite: ENG 101. *Fall, Spring*

**ENG 252 LITERATURE OF THE HOLOCAUST***4 credits*

Examines the culture of European Jews before the Holocaust, and the literature that explores the destruction of that culture in World War II. Uses texts by such authors as Ida Fink, Elie Wiesel, Primo Levi, Nelly Sachs, and Jurek Becker. Prerequisite: ENG 101. *Spring*

**ENG 260 READINGS IN WORLD LITERATURE***4 credits*

Reading and discussion of selected literary texts from the Ancient World, from Asia, Africa, and the Pacific. May be repeated once as topics change. Prerequisite: ENG 101. *Spring*

**ENG 261 CLASSICAL LITERATURE OF GREECE***4 credits*

Exploration of the literature of ancient Greece; Homeric epic, Athenian drama, and Platonic dialogue. Prerequisite: ENG 101. *Fall, Spring*

**ENG 280 CULTURAL STUDIES***4 credits*

Interdisciplinary study of texts and contexts. Texts examined may be selected from a number of fields. Topics may focus on popular culture, a cultural concept, a subculture, region, or period. May be repeated once as topics change. Prerequisite: ENG 101. *Annually*

**ENG 285 GENRE STUDIES***4 credits*

Focuses on the development of a specific literary form such as drama, poetry, short story, novel, or essay. Examines structural elements, historical influences, and individual experimentation. May be repeated once as topics change. Prerequisite: ENG 101. *Annually*

**ENG 286 CHILDREN'S LITERATURE***4 credits*

Reading and discussion of representative works from the seven genres of children's literature: traditional, fantasy, modern realism, historical fiction, biography, poetry, and information books. Prerequisite: ENG 101. *Fall, Spring*

**ENG 288 SCIENCE FICTION***4 credits*

Survey of the characteristic themes and forms of science fiction. Prerequisite: ENG 101. *Spring, alternate years*

**ENG 290 TOPICS***4 credits*

Selected topics in literature. May be repeated as topics change. Prerequisite: ENG 101. *Annually*

**ENG 298 INDEPENDENT STUDY***1-4 credits*

Reading/writing in a selected area of English with a faculty member. Must be four credits to count as one of the two 200-level courses required for the English major. Prerequisite: ENG 101, permission of instructor.



**ENG 301 FICTION WORKSHOP***4 credits*

Discussion and evaluation of original manuscripts combined with reading and discussion of the theory of fiction. Prerequisites: ENG 101 and one 200-level English course. *Spring*

**ENG 302 POETRY WORKSHOP***4 credits*

Class discussion of original student work combined with extensive reading in poetry and poetics. Analysis of major theories, technical innovations, and innovators. Prerequisites: ENG 101 and one 200-level English course. *Fall*

**ENG 303 NONFICTION WORKSHOP***4 credits*

Nonfiction essay writing, focusing on style, rhetorical theory and strategies, and publication. Workshop format. Prerequisites: ENG 101 and one 200-level English course. *Fall*

**ENG 304 WRITING FOR TEACHERS***4 credits*

Focuses on improving the writing skills of future teachers and on methods they can use to develop these skills in their future students. Prerequisites: ENG 101, one 200-level English course, and admission to Teacher Education. *Spring*

**ENG 308 ADVANCED TOPICS IN WRITING***4 credits*

Intensive study of writing techniques and applications in specialized areas of creative, nonfiction, or professional writing, as well as writing that does not easily fit into these categories. May be repeated once as topics change. Prerequisites: ENG 101 and one 200-level English course. *Annually*

**ENG 312 DESCRIPTIVE GRAMMAR***4 credits*

Examination of English grammar and theory, including traditional, transformational-generative, and case grammar. Collateral readings will focus on applied linguistics and American dialects. Students develop skills for teaching grammar through written/oral exercises. Required for secondary English teacher certification. Open only to junior and senior English majors, or by permission of instructor. Prerequisites: ENG 101 and one 200-level English course. *Fall*

**ENG 321 ENGLISH LITERATURE: BEGINNINGS TO 18TH CENTURY***4 credits*

Survey of English literature from Anglo-Saxon times to the Enlightenment. Attention to historical and intellectual contexts, as well as development of the English language. Study of various genres: epic, lyric, drama, romance, prose. Prerequisites: ENG 101 and one 200-level English course. *Fall*

**ENG 322 ENGLISH LITERATURE: 18TH CENTURY TO PRESENT***4 credits*

Survey of major developments in English literature from the rise of Romanticism, the Victorian period, the literature of the two world wars, and the contemporary period. Prerequisites: ENG 101 and one 200-level English course. *Spring*

**ENG 323 MEDIEVAL LITERATURE***4 credits*

Literary themes and genres in England from 1200 to 1450 (exclusive of Chaucer), with special attention to Continental influences. Representative readings from Layamon to the Pearl Poet and Malory's tales of King Arthur and his court. Prerequisites: ENG 101 and one 200-level English course. *Every third semester, beginning Fall 1999*

**ENG 324 CHAUCER***4 credits*

Major Middle English works from Chaucer's early dream allegories to later masterpieces *Troilus* and *Criseyde* and *The Canterbury Tales*, studied in context of the poet's life and times. Prerequisites: ENG 101 and one 200-level English course. *Every third semester, beginning Fall 1999*

**ENG 326 SHAKESPEARE: COMEDIES AND HISTORIES***4 credits*

The comedies and histories, with special attention to the development of Shakespeare's art in Renaissance England. Prerequisites: ENG 101 and one 200-level English course. *Fall*

**ENG 327 SHAKESPEARE: TRAGEDIES***4 credits*

Emphasizes the growth of Shakespeare's skill as a tragic poet. Intensive study of the great tragedies. Prerequisites: ENG 101 and one 200-level English course. *Spring*

**ENG 328 MILTON***4 credits*

A study of Milton's art as it reflects his life's changing allegiances - from his first identification as poet-priest to his last as blind-seer. Prerequisites: ENG 101 and one 200-level English course. *Spring*

**ENG 329 19TH CENTURY ENGLISH LITERATURE***4 credits*

Writers and works best representing the ideals and controversies of 19th century England from the Romantic Movement to the Victorian Era. Readings in such writers as Wordsworth, Shelley, Keats, Tennyson, Browning, Dickens, and others. Prerequisites: ENG 101 and one 200-level English course. *Every third year*

**ENG 330 STUDIES IN BRITISH LITERATURE***4 credits*

Examines a particular author, period, or movement with a focus on the social, intellectual, and literary significance of the works considered. May be repeated as topics change. Prerequisites: ENG 101 and one 200-level English course. *Fall*

**ENG 341 EARLY AMERICAN LITERATURE***4 credits*

Major developments of American literature, culture, and thought from the pre-Columbian period to the 19th century. Emphasis on American Indian oral literature, European visions, the formation of an Anglo-American literary tradition, the Enlightenment, and the American Revolution. Prerequisites:

ENG 101 and one 200-level English course. *Fall, alternate years, beginning 2000*

### **ENG 342 19TH CENTURY AMERICAN LITERATURE**

*4 credits*

Examines major developments in American romanticism, realism, and naturalism in the context of 19th-century American culture. Emphasis on such writers as Poe, Emerson, Thoreau, Hawthorne, Melville, Whitman, Dickinson, Douglass, Stowe, Twain, James, Howells, 'local color' authors, Chopin, Crane, and Dreiser. Prerequisites: ENG 101 and one 200-level English course. *Alternate years*

### **ENG 343 20TH CENTURY AMERICAN LITERATURE**

*4 credits*

Studies modern and contemporary texts by U.S. writers, with an emphasis on historical, aesthetic, and critical perspectives that link the texts to major movements such as Naturalism, Realism, and Postmodernism. Prerequisites: ENG 101 and one 200-level English course. *Every third semester*

### **ENG 344 STUDIES IN AMERICAN LITERATURE**

*4 credits*

Focuses on a particular theme, period, movement, or genre. Emphasis may be aesthetic, historical, or cultural. May be repeated as topics change. Prerequisites: ENG 101 and one 200-level English course. *Every third semester*

### **ENG 345 BLACK AMERICAN LITERATURE**

*4 credits*

Surveys literary traditions of American blacks, with special attention to relations between oral and literary works, performance and reading, tradition and innovation. Authors may include Frederick Douglass, Harriet Jacobs, Richard Wright, Ralph Ellison, Sherley Ann Williams, Toni Morrison, Zora Neale Hurston. Prerequisites: ENG 101 and one 200-level English course. *Fall*

### **ENG 346 TRANSCENDENTALISM**

*4 credits*

Explores American Transcendentalism. Intensive reading and discussion of such writers as Emerson, Thoreau, Margaret Fuller, and Whitman. Prerequisites: ENG 101 and one 200-level English course. *Alternate years*

### **ENG 347 MODERN AMERICAN INDIAN LITERATURE**

*4 credits*

Examines the major American Indian writers of the 20th century; emphasizes the "American Indian literary renaissance." Historical, cultural, and aesthetic contexts are explored. Authors include Momaday, Silko, Welch, Erdrich, Hogan, and Rose. Prerequisites: ENG 101 and one 200-level English course. *Spring*

### **ENG 350 STUDIES IN CONTINENTAL LITERATURE**

*4 credits*

Examines literature from Europe, with an emphasis on specific topics such as the Renaissance, the Enlightenment, and Modernism. Authors may include Dante, Petrarch, Cervantes, Diderot, Voltaire, Proust, Mann, Kafka, Pirandello, Beckett, Bachmann, Duras, and Tolstoy. May be repeated as topics change. Prerequisites: ENG 101 and one 200-level English course. *Annually*

### **ENG 360 STUDIES IN WORLD LITERATURE**

*4 credits*

Examines texts from the Ancient World, from Asia, Africa, and the Pacific. May be repeated as topics change. Prerequisites: ENG 101 and one 200-level English course. *Every third Spring*

### **ENG 370 STUDIES IN LITERATURES OF THE AMERICAS**

*4 credits*

Compares literatures such as those of Canada, the U.S., Central and South America. Attention to topics such as the writer's voice, interrogation of traditions, the constructions of literary geography. May be repeated as topics change. Prerequisites: ENG 101 and one 200-level English course. *Alternate years*

### **ENG 381 WOMEN WRITERS**

*4 credits*

Emphasis on the images, forms, contexts that shape women's literary expression and that identify women's lives in cultural, social, political spheres. Prerequisites: ENG 101 and one 200-level English course. *Spring*

### **ENG 390 STUDIES**

*4 credits*

Intensive study of selected topics in literature, language, and culture. May be repeated as topics change. Prerequisites: ENG 101 and one 200-level English course. *Occasionally*

### **ENG 402 THEORY AND PRACTICE**

*4 credits*

This course examines the critical and theoretical contexts of various genres. Readings will include both theory and the genre under discussion. Students are required to write original work in the genre as well as critical and interpretive essays. May be repeated as topics change. Prerequisites: ENG 101, one 200-level English course, and one 300-level English course. *Annually*

### **ENG 405 WRITING MINOR PORTFOLIO**

*4 credits*

Independent selection and intensive revision of writing completed for the writing minor. Students will compile a portfolio under the direction of an English faculty member. May be taken concurrently with another writing minor course. Prerequisites: ENG 101, one 200-level and one 300-level English course, 12 credits completed toward the writing minor, and permission of instructor. *Fall, Spring*

**ENG 410 THEORY***4 credits*

Intensive study of a particular school or schools of theory. Topics may focus on poetics, genre study, rhetorical theory, or literary criticism. May be repeated as topics change. Prerequisites: ENG 101, one 200-level English course, and one 300-level English course. *Annually*

**ENG 490 ADVANCED STUDIES***4 credits*

Advanced study of selected topics in literature, language, and culture. May be repeated as topics change. Prerequisites: ENG 101, one 200-level English course, and one 300-level English course.

**ENG 495 SEMINAR***4 credits*

Intensive study in literature, language, and culture. Students are expected to do a significant amount of independent work and to lead portions of the class. May be repeated for credit as topics change. Prerequisites: ENG 101, one 200-level and one 300-level English course, and permission of instructor. *Annually*

**ENG 498 INDEPENDENT STUDY***1-8 credits*

Advanced reading/writing in a selected area of English with a faculty member. Must be four credits to count as one of the three 400-level courses required for the English major. Repeatable for up to 8 credits. Prerequisites: ENG 101, one 200-level and one 300-level English course, and permission of instructor.

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## English as a Second Language (ESL)

**ESL 201 INTERMEDIATE ESL I***4 credits*

For students with some background in English as a second language. Focus on listening skills, note taking, and vocabulary development. Some individualizing of content possible. May be taken concurrently with ESL 202. May be repeated once for credit. Does not satisfy General Education requirements. *Fall, Spring*

**ESL 202 INTERMEDIATE ESL II***4 credits*

For students with some background in English as a second language. Focus on college level composition, reading, and vocabulary development. Some individualizing of content possible. May be taken concurrently with ESL 201. May be repeated once for credit. Does not satisfy General Education requirements. *Fall, Spring*

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## Environmental Studies

**ENST 100 INTRODUCTION TO ENVIRONMENTAL STUDIES**

An exploration of environmental issues including population growth, energy use, global climate change, and pollution. Through readings, lecture, and discussion we will examine physical, biological, chemical, economic, political, and social aspects of environmental problems on personal, local, and global scales. *Fall, Spring*

**ENST 200 INTERMEDIATE ENVIRONMENTAL STUDIES**

Experimental problem solving and analysis of environmental issues. Case studies and environmental literature are used to explore key issues and concepts in environmental science and policy. Assignments and projects will emphasize critical thinking. Prerequisites: ENST 100, prior or concurrent enrollment in ENG 202. *Fall, Spring*

**ENST 210 ENERGY AND THE ENVIRONMENT**

An ecological view of energy problems, their causes, and alternative solutions. Emphasizes the ecological effects of various solutions to energy problems. *Spring*

**ENST 290 SPECIAL TOPICS***1-4 credits*

Study of selected topics related to Environmental Studies. May be repeated as topics change. May be cross-listed with AMST 290, BIO 290, ENG 290, GEOG 290, HIST 290, POSC 290, PSYC 290, SOC 290, or other courses as appropriate depending on topic. Applicability to satisfying general education distribution requirements depends on the area with which the particular topic is cross-listed. *Occasionally*

**ENST 294 COOPERATIVE EDUCATION***1-6 credits*

Introductory work-learning experience related to career interests, for which compensation may be received. Placements arranged and supervised by Cooperative Education with approval and evaluation by full-time faculty. Elective credit only (normally 120 hours/credit) to maximum of 12 credits per degree program. Prerequisites: 24 total credits earned, 2.0 cumulative GPA, and permission of instructor. Graded Pass/Fail.

**ENST 395 JUNIOR SEMINAR**

In-depth analysis of environmental research literature and methodologies. Emphasis on proposal writing, and written and oral presentations. Development of a project proposal to be completed in ENST 495. Exploration of postgraduate opportunities. Prerequisites: ENST 200, MATH 141, and junior standing. *Spring*

**ENST 490 ADVANCED SPECIAL TOPICS***1-4 credits*

Study of selected topics related to environmental studies at an advanced level. May be repeated as topics change. May be cross-listed with BIO 490, CHEM 490, ECON 490, GEOG 490, GEOL 490, TDS 490, or other courses as appropriate, depend-

ing on topic. Applicability to satisfying general education distribution requirements depends on the area with which the particular topic is cross-listed. *Occasionally*

### **ENST 494 ADVANCED COOPERATIVE EDUCATION**

*1-6 credits*

Sequential work-learning experience for which compensation may be received. Placements arranged and supervised by Cooperative Education with approval and evaluation by full-time faculty. Elective credit (normally 120 hours/credit) to maximum of 12 credits per degree program. Prerequisites: ENST 294, 2.0 cumulative GPA, Declaration of Major, and permission of instructor. May be repeated for credit. Graded Pass/Fail.

### **ENST 495 SENIOR SEMINAR**

A capstone experience integrating science and policy aspects of environmental studies. Emphasis on critical analysis of research literature. Research project developed in ENST 395 will be completed. Prerequisites: ENST 395, senior standing. *Fall*

### **ENST 498 INDEPENDENT STUDY**

*1-6 credits*

Advanced work in various fields of environmental science through individual reading, writing, laboratory work, and/or field investigation. Requires research project and a written report. One hour conference. May be repeated to a total of 6 credits.

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## **Film**

### **FILM 250 FILM PRODUCTION I**

*4 credits*

Introduction to basic filmmaking technique, structure, and aesthetics through production of video projects. Students gain skills in narrative filmmaking through emphasis on story, cinematography, editing, and directing. Course participation demands outside-class production time and either ownership of or access to a digital video camera. Prerequisite: Permission of instructor. *Fall, Spring*

### **FILM 259 FILM STUDIES CREDIT**

*1 credit*

With approval of the faculty member concerned, a student may earn credit for film archival work, indexing and repair, or for participation in a faculty-directed film production. May be repeated for credit. By permission only. Graded Pass/Fail. *Fall, Spring*

### **FILM 270 INTRODUCTION TO FILM ANALYSIS**

*4 credits*

Equips students with the tools necessary to become critical viewers of film by introducing them to the elements of film form, the process of textural analysis, and the variety of filmmaking techniques employed in narrative and non-narrative cinema. *Fall, Spring*

### **FILM 271 INTRODUCTION TO FILM HISTORY**

*4 credits*

Examines the history of film's technical, aesthetic, industrial, and social development within an international context, particularly in relation to wider cultural and political movements. The screening of a series of films and frequent writing assignments encourage critical skills *Fall, Spring*

### **FILM 290 SPECIAL TOPICS**

*4 credits*

An exploration of areas not covered by the regular curriculum. Content depends on available faculty and resident artists. May be repeated for credit.

### **FILM 294 COOPERATIVE EDUCATION**

*1-6 credits*

Introductory work-learning experience in film and/or video production, distribution, exhibition or preservation, for which compensation may be received. Placements arranged and supervised by Cooperative Education with approval and evaluation by full-time faculty. Elective credit only (normally 120 hours/credit) to maximum of 12 credits per degree program. Prerequisites: 24 total credits earned, 2.0 cumulative GPA, and permission of instructor. Graded Pass/Fail.

### **FILM 298 INDEPENDENT STUDY**

*1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent required of the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

### **FILM 350 FILM PRODUCTION II**

*4 credits*

Study of 16mm synchronous-sound, nondialogue B & W film emphasizing pre-planning, script writing, and development and pursuing advanced directing, cinematography, editing, sound issues. Participation demands significant outside-class production time and substantial student financial output. Films should be produced by teams of two; prearranged partnerships encouraged. Prerequisites: Grade of B or better in FILM 250 (or equivalent) and permission of instructor. Must be taken concurrently with FILM 351. *Fall, Spring*

### **FILM 351 INTERMEDIATE PRODUCTION STUDIO**

*4 credits*

Film production studio emphasizing hands-on equipment, facilities, and technique demonstrations. Prerequisites: Grade of B or better in FILM 250 (or equivalent) and instructor's permission. Must be taken concurrently with FILM 350. *Fall, Spring*

### **FILM 352 FILM GENRES AND DIRECTORS**

*4 credits*

Examines a body of narrative films related by virtue of theme, director, country, or period from historical and theoretical perspectives. May be repeated for credit as topics change. Prerequisites: FILM 270 and FILM 271, or permission of instructor *Fall, Spring*

**FILM 355 FILM THEORY***4 credits*

The study of major film theories and their application to specific films. Formalist, structural, and ideological theories are covered. Prerequisite: FILM 270, 271, and 352, or permission of instructor. *Spring*

**FILM 440 ADVANCED PRODUCTION TECHNIQUES***4 credits*

Exploration of film production areas not usually addressed through the regular curriculum. Specific topics and techniques covered vary. May be repeated for credit. Prerequisites: FILM 350 and permission of instructor. *Fall, Spring*

**FILM 450 FILM PRODUCTION III***4 credits*

First semester of yearlong course emphasizing pre-production for all crew positions toward production of 30-minute sync-sound, dialogue, 16mm color project. Participation demands substantial student financial output. Films should be produced in crews of seven to ten; pre-arranged crews encouraged. Prerequisites: Grade of B or better in FILM 350/351 (or equivalent) and permission of instructor. *Fall*

**FILM 451 FILM PRODUCTION IV***4 credits*

Second semester of year-long course emphasizing pre-production for all crew positions toward production of 30-minute sync-sound, dialogue 16mm color project. Participation demands substantial student financial output. Films designed to be produced in crews of seven to ten; pre-arranged crews encouraged. Prerequisites: FILM 450 (or equivalent), and permission of instructor. *Spring*

**FILM 490 ADVANCED SPECIAL TOPICS***4 credits*

An exploration of areas not covered by the regular curriculum. Content and prerequisites depend on available faculty and resident artists. May be repeated for credit.

**FILM 495 SEMINAR***4 credits*

Intensive study of a particular theme or topic relating to film or film production. May be repeated for credit as topics change. Prerequisites: Junior standing and FILM 270, 271, and 352, or permission of instructor. *Fall, Spring*

**FILM 498 INDEPENDENT STUDY***1-6 credits*

Intensive study of an issue, problem, or topic related to film or film production. May be repeated for a total of 6 credits. Prerequisites: junior standing and permission of instructor.

**FILM 499 SENIOR RESEARCH PROJECT***4 credits*

Culminating course for critical studies in film. Under the guidance of a faculty member, students develop, research, and present an individualized project on a chosen historical or critical topic. Prerequisite: FILM 495 or permission of instructor.

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**French****FR 100 BASIC FRENCH LANGUAGE AND CULTURE***4 credits*

Introduction to basic French, French history and contemporary culture. This course makes extensive use of multimedia resources including interactive language programs, video, and the Internet. *Fall, Spring or Summer*

**FR 101-102 ELEMENTARY FRENCH I AND II***4 credits each*

Development of the four basic language skills: listening, speaking, reading, and writing. *Fall, Spring*

**FR 190 ELEMENTARY SPECIAL TOPICS IN FRENCH**

Study of selected topics in French. May be repeated as topics change. *Occasionally*

**FR 200 INTERMEDIATE READINGS IN FRENCH***4 credits*

Selected readings in French from literary texts, scholarly journals, magazines, newspapers, and web sites. Class discussions are mainly in English. This course meets the A&H language requirement and does not count for the French major. Prerequisite: FR 102 or equivalent. *Fall, Spring*

**FR 201-202 INTERMEDIATE FRENCH I AND II***4 credits each*

Continuation of the development of the four basic language skills. *Fall, Spring*

**FR 290 INTERMEDIATE SPECIAL TOPICS**

Study of a selected topic in French. May be repeated as topics change. *Occasionally*

**FR 298 INDEPENDENT STUDY***1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent required of the instructor who will supervise the independent study and the appropriate divisional dean. Repeatable to a total of 6 credits.

**FR 303 INTRODUCTION TO FRENCH LITERATURE**

A study of various critical approaches to French literature conducted in French. Prerequisite: FR 202, or permission of instructor. *Fall, alternate years*

**FR 315 CONVERSATION IN FRENCH**

The vocabulary of spoken French and guided practice to increase oral proficiency. Prerequisite: FR 202, or permission of instructor. *Spring*

**FR 316 COMPOSITION IN FRENCH**

Study and practice of French writing styles for various purposes: journals, letters, essays, and creative pieces. Prerequisite: FR 315, or permission of instructor. *Spring*

**FR 320 COMMERCIAL FRENCH**

The terminology and forms used in the French world of business. Practice with commercial correspondence. Prerequisite: FR 202, or permission of instructor. *Occasionally*

**FR 350 STUDY IN FRANCE OR QUEBEC**

*Maximum of 18 credits per semester*

Study in a College-approved program. May be used to meet the Arts and Humanities language requirement. Students must meet with Modern Languages faculty for pre-approval of their program of study and for an exit interview upon their return. *Fall, Spring*

**FR 405 CONTEMPORARY FRENCH USAGE**

Advanced study of syntax, semantics, and lexicon based on actual usage in the contemporary Francophone world. Prerequisite: FR 315 or equivalent. *Occasionally*

**FR 495 SEMINAR**

The capstone experience for French majors. Topics based on needs and interests of the group. Prerequisites: FR 405 and senior status. *Spring*

**FR 498 INDEPENDENT STUDY**

*1-6 credits*

Intensive study of some aspect of French language, literature, or culture adapted to the student's needs. May be repeated to a maximum of 6 credits. Prerequisite: permission of instructor.

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## Geography

**GEOG 100 INTRODUCTION TO GEOGRAPHY**

A systematic introduction to the discipline, designed to give the beginning student exposure to physical, cultural, economic, and cartographic aspects of Geography. *Fall, Spring*

**GEOG 101 INTRODUCTION TO WORLD GEOGRAPHY**

A regional introduction to the physical and cultural geography of the world. This course includes curriculum and resource materials for teaching Geography. Students may *not* receive credit for both GEOG 101 and GEOG 105. *Fall, Spring*

**GEOG 105 GEOGRAPHY FOR TEACHERS**

*4 credits*

A combination of world regional geography (GEOG 101) and the five themes – location, place, human-environment interaction, movement, and region. Focuses a traditional university course to needs of students who will become teachers. Germane to elementary education and social science majors. Students may not receive credit for both GEOG 105 and GEOG 101. *Fall, Spring*

**GEOG 203 CULTURAL GEOGRAPHY**

Spatial patterns and processes of culture, varying uses of natural resources at different cultural levels, and impact of contemporary humans on the natural landscape. *Fall, Spring*

**GEOG 204 PHYSICAL GEOGRAPHY**

An introductory study of maps, land forms, weather, climate, and vegetation patterns. *Fall, Spring*

**GEOG 221 MAPS AND MAP READING**

The fundamentals of maps, map contents, and the theory of map reproduction, as well as an overview of the maps of the United States and other countries. *Spring*

**GEOG 290 SPECIAL TOPICS**

*1-4 credits*

Study of a selected topic in Geography. May be repeated as topics change. *Occasionally*

**GEOG 294 COOPERATIVE EDUCATION**

*1-6 credits*

Introductory work-learning experience related to career interests, for which compensation may be received. Placements arranged and supervised by Cooperative Education with approval and evaluation by full-time faculty. Elective credit only (normally 120 hours/credit) to maximum of 12 credits per degree program. Prerequisites: 24 total credits earned, 2.0 cumulative GPA and permission of instructor. Graded Pass/Fail. *Occasionally*

**GEOG 298 INDEPENDENT STUDY**

*1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent required of the instructor who will supervise the independent study. Repeatable to a total of 6 credits. *Occasionally*

**GEOG 303 POLITICAL GEOGRAPHY**

Effects of the physical environment – size, location, resources, and political patterns – on the political development of selected nations. *Spring, alternate years*

**GEOG 304 POPULATION GEOGRAPHY**

Global demographic analysis of birth rates, death rates, and migration rates. Provides a spatial, temporal, and structural investigation of the relationship between demographic and cultural, economic, and environmental factors. Prerequisite: GEOG 203 or GEOG 204. *Spring, alternate years*

**GEOG 305 ECONOMIC GEOGRAPHY**

A worldwide study of the locations, characteristics and relationships of economic activities, including agriculture, mining, manufacturing, services, and consumption. Prerequisite: ECON 201, or permission of instructor. *Fall, alternate years*

**GEOG 307 URBAN GEOGRAPHY**

Examination of the forms and patterns – past, present and proposed – of human settlements. The city as an integral and complicated system with unique spatial attributes. Attention to urbanism, the growth of cities, morphological theories of urbanization, and modern urban problems. Prerequisite: GEOG 100 or GEOG 203, or permission of instructor. *Fall, alternate years*

**GEOG 323 CARTOGRAPHY AND SURVEYING**

*4 credits*

Fundamental and modern techniques of surveying and map making. 3 hour lecture, 3 hour lab. *Fall, alternate years*

**GEOG 324 GIS: ARCVIEW***4 credits*

ArcView GIS is a vector-based geographic information system. Lecture and lab-based instruction emphasize data input, manipulation, and production of maps for geographic analysis. Prerequisite: GEOG 204 or GEOG 221. *Spring*

**GEOG 325 CARTOGRAPHY AND COMPUTER MAPPING***4 credits*

Introduction to analyzing and mapping statistical geographical data with computer programs. 3-hour lecture, 2-hour lab. Prerequisite: CS 140 or permission of instructor. *Spring*

**GEOG 326 GIS: IDRISI***4 credits*

An introduction to the raster-based Geographic Information Systems (GIS) IDRISI. Data input, modeling, and analysis of remotely sensed imagery are emphasized. 3-hour lecture, 3-hour lab. Prerequisite: GEOG 204 or GEOG 221. *Fall*

**GEOG 327 INTRODUCTION TO REMOTE SENSING**

The basics of aerial photography and remote sensing and the identification and analysis of objects. Imagery of low as well as high altitude is interpreted. *Spring, alternate years*

**GEOG 328 METHODS OF SPATIAL ANALYSIS***4 credits*

Introduction to statistical analysis in Geography. Principles learned include the use of the map as a model for statistics prediction and hypothesis testing. SPSSx computing on the PC through simulation experiments conducted in the computer lab of the Geography department. 3 hours lecture; 2 hours lab. Prerequisites: MATH 141 or PSYC 251 or SOC 303 and GEOG 203 or GEOG 204. *Spring, alternate years*

**GEOG 330 NATURAL RESOURCE MANAGEMENT**

Examination of the use and management of renewable and non-renewable resources, including patterns of assessment, conservation policies and practices, and human impact on the environment. Resources discussed include land, water, air, forests, wilderness, and recreation from an international perspective. Prerequisites: ENST 100; 6 credits in Geography. *Fall, alternate years*

**GEOG 332 WATER RESOURCE GEOGRAPHY**

Includes a systematic analysis of the input, management, and output water resources subsystems. Special emphasis on problems of maldistribution of supply and demand and on the institutional policies developed to address allocation conflicts. Prerequisites: ENST 100 and GEOG 204. *Alternate (odd) years*

**GEOG 341 GEOGRAPHY OF THE UNITED STATES**

A study of both physical and cultural aspects of the American landscape. Topics examined in large regional settings (e.g., the southwest). *Spring*

**GEOG 343 GEOGRAPHY OF CANADA**

Physical, cultural, economic, and political aspects of Canada from a geographic (spatial) point of view. Reasons for past and present landscapes are emphasized. *Occasionally*

**GEOG 345 GEOGRAPHY OF LATIN AMERICA**

A systematic analysis of the physical, social, and economic resources of Latin America. Focuses on historical development, physical and cultural diversity, natural resources, demographic trends, spatial interaction, and prospects for growth. *Occasional Spring*

**GEOG 347 GEOGRAPHY OF EUROPE**

A topical and regional approach to the geography of Europe. *Fall, alternate years*

**GEOG 349 GEOGRAPHY OF ASIA**

Analysis and description of South, East, and Southeast Asia from the point of view of historical Geography. Emphasis on changing landscapes during selected time periods. *Fall, occasionally*

**GEOG 351 GEOGRAPHY OF AFRICA**

Analysis of the physical environment, population characteristics, and natural resources of the African continent. Attention to the potential role of the emerging African nations. *Spring, alternate years*

**GEOG 371 GEOGRAPHY FIELD TRIP***1-6 credits*

Off-campus field study. Themes include aspects of physical and/or cultural Geography depending on the expertise of the instructor and the areas under observation. Course may be repeated for a maximum of 15 credits, only 9 of which are applicable toward the major in Geography. Prerequisite: permission of instructor. *Occasionally*

**GEOG 395 SEMINAR I**

An in-depth analysis of geographic literature and research. Stresses research methodologies and design, survey analysis, report preparation, and oral presentations of research. Develops critical analysis and critical thinking skills in Geography. Prerequisites: 9 credits of Geography. *Spring*

**GEOG 405 LAND USE PLANNING**

Theory and methods of land use planning, with emphasis on the concepts, principles, and practices of lands analysis and evaluation of physical planning and design. Consideration given to land use, economic development, transportation, and regional planning concerns. Prerequisite: GEOG 203 or 307. *Fall, odd years*

**GEOG 420 ENVIRONMENTAL ASSESSMENT**

Examines methodologies for evaluating natural resources and organizing data for decision-making applications. Includes key legislative policies driving environmental assessments, common assessment techniques, and how information generated flows back into the policy process. Prerequisites: ENST 100 and GEOG 330, or permission of instructor. *Alternate (even) years*

**GEOG 490 ADVANCED SPECIAL TOPICS***1-4 credits*

Individual study and discussion of selected topics in Geography under direction of a faculty member. Prerequisites: GEOG 203 or 204 and permission of instructor. *Occasionally*

**GEOG 494 ADVANCED COOPERATIVE EDUCATION***1-6 credits*

Sequential work-learning experience related to career interests, for which compensation may be received. Placements arranged and supervised by Cooperative Education with approval and evaluation by full-time faculty. Elective credit only (normally 120 hours/credit) to maximum of 12 credits per degree program. Prerequisites: GEOG 294, 2.0 cumulative GPA, Declaration of major, and permission of instructor. May be repeated for credit. Graded Pass/Fail. *Occasionally*

**GEOG 495 SEMINAR II**

The capstone course stressing integration and application of geographic studies and research. Focus on quantitative and qualitative methodologies and skills necessary for pursuing a Geography-related career. Culminates with the design and implementation of a major career-oriented research project. Prerequisites: GEOG 395; Statistics (MATH 141 or PSYC 251.) *Fall*

**GEOG 498 INDEPENDENT STUDY***1-6 credits*

Exploration of a major area of Geography under direction of a faculty member. Topics contingent on student interest and available staff. Prerequisite: GEOG 100 and permission of instructor. May be repeated to a total of 6 credits. *Occasionally*

**GEOG 571 GEOGRAPHY FIELD TRIP***1-6 credits*

Off-campus field study. Themes include aspects of physical and/or cultural Geography depending on the expertise of the instructor and the areas under observation. A research project is required. Prerequisite: permission of instructor. *Occasionally*

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## Geology

**GEOLOG 100 PERSPECTIVES OF THE EARTH**

A survey of the earth sciences; Earth's setting in space; atmosphere and matter; oceans; materials and processes of the solid earth; origin and history of the earth. (Not open for credit toward a major program in science.) *Fall, Spring*

**GEOLOG 101 PERSPECTIVES OF THE EARTH LAB***1 credit*

Introduction to minerals and rocks. Interpretation of topographic and geologic maps. Two-hour lab exercises and required field trip(s) provide first-hand experience in physical geology. Prerequisite: concurrent enrollment in, or prior completion of, GEOLOG 100. *Fall, Spring*

**GEOLOG 201 INTRODUCTORY PHYSICAL GEOLOGY***4 credits*

An introduction to the Earth, emphasizing an overview of the external and internal processes which shape the planet. Labs emphasize the study of Earth materials and topographic maps. 3-hour lecture, 2-hour lab (field trips may be required). *Fall, Spring*

**GEOLOG 202 HISTORICAL GEOLOGY***4 credits*

An introduction to Earth History and the processes which have shaped the Earth since its formation. Topics include absolute and relative correlations, plate tectonics, and the origin and evolution of the atmosphere and biosphere. 3-hour lecture, 2-hour lab (some Saturday field trips required). Prerequisite: GEOLOG 201 or GEOLOG 100 and 101. *Spring*

**GEOLOG 206 OCEANOGRAPHY**

Introduction to the study of the sea; nature of sea water and its processes; marine life; features and sediments of the ocean floor; theories on the origin of ocean basins, trenches, ridges, and continental terraces. *Fall, Spring*

**GEOLOG 210 THE HYDROLOGIC CYCLE**

An introduction to the study of water and its flow through the global environment, from precipitation to ground water, rivers, lakes, the ocean and back. *Occasionally*

**GEOLOG 298 INDEPENDENT STUDY***1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent required of the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

**GEOLOG 301 MINERALOGY***4 credits*

Introduction to crystallography; physical and chemical nature of minerals; description and determination of important economic and rock-forming minerals; origin of mineral deposits. 5-hour lecture, lab. Prerequisites: CHEM 111 / 115, GEOLOG 201, or permission of instructor. *Fall, odd years*

**GEOLOG 302 PETROLOGY***4 credits*

The origin, occurrence, description and classification of the more common types of rocks, with emphasis on igneous and metamorphic rocks. 5-hour lecture, lab, field trips. Prerequisite: GEOLOG 301. *Spring, even years*

**GEOLOG 303 STRUCTURAL GEOLOGY**

Study of the structural features of rock bodies and interpretation of these features in terms of the forces that caused them; methods of geological field work; graphic representation of geological field data; interpretation of geological maps; preparation of field reports. 5-hour lecture, lab, field work. Prerequisites: GEOLOG 201-202, or permission of instructor. *Spring, odd years*



**GEOL 305 PALEONTOLOGY**

The description, classification, geographic and stratigraphic distribution, evolution, and uses of invertebrate fossils; some attention to environments of life forms. 2-hour lecture, 2-hour lab. Prerequisites: GEOL 202 and BIO 151, or permission of instructor. *Spring, even years*

**GEOL 306 STRATIGRAPHY**

Principles of stratigraphy and sedimentation; properties and classification of sedimentary rocks; sedimentary processes and environments; stratigraphic procedures and correlations; and stratigraphic relationships of North America. 2-hour lecture, 2-hour lab. Prerequisite: GEOL 202. *Fall, odd years*

**GEOL 309 GEOMORPHOLOGY**

Nonglacial surface processes. The evolution of land forms and influence of lithology, tectonics, and climate on land forms. Surface processes related to land use and environmental planning. Labs involve interpreting topographic and geologic maps, field projects. Prerequisite: GEOL 201 or GEOL 100/101. *Fall, even years*

**GEOL 310 GLACIAL GEOLOGY**

Study of the mechanics of glacial origin and movement, characteristics of existing glaciers, and an interpretation of Pleistocene glacial features. Emphasizes the glacial topography of northeastern North America, with special attention to New Hampshire examples of alpine and continental glaciation. 2-hour lecture, 2-hour lab, field trips. Prerequisite: GEOL 309, or permission of instructor. *Spring, odd years*

**GEOL 315 ENVIRONMENTAL GEOLOGY**

*4 credits*

Relationships between humans and our geological environment, including resources, hazards, and human impacts. Field methods in obtaining geologic information for resource evaluation and protection, risk reduction, and environmental remediation. 3-hour lecture, 2-hour lab, field trips. Prerequisites: GEOL 201 or GEOL 100 and 101. Formerly GEOL 450. *Fall*

**GEOL 401 OPTICAL PETROGRAPHY**

The effects of crystalline structure on light rays; the application of these effects to the identification of minerals and rocks in thin section using the polarizing microscope. 4-hour lecture, lab. Prerequisite: GEOL 302. *Fall, even years*

**GEOL 412 ENVIRONMENTAL GEOCHEMISTRY**

*4 credits*

Examination of the principles and mechanisms governing distribution of the chemical elements and their isotopes in natural environments, with application to selected problems and geochemical analysis research projects. 3-hour lecture, 3-hour laboratory, field trips. Prerequisites: GEOL 201, CHEM 112/116, and PHYS 142, or permission of instructor. *Spring, even years*

**GEOL 440 EVOLUTION OF EARTH AND LIFE**

The origin and evolution of the earth and its living inhabitants, emphasizing the interrelationships of the planet and its biosphere. Topics will include the origins of cellular and multicellular life and the causes and significance of mass extinctions. Also listed as BIO 440. Prerequisites: BIO 151/152,

153/154, and GEOL 201 or BIO 151/152, GEOL 201, and GEOL 202, or permission of instructor. *Spring, even years*

**GEOL 460 HYDROGEOLOGY**

*4 credits*

Occurrence and movement of groundwater as it relates to the hydrologic cycle, water resource evaluation (well hydraulics), and transport and fate of contaminants; theoretical and practical aspects, including computer modeling. Three-hour lecture, two-hour lab; field trips may be required. Prerequisites: GEOL 201 (or equivalent), MATH 151, and PHYS 141, or permission of instructor. *Spring, odd years*

**GEOL 490 ADVANCED SPECIAL TOPICS**

*1-4 credits*

Study of a selected topic in Geology at an advanced level. May be repeated to a total of 8 credits as topics change. Prerequisite: permission of instructor. *Frequently*

**GEOL 498 INDEPENDENT STUDY**

*1-6 credits*

Advanced study of various fields of Geology through individual reading, writing, laboratory work and/or field investigation; involves a research project and submission of a written report. One-hour conference. May be repeated to a total of 6 credits. *Fall, Spring*

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## German

**GER 101-102 ELEMENTARY GERMAN I AND II**

*4 credits each*

Development of the four basic language skills: listening, speaking, reading, and writing. *Fall, Spring*

**GER 131 GERMANY TODAY**

Geographical features, government, economic structure, social welfare, and contemporary issues in the Federal Republic of Germany. Conducted in English. *Spring, alternate years*

**GER 190 ELEMENTARY SPECIAL TOPICS IN GERMAN**

Study of selected topics in German. May be repeated as topics change. *Occasionally*

**GER 201-202 INTERMEDIATE GERMAN I AND II**

*4 credits each*

Continuation of the development of the four basic language skills. *Fall, Spring*

**GER 290 INTERMEDIATE SPECIAL TOPICS**

Study of a selected topic in German. May be repeated as topics change. *Occasionally*

**GER 298 INDEPENDENT STUDY**

*1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent required of the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

**GER 315 CONVERSATION AND COMPOSITION***4 credits*

Review and practice aimed at increasing listening and speaking proficiency. Practice in writing German: essays, narratives, and creative pieces. Prerequisite: GER 202 or equivalent. *Fall*

**GER 350 STUDY IN GERMANY OR AUSTRIA***Maximum of 18 credits per semester*

Study in a College-approved program. May be used to meet the Arts and Humanities Language requirement. Students must meet with Modern Languages faculty for pre-approval of their program of study and for an exit interview upon their return.

**GER 498 INDEPENDENT STUDY***1-6 credits*

Intensive study of some aspect of German language, literature, or culture adapted to the student's needs. May be repeated to a maximum of 6 credits. Prerequisite: permission of instructor.

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## Health Science

**HLSC 100 DRUGS, PERSONAL HEALTH, AND RISK ASSESSMENT***1 credit*

Addresses problems associated with high risk personal health behaviors with emphasis on alcohol and other drug misuse in the college setting. The physiological, sociological and psychological perspectives of health and impairment are evaluated and students develop a personal risk reduction program. *Fall, Spring*

**HLSC 101 HEALTH AND WELLNESS: TRENDS AND ISSUES**

Emphasis on the balanced, integrated, holistic model of well-being. Focuses on application of critical thinking skills including assessment, exploration, and behavior change to enhance personal wellness and professional effectiveness. Cross-listed with PE 101. *Fall, Spring*

**HLSC 102 INTRODUCTION TO HEALTH SCIENCE***1 credit*

This course aids in development of awareness and knowledge of health promotion as a profession. Information is presented regarding career opportunities, professional organizations, and the Health Sciences curriculum. Topics include bioindividuality, ethics of care, technological resources, and the wellness model. *Fall, Spring*

**HLSC 115 NUTRITION AND WELL-BEING**

Introduction to nutrients and their relationship to individual well-being. Health issues associated with diet and nutrition, lifestyle choices, and the role of nutrition for a healthy person. Assessing nutrient intake and strategies for making informed choices are presented. Prerequisite: Freshman or sophomore standing or permission of instructor. *Fall, Spring*

**HLSC 150 INTRODUCTION TO THE NUTRITION PROFESSION***1 credit*

Introduction to educational career expectations and opportunities for the dietetics and nutrition profession. Students will explore career options, issues of the consequences in the changing healthcare environment, and lifelong learning. The development and assessment of professional portfolios are introduced. *Spring*

**HLSC 201 PHYSIOLOGY OF EXERCISE**

A study of the nervous, circulatory, and respiratory systems, with reference to immediate and long-range effects of activity and exercise on the human body. Prerequisites: BIO 230/232 or permission of instructor. Cross-listed with PE 201. *Fall, Spring*

**HLSC 214 NUTRITION FUNDAMENTALS**

Provides key understandings in nutrition science emphasizing practical application. Topics include nutrition guidelines, assessment, body systems, micro and macronutrients, energy balance, physical activity, health, pregnancy and development. Uses foundation concepts to address current controversies in these areas. Prerequisites: HLSC/PE 101, CHEM 100 or CHEM 103/107, BIO 230/231, BIO 232/233. *Fall, Spring*

**HLSC 215 NUTRITION SCIENCE AND APPLICATION**

Nutrient functions, metabolism and requirements. Concepts in nutrition science and assessment. Critical thinking skills to investigate contemporary issues in nutrition. Application of nutrition to lifestyle choices. Corequisite: HLSC 217 and HLSC 310. Prerequisites: HLSC 101, CHEM 111/115, and CHEM 112/116. Nutrition Option only. *Spring*

**HLSC 216 CURRENT TOPICS IN FOOD CULTURE***4 credits*

Introduction to the effects of economic, cultural, aesthetic, and sociopsychological factors related to food and nutrition. Analysis of contemporary issues related to food, people, and culture. Prerequisite: HLSC 101, HLSC Major only, or permission of instructor. *Fall*

**HLSC 217 APPLIED NUTRITION SCIENCE LAB***1 credit*

Application of nutritional science pertaining to macro- and micronutrients. Experiences include application of the Food Guide Pyramid, Diabetic Exchange, and nutritional assessment tools. Emphasis on learning how to read, interpret, and apply information found in the scientific nutritional literature. Corequisite: HLSC 215 and HLSC 310. Prerequisite: Nutrition Option only. *Spring*

**HLSC 220 WOMEN AND HEALTH**

A historical and current survey of the biological, social, economic and political issues that affect women's physical and mental health. Includes discussion of body image, nutrition, exercise, addictive behaviors, aging, disorders common to women. Prerequisite: Sophomore standing. *Annual*

**HLSC 298 INDEPENDENT STUDY***1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent required of the instructor who will supervise the independent study. Repeatable to a total of 6 credits. *Fall, Spring*

**HLSC 310 FOOD SCIENCE***4 credits*

Principles of food selection, preparation, and technology related to the needs of individuals and families. Introduction to physical and chemical changes in ingredients and nutrients during food preparation and storage. Development of professional skills. Manipulation of variables with class-representative foods. Corequisites: HLSC 215 and HLSC 217. Prerequisites: HLSC 216 and CHEM 220/224. Uniforms required. *Spring*

**HLSC 313 FOOD SERVICE MANAGEMENT***4 credits*

Theory and introductory practice in management of planning, directing, coordinating and controlling food service systems: menus, purchasing, inventory, food production and service, finances, space and equipment layout, and use. Use of spreadsheet, software in budget preparation, data analysis and budgetary control. Corequisite: HLSC 315. Prerequisite: HLSC 101. *Fall*

**HLSC 315 FOOD SERVICE MANAGEMENT LAB***1 credit*

Field experience, computer-based financial management in nutrition and food service management and food service sanitation certification course. Corequisite: HLSC 313. Uniform required. *Fall*

**HLSC 318 LIFE CYCLE NUTRITION AND WELLNESS**

Changing nutrition and wellness needs, physiology and health concerns preconception through late adulthood. Requirements and challenges posed by physical and psychological growth, development and lifelong wellness. Assessment, intervention and evaluation of individuals, groups and communities. Corequisite: HLSC 319. Prerequisites: HLSC 201/PE 201, HLSC 214 or HLSC 215, and Nutrition Option. *Fall, Spring*

**HLSC 319 LIFE CYCLE NUTRITION LAB***1 credit*

The application of life cycle nutrition and wellness skills in the community. Students will work in supervised field placements to provide assessment, data collection, analysis and intervention. Life cycle will vary based on community needs. Prerequisite: HLSC 215; Nutrition Option only. Corequisite: HLSC 318. *Fall, Spring*

**HLSC 320 NUTRITION, FITNESS, AND HEALTH**

The relationship between physical fitness and nutrition is examined. The effects of diet on physical performance and misconceptions surrounding food, fluids, and supplements are studied. The role of nutrition in enhancing performance, achieving desired caloric balance, and preventing disease and

injury is analyzed. Prerequisites: HLSC 201, HLSC 214 or HLSC 215, BIO 230/232, and BIO 231/233. *Spring*

**HLSC 330 PSYCHOLOGY OF HEALTH AND PHYSICAL ACTIVITY**

Biopsychosocial examination of the factors underlying health and disease. Students explore mind/body interactions, psychosocial risk and protective factors in health. Emphasis is on physical activity adherence and on other health behaviors such as eating and smoking. Prerequisite: PSYC 101, HLSC major, or permission of instructor. *Fall*

**HLSC 332 FITNESS TESTING**

Scientific principles of exercise testing and prescription. Laboratory experience included. Prerequisites: HLSC/PE 201 and Health Promotion and Fitness Option or permission of instructor. *Fall, Spring*

**HLSC 333 EXERCISE PROGRAMMING**

Designed to prepare students to safely and effectively design, evaluate and supervise individual physical fitness programs. Prerequisites: HLSC 201, PE 200, HLSC 332. *Fall, Spring*

**HLSC 334 GROUP FITNESS LEADERSHIP***1 credit*

Strategies and techniques for designing and leading groups in physical activities. Develops the leadership qualities and skills expected for leading safe and effective exercise activities. Corequisite: HLSC 333, or permission of instructor. *Fall, Spring*

**HLSC 372 PRACTICUM: HEALTH PROMOTION AND FITNESS**

Designed to provide the student with a practical application of health fitness and health promotion skills. Theory and/or administrative/management skills and concepts in the sport and leisure industry are incorporated. Maximum of 6 credits. Prerequisites: PE 332, Health Promotion and Fitness Option, and PE 191 or equivalent ARC first aid and CPR certifications, or permission of instructor. *Fall, Spring*

**HLSC 380 ALCOHOL: MODEL OF CHEMICAL DEPENDENCY**

Study of the role of alcohol as a mind-altering drug. Examines the effect alcohol has on the body, behavior, society, transportation, and the educational system. Emphasizes available research and materials. Prerequisites: HLSC 100, HLSC 101, and PSYC 101 or SOC 201, or permission of instructor. Junior standing or above. *Fall, Spring*

**HLSC 385 BEHAVIOR CHANGE FACILITATION**

Expands on knowledge of the behavior change process (and education theories) presented in prerequisite courses. Students study and practice skills in interviewing, listening, communication, assessment, motivation, teaming, presentation, and evaluation while facilitating behavior change for diverse individuals and groups. Prerequisites: COMM 171, HLSC 201, HLSC 214 or HLSC 215, HLSC 380.

**HLSC 401 HEALTH PROMOTION METHODS**

Development of skills and abilities needed for health promotion program planning, implementation, and evaluation. Develop-

ment of skills in designing program objectives, effective facilitation, selecting appropriate resources, integrating educational process into behavior change process. Prerequisites: HLSC 318, HLSC 385. *Fall*

### **HLSC 402 HEALTH PROMOTION MANAGEMENT**

Application of the theory and practice of management to the health sciences. Topics include assessment of marketing wellness services, programs, and facilities; decision making; communications; interpersonal relations; ethics; cultural diversity; and quality. Demonstrate ability to function in a management setting. Prerequisite: HLSC 401, MGT 101 or HLSC 313. *Spring*

### **HLSC 410 EXPERIMENTAL FOODS**

*2 credits*

Introduction to food research methods and technical writing. Experimental investigation of the chemical and physical reactions involved in food preparation, sensory and objective testing of food quality and food product formulation. Prerequisite: HLSC 310. *Spring*

### **HLSC 415 NUTRITIONAL BIOCHEMISTRY**

Biochemical and biophysical aspects of variation in nutrient supply and demand within the human biosystem. Prerequisites: HLSC 215, BIO 153/154, BIO 230/232, and BIO 231/233. Corequisite: HLSC 419. *Fall*

### **HLSC 416 MEDICAL NUTRITION THERAPY**

*4 credits*

Role of the therapeutic dietitian as instructor, counselor, or member of health team. Modification of normal nutritionally balanced diets for the prevention and treatment of diseases. Development of professional skills: diet instruction and counseling, and charting. Corequisite: HLSC 417. Prerequisites: HLSC 215, BIO 153/154, and BIO 230/232. *Spring*

### **HLSC 417 MEDICAL NUTRITION THERAPY**

**LAB 1 credit**

Field experience in acute care and community settings integrated with classroom instruction. Hands-on involvement with nutrition assessment and the planning, implementation and evaluation of nutrition intervention. Corequisite: HLSC 416. *Spring*

### **HLSC 419 NUTRITION RESEARCH LAB**

*1 credit*

Survey of research methodologies in the field of nutrition. Students will practice skills in critiquing current literature. Students will also research, develop and present a seminar on a topic of their choosing. Corequisite: HLSC 415. *Fall*

### **HLSC 431 STRESS MANAGEMENT**

This course explores the variety of stress management techniques, and examines the sources of stress from a psychosocial model perspective. Students investigate their own personal stress and begin to develop formal stress reduction techniques and coping skills. Prerequisites: Health Promotion and Fitness Option or permission of instructor. *Spring*

### **HLSC 439 INTERNSHIP IN HEALTH SCIENCE/CHEMICAL DEPENDENCY**

*1-6 credits*

Students are assigned according to their preparation and interests, in chemical dependency, to educational governmental, industrial, medical settings and other organizations focused on chemical use and abuse. Credits determined by supervising faculty member. May be repeated for a maximum of 12 credits. Prerequisite: Permission of instructor only. *Fall, Spring*

### **HLSC 445 HUMAN SEXUALITY**

Examines human sexual development and behavior, including reproduction, sexual anatomy, psychosexual development, sexual socialization, values, and various forms of sexual expression. Prerequisites: courses in Biology, Sociology, and Psychology and junior standing, or permission of instructor. *Fall, Spring*

### **HLSC 472 ADVANCED PRACTICUM: HEALTH PROMOTION AND FITNESS**

*3-12 credits*

A supervised experience designed to provide the advanced student with an applicable exposure to career opportunities in health promotion and fitness. Planning and supervising selected activities appropriate to the assigned work site. Prerequisite: HLSC 372 or permission of instructor. *Fall, Spring*

### **HLSC 473 PRACTICUM: NUTRITION**

Supervised field experience in community, clinical or food-service management environments providing nutrition and dietetics practice opportunities for the advanced student. Hands-on experience aimed at developing critical skills in the application of theory to practice. Prerequisites: HLSC 313, HLSC 318, HLSC 401, HLSC 416. *Fall, Spring*

### **HLSC 486 ASSESSMENT, DIAGNOSIS, AND COUNSELING**

Develop skills for assessment of client drug abuser strengths and weaknesses. Focuses on useful counseling techniques, treatment modalities, and referral sources. Prerequisite: HLSC 380 or permission of instructor. *Fall, Spring*

### **HLSC 488 ADDICTION: PREVENTION TO TREATMENT**

Study and application of theories, techniques and methods in alcohol and other drug prevention, education, intervention, and treatment. Prerequisite: HLSC 380. *Annually*

### **HLSC 490 ADVANCED SPECIAL TOPICS**

*1-3 credits*

Study in an area of Health Science beyond that provided in other courses. May be repeated as topics change. Prerequisite: Varies with topic. *Fall, Spring*

### **HLSC 495 SEMINAR: HEALTH SCIENCE**

This is a capstone class in which students integrate the knowledge, skills, and abilities learned throughout the Health Science preparation. Opportunities to extend the knowledge of the field and broaden comprehension of current issues. Prerequisites: HLSC 385, Health Science major, and senior standing, or permission of instructor. *Fall, Spring*

**HLSC 498 INDEPENDENT STUDY**

1-6 credits

Independent study under faculty supervision of a problem in an area of Health Science. Initiative and self-direction required. May be repeated to a total of 6 credits. Prerequisite: Permission of instructor. *Fall, Spring*

**HLSC 690 GRADUATE SPECIAL TOPICS**

1-3 credits

Study of selected topics in human services based on the needs and interests of the student. Prerequisite: Permission of instructor. *Spring*

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## History

**HIST 111 TRADITIONAL WORLD CIVILIZATION**

A survey of the four major civilizations (Western, Middle Eastern, South Asian, and East Asian) from antiquity to 1500. Provides a generalized view of cultural, political, economic, and religious evolution. *Fall*

**HIST 112 MODERN WORLD CIVILIZATION**

A survey of the four major civilizations (Western, Middle Eastern, South Asian, and East Asian) from the beginning of European world dominance (1500) to the emergence of the modern world. Provides a generalized view of cultural, political, economic, and religious evolution. *Spring*

**HIST 121 TRADITIONAL CIVILIZATION OF EAST ASIA**

A survey of China and Japan from antiquity to approximately 1800. Establishes a broad picture of cultural values, social structures, and political institutions. Attempts to convey a sense of how both the common people and the elite lived. *Spring*

**HIST 122 MODERN EAST ASIA**

A sequel to HIST 121. A survey of Chinese and Japanese experiences with modernization from the beginning of the 19th century to the present. The theme of revolution provides focus for the study of China. In the case of Japan, the main emphasis is on its rapid adaptation to the modern world. *Fall*

**HIST 141 WESTERN CIVILIZATION I: ORIGINS TO 1500**

From Moses to Machiavelli, from the Parthenon to St. Peter's, an introduction to the crucial ideas, institutions, and events of the formative centuries of Western civilization. *Fall*

**HIST 142 WESTERN CIVILIZATION II: 1500 TO PRESENT**

From Luther's dissent to contemporary student protest, the revolutionary modern era is examined. Important landmarks include the birth of modern science, the Enlightenment, political revolutions in England, North America, France, and Russia, industrialization, and the tragedies and triumphs of the 20th century. *Fall, Spring*

**HIST 161 TOPICS IN UNITED STATES HISTORY I**

A systematic introduction to United States history before 1877, emphasizing major topics within a chronological framework. Topics vary with each instructor, but always include: Puritan and plantation colonies, formation of the United States, slavery and abolition, foreign relations and territorial expansion, the rise of mass politics, and the Civil War and Reconstruction. Not open to juniors and seniors except by permission. *Fall, Spring*

**HIST 162 TOPICS IN UNITED STATES HISTORY II**

A systematic introduction to United States history since 1865, emphasizing major topics within a chronological framework. Topics vary with each instructor, but always include: industrialization and labor, immigration, the growth of cities, nativism and extremism, segregation, civil rights, centralization of American life, and the rise of the United States as a world power. Not open to juniors and seniors except by permission. *Fall, Spring*

**HIST 200 READING AND WRITING IN HISTORY**

An introduction to various ways of reading and interpreting historical documents and to the major forms of historical writing. This course is intended to prepare students for advanced course work. History 200 must be taken prior to completing 13 credits in History. *Fall, Spring*

**HIST 245 BRITAIN: ORIGINS TO 1399**

An introduction to the history of Britain. This course covers prehistoric through Plantagenet England, with emphasis on political, intellectual, and cultural developments. *Spring*

**HIST 246 TUDOR AND STUART BRITAIN**

The history of Britain from the 14th through the 17th centuries, with emphasis on parliamentary crises, civil wars, and the English reformation. *Spring*

**HIST 247 ISSUES IN MODERN BRITAIN**

Exploration of political, intellectual and cultural issues in Britain from 1700 to the present. *Spring*

**HIST 252 THE HOLOCAUST**

Examines the genocide and mass murder committed by the Nazi regime during 1939-1945. Also surveys long- and short-term factors, including World War I and Germany's failed postwar democratic experiment, that help explain the consolidation of a racially based totalitarian regime. Cross-listed as HOLO 252. *Spring*

**HIST 253 THE SECOND WORLD WAR**

Examines the origins and outbreak of WWII, the course of the war in Europe and the Pacific, the complexity of military priorities and operations, the evolution of mass murder in Nazi-occupied Europe, and the war's social and political impact.

**HIST 261 U.S. SOCIAL HISTORY I: 1603-1865**

Evolution of American institutions, including the family, social classes, work, economic relationships, roles of the sexes, churches, child rearing, education, and governments, from colonial origins to the mid-19th century. Not open to students who have completed HIST 161 with a passing grade. *Fall*

**HIST 262 U.S. SOCIAL HISTORY II: 1865 TO PRESENT**

A continuation of HIST 261 for the late 19th and 20th centuries. Elements examined: the social consequences of industrialization and urbanization; the development of the public school system; the roles of corporations, labor unions, and professional organizations; and the changing roles of the sexes and governments. Not open to students who have completed HIST 162 with a passing grade. *Spring*

**HIST 265 MILITARY IN U.S. SOCIETY I**

A social history of war, peace, and the military in America from the Colonial period through the Civil War. Surveys the development of U.S. military institutions, the nation's wartime experiences, and how the military reflected American society and culture.

**HIST 266 MILITARY IN U.S. SOCIETY II**

A social history of the U.S. military from Reconstruction to the present. Focuses on the social composition of the military, the growth of federal power, American attitudes toward war and peace, and the development of "modern" warfare.

**HIST 269 WOMEN IN MODERN AMERICA**

Course describes women from the late 19th century to today. Themes include women and power, gender division of labor, women and family, life cycles. Topics include women in unions, women's suffrage fights, women in world wars and in modern rights movements.

**HIST 290 SPECIAL TOPICS**

1-3 credits

Study of a selected topic in History. May be repeated as topics change. *Fall, Spring*

**HIST 291 WORLD OF THE OLD TESTAMENT**

A historical, literary and philosophical introduction to the Hebrew Bible, one of the most important and influential texts in the history of world civilization. Particular attention is paid to the relationship between rhetoric and theology in the Bible. *Fall, Spring*

**HIST 293 GREAT BOOKS I**

An introduction to a selection of the most important and influential texts, from Ancient Mesopotamia to Early Modern Europe, that have helped define western and world culture. *Fall*

**HIST 294 GREAT BOOKS II**

An introduction to a selection of the most important and influential texts of the modern world. *Spring*

**HIST 300 CLASSICS IN HISTORIOGRAPHY**

The study of one or more classic texts in historiography (e.g., Gibbon's *Decline and Fall*, Schama's *Citizens*) with special attention paid to the methodology, ideology, writing style, rhetoric, and argumentation presented by the historian(s). Authors may change. *Spring*

**HIST 321 LATE IMPERIAL CHINA**

The relationship between the Chinese polity and society in the late imperial period (Ming and Qing dynasties, 14th century

to 1911). Includes: family system, important socioeconomic changes, and the persistence of traditional culture, thought and institutions into modern times.

**HIST 322 THE CHINESE REVOLUTION**

China's revolutionary transformation in the 20th century. Includes the social and political origins of revolution, the Communist movement and rise of Mao, defeat of Nationalists, creation of the People's Republic and its principal domestic and foreign policies to the present. Not open to students who have taken HIST 326 or 327.

**HIST 324 MODERN JAPAN**

From the Tokugawa period to the present, this course traces Japan's transition from a feudal to an industrial society, the decline of the Samurai class, and the rise of cities, merchants, and urban culture, the Meiji Restoration and political reform, imperialist expansion, war, American occupation, and post-war changes contributing to Japan's "miraculous" economic growth. *Spring*

**HIST 330 ANCIENT CIVILIZATION**

The dawn of civilization: ancient Mesopotamia – life in the valley of the two rivers; ancient Egypt – civilization in the Nile Valley; the smaller kingdom of the Hittites, Phoenicians, and Hebrews; the growth of the empire – Assyria and Persia. Selected cultural, economic, and political developments are studied. *Fall*

**HIST 332 GREECE IN THE CLASSICAL AGE**

The evolution of Greek classical civilization from the Mycenaean origins through the Hellenistic age. The significance of the Polis is brought out by detailed examination of Athens and Sparta. Intellectual and cultural contributions of classical Greece. *Fall*

**HIST 336 THE MEDIEVAL WORLD: 400-1500**

Europe and the Byzantine and Islamic worlds from the collapse of the Western Roman Empire to the discovery of America by Columbus. Feudalism, manorialism, the role of the Church, the rise of the nation-state, growth of cities, revival of the economy, and the development of technology. *Spring*

**HIST 337 EUROPE: 1400-1600**

Special attention is paid to the Renaissance and Reformation, the age of exploration, and the early scientific revolution. *Fall*

**HIST 340 THE FRENCH REVOLUTION AND THE NAPOLEONIC EMPIRE**

Covers in detail the causes, progress, and consequences of the French Revolution and the rise and fall of the Napoleonic Empire. *Fall*

**HIST 341 EUROPE FROM WATERLOO TO VERSAILLES**

Examines the post-Napoleonic restoration, the forces of nationalism, liberalism, and imperialism, and the origins of World War I. *Spring*

**HIST 342 EUROPE 1918-1945**

The history of Europe from the Versailles treaty to the end of World War II, with special attention given to the rise of Fascism

in Germany and Italy and the political and diplomatic events of World War II. *Spring*

### **HIST 343 EUROPE SINCE 1945**

Political, diplomatic, and economic developments in Europe, notably in the major countries of Western Europe. *Fall*

### **HIST 347 IRELAND SINCE 1600**

Political, social, economic, and religious developments are studied to provide an understanding of the evolution of modern Ireland. Anglo-Irish relations and Ulster separatism are given particular attention. *Fall*

### **HIST 349 FRANCE SINCE 1815**

History of post-Napoleonic France, including the Restoration and the beginnings of Republicanism and its evolution during the Third, Fourth, and Fifth Republics. *Spring*

### **HIST 351 19TH-CENTURY GERMANY**

After reviewing the collapse of the Holy Roman Empire, this course examines the impact on Germany of the French Revolution, the role of philosophy in Germany's development, the policies of Metternich, Bismarck's role in German unification, and the origins of WWI. Prerequisite: HIST 142. *Fall*

### **HIST 352 20TH-CENTURY GERMANY**

World War I and its impact on Germany's Weimar Republic, the rise of National Socialism and Hitler's seizure of power, the Nazi racial state and Holocaust, World War II, and the influence of the cold war on Germany's postwar development. Prerequisite: HIST 142. Not open to students to have taken HIST 353. *Spring*

### **HIST 353 NAZI GERMANY AND THE HOLOCAUST**

Examines the Nazi rise to power during the Weimar Republic, the consolidation of totalitarian rule, the transformation of racial ideology into policy, Hitler's foreign policy as prelude to war, World War II, and the Holocaust. Prerequisite: HIST 142. Not open to students who have taken HIST 352.

### **HIST 357 HISTORY AND PHILOSOPHY OF SCIENCE: ORIGINS TO 1700**

Examines the development of scientific thought and philosophy of science from their origins through the Scientific Revolution of the 17th century. Prerequisites: 6 credits of science course work or permission of instructor. *Fall*

### **HIST 358 HISTORY AND PHILOSOPHY OF SCIENCE: 1700 TO PRESENT**

Examines the development of scientific thought and philosophy of science from the Scientific Revolution to the present. Prerequisites: 6 credits of science course work or permission of instructor. Cross-listed as PHIL 358. *Spring*

### **HIST 360 THE AMERICAN COLONIES TO 1763**

Examines the foundation of the American colonies and the economic, social, and political problems besetting them from their establishment to the close of the Great War for Empire, 1763. *Fall*

### **HIST 361 THE AMERICAN REVOLUTION**

Examines the causes of the conflicts of 1763 to 1783, the nature of the Revolution, the Confederation years, the establishment of the Constitution and changes to 1789. *Spring*

### **HIST 362 THE EARLY AMERICAN REPUBLIC 1789-1850**

Examines political, social, economic, and cultural developments as well as changes in material culture from the establishment of the federal government to the Compromise of 1850. *Fall*

### **HIST 363 THE UNITED STATES IN THE CIVIL WAR PERIOD: 1850-1876**

Examines the coming of the Civil War, the secession crisis, the war itself, and Reconstruction. Prerequisite: Not open to freshmen without permission of instructor. *Fall*

### **HIST 364 19TH-CENTURY AMERICA**

Examines selected aspects of the century's major developments; topics include, among others, immigration, the political economy of the Civil War, the rise of labor, elections and politics, and the Populist movement. *Spring*

### **HIST 365 GILDED AGE AND PROGRESSIVE ERA AMERICA**

Examines social, economic, and political aspects of U.S. history from 1877 to 1920. Topics include industrialization, immigration, politics, Populism, progressivism, and World War I. Prerequisite: Not open to freshmen without permission of instructor. *Spring*

### **HIST 366 U.S. IN CRISIS: 1920-1950**

Special attention is given to the turbulent 20s and market crash; the anxieties of the 30s and governmental response; U.S. role in World War II and homefront repercussions for women and Japanese Americans; postwar traumas of bomb, cold war, and domestic readjustment. Prerequisite: HIST 162 or HIST 262, or permission of instructor. *Fall*

### **HIST 367 MODERN AMERICA: 1950-PRESENT**

Describes U.S. in modern age of Cold War and fears of domestic subversion, domestic reform upheavals of blacks, students, women in 1960s and 1970s; major changes for economy and labor. Prerequisite: HIST 162 or 262, or permission of the instructor. *Spring*

### **HIST 392 MODERNISM**

Examines major cultural developments in Europe from 1880 to 1930. The works of figures such as Gide and Kafka, Schiele and Picasso, Schoenberg and Stravinsky, and Bergson and Nietzsche are studied.

### **HIST 393 TOPICS IN HISTORY OF IDEAS**

Examines a selected topic in intellectual history, cultural history, or history of philosophy. Readings are drawn from primary sources. May be repeated as topics change. Prerequisite: one course in history or permission of instructor. Cross-listed as PHIL 393. *Fall, Spring*

**HIST 490 ADVANCED SPECIAL TOPICS***1-4 credits*

Study of a selected topic in History at an advanced level. May be repeated as topics change. *Fall, Spring*

**HIST 495 SEMINAR**

Discussion of problems and issues in History. May be repeated as seminar topics change. Prerequisite: permission of instructor. *Fall, Spring*

**HIST 497 HISTORY INTERNSHIP***1-3 credits*

Students research, organize, and write about historical materials in cooperation with historical societies, archives, museums, historical restoration projects, and other groups or agencies. The History Internship Committee, in consultation with the dean of Arts and Humanities, determines the credit value. Prerequisite: permission of instructor. *Fall, Spring*

**HIST 498 INDEPENDENT STUDY***1-6 credits*

Intensive study of an issue, problem, or topic. Offered as independent study if proposed by the student or as directed study if designed by the faculty member. May be repeated to a total of 6 credits. Prerequisite: permission of instructor. *Fall, Spring*

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## Holocaust Studies

The minor in Holocaust Studies combines a core in History with the opportunity for students to explore the Holocaust through film, literature, philosophy, psychology, sociology, and other History offerings (for specific options, see Minors section of this catalog). With a deeper awareness of such issues as prejudice, discrimination, and racism, students choosing the minor should be better able to analyze contemporary political situations and think critically about ethical responsibility. The minor should also generate a deeper theoretical understanding of the Holocaust and critical insight regarding debates in Holocaust research.

**HOLO 252 THE HOLOCAUST**

Examines the genocide and mass murder committed by the Nazi regime during 1939-1945. Also surveys long- and short-term factors, including World War I and Germany's failed post-war democratic experiment, that help explain the consolidation of a racially based totalitarian regime. Cross-listed with HIST 252. *Spring*

**HOLO 290 SPECIAL TOPICS**

Exploration of a specific issue or theme applying interdisciplinary methods to readings and analysis. Builds on foundations acquired in HIST 142 or HOLO 252/HIST 252, the two introductory courses. May be repeated for credit as topics change. Prerequisite: HIST 142 or HOLO 252/HIST 252. *Occasionally*

**HOLO 490 ADVANCED SPECIAL TOPICS**

Advanced interdisciplinary study of a specific issue or theme not covered in depth by the regular curriculum. Content and prerequisites vary. Prerequisites: HIST 142, HOLO 252/HIST 252, and one 300-level or higher HOLO depth course. *Occasionally*

**HOLO 495 SEMINAR**

Small-group exploration and discussion of problems and issues in Holocaust Studies. May be repeated as topics change to a total of six credits. Prerequisites: HIST 142, HOLO 252/HIST 252, and one 300-level or higher HOLO depth course, or permission of instructor. *Occasionally*

**HOLO 497 INTERNSHIP***1-6 credits*

Focus is on a student researching, organizing, and writing about Holocaust-based topics in cooperation with the Cohen Center for Holocaust Studies or some other society, resource center, museum, or foundation dedicated to Holocaust Studies. May be repeated to a total of six credits. Prerequisites: HOLO 252/HIST 252 and permission of instructor. *Occasionally*

**HOLO 498 INDEPENDENT STUDY***1-6 credits*

In-depth study of a topic or problem selected and pursued in consultation with faculty member. Design will be at faculty member's discretion. May be repeated to a total of six credits. Prerequisites: HIST 142, HOLO 252/HIST 252, and one 300-level or higher HOLO depth course, or permission of instructor. *Occasionally*

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## Interdisciplinary

Students are encouraged to select interdisciplinary studies, which integrate and synthesize fields of knowledge, in fulfillment of General Education requirements. One interdisciplinary course may be used in each of the distribution areas of Arts and Humanities (IDAH) and Social Sciences (IDSS). Interdisciplinary courses may be offered *Fall or Spring, depending on student and faculty interest.*

**Arts and Humanities (IDAH)****IDAH 290 TOPICS IN ARTS AND HUMANITIES***1-4 credits*

Selected interdisciplinary topics in Arts and Humanities. May be repeated as topics change. *Occasionally*

**IDAH 298 INDEPENDENT STUDY***1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent of the instructor who will supervise the independent study is required. Repeatable to a total of 6 credits.

**IDAH 498 INDEPENDENT STUDY***1-6 credits*

Independent study under faculty supervision of a problem in an area of individual interest. Initiative and self-direction required. May be repeated to a total of 6 credits. Prerequisite: Permission of instructor.



## Social Sciences (IDSS)

### IDSS 150 TECHNOLOGY AND CIVILIZATION

The development of technological literacy through an examination of the evolution, use, and significance of technology; the social and environmental issues associated with industrialization; and the contemporary technological alternatives that affect the nature of the human condition. *Occasionally*

### IDSS 290 SPECIAL TOPICS

1-3 credits

Selected topics that require interdisciplinary approaches. May be repeated as topic changes. Prerequisite: course work in at least two social science disciplines or permission of instructor. *Occasionally*

### IDSS 298 INDEPENDENT STUDY

1-6 credits

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent is required from the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

### IDSS 490 ADVANCED SPECIAL TOPICS

This is an advanced course for in-depth exploration of social science topics from an interdisciplinary perspective. It may be repeated as topic changes. Prerequisites: junior or senior status, course work in at least three social science disciplines and permission of instructor. *Occasionally*

### IDSS 498 INDEPENDENT STUDY

1-6 credits

Independent study under faculty supervision of a problem in an area of individual interest. Initiative and self-direction required. May be repeated to a total of 6 credits. Prerequisite: Permission of instructor.

## Sciences/Mathematics (IDSM)

### IDSM 298 INDEPENDENT STUDY

1-6 credits

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent is required from the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

### IDSM 301 THE WEB OF SCIENCE I

This course provides extensive hands-on experience in a laboratory setting for elementary education majors. Emphasis is on discovery-based learning: observing, classifying, measuring, predicting, describing, and inferring. It is an integrated natural science, content-oriented curriculum, based on the National Science Standards and New Hampshire Science Curriculum Frameworks. Prerequisites: BIO 151/152, BIO 153/154, GEOL 201, CHEM 103/107, MATH 171/172, ESEC 100, ESEC 150, and ESEC 250, or permission of the instructor.

### IDSM 401 THE WEB OF SCIENCE II

This course provides extensive hands-on experience in a laboratory setting for elementary education majors. Emphasis is on inquiry-based learning: originating problems, formulating hypotheses, designing investigations, testing ideas, and synthesizing knowledge. It is an integrated natural science, content-oriented curriculum, based on the National Science Standards and New Hampshire Science Curriculum Frameworks. Prerequisite: IDSM 301 or permission of the instructor.

### IDSM 498 INDEPENDENT STUDY

1-6 credits

Independent study under faculty supervision of a problem in an area of individual interest. Initiative and self-direction required. May be repeated to a total of 6 credits. Prerequisite: Permission of instructor.

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## Journalism

### JRN 200 INTRODUCTION TO MASS MEDIA

A study of the techniques and effects of mass media in modern society – an interdisciplinary approach to understanding the relationship between the citizen and information sources. Press, radio, TV, film, and other sources analyzed from historical, technical, ethical, and potential viewpoints. Required as a first course for Journalism majors and open to all students as space is available. *Fall, Spring*

### JRN 201 NEWS WRITING I-INTRODUCTORY

Basic principles of news writing, with special attention to leads, story structure, unity, completeness, and accuracy. Introduction to speech coverage, interview techniques, feature, and specialized writing. Lecture, practice, and field work, with emphasis on increasing speed. Students are expected to pass a grammar test as part of this course. Prerequisites: ENG 101 and typing skills. *Fall, Spring*

### JRN 270 BROADCAST JOURNALISM LAB

1 credit

Laboratory is required for students taking JRN 302 Broadcast Journalism.

### JRN 271 RADIO JOURNALISM LAB

2 credits

Laboratory is required for students taking JRN 308 Radio Journalism.

### JRN 272 TELEVISION JOURNALISM LAB

2 credits

Laboratory is required for students taking JRN 408 Television Journalism.

### JRN 273 COMMUNITY TV NEWS LAB

2 credits

Laboratory is required for students taking JRN 446 Community Television News.

**JRN 276 WKNH NEWS LAB***2 credits*

Producing regular news or public affairs programs for broadcast on WKNH. May be taken twice. Prerequisites: COMM 280, JRN 201 and permission of instructor.

**JRN 280 EQUINOX STAFF***2 credits*

Training in news writing, photojournalism and graphic design for the Equinox. May be repeated for a maximum of 12 credits. Prerequisite: Permission of instructor. *Fall, Spring*

**JRN 282 EQUINOX EDITOR**

Edit and manage the KSC newspaper, The Equinox. Positions include: executive editor, managing editor, business manager, section editors, photography editor, graphics editor, advertising director, and copy editor, among others. May be repeated to a maximum of 12 credits. Prerequisite: Permission of instructor. *Fall, Spring*

**JRN 290 TOPICS IN MASS MEDIA**

Historical, sociological, and philosophical investigation of topics in journalism and mass communication. Includes broadcasting, print, graphics and international communication. A term paper using mass media trade and scholarly literature is required. May be repeated for credit. Prerequisite: JRN 200 or permission of instructor. *Annually*

**JRN 294 COOPERATIVE EDUCATION***1-6 credits*

Introductory work-learning experience related to career interests, for which compensation may be received. Placements arranged and supervised by Cooperative Education with approval and evaluation by full-time faculty. Elective credit only (normally 120 hours/credit) to maximum of 12 credits per degree program. Prerequisites: 24 total credits earned, 2.0 cumulative GPA, and permission of instructor. Graded Pass/Fail.

**JRN 298 INDEPENDENT STUDY***1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent is required from the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

**JRN 301 NEWS WRITING II-REPORTING**

Instruction in reporting techniques and practice in public affairs beat reporting, on and off campus. Newsroom behavior for the reporter stressed, along with introduction to computer terminal use in modern newspapers. Basic copy editing and rewrite experience. Prerequisite: JRN 201 or written permission of instructor. Recommended corequisite: JRN 280. *Fall, Spring*

**JRN 302 BROADCAST JOURNALISM**

Basic principles of journalism for radio and television news. Introduction to interview techniques, electronic news gathering, and practical aspects of researching, writing, producing, and reporting news for radio and television. Lecture, practice, and field work. Corequisite: JRN 270. Prerequisite: JRN 201 or permission of instructor. *Fall, Spring*

**JRN 306 NEWS EDITING**

Instruction and practice in copy editing, using approved newsroom techniques. Concentrates on speed, accuracy, style, and decision under pressure, with attention to libel and copyright law. Headline writing, picture editing, make up, and the electronic newsroom are studied. Prerequisite: JRN 301 or written permission of instructor. *Fall*

**JRN 308 RADIO JOURNALISM**

An advanced course in radio news, with special attention to story structure, public affairs programs, and documentaries. Introduction to public affairs and documentary research, script writing and production. Productions for WKNH. Lecture, practice and field work. Recommended corequisite: JRN 271. Prerequisite: JRN 302 or permission of instructor. *Fall, alternate years*

**JRN 310 MEDIA HISTORY AND THEORY**

Readings in the history of mass communication and mass communication theory. Students use some primary research methods such as survey, interview, and historical searches. This course is writing intensive. Prerequisite: JRN 200 or written permission of instructor. *Fall, odd years*

**JRN 315 TELEVISION NEWS STUDIO***4 credits*

Students participate in television field reporting to be showcased in studio-based news shows cablecast for the campus and city of Keene. Students develop journalistic and technical skills. Prerequisite: JRN 302 or permission of instructor. *Fall*

**JRN 317 JOURNALISM RESEARCH METHODS**

How to collect facts, check their accuracy and report them with clarity and logic. The course will focus on survey and library research with particular emphasis on accessing and making good use of traditional paper/print and computer data bases in the pure and social sciences, including but not limited to the field of government, law, medicine, health, education, and the environment. Prerequisite: JRN 201. *Fall*

**JRN 322 MEDIA ETHICS**

Teaching and practice in ethics by use of case studies. Students are taught that information in journalism is a social good, not merely a commodity, and that the journalist shares a responsibility for what is transmitted to the public. Cross-listed as PHIL 322. Prerequisite: JRN 200 or PHIL 220, or permission of instructor. *Spring*

**JRN 380 INTERNSHIP***3-12 credits*

A supervised, contracted internship arranged by the student with an approved publication, or, in certain cases, with campus offices, either for a semester's work or summer employment. Contract must be approved by the Journalism faculty. Responsible faculty supervision and review are required.

**JRN 401 FEATURE WRITING**

Instruction and practice in writing news and personality feature articles for newspapers and magazines. Analytical reading of published pieces. Primary emphasis is on research, the interview, and writing (composition). Prerequisite: JRN 301 or permission of instructor. *Fall, occasionally*

**JRN 408 TELEVISION JOURNALISM**

An advanced course in television news, public affairs programs, and documentaries. Introduction to public affairs and documentary research, scriptwriting and production. News for closed-circuit television at Keene State College. Lecture, practice, and field work. Recommended corequisite: JRN 272. Prerequisite: JRN 302 or permission of instructor. *Spring, odd years*

**JRN 410 PUBLIC AFFAIRS REPORTING**

For one-half semester the student covers government functions in city, county, region, and state, to sharpen reporting skills; during the second half, the student is guided into reporting trends and events affecting the people of Keene and the region. Prerequisite: JRN 301 or permission of instructor. *Fall, occasionally*

**JRN 446 COMMUNITY TELEVISION NEWS**

A performance course in television news, with special attention to developing a regularly cablecast community television newscast for the Keene area. Introduction to formatting the news and presenting it under deadline. Lecture, practice, and field work. Recommended corequisite: JRN 273. Prerequisite: JRN 302. *Spring, even years*

**JRN 490 ADVANCED SPECIAL TOPICS**

Directed study in specialized aspects of print and broadcast media history, press law, content, techniques, production, management, or selected concentrations therefrom. Prerequisite: written permission of instructor.

**JRN 494 ADVANCED COOPERATIVE EDUCATION**

*1-6 credits*

Sequential work-learning experience for which compensation may be received. Placements arranged and supervised by Cooperative Education with approval and evaluation by full-time faculty. Elective credit (normally 120/hours credit) to maximum of 12 credits per degree program. Prerequisites: JRN 294, 2.0 cumulative GPA, Declaration of Major, and permission of instructor. May be repeated for credit. Graded Pass/Fail.

**JRN 498 INDEPENDENT STUDY**

*1-6 credits*

Under faculty supervision, the student develops and completes a program of research or development in a worthwhile aspect of journalism or mass communications. May be repeated to a total of 6 credits. Prerequisite: written permission of instructor.

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**KSC Courses****KSC 270 LEARNING ASSISTANT**

*1-3 credits*

Under faculty supervision, learning assistants develop and practice instruction and interaction skills for working effectively with students in a specific discipline. Supplemental instructors and undergraduate teaching assistants are examples. May be repeated up to 6 credits. *Fall, Spring*

**KSC 690 GRADUATE SPECIAL TOPICS**

*1-3 credits*

Study of selected topics in academic disciplines based on the needs and interests of the student. Intended for professionals seeking continuing study, and middle school and high school educators seeking advanced study in content areas. Prerequisite: Permission of instructor. May be repeated for credit. *Fall, Spring, Summer*

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**Management****MGT 101 INTRODUCTION TO MANAGEMENT**

*2 credits*

Examination of the principles underlying the management of organizational activities. Management theory and practice are studied, including the basic functions of management: planning, organizing, leading, and controlling; decision making, motivation, leadership and communication. Topics include globalization, corporate social responsibility, and the changing environment of business. *Fall, Spring*

**MGT 202 QUANTITATIVE DECISION MAKING**

*4 credits*

Introduction to quantitative analysis for management to provide students with an opportunity to learn the basic concepts and the quantitative/analytical tools used in the process of decision making and problem solving. Prerequisite: MGT 101. *Fall, Spring*

**MGT 208 SMALL BUSINESS PRACTICUM**

*4 credits*

Under faculty supervision, students work with local business by assisting senior students in Small Business Institute projects. Prerequisite: permission of instructor. *Spring*

**MGT 213 FINANCIAL ACCOUNTING**

*4 credits*

Introduces accounting information with an emphasis on its use in decision making by owners, creditors, managers, and government for both profit and non-profit organization. Topics include the accounting profession, double-entry accounting system, information systems, ethics, taxation, and internal control systems. *Fall, Spring*

**MGT 214 MANAGERIAL ACCOUNTING**

*4 credits*

Course focuses on accounting information used by managers in planning, controlling operations and decision making within organizations. Topics include cost concepts and classifications, cost volume profit analysis, costing systems, and budgeting. Prerequisite: MGT 213 or permission of instructor. *Fall, Spring*

**MGT 290 SPECIAL TOPICS**

*1-4 credits*

Study of a selected topic in management. May be repeated as topics change. *Occasionally*

**MGT 292 TRANSITION TO THE WORKPLACE**

*1 credit*

Topical seminar focusing on the transition from college life to the workplace. Seminar topics include preparation of an

effective resume, successful interviewing, business etiquette, locating and contacting prospective employers, building and maintaining job search momentum, development of an overall employment search strategy, and employer/employee expectations in the workplace. Graded Pass/Fail. *Spring*

### **MGT 298 INDEPENDENT STUDY**

*1-4 credits*

Opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent required of the instructor who will supervise the independent study. Repeatable to a total of 8 credits. *Fall, Spring*

### **MGT 301 ORGANIZATIONAL THEORY AND BEHAVIOR**

*4 credits*

Analyzes approaches to managing modern organizations, using organizational theory to assess problems of administration in public and private organizations. Emphasizes internal structure, leadership, planning and personnel utilization problems, and external influences, bargaining and coalition formation relationships, and the nature of authority and organizational behavior. Prerequisites: MGT 101 and junior standing, or permission of instructor. *Fall, Spring*

### **MGT 306 PERSONAL FINANCIAL PLANNING**

*2 credits*

Introduces students to a comprehensive examination of the concepts and practical applications in financial planning. Topics include money management, tax planning, risk management and insurance, investment planning, retirement planning and estate planning. Prerequisites: MGT 213 and junior standing, or permission of instructor. *Alternate years*

### **MGT 308 SMALL BUSINESS ENTREPRENEURSHIP**

*2 credits*

Applies modern management techniques to small businesses. Includes business plan development, financial and administrative controls, marketing strategy, and employee relations. Prepares students for working with small business clients in practicum course. Prerequisites: ECON 201 or 202, MGT 214 and 331, and junior standing, or permission of instructor. *Occasionally*

### **MGT 311 INTERMEDIATE ACCOUNTING**

*4 credits*

Review of accounting cycle, balance sheet valuations, principles relating to financial statements, income determination, disclosure problems, cash management, investments, receivables, and plant assets. Includes alternative accounting procedures. Prerequisites: MGT 214 and junior standing, or permission of instructor. *Occasionally*

### **MGT 319 FINANCIAL MANAGEMENT**

*4 credits*

Study of financial decision making based in contemporary financial theory and world economic conditions. The course will focus on financial theory and tools applicable to investing, capital budgeting, and capital structure decisions. Students

are introduced to a variety of valuation techniques and to the capital markets and their influence on corporate financial decisions. Prerequisites: MGT 202, MGT 214, and junior standing, or permission of instructor. *Fall, Spring*

### **MGT 324 HUMAN RESOURCE MANAGEMENT**

*4 credits*

Overview of human resource management, including human resource planning, recruitment, selection, training and development, performance appraisals, compensation, health and safety, employee and labor relations, employment law, job design and analysis, and human resource research. Prerequisites: MGT 101 and junior standing, or permission of instructor. *Fall, Spring*

### **MGT 331 PRINCIPLES OF MARKETING**

*4 credits*

Study of marketing behavior of the firm as it supplies goods and services to consumers and industrial users. Optimal "marketing mix," product design, product line policies, branding, pricing, promotion, consumer behavior, and channels of distribution. Prerequisites: MGT 202, MGT 213, and junior standing, or permission of instructor. *Fall, Spring*

### **MGT 333 ADVERTISING AND PROMOTION**

*2 credits*

The role of advertising and promotion in society and in the marketing mix of the firm. Tools of promotion, budgeting, media, campaign evaluation and research, and criteria for selection of most effective media for the target market and products. Prerequisites: MGT 331 and junior standing, or permission of instructor. *Fall or Spring*

### **MGT 345 OPERATIONS MANAGEMENT**

*4 credits*

Gives students the opportunity to learn basic operations management techniques to improve the efficiency with which work is accomplished in any type of organization. Inventory control models, queuing theory, simulation, and decision theory are among the topics covered. Prerequisites: MGT 202 and 213 and junior standing, or permission of the instructor. *Fall, Spring*

### **MGT 350 BUSINESS LAW**

*2 credits*

Presents law as an expanding social institution. Nature and sources of law, courts and court procedures, crimes and torts, contracts, agency and personal property, and types of business organizations. Prerequisites: MGT 101 and junior standing, or permission of instructor. *Fall, Spring*

### **MGT 355 BUSINESS NEGOTIATIONS**

*2 credits*

In this highly interactive course, students are introduced to the fundamental concepts of negotiation and the negotiation styles, tactics, and strategies used by corporate and public sector negotiators, collective bargainers, and mediators. Practical application of negotiation theory and conflict management in basic and increasingly complex settings are examined. Prerequisites: MGT 101, MGT 301, and senior standing, or permission of instructor. *Occasionally*

**MGT 360 INTERNATIONAL MANAGEMENT***4 credits*

General introduction to the international business environment with emphasis on key forces in the global business environment. Topics include country and culture differences, political, legal, financial and labor forces and strategies for entering international markets. Recommended in conjunction with an international exchange. Prerequisites: MGT 101, MGT 213, and junior standing, or permission of instructor. *Alternate years*

**MGT 381 MANAGEMENT INFORMATION SYSTEMS***4 credits*

Survey course based on the premise that information systems knowledge is essential for creating competitive firms, managing global corporations, adding business value, and producing useful products and services to customers. Emphasis is on digital integration from the warehouse to the executive suite. Prerequisites: CS 101, MGT 202, MGT 213, and junior standing, or permission of instructor. *Fall, Spring*

**MGT 402 ORGANIZATIONAL DEVELOPMENT***4 credits*

Overview of organization development, major theories in the field, organizational change; an understanding of power and politics in organizations; theory and practice of implementing organizational change; dealing with resistance to change and research techniques. Prerequisite: MGT 301 or permission of instructor. *Alternate years*

**MGT 408 SMALL BUSINESS INSTITUTE***4 credits*

Under faculty supervision, students will serve in teams as consultants for local small businesses or non-profit organizations. Student teams will write comprehensive case analyses and business plans. Students in this course participate in national competition. Prerequisite: permission of instructor. *Spring*

**MGT 410 PRINCIPLES OF INVESTMENT***4 credits*

Introduction to financial markets including the organization, regulation and ethics of national and international markets. Research, analysis, and valuation of financial instruments including equities, fixed income and leveraged securities, and derivatives are covered. Prerequisites: MGT 319 and senior standing, or permission of instructor. *Spring*

**MGT 422 LABOR RELATIONS***2 credits*

Covers history of the labor movement, labor relations policy and practice, contract negotiations, application of Labor Management Relations Act as amended, collective bargaining theory and practice, and legal constraints. Prerequisites: MGT 324 and senior standing, or permission of instructor. *Alternate years*

**MGT 425 COMPENSATION***2 credits*

Theories, techniques, and practices of organizations in establishing compensation programs for employees and executives. Influence of motivation on establishment of total compensation for personnel of modern organizations, includ-

ing wages and salaries, incentive payments, self-improvement programs, pensions, and insurance programs. Prerequisites: MGT 324 and senior standing, or permission of instructor.

*Alternate years***MGT 434 MARKETING RESEARCH***4 credits*

Study of the marketing research process, including management uses of marketing research, the scientific method in marketing, and research procedures. Examination of exploratory and secondary research, including data collection, tabulation, and analysis. Emphasis on market segment, product, advertising, and sales analysis research. Prerequisites: MGT 331 and senior standing, or permission of instructor. *Spring*

**MGT 435 MARKETING MANAGEMENT***2 credits*

Use of marketing principles and data evaluation in the development of alternatives and solutions to real world situations. Students analyze cases and problems of diverse industries reflecting current happenings in the business world and the public sector. Prerequisites: MGT 214, MGT 331, and senior standing, or permission of instructor. *Alternate years*

**MGT 451 SOCIAL, LEGAL, AND POLITICAL ENVIRONMENT OF BUSINESS***4 credits*

Advanced study of management philosophy and practice. Focus is on the manager's role as influencing and influenced by organizational structures, organization goals, and social, legal, political, and ecological constraints. Students are encouraged to develop a personal management philosophy. Prerequisites: MGT 301 and senior standing, or permission of instructor. *Fall, Spring*

**MGT 490 ADVANCED SPECIAL TOPICS***1-4 credits*

Exploration of an advanced major area of management, depending on student interest. May be repeated as topics change. Prerequisites: junior standing or permission of instructor. *Occasionally*

**MGT 491 BUSINESS POLICY AND STRATEGY***4 credits*

Capstone course requiring the application of all business disciplines to real-world problems. Focuses on the decision-making process for the manager as a strategist and organization builder. Prerequisites: senior standing and completion of all requirements in Management Core Curriculum, or permission of instructor. *Fall, Spring*

**MGT 493 MANAGEMENT INTERNSHIP***4-8 credits*

Opportunity to compare management theory with practice through on-the-job experience in participating organizations. Regular meetings with the instructor ensure maximum learning. A research paper is required. May be repeated for a maximum of 8 credits. Prerequisites: 2.50 GPA overall and permission of instructor. Graded Pass/Fail. *Fall, Spring*

**MGT 494 ADVANCED COOPERATIVE EDUCATION***12 credits*

Sequential work-learning experience for which compensation may be received. Placements arranged by Management faculty. Supervision and evaluation conducted by both work-site supervisor and faculty. Normally, 480 hours of work is expected for 12 credits. Prerequisites: 2.0 cumulative GPA, Declaration of Major, and permission of instructor. Graded Pass/Fail. *Fall, Spring*

**MGT 495 SEMINAR***1-4 credits*

Exploration of major areas of management under direction of Management faculty. Subject matter depends on student interest. Prerequisite: Management major only and junior standing, or permission of instructor. Repeatable to a maximum of 4 credits. *Fall, Spring*

**MGT 498 INDEPENDENT STUDY***1-8 credits*

Advanced individualized study in an area of management not normally available in the curriculum. Repeatable to a maximum of 8 credits. Prerequisites: junior standing, permission of instructor. *Fall, Spring*

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## Mathematics

**MATH 020 ALGEBRA PREPARATION**

Intensive review of the arithmetic and basic algebra needed for success in MATH 120, MATH 130, and many science courses. *Credits do not apply toward graduation.* Graded Pass/No Pass. Course may be repeated until passed. *Fall, Spring*

**MATH 071 ELEMENTARY EDUCATION MATH PREPARATION**

Intensive review of the basic mathematics needed for success in MATH 171 Structure of Number Systems. Topics: place value, whole number computation, fractions, decimals, percents, integers, basic algebra, and problem solving. *Credits do not apply toward graduation.* Graded Pass/No Pass. Course may be repeated until passed. *Fall, Spring*

**MATH 102 MATHEMATICS FOR MANAGEMENT***1 credit*

Intensive review of fractions, decimals, percents, order of operations, solving equations, evaluating formulas, ratios and proportions and linear functions. Open only to Management majors and minors who do not pass the mathematics assessment exam for management. *Fall, Spring*

**MATH 115 CONTEMPORARY MATHEMATICS**

Exploration of areas of mathematics which impact on contemporary society. Topics selected from voting theory, fair apportionment, routing, scheduling, growth, patterns and symmetry, and applications to social issues. Emphasis is on concepts rather than on manipulative skills. Knowledge of basic arithmetic and elementary algebra is expected. *Fall, Spring*

**MATH 120 APPLIED ALGEBRA AND TRIGONOMETRY**

Fundamental algebraic concepts with emphasis on the development of problem-solving techniques and analytical thinking. Topics include linear and quadratic equations, properties of graphs of polynomials, functions and graphs, trigonometry, and their applications to science and technology. Not open to students who have taken MATH 130 or MATH 151. *Fall, Spring*

**MATH 130 PRECALCULUS**

Polynomials, rational functions, exponents and logarithms, trigonometric functions with an exploration of their graphs. A high-level algebra-trigonometry course intended for students who plan to take calculus. Not open to students who have taken calculus in college. Presumes competency in the content of MATH 120. *Fall, Spring*

**MATH 141 INTRODUCTORY STATISTICS**

Basic tools of descriptive statistics, an introduction to probability, probability distributions, normal distributions, estimates and sample sizes, hypothesis testing, elementary correlation and regression and contingency tables. May not be taken for credit by students who have completed PSYC 251. *Fall, Spring*

**MATH 151 CALCULUS I***4 credits*

Limits, continuity, the derivative, applications of the derivative, the Riemann integral, and the Fundamental Theorem of Calculus. Some applications of the integral are considered. Presumes competency in the content of MATH 130. *Fall, Spring*

**MATH 152 CALCULUS II***4 credits*

Applications of the integral, transcendental functions, integration techniques, and infinite series. Prerequisite: MATH 151. *Fall, Spring*

**MATH 171 STRUCTURE OF NUMBER SYSTEMS**

Examines the structures and properties of mathematics while focusing on the development of problem-solving skills. Includes sets, functions, whole numbers, fractions, number theory, and integers. Intended for prospective elementary school teachers. Utilizes appropriate grade-level technology. Prerequisite: passing grade on the proficiency examination. Formerly MATH 101. *Fall, Spring*

**MATH 172 APPLICATION OF NUMBER SYSTEMS**

Considers applications of rational numbers, decimals, percent, probability and statistics, counting techniques, geometry, and measurement. Intended for prospective elementary school teachers. Uses appropriate grade-level technology. Prerequisite: C or higher grade in MATH 171. *Fall, Spring*

**MATH 225 INTRODUCTION TO ABSTRACT MATHEMATICS**

Fundamentals of sets, logic, and proof as a foundation for higher level mathematics courses. Topics include relations, functions and mathematical induction. Prerequisite: MATH 151. *Fall, Spring*

**MATH 231 LINEAR ALGEBRA**

Finite dimensional vector spaces, linear transformations, elementary theory of matrices, and determinants. Prerequisite: MATH 152. *Spring*

**MATH 235 DISCRETE MATHEMATICS**

Introduction to mathematics of enumeration. Includes sets, the number system, nature of proof, formal logic, functions and relations, recursion, basic graph theory, and Boolean algebra. Applications related to Computer Science, Biology, Chemistry, and Political Science. Prerequisite: MATH 130. *Fall*

**MATH 242 APPLIED STATISTICS**

Hypothesis testing, single linear regression, and one-way analysis of variance using calculators and statistical software. Includes problems dealing with multiple linear regression, multi-way analysis of variance, nonparametric statistics, and computer applications. Prerequisite: MATH 141 or PSYC 251. *Spring*

**MATH 251 CALCULUS III**

*4 credits*

Course in multivariable calculus. Topics include vector algebra and geometry, partial derivatives, extrema of functions of several variables, multiple integrals, vector fields, line and surface integrals, and Green's, Stokes's, and Divergence theorems. Appropriate applications are considered; students use a computer algebra system throughout the course. Prerequisite: MATH 152. *Fall, Spring*

**MATH 260 NUMERICAL METHODS**

Programming of scientifically-oriented problems. Topics include quadrature, interpolation, curve fitting, and the solution of nonlinear equations. Error analysis is made whenever feasible. Prerequisites: CS 140 or 180 and MATH 152 (may be taken concurrently). *Spring, even years*

**MATH 265 MATHEMATICAL MODELING**

The use of undergraduate mathematics to obtain a solution to realistic problems in areas such as economics, social science, engineering, and operations research. The course focuses on the development of mathematical models and the model building process. Pre- or corequisite: MATH 151. *Spring*

**MATH 275 GEOMETRY FOR K-9 TEACHERS**

An introduction to geometry for the elementary / middle school curriculum. Emphasis on proof techniques and content areas of Euclidean and non-Euclidean topics. Prerequisite: MATH 172 or MATH 151. *Spring*

**MATH 290 SPECIAL TOPICS**

*1-3 credits*

Topics from pure or applied mathematics. Prerequisite: permission of instructor.

**MATH 294 COOPERATIVE EDUCATION**

*1-6 credits*

Introductory work-learning experience related to career interests, for which compensation may be received. Place-ments arranged and supervised by Cooperative Education with approval and evaluation by full-time faculty. Elective credit only (normally 120 hours/credit) to maximum of 12

credits per degree program. Prerequisites: 24 total credits earned, 2.0 cumulative GPA, and permission of instructor. Graded Pass/Fail.

**MATH 298 INDEPENDENT STUDY**

*1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent is required from the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

**MATH 310 HISTORY OF MATHEMATICS**

Analyzes the development of various branches of mathematics from ancient times through calculus of 17th-century Europe. Addresses the influences of different cultures on mathematics. Algebra, trigonometry, plane geometry, and calculus are used to understand mathematical developments. Prerequisites: MATH 151 and either MATH 275 or MATH 251. *Fall*

**MATH 320 GEOMETRY**

Postulational treatment of Euclidean geometry. Incidence geometry, distance function and congruence, separation, convexity, angular measure, geometric inequalities, and synthetic geometry. Discussion of some non-Euclid geometrics. Prerequisite: C or higher grade in MATH 225. *Fall*

**MATH 331 MODERN ALGEBRA**

Basic concepts of groups, rings, and fields. Prerequisite: C or higher grade in MATH 225. *Fall*

**MATH 337 NUMBER THEORY**

Properties of the integers: multiplicative structure, divisibility; mathematical induction, division algorithm, greatest common divisor, least common multiple, fundamental theorem of arithmetic, and congruence arithmetic. Applications (e.g. Fermat's Last Theorem) if time permits. Prerequisite: C or higher grade in MATH 225. *Spring, odd years*

**MATH 341 MATHEMATICAL PROBABILITY**

Discrete sample spaces, combinatorics, postulates, and elementary theorems of probability; random variables, and probability distributions; continuous random variables, densities, expectation, moments, and moment generating functions; sums of random variables and the central limit theorem. Prerequisite: MATH 251. *Fall*

**MATH 342 MATHEMATICAL STATISTICS**

Sampling distributions, sampling from a normal population, point estimation, and the method of maximum likelihood. Also includes confidence intervals, hypothesis testing, regression, correlation, and analysis of variance. Prerequisite: MATH 341. *Spring*

**MATH 351 INTERMEDIATE ANALYSIS**

A rigorous presentation of functions of one variable: limit, continuity, derivative, and Riemann integral. Prerequisites: MATH 251 and C or higher grade in MATH 225. *Spring*

**MATH 361 DIFFERENTIAL EQUATIONS**

Introduction to differential equations of all orders, and methods of finding exact and approximate solutions. Appropriate ap-

plications and Laplace transforms are discussed. Prerequisite: MATH 251; PHYS 241 recommended. *Spring*

### **MATH 371 MATH CONCEPTS FOR THE MIDDLE SCHOOL**

Focuses on the use in the middle school of statistics, discrete mathematics, set theory, number theory, and probability to obtain solutions to realistic problems, and on the teaching of algebra through physical models. Prerequisites: MATH 141, MATH 225, MATH 235, and MATH 275. *Spring*

### **MATH 453 COMPLEX VARIABLES**

The algebra, geometry, and calculus of functions of a complex variable. Analytic functions, Taylor and Laurent series, and integration in the complex plane. Prerequisite: MATH 251. *Fall, even years*

### **MATH 468 INTRODUCTION TO APPLIED MATH**

Introduction to selected topics, such as Fourier series, vector analysis, special functions, and partial differential equations. Prerequisite: MATH 361. *Fall, odd years*

### **MATH 475 ISSUES AND TRENDS IN MATH EDUCATION**

Analyzes the development of historical, mathematical, and psychological factors influencing K-16 mathematics curricula. Emphasis is on the content of Mathematics and its interface with current major issues in Mathematics education. Pre- or corequisite: MATH 310. *Fall*

### **MATH 490 ADVANCED SPECIAL TOPICS**

Topics from fields in pure and applied Mathematics. Prerequisite: permission of instructor.

### **MATH 494 ADVANCED COOPERATIVE EDUCATION**

*1-6 credits*

Sequential work-learning experience for which compensation may be received. Placements arranged and supervised by Cooperative Education with approval and evaluation by full-time faculty. Elective credit (normally 120 hours/credit) to maximum of 12 credits per degree program. Prerequisites: MATH 294, 2.0 cumulative GPA, Declaration of Major, and permission of instructor. May be repeated for credit. Graded Pass/Fail.

### **MATH 498 INDEPENDENT STUDY**

*1-6 credits*

Individual investigation of selected topics. May be repeated to a total of 6 credits. Prerequisite: permission of instructor.

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## **Meteorology**

### **MET 225 METEOROLOGY**

Measurement and discussion of temperature, pressure, humidity, precipitation and wind. The atmosphere, solar influence, gas laws, and layer stability. Study of horizontal motion, circulation of the atmosphere, fronts, and analysis of weather maps. *Fall, Spring*

### **MET 298 INDEPENDENT STUDY**

*1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent is required from the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

### **MET 498 INDEPENDENT STUDY**

*1-6 credits*

Independent study under faculty supervision of a problem in an area of individual interest. Initiative and self-direction required. May be repeated to a total of 6 credits. Prerequisite: Permission of instructor.

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## **Modern Languages**

### **ML 101 THE WORLD OF LANGUAGE**

An introduction to the concept of language. Topics include verbal and non-verbal communication, machine language, taboos, sexist language, language acquisition, and the specialized language of politicians, scientists, and the media. Students become familiar with current linguistic research. *Spring*

### **ML 191 BEGINNING LANGUAGE I**

Introduction to communication in a foreign language other than French, German, or Spanish with emphasis on listening and speaking skills.

### **ML 192 BEGINNING LANGUAGE II**

Continuation of the study of a foreign language other than French, German, or Spanish. Continuation of the development of oral communication skills. Prerequisite: ML 191 or the equivalent in prior study of this particular language.

### **ML 290 SELECTED TOPICS**

Selected topics related to Modern Language study (e.g., Caribbean studies, the Franco-American experience, etc.). May be repeated as topics change. Occasionally.

### **ML 298 INDEPENDENT STUDY**

*1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent is required from the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

### **ML 498 INDEPENDENT STUDY**

*1-6 credits*

Independent study under faculty supervision of a problem in an area of individual interest. Initiative and self-direction required. May be repeated to a total of 6 credits. Prerequisite: Permission of instructor.



## Music

Courses in Music are of two basic types: general survey courses for all students (e.g., MU 103, 104, 212, 218) and specialized courses for the Music major or minor. Performing groups are open to all students by audition. Applied Music courses are open only to Music majors and minors. The Applied Music fee schedule is available in the Bursar's Office.

### MU 100 MUSIC WORKSHOP

*No credit*

Includes such musical activities as meetings, recitals, concerts, small ensemble performances, master classes, and guest lectures. Must be scheduled each semester by all full-time students in the Bachelor of Music degree programs, except during the student teaching semester. *Fall, Spring*

### MU 101-102 APPLIED MUSIC

*1, 2, or 4 credits each*

Individual instruction consisting of twelve 50-minute lessons (for 2 or 4 credits) or twelve 25-minute lessons (for 1 credit) on an instrument or in voice. Only Performance majors may take this course for 4 credits. *Fall, Spring*

### MU 103 FUNDAMENTAL MUSIC SKILLS

*4 credits*

Study of concepts, skills, and techniques necessary to read and understand music. Not available for credit toward a Music major or minor. *Fall, Spring*

### MU 104 INTRODUCTION TO MUSIC MASTERWORKS

Analytical and critical listening to music of various historical periods. Not available for credit toward a Music major or minor. *Fall, Spring*

### MU 105 VOICE CLASS

*1 credit*

Emphasizes the development and improvement of proper vocal techniques for those with little or no vocal training. Helps non-Music majors with a variety of interests in singing. *Fall, Spring*

### MU 108 PIANO CLASS I

*2 credits*

For students with little or no previous study of a keyboard instrument. Instruction takes place in a digital piano laboratory and emphasizes the development of music reading and playing skills for lifetime enjoyment. Designed for non-music majors/minors. *Fall, Spring*

### MU 109 PIANO CLASS II

*2 credits*

Continuation of MU 108. Development of previous experience at the keyboard. Emphasis on studying and playing easy, original keyboard music. Digital piano lab allows for individual level and pace. Designed for non-music majors/minors. Prerequisite: MU 108 with grade of C or better, or by audition and permission of instructor. *Spring*

### MU 110 GUITAR CLASS

*1 credit*

Introductory study of the guitar. Emphasis on development of music reading skills, basic chording, plectrum and finger picking techniques, and single-line melodic playing in the first position.

### MU 112 LATIN AMERICAN MUSIC

An historical survey of Latin American folk and art music which emphasizes African, European, and Amerindian roots of representative styles. Students learn through readings, lectures, listening, and performance on indigenous instruments. Open to Music majors and non-majors. *Fall*

### MU 114 MUSIC CULTURES OF THE WORLD

A study of selected folkloric, popular and non-Western art music traditions and the respective impact they have had historically, socially and culturally. *Fall, Spring*

### MU 115 WOMEN IN MUSIC

Study of women composers, teachers, performers, and patrons. Includes a chronological survey of the issues that influence women's musical contributions. Open to Music majors and non-majors. *Spring*

### MU 116 HISTORY OF ROCK & ROLL

Study of the growth and diffusion of popular music and its surrounding culture in the '50s and '60s, including concurrent historical events and movements, as well as trends in other arts. *Fall, Spring*

### MU 118 FUNCTIONAL PIANO I

*2 credits*

For Music majors and minors with limited piano background. Emphasis on keyboard fundamentals and reading keyboard (grand staff) music. Preparation for the required departmental piano skills test. Instruction takes place in a digital piano laboratory. Prerequisites: Music major or minor status and achievement of skills comparable to MU 131 Basic Theory. *Fall, Spring*

### MU 119 FUNCTIONAL PIANO II

*2 credits*

Continuation of MU 118. More advanced study and development of keyboard technique and performance. Focus on accumulation of repertoire and skills necessary for successful completion of departmental piano skills test. May be repeated once for credit, with study of additional repertoire. Prerequisite: MU 118 with grade of C or better, or by audition and permission of instructor. *Fall, Spring*

### MU 131 BASIC THEORY

For Music majors and minors with limited background in theory. Emphasis on music notation, rhythmic values, scales, intervals, triads, and interpretive principles. Includes sight singing and dictation. Does not count toward Music major or minor. *Fall*

### MU 151 MUSIC THEORY I

*2 credits*

Rudiments (basic terms, key signatures, scales and modes, triads), cadences, and basics of four-part harmonic writing

using all root position chords. Prerequisite: Skill level comparable to completion of MU 131 with grade of C or better, determined through advisement and/or testing; or permission of instructor. *Fall, Spring*

### **MU 152 MUSIC THEORY II**

*2 credits*

Dominant seventh and nondominant seventh chords. Part-writing using root position and first inversion chords. Completion of figured bases and harmonizing a simple melody. Prerequisite: MU 151 with a grade of C or better, or permission of instructor. *Fall, Spring*

### **MU 161 AURAL SKILLS I**

*1 credit (meets 2 hours weekly)*

Aural dictation skills including consonant intervals, major and minor triads, progressions of primary major chords in root position, and basic rhythms in simple meter. Sight-singing of major-key diatonic melodies, major scale. Prerequisite: MU 131 with a grade of C or better, or permission of the instructor. *Fall, Spring*

### **MU 162 AURAL SKILLS II**

*1 credit (meets 2 hours weekly)*

Aural dictation skills including consonant and dissonant intervals, diminished and augmented triads, progressions of primary major chords and minor chords. Rhythmic dictation in simple meters with sixteenth notes, with introduction to compound meter. Sight-singing of major- and minor-key diatonic melodies and scales. Prerequisite: MU 161 with a grade of C or better, or permission of the instructor. *Fall, Spring*

### **MU 171-178 MUSIC ENSEMBLES**

*1 credit each; may be repeated*

#### **171 Chamber Ensemble**

Open by audition to a limited number of students. Performance of traditional and/or contemporary chamber works in various ensembles. *Fall, Spring*

#### **172 KSC Concert Choir**

Open by audition to any student with adequate singing ability, within limits of balance of voices. *Fall, Spring*

#### **173 KSC Chamber Singers**

Open to a limited number of singers selected by audition. *Fall, Spring*

#### **174 Orchestra**

Open to any student with adequate playing ability, within limits of balanced instrumentation. *Fall, Spring*

#### **175 Jazz Ensemble**

Open by audition to a limited number of players. A select group specializing in jazz of various periods. *Fall, Spring*

#### **177 Concert Band**

Open by audition to any student with adequate playing ability, within limits of balanced instrumentation. *Fall, Spring*

#### **178 Guitar Orchestra**

A performing group composed of various sizes of classical guitars, specializing in the performance of works for multiple guitars. Audition required. *Fall, Spring*

### **MU 181 ACCOMPANYING**

*1 credit*

Pianists are guided through the characteristics of appropriate collaborative performance practices in both vocal and instrumental accompanying. Open by audition. *Fall, Spring*

### **MU 201-202 APPLIED MUSIC**

*1, 2 or 4 credits each*

Individual instruction consisting of twelve 50-minute (for 2 or 4 credits) or twelve 25-minute lessons (for 1 credit) on an instrument or in voice. Only Performance majors may take Applied Music for 4 credits. *Fall, Spring*

### **MU 207 TEACHING MUSIC TO CHILDREN**

Music teaching techniques needed by teachers in the early childhood and elementary classroom. Develops skills in singing, listening, creating, and playing classroom instruments. Not available for credit toward a Music major or minor, except in the BA Music with specialization of Music for the Elementary Teacher. Must be able to read simple treble clef music. *Fall, Spring*

### **MU 211 INTRO TO ELECTRONIC MUSIC**

*2 credits*

An introduction to the techniques of electronic music through hands-on experience and historical survey. Includes studio/MIDI setup; synthesizer operation; sequencing; and audio file manipulation using the Macintosh operating system. Also includes listening to examples of electronic music. Prerequisites: computer literacy and MU 152, or permission of instructor. *Fall, even years*

### **MU 212 MUSIC IN AMERICA**

*3 credits*

American music from the time of the early settlement to the present. Includes popular, folk, and art music traditions and developments; musical theatre; and jazz. Prerequisite: ENG 101. *Fall, even years*

### **MU 213 COMPOSITION CLASS I**

*2 credits*

Preliminary study of the process of musical composition in a classroom setting. Includes the effective use of counterpoint; listening to examples from the standard literature; composing works for solo instrument or chamber groups. Prerequisite: MU 152 or permission of instructor. *Fall*

### **MU 214 COMPOSITION CLASS II**

*2 credits*

Continuation of MU 213. More advanced work with counterpoint techniques. Additional literature review. Composing for a wider variety of instruments or voice. Prerequisite: MU 213. *Spring*

### **MU 218 THE HISTORY OF JAZZ**

Jazz from its origins through modern developments. Ethnic backgrounds, contributing factors, style characteristics, and interrelationships, literature, and performers. *Fall, Spring*

### **MU 220 TECHNOLOGY FOR MUSIC EDUCATORS**

An introduction to music technology and its relationship to music education. Topics are based on the areas of competency

in music technology for K-12 music teachers established by the Technology Institute for Music Educators. Prerequisites: Music Education major, sophomore standing. *Fall, Spring*

## **MU 222 MUSICAL IMPROVISATION**

*1 credit*

Within the elements of rhythm, melody, harmony, timbre and form, this course will provide a foundation for developing extemporaneous musical skills useful in performance and teaching. *Fall, Spring*

## **MU 223 STRING METHODS I**

*1 credit*

Class instruction in string performance, pedagogy, methods, materials, and basic instrument maintenance. Two instruments are studied. Prerequisite: Music major or permission of instructor. Meets first half of semester only. *Spring*

## **MU 224 STRING METHODS II**

*1 credit*

Continuation of MU 223. Additional stringed instruments are studied. Prerequisite: MU 223. Meets second half of semester only. *Spring*

## **MU 225 BRASS METHODS I**

*1 credit*

Class instruction in brass performance, pedagogy, methods, materials, and basic maintenance. Two brass instruments are studied. Prerequisite: Music major or permission of instructor. Meets first half of the semester only. *Fall*

## **MU 226 BRASS METHODS II**

*1 credit*

Two additional brass instruments are studied. Prerequisites: MU 225 and major in Music. Meets second half of the semester only. *Fall*

## **MU 227 WOODWIND METHODS I**

*1 credit*

Class instruction in woodwind performance, pedagogy, methods, materials, and basic maintenance. One woodwind instrument will be studied. Prerequisite: Music major or permission of instructor. Meets first half of the semester only. *Spring*

## **MU 228 WOODWIND METHODS II**

*1 credit*

Continuation of MU 227. One additional woodwind instrument will be studied. Prerequisites: MU 227 and major in Music. Meets second half of the semester only. *Spring*

## **MU 229 PERCUSSION METHODS I**

*1 credit*

Class instruction in percussion performance, pedagogy, methods, materials, and basic instrument maintenance. Prerequisite: Music major or permission of instructor. Meets first half of semester only. *Fall*

## **MU 230 PERCUSSION METHODS II**

*1 credit*

Continuation of MU 229. Prerequisite: MU 229. Meets second half of semester only. *Fall*

## **MU 231 GUITAR METHODS**

*2 credits*

Class instruction in basic guitar skills, emphasizing application in classroom teaching situations at the elementary and junior high levels, methods and materials, and basic instrument maintenance. *Spring*

## **MU 235 PERFORMANCE LITERATURE**

*2 credits*

Sections offered in piano and guitar literature. Treats performance literature from all periods. Classes include performance of examples with coaching in stylistic interpretation. *Piano: spring, even years. Guitar: spring, odd years*

## **MU 237 VOCAL PEDAGOGY**

Physiology of the vocal mechanism, methods and materials for teaching voice and Italian diction for singing using the International Phonetic Alphabet. Students are required to teach a beginning voice student in class with supervision by the instructor. Prerequisite: One year of applied vocal study or permission of instructor. *Fall, odd years*

## **MU 238 VOCAL DICTION AND LITERATURE**

German, French, and English diction for singers using the International Phonetic Alphabet. It applies this knowledge to the study and performance of vocal literature from the various historical periods. Prerequisite: One year of applied vocal study, or permission of instructor. *Fall, even years*

## **MU 251 MUSIC THEORY III**

*2 credits*

Part-writing using second inversion chords, deceptive cadence, analysis of Bach chorales and 18th to early 19th century piano music; secondary dominants and diatonic modulation. Principles of binary and ternary form. Prerequisite: MU 152 with a grade of C or better, or permission of the instructor. *Fall, Spring*

## **MU 252 MUSIC THEORY IV**

*2 credits*

Chromatic chords (Augmented Sixths, Neapolitan, secondary diminished sevenths). Chromatic modulation. Analysis of mid- to late nineteenth century music. An introduction to 9th, 11th, and 13th chords as used by Impressionist and Jazz composers. Prerequisite: MU 251 with grade of C or better, or permission of the instructor. *Fall, Spring*

## **MU 261 AURAL SKILLS III**

*1 credit (meets 2 hours weekly)*

Aural dictation skills including dominant seventh chords, progressions including major, minor and diminished chords and inversions. Rhythmic dictation in compound meters. Sight-singing of more difficult tonal melodies, use of C clefs. Prerequisite: MU 162 with a grade of C or better, or permission of the instructor. *Fall, Spring*

## **MU 262 AURAL SKILLS IV**

*1 credit (meets 2 hours weekly)*

Aural dictation skills including chromatic chord progressions. Rhythmic dictation including dotted rhythms, triplets, and some syncopation. Sight-singing of chromatic and modulating melodies. Prerequisite: MU 261 with a grade of C or better, or permission of the instructor. *Fall, Spring*

**MU 270 OPERA WORKSHOP***1 credit*

Opera excerpts are studied and performed. Complete operas are also studied – composers, plots, and characters.

**MU 290 SPECIAL TOPICS IN MUSIC***1-3 credits*

Study of selected topics in music. May be repeated as topics change. Prerequisite: permission of instructor.

**MU 298 INDEPENDENT STUDY***1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent is required from the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

**MU 301-302 APPLIED MUSIC***1, 2, or 4 credits each*

Individual instruction consisting of twelve 50-minute (for 2 or 4 credits) or twelve 25-minute lessons (for 1 credit) on an instrument or in voice. Only Performance majors may take Applied Music for 4 credits. MU 302 may be repeated by Music Education majors. *Fall, Spring*

**MU 310 WESTERN MUSIC BEFORE 1750**

A survey of Western art music traditions during the Medieval, Renaissance, and Baroque periods. Emphasis on the development of musical style. Prerequisite: MU 152. *Fall*

**MU 312 WESTERN MUSIC AFTER 1750**

A chronological survey of music from the Baroque Period to the present day. Emphasis on the development of musical style. Prerequisite: MU 152. *Spring*

**MU 315 CONDUCTING I***2 credits*

Basic conducting techniques, experience in score reading, baton technique, and interpretation. Prerequisite: MU 152, or permission of instructor. *Fall*

**MU 316 CONDUCTING II***2 credits*

Sequel to MU 315. More advanced conducting techniques used in both instrumental and choral ensembles. Prerequisite: MU 315 with a grade of C or better. *Spring*

**MU 326 APPLIED PEDAGOGY***2 credits*

Directed study of materials and approaches to studio teaching of one's primary applied instrument to students of all ages, beginning to advanced. Includes readings and observations of other teachers as assigned. May be repeated once for credit. Prerequisite: one year of applied music study on primary instrument and permission of instructor. *Piano: fall, even years. Guitar: spring, even years*

**MU 357 GENERAL MUSIC K-12***4 credits*

Planning, teaching, and assessing general music lessons (K-12) in accordance with the National Music Standards. Implementa-

tion of Orff and Kodaly pedagogies including keyboard skills, singing, playing classroom instruments, solfege, and Curwin hand signs. Classroom observations and field teaching required. Prerequisite: Completion of piano skills test.

**MU 358 CHORAL MUSIC EDUCATION***2 credits*

Principles, techniques, and materials for developing and administering a complete school choral program. Literature for large and small vocal ensembles surveyed. Observations and field teaching experience in choral setting required. Prerequisites: Admission to Teacher Education and MU 355, or permission of instructor. *Spring*

**MU 360 INSTRUMENTAL MUSIC EDUCATION***2 credits*

Principles, techniques, organization, and materials for developing and administering a complete school instrumental program. Includes sources and criteria for selection of repertoire. Observations of school music programs are stressed. Prerequisites: Admission to Teacher Education and MU 225 and 227 or equivalent, or permission of instructor. *Spring*

**MU 401 APPLIED MUSIC***1, 2, or 4 credits*

Individual instruction consisting of twelve 50-minute lessons (for 2 or 4 credits) or twelve 25-minute lessons (for 1 credit) on an instrument or in voice. Successful completion of recital requirements is necessary for passing grade in this course. Only Performance majors may take Applied Music for 4 credits. *Fall, Spring*

**MU 404 ANALYTICAL TECHNIQUES IN MUSIC***2 credits*

Formal analysis of representative examples of music literature. Emphasis is on the larger structural units of tonal composition. Prerequisite: MU 252. *Spring, odd years*

**MU 405 COUNTERPOINT***2 credits*

Contrapuntal techniques in music of the 16th and 18th centuries; survey of "species" counterpoint and the basics of canon, fugue, and invertible counterpoint. Prerequisite: MU 252. *Fall, odd years*

**MU 411 ELECTRONIC MUSIC PROJECTS***1 credit*

In this elective course, students will produce a music project that brings together their knowledge of an area in music with their acquired skills in electronic music. May be repeated for credit. Prerequisite: MU 211 or permission of instructor. *Fall, Spring*

**MU 414 APPLIED MUSIC***4 credits*

Individual instruction consisting of a one-hour private lesson per week on an instrument or voice. Successful completion of recital requirements is necessary for passing grade in this course. Open only to Performance majors. *Fall, Spring*

### **MU 419 PRACTICUM IN ENSEMBLE DIRECTING** 1-3 credits

Allows upper-division Music majors to participate as apprentices in performing groups. Students may be asked to assist in selection of literature, group logistics, rehearsal, and performance. Prerequisites: MU 315-316, an audition, and permission of instructor. *Fall, Spring*

### **MU 486 20TH CENTURY MUSIC**

Analytical study of representative works from late-19th-century Impressionism and post-Romanticism to today's music. Students apply theoretical and style-analytical knowledge to a small body of works and present a paper on a specific work of their choice, based on approaches learned in class. Prerequisite: permission of instructor. *Fall, odd years*

### **MU 497 INTERNSHIP IN MUSIC TECHNOLOGY** 1-4 credits

Supervised, contracted internship arranged by the student with an approved recording studio, or, in certain cases, with another compatible facility, for either a semester's work or summer employment. Contract must be approved by the music technology coordinator. Responsible faculty supervision and review required. Prerequisites: MU 211, MU 213, MU 214, and MU 411. *Fall, Spring*

### **MU 498 INDEPENDENT STUDY**

1-6 credits

Independent reading and study in a selected area of Music, conducted on a tutorial basis. Students must obtain approval of the supervising faculty member before registering. May be repeated for a total of 6 credits.

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## **Philosophy**

### **PHIL 100 LOGICAL ARGUMENTATION**

The art of correct reasoning, advanced by studying forms of argument. Emphasizes deductive arguments, both categorical and sentential, and informal fallacies. *Fall, Spring*

### **PHIL 200 PHILOSOPHY AND CRITICAL ANALYSIS**

Critical readings in works of the Greek, Medieval, and Modern periods of Western philosophy. Skills of analyzing, evaluating, and paraphrasing are nurtured and applied to philosophical arguments, classifications, definitions, explanations, and refutations. *Fall, Spring*

### **PHIL 211 SENSE AND NONSENSE**

Inductive reasoning approached through the study of modern pseudoscientific writings on topics such as extraterrestrial visitors, the Bermuda Triangle, astrology, and psi. Emphasizes criteria for acceptable hypotheses, controls for observation and experiment, and guards against neglect of evidence. *Alternate semesters*

### **PHIL 220 ETHICS**

From a preliminary analysis of the nature and function of ethics, the course proceeds to examine contemporary ethical

problems, such as abortion, sexual morality, and criminal punishment. Also examines some theoretical issues, such as egoism, relativism, and moral freedom. *Spring*

### **PHIL 231 COMPARATIVE RELIGION I**

A philosophical introduction to many of the world's religions including Hinduism, Jainism, Judaism, Islam, and Confucianism. Investigates the differing aspects of human religious experience and examines the similarities and differences both between religions and among the denominations within them. *Fall, alternate years*

### **PHIL 232 COMPARATIVE RELIGION II**

A philosophical introduction to many of the world's religions including Sikhism, Buddhism, Christianity, Taoism, and Shintoism. Investigates the differing aspects of human religious experience and examines the similarities and differences both between religions and among the denominations within them. *Spring, alternate years*

### **PHIL 298 INDEPENDENT STUDY**

1-6 credits

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent required of the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

### **PHIL 300 ANCIENT PHILOSOPHY**

An examination of Western philosophy among the Greeks and Romans, from Thales through Plotinus. Reading and discussion of primary sources. Prerequisite: one course in Philosophy or permission of instructor. *Alternate years*

### **PHIL 301 MEDIEVAL AND RENAISSANCE PHILOSOPHY**

An examination of Western philosophy from Augustine through Francis Bacon. Reading and discussion of primary sources, accompanied by written exercises. Prerequisite: one course in Philosophy, or permission of instructor. *Alternate years*

### **PHIL 302 MODERN PHILOSOPHY**

An examination of Western philosophy from the 17th to early 19th century. Major attention is paid to the continental rationalists, the British empiricists, and Kant. Prerequisite: one course in Philosophy or permission of instructor. *Alternate years*

### **PHIL 304 AMERICAN PHILOSOPHY**

A critical study of American Pragmatism, its critique of earlier Modern philosophy, and its appropriation of evolutionary theory. Prerequisite: one course in Philosophy or permission of instructor. *Alternate years*

### **PHIL 306 EXISTENTIALISM**

Reading and discussion of some philosophic writings of Nietzsche and other thinkers, such as Kierkegaard, Heidegger, Jaspers, Camus, and Sartre. Attempts to isolate and evaluate typical existentialist themes and to contrast them with non-existentialist themes. Prerequisite: one course in Philosophy or permission of instructor. *Fall, alternate years*

**PHIL 308 CONTEMPORARY PHILOSOPHY**

An examination of 20th-century Anglo-American and continental thought, including analytic philosophy, phenomenology, logical positivism, hermeneutics, ordinary language philosophy, existentialism, structuralism, and deconstructionism. Attention is given to influential theorists such as Russell, Husserl, Wittgenstein, Heidegger, Quine, Sartre, and Derrida. Prerequisite: one course in Philosophy or permission of instructor. *Occasionally*

**PHIL 313 PHILOSOPHY AND THE HOLOCAUST**

This course examines ethical, philosophical, and theological issues relating to the experience of the Holocaust and the broader human concerns of evil and suffering. Topics include the uniqueness and universality of the Holocaust as well as questions of justice. Prerequisite: one course in Philosophy and either HIST 252 or HIST 253, or permission of instructor. *Once every three years*

**PHIL 322 MEDIA ETHICS**

Teaching and practice in ethics with use of case studies. Students are taught that information in journalism is a social good, not merely a commodity, and that the journalist shares responsibility for what is transmitted to the public. Prerequisites: JRN 200 or PHIL 220, or permission of instructor. Cross-listed as JRN 322. *Spring*

**PHIL 350 AESTHETICS**

A philosophic introduction to a variety of influential theories of art in areas as diverse as literature, dance, and film. Examination of the role of the creative process in human experience as perceived by philosophers from Plato to Derrida. Prerequisite: one course in Philosophy, or FILM 270, or permission of instructor. *Fall*

**PHIL 358 HISTORY AND PHILOSOPHY OF SCIENCE: 1700 TO PRESENT**

Examines the development of scientific thought and philosophy of science from the Scientific Revolution to the present. Prerequisites: 6 credits of science course work or permission of instructor. Cross-listed as HIST 358.

**PHIL 360 PHILOSOPHY OF LAW**

Examines questions in the area of the philosophy of law including discussions of the appropriate roles of liberty, justice, and responsibility in a society that reconciles a respect for the individual with the need for legitimate governmental authority. Prerequisite: one course in Philosophy or permission of instructor. *Spring, alternate years*

**PHIL 390 PHILOSOPHICAL MASTERS: [PHILOSOPHER]**

Concentrated study of works of a single philosopher. Primary readings are complemented by secondary readings that sample a range of interpretations and by examination of some historical influences both within and without philosophy. Repeatable for credit as topics change. Prerequisite: one course in Philosophy or permission of instructor. *Occasionally*

**PHIL 393 TOPICS IN HISTORY OF IDEAS**

Examines a selected topic in intellectual history, cultural history, or history of philosophy. Readings are drawn from primary

sources. May be repeated as topics change. Prerequisite: one course in History or permission of instructor. Cross-listed as HIST 393.

**PHIL 406 EXISTENTIALISM AND FILM**

The success of many films derives not only from their entertaining qualities but also from existential themes. Philosophical perspectives are applied to the films of directors such as Woody Allen and Alfred Hitchcock. Prerequisite: PHIL 306. *Spring, alternate years*

**PHIL 490 ADVANCED SPECIAL TOPICS**

Examines a selected topic, or the works of one or two major thinkers at an advanced level. May be repeated as topics change. Prerequisite: one course in Philosophy or permission of instructor. *Occasionally*

**PHIL 498 INDEPENDENT STUDY**

*1-6 credits*

Independent reading and study in a selected area of philosophy, conducted on a tutorial basis. Students must obtain approval of the supervising faculty member before registering. May be repeated for a total of 6 credits. *Occasionally*

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## Physical Education

**PE 100 FOUNDATIONS OF PHYSICAL EDUCATION**

Reviews the basic foundations of human muscular movement, including the historical, philosophical, kinesiological, physiological, sociological, and psychological components of the discipline. Also clarifies occupational options and requirements. This course is designed for students who intend to major in Physical Education. *Fall*

**PE 101 HEALTH AND WELLNESS: TRENDS AND ISSUES**

Covers the basic factual information in the various content areas of health education. This course is designed for students who intend to major in Physical Education. Cross-listed as HLSC 101. *Fall, Spring*

**PE 140 ORIENTATION TO ATHLETIC TRAINING**  
*1 credit*

Orientation to Athletic Training as a career choice. Development of basic skills and knowledge needed to work in an athletic training environment. Must be taken concurrently with application to the Athletic Training Program. *Fall*

**PE 150-199 SPORT AND LEISURE ACTIVITIES**

*1 credit each (2 credits as noted)*

Each course provides an opportunity for students to acquire basic knowledge, skills, and techniques in a sport or leisure activity. Designed for non-PE majors. Graded Pass/Fail.

**PE 150-155 AQUATICS**

150 Beginning Swimming. *Fall*

152 Aquatics Conditioning. *Fall*

154 Lifeguard Training. Note: Candidates must pass a swim-

ming competency test given on the first day of class. *2 credits Fall, Spring*

155 Water Safety Instructor. Note: Candidates must pass a written water safety exam and a swimming competency test on the first day of class. *2 credits Spring*

### **PE 160-164 PHYSICAL CONDITIONING**

161 Strength Training. *Fall, Spring*

162 Tension Control. *Fall, Spring*

### **PE 175-184 INDIVIDUAL/DUAL SPORTS**

177 Golf. *Fall*

181 Tennis. *Fall*

### **PE 185-190 TEAM SPORTS**

185 Volleyball. *Fall, 1st quarter*

186 Basketball. *Spring, 4th quarter*

### **PE 191 ARC STANDARD FIRST AID/CPR**

*1 credit*

First aid and adult CPR procedures with emphasis on practices endorsed by the American Red Cross for standard first aid certification. *Fall, Spring*

### **PE 200 APPLIED KINESIOLOGY**

Study of the skeletal and muscular systems as applied to physical education activities. Mechanical analysis of basic motor patterns and sport skills. Prerequisites: BIO 230, BIO 231, BIO 232, and BIO 233, or permission of instructor. *Fall, Spring*

### **PE 201 PHYSIOLOGY OF EXERCISE**

A study of the nervous, circulatory, and respiratory systems, with reference to immediate and long-range effects of activity and exercise on the human body. Prerequisites: BIO 230, BIO 231, BIO 232, and BIO 233, or permission of instructor. Cross-listed as HLSC 201. *Fall, Spring*

### **PE 210 INTRODUCTION TO COACHING**

Course is designed as an introduction to coaching. Topics covered include developing a personal coaching philosophy, planning for coaching, conditioning for sport participation, effective teaching of sport skills, sport psychology, legal responsibilities, and nutrition for competition. Not open to students who have completed PE 310. *Spring*

### **PE 240 ADVANCED FIRST AID**

Emergency response and CPR for the professional rescuer as established by the American Red Cross. Emphasis is on the skills and knowledge necessary for the planning and supervision of sports programs. Prerequisite: PE major or permission of instructor. *Fall, Spring*

### **PE 241-289 MAJOR SKILLS AND TECHNIQUES**

*1 credit each (2 credits as noted)*

### **PE 241 MECHANICS OF TAPING TECHNIQUES**

*1 credit*

Taping and wrapping for the prevention and protection of sports injuries. Bio-mechanical concepts of application techniques for modern adhesive tapes and orthopedic braces. Prerequisite: PE major with Athletic Training Option or permission of instructor. *Spring*

### **PE 243 RESISTANCE TRAINING PROGRAMS**

*1 credit*

Basic concepts of physical conditioning to prevent sports injuries. Muscle physiology, strength training, seasonal modifications, effects of overtraining, and use of isotonic and isokinetic equipment. Prerequisite: PE major or permission of instructor. *Fall*

### **PE 246 CLINICAL PALPATION**

*1 credit*

Theory and techniques of palpation for athletic trainers, including the identification of surface anatomy and the clinical application to the evaluation of sports injuries. Prerequisite: PE major with Athletic Training Option, or permission of instructor. *Fall*

### **PE 255 DEVELOPMENTAL MOVEMENT**

*2 credits*

Develops skill and knowledge to perform and teach fundamental motor skills. Teaching emphasis on skill practice, feedback, skill application, and incorporating cognitive objectives. Prerequisite: PE major with Teacher Certification Option, or permission of instructor. *Fall*

### **PE 256 RHYTHMS**

*2 credits*

Develops skill and knowledge to perform and teach selected rhythmic activities. Teaching emphasis on cueing. Prerequisite: PE major with Teacher Certification Option, or permission of instructor. *Spring*

### **PE 260 TOTAL FITNESS**

*2 credits*

Develops skills and basic knowledge related to principles of physical fitness. Students will have opportunities to participate in various fitness activities. Teaching emphasis on leading warm-up. Prerequisite: PE major or permission of instructor. *Fall, Spring*

### **PE 261 FITNESS CURRICULUM FOR K-12 LEARNERS**

*1 credit*

Provides students with opportunities to plan health-related physical fitness curriculum for K-12 learners. Teaching emphasis is on designing learning experiences and activity demonstration/explanation with feedback. Prerequisites: PE 260, PE major with Teacher Certification Option, or permission of instructor. *Fall*

### **PE 265 SECONDARY ACTIVITIES**

*1 credit*

Develops skill and knowledge to perform and teach selected secondary activities. Teaching emphasis on game supervision including teachable moments, cueing, and incorporating affective (psychosocial) objectives. Prerequisite: PE major with Teacher Certification Option, or permission of instructor. *Fall*

### **PE 268 OUTDOOR SKILLS**

*1 credit*

Provides students with basic knowledge and introductory experiences in outdoor leisure activities that would be appropriate to be

taught in a physical education setting. Emphasis is on learning to provide safe outdoor experiences for physical education students. Prerequisite: PE major with Teacher Certification Option, or permission of instructor. *Spring*

### **PE 278 RACQUET SPORTS**

*2 credits*

Develops skill and knowledge to perform and teach selected racquet sports. Teaching emphasis on skill practice and group feedback. Prerequisite: PE major with Teacher Certification Option, or permission of instructor. *Spring*

### **PE 282 TRACK AND FIELD**

*1 credit*

Develops skill and knowledge to perform and teach track and field. Teaching emphasis is on leading warm-up and skill review and practice with feedback. Prerequisite: PE major with Teacher Certification Option, or permission of instructor. *Fall*

### **PE 283 GYMNASTICS**

*2 credits*

Develops skill and knowledge to perform and teach gymnastics. Teaching emphasis on leading warm-up, skill review and practice with feedback, and incorporating cognitive and affective goals. Prerequisite: PE major with Teacher Certification Option, or permission of instructor. *Spring*

### **PE 285 VOLLEYBALL**

*1 credit*

Develops skill and knowledge to perform and teach volleyball. Teaching emphasis on skill review and individual and group feedback. Prerequisite: PE major with Teacher Certification Option, or permission of instructor. *Spring*

### **PE 286 BASKETBALL**

*1 credit*

Develops skill and knowledge to perform and teach basketball. Teaching emphasis on skill practice, individual feedback, and officiating. Prerequisite: PE major with Teacher Certification Option, or permission of instructor. *Spring*

### **PE 287 SOFTBALL**

*1 credit*

Develops skill and knowledge to perform and teach softball. Teaching emphasis on skill review and practice with feedback. Prerequisite: PE major with Teacher Certification Option, or permission of instructor. *Fall*

### **PE 288 SOCCER/SPEEDBALL**

*1 credit*

Develops skill and knowledge to perform and teach soccer and speedball. Teaching emphasis on skill demonstration/explanation. Prerequisite: PE major with Teacher Certification Option, or permission of instructor. *Fall*

### **PE 290 SPECIAL TOPICS**

Study of a selected topic in physical education. May be repeated as topics change. Prerequisite: PE major, or permission of instructor. *Fall, Spring*

### **PE 298 INDEPENDENT STUDY**

*1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent required of the instructor who will supervise the independent study. Repeatable to a total of 6 credits. *Fall, Spring*

### **PE 340 ATHLETIC TRAINING I**

An introduction to the primary mechanisms of sports injuries, the techniques of injury prevention, and the role of the Athletic Trainer in the care and prevention of injuries in sports programs. Prerequisites: PE 240 and PE major, or permission of instructor. *Fall*

### **PE 341 TECHNIQUES OF MANUAL TESTING**

Theory and techniques of manual testing including goniometric range of motion and muscle function testing. Clinical applications for the use of manual testing as an adjunct for the prevention, treatment, and rehabilitation of sports injuries. Prerequisites: PE 200 and PE Major with Athletic Training Option, or permission of instructor. *Spring*

### **PE 342 THERAPEUTIC MODALITIES**

Provides knowledge and skills in the application of therapeutic modalities used in the treatment of sports injuries including indications and contraindications. Examines the role of pharmacological agents prescribed for the treatment of sports injuries. Prerequisites: PE 240, 340 and PE major with Athletic Training Option, or permission of instructor. *Spring*

### **PE 343 CLINICAL EXERCISE THERAPY**

Design and modification of rehabilitation protocols based on evaluation of structural and functional pathology, postural anomalies, and gait modification. Principles of conditioning program design as it relates to the prevention of sports injuries. Prerequisites: PE 200, 201, 243, and PE Major with Athletic Training Option, or permission of instructor. *Fall*

### **PE 344 SPORTS NUTRITION**

An introduction to Sports Nutrition including the digestion, absorption, and assimilation of food nutrients; bioenergetics in training; optimal nutrition for sports and exercise; thermoregulation and fluid balance; body composition, weight control, and disordered eating. Prerequisites: CHEM 100 or CHEM 103/107, PE 201, and PE major or permission of instructor. *Spring*

### **PE 360 TEACHING PHYSICAL EDUCATION**

Developmental characteristics and needs in relation to physical education and curriculum planning. Effective teaching skills including lesson/unit planning, execution, classroom management, interpersonal relationships, and professional role development. Prerequisites: ESEC 100, 150, 250 and PE major with Teacher Certification Option, or permission of instructor. *Spring*

### **PE 361 ADAPTED PHYSICAL EDUCATION**

Treats legal issues and the concept of inclusion as they apply to the physical educator. Motor and perceptual motor development, screening, and programming. Adaptation of



physical education activities to meet special needs of students. Prerequisites: PE 360 and PE major with Teacher Certification Option, or permission of instructor. *Fall*

### **PE 362 ADMINISTRATION OF PHYSICAL EDUCATION PROGRAMS**

The nature, philosophy, and process of administration, program and facility planning, staff relationships and responsibilities, scheduling of classes and intramurals, budgeting and purchasing of materials, public relations, and evaluations. Prerequisite: PE major with Teacher Certification Option, or permission of instructor. *Spring*

### **PE 371 PRACTICUM: COACHING**

*1-6 credits*

Provides an experience in coaching within a public school or recreational sport program designed to give the student an opportunity to plan, implement and evaluate selected activities such as practice sessions, conditioning programs, and game strategies. Maximum of 6 credits. Prerequisites: PE 210 and permission of instructor. *Fall, Spring*

### **PE 373 PRACTICUM: ATHLETIC TRAINING**

*1-6 credits*

Provides a supervised opportunity for the student to gain practical experience in the Athletic Training Program. Designed to introduce selected administrative tasks and to develop basic clinical skills associated with the treatment and rehabilitation of sports injuries. Prerequisite: PE major with Athletic Training Option, or permission of instructor. *Fall, Spring*

### **PE 375 PRACTICUM: TEACHING ELEMENTARY**

*1-6 credits*

Provides an opportunity for students to plan, teach, and evaluate Physical Education lessons and units at the elementary school level, apply knowledge of elementary school children, and understand the role of Physical Education within the school curriculum. Maximum of 6 credits. Prerequisites: PE 255, PE 360 (minimum grade of C), admission to the PE major with Teacher Certification Option, and admission to Teacher Education. Cannot be taken concurrently with PE 376. *Fall, Spring*

### **PE 376 PRACTICUM: TEACHING SECONDARY**

*1-6 credits*

Provides an opportunity for students to plan, implement, and evaluate secondary level Physical Education programs, gain knowledge of the school environment, and develop an understanding of the social and psychological dynamics experienced by novice teachers. Maximum of 6 credits. Prerequisites: PE 360 (minimum grade of C), admission to the PE major /Teacher Certification Option, and admission to Teacher Education. Cannot be taken concurrently with PE 375. *Fall, Spring*

### **PE 383 INTERNSHIP: ATHLETIC TRAINING**

*1-6 credits*

A supervised experience designed to develop decision-making skills in the application of athletic training principles and techniques. Maximum of 6 credits. Prerequisites: PE 240, PE 373 and PE Major with Athletic Training Option, or permission of instructor. Cannot be taken concurrently with participation in a varsity or club sport. *Fall, Spring*

### **PE 400 BIOMECHANICS**

Review of basic mechanical principles related to human movement. Application of these principles to everyday skills and to Physical Education activities. Prerequisite: PE 200, 201, or permission of instructor. *Fall*

### **PE 440 ATHLETIC TRAINING II**

Analysis of the inflammatory process and implications for treatment of sports injuries and the identification of signs, symptoms and pathology of common sports injuries. The evaluation process including history, observation, palpation, range of motion, joint stability, muscle function and special tests. Prerequisites: PE 242, 245, 340, 342, 383 and PE major with Athletic Training Option, or permission of instructor. *Fall*

### **PE 441 ATHLETIC TRAINING III**

Introduction to the neurological system and neurological assessment as basis for injury evaluation and treatment protocols. Develops skills and knowledge in manual therapy techniques such as proprioceptive neuromuscular facilitation, joint mobilization, and myofascial release. Examines pathology of disease process. Prerequisites: PE 340, 383, 440 and PE Major with Athletic Training Option or permission of instructor. *Spring*

### **PE 443 ADMINISTRATION OF ATHLETIC TRAINING**

Introduction to the managerial tasks and administrative issues essential to athletic training including successful management skills, staffing, financial resource management, information management, athletic injury insurance and legal considerations. Information on current sports medicine policies for national athletic governing organizations. Prerequisites: PE 340, PE 383, PE 440, and PE major with Athletic Training Option or permission of instructor. *Spring*

### **PE 460 MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION**

Introduction to the testing and evaluation needs of physical educators. Emphasizes practical methods and techniques for measurement and theories, statistics, and procedures for testing and evaluating. Prerequisite: PE major or permission of instructor. *Fall, Spring*

### **PE 473 ADVANCED PRACTICUM: ATHLETIC TRAINING**

*1-6 credits*

A supervised opportunity designed to provide the advanced student with an intensive experience in rehabilitation of sports injuries to refine decision-making skills in the application of theory to practical situations. Maximum of 6 credits. Prerequisites: PE 342, PE 440, PE 441, PE 483, and PE major with Athletic Training Option, or permission of instructor. Cannot be taken concurrently with participation in a varsity or club sport. *Fall, Spring*

### **PE 483 ADVANCED INTERNSHIP: ATHLETIC TRAINING**

*1-6 credits*

A supervised opportunity designed to provide the advanced student with an intensive experience in athletic training to

develop analytical decision making and refine clinical skills in the application of theory to practical situations. Maximum of 6 credits. Prerequisites: PE 340, PE 342, PE 373, PE 383, and PE major with Athletic Training Option, or permission of instructor. Cannot be taken concurrently with participation in a varsity or club sport. *Fall, Spring*

### **PE 490 ADVANCED SPECIAL TOPICS**

*1-6 credits*

Study of a selected topic in Physical Education at an advanced level. May be repeated as topics change. Prerequisite: PE major or permission of instructor. *Fall, Spring*

### **PE 493 EXTERNSHIP: ATHLETIC TRAINING**

*1-6 credits*

A supervised opportunity designed to provide the advanced student with an applicable exposure to career opportunities in an off-campus athletic training and/or clinical environment. Maximum of 6 credits. Prerequisite: Permission of Athletic Training Program director. Cannot be taken concurrently with participation in varsity or club sport. *Fall, Spring*

### **PE 495 SEMINAR**

Small group discussion of problems and issues in Physical Education. May be repeated as seminar topics change. Prerequisite: PE major or permission of instructor. *Spring*

### **PE 498 INDEPENDENT STUDY**

*1-6 credits*

Advanced independent study. The student completes a written research project under supervision of a PE faculty member who, in consultation with the dean of Professional and Graduate Studies, determines the credit value. Repeatable to a maximum of 6 credits. Prerequisites: PE major and permission of instructor. *Fall, Spring*

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## **Physics**

### **PHYS 100 PHYSICS FOR ALL SEASONS**

A conceptual introduction employing demonstrations and ability to relate to everyday phenomena associated with mechanics, energy, sound, light, heat, electricity, modern physics. Emphasizes physical phenomena encountered in real-life settings, such as physics of sports, bicycles, rainbows, etc. Topics arranged by seasons of the year. Not for credit toward a science major. *Fall*

### **PHYS 105 PHYSICS OF MUSIC**

Physical mechanisms for the production of sound in musical instruments; properties of sound waves and the acoustical environment; loudness, pitch, quality, scales, and harmony; sound perception, reproduction, and synthesis. A quantitative approach. 3 hours, including lab. *Occasionally*

### **PHYS 141 COLLEGE PHYSICS I**

*4 credits*

Algebra-based introduction to Newtonian mechanics. Emphasis on conceptual understanding and problem solving. Forces, motion, dynamics (linear, 2-D, and rotational), momentum,

energy, and conservation laws; fluids. Vector notation requires working knowledge of trigonometry. Math competency assessment administered. Prerequisite: Math 120 or demonstrable skills and mastery of college-level algebra, right triangle trigonometry and geometry concepts, and scientific notation. Corequisite: Must take lab, which is an integral part of the course. *Fall, Spring*

### **PHYS 142 COLLEGE PHYSICS II**

*4 credits*

Continuation of PHYS 141 with extension of basic concepts to include applications in electricity and magnetism. Other topics include vibrations and waves, light and sound. Introduction to heat, heat flow, thermodynamics, classical and physical optics, some atomic or nuclear physics. Prerequisite: PHYS 141. Corequisite: Must take lab, which is an integral part of the course. *Spring*

### **PHYS 201 PHENOMENAL SCIENCE**

A hands-on, minds-on exploration, in a lecture-lab format, of the basic physical principles that underlie our observations and experiences in the everyday world. Familiar topics such as motion, forces, energy, fluids, sound, heat, light, electricity, and magnetism are treated. Prerequisite: MATH 120, MATH 130, or MATH 151 or the equivalent. *Spring*

### **PHYS 210 HISTORY OF SCIENCE**

Tracing the history and philosophy of science from its origins in Ancient Greece through the scientific revolution of the 17th century to modern times. The fields of astronomy, chemistry, geology, and physics are covered. *As needed*

### **PHYS 241 UNIVERSITY PHYSICS I**

*4 credits*

First of a three-semester sequence designed for Math/Physics, Chemistry/Physics, Physics minor, other physical science, and Math majors. Emphasizes classical mechanics and problem solving, kinematics, dynamics, conservation of energy, and momentum and oscillations. 3-hour lecture, 2-hour lab. Prerequisite: MATH 151; corequisite: MATH 152. *Spring*

### **PHYS 242 UNIVERSITY PHYSICS II**

*4 credits*

Continuation of PHYS 241. Emphasis on waves, thermodynamics, electrostatics, and electric and electronic circuits. 3-hour lecture, 2-hour lab. Prerequisite: PHYS 241 or equivalent; corequisite: MATH 251. *Fall*

### **PHYS 245 UNIVERSITY PHYSICS III**

*4 credits*

Continuation of PHYS 242. Emphasis on magnetism, electromagnetism, electromagnetic waves, geometrical and wave optics, solid state and quantum physics. 3-hour lecture, 2-hour lab. Prerequisite: PHYS 242 or equivalent. *Spring*

### **PHYS 260 ELECTRONICS**

*4 credits*

Instrumentation, DC and AC circuitry, signals and noise, electronic models, filters, amplifiers, transducers, and solid-state components. Digital concepts and applications, including coding, gating and counting, and logic circuitry. 3-hour lec-

ture, 2-hour lab. Prerequisite: PHYS 142 or 242 (may be taken concurrently.) *Alternate years*

### **PHYS 298 INDEPENDENT STUDY**

*1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent is required from the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

### **PHYS 330 THERMODYNAMICS**

The 1st and 2nd laws of thermodynamics, entropy, Maxwell-Boltzmann statistics. Prerequisites: MATH 251 and PHYS 245. *Alternate years*

### **PHYS 339 CLASSICAL MECHANICS**

Analytical treatment of Newton's laws and their application to problems of the kinematics and dynamics of particles and rigid bodies, oscillations, generalized coordinates, Hamilton's and Lagrange's equations. Prerequisite: PHYS 245. Corequisite: MATH 361. *Alternate years*

### **PHYS 342 MODERN PHYSICS**

Selected topics from atomic physics, quantum mechanics, nuclear physics, and molecular and solid state physics. Includes a brief review of the theory of relativity. Prerequisites: PHYS 245 and MATH 361. *Alternate years*

### **PHYS 375-376 ADVANCED LABORATORY I, II**

*2 credits each*

Two semesters of lab experience beyond the introductory level with emphasis upon greater depth, sophistication, precision, creativity, use of analytical skills, and exposure to more technologically advanced apparatus than that previously encountered. Often involves computer data acquisition and analysis. Each course meets 5 hours a week. Prerequisite: PHYS 245. *As needed*

### **PHYS 440 ELECTRICITY AND MAGNETISM**

Vector analysis, Coulomb's law, the electric field, Gauss's law, the Poisson and Laplace equations, properties of dielectrics, electric current, Ampere's law, electromagnetic induction, and Maxwell's equations. Prerequisites: PHYS 245 and MATH 361. *Alternate years*

### **PHYS 490 ADVANCED SPECIAL TOPICS**

*1-4 credits*

Study of selected topics not covered adequately in other Physics courses. Includes the study of experimental techniques and results, as well as various theoretical models. Prerequisites: PHYS 245 and permission of instructor. *Fall, Spring*

### **PHYS 498 INDEPENDENT STUDY**

*1-6 credits*

Individualized, directed study in an area of Physics or to a depth not normally available within the curriculum. The student initiates a research project or takes part in ongoing research under supervision of a faculty investigator. May be repeated to a total of 6 credits. Prerequisite: permission of instructor. *Fall, Spring*

## **Political Science**

### **POSC 201 INTRODUCTION TO POLITICAL SCIENCE**

Survey of political science and politics, fields, and methods. U.S. government, international affairs, comparative government, and contemporary domestic and international issues. *Fall, Spring*

### **POSC 205 UNDERSTANDING POLITICAL SCIENCE THROUGH LITERATURE AND FILM**

Survey of the major questions and concepts in the study of politics. This multimedia approach focuses on political economy, ideology, revolution, and war. *Fall, Spring*

### **POSC 211 U.S. POLITICS**

Surveys U.S. politics at the federal level. Examines democratic political theory, institutions, processes, and interests that shape public policy. Prerequisite: POSC 201 or POSC 205. *Spring*

### **POSC 221 UNITED STATES: STATE AND LOCAL POLITICS**

The role of the states and their government subdivisions. Descriptive analysis of the institutions involved, local ideology, federalism, budgets, regional cooperation, and contemporary problems. Prerequisite: POSC 201 or POSC 205, or permission of instructor. *Fall, odd years*

### **POSC 231 PUBLIC ADMINISTRATION**

Emphasizes local government planning and administration techniques, taught through simulations, and field study. Comparison of public and private administration. Prerequisite: POSC 201 or POSC 205, or permission of instructor. *Fall*

### **POSC 271 INTERNATIONAL POLITICS**

Theory and practice of international politics. National security frameworks, the international political economy, and developing agendas. Prerequisite: POSC 201 or POSC 205, or permission of instructor. *Spring*

### **POSC 290 SPECIAL TOPICS**

*1-3 credits*

Study of a selected topic in Political Science. May be repeated as topic changes. Prerequisite: POSC 201 or POSC 205, or permission of instructor.

### **POSC 294 COOPERATIVE EDUCATION**

*1-6 credits*

Introductory work-learning experience related to career interests, for which compensation may be received. Placements arranged and supervised by Cooperative Education with approval and evaluation by full-time faculty. Elective credit only (normally 120 hours/credit) to maximum of 12 credits per degree program. Prerequisites: 24 total credits earned, 2.0 cumulative GPA, and permission of instructor. Graded Pass/Fail.

### **POSC 298 INDEPENDENT STUDY**

*1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation

with a faculty member. Consent is required from the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

### **POSC 301 WRITING AND RESEARCH**

Political writing including scholarly research papers, position papers, book reviews, and letters to the editor. Use of literary materials, government documents, computer databases, community resources, and interviews. Writing style and citations. Prerequisite: POSC 201 or POSC 205, or permission of instructor. *Fall, odd years*

### **POSC 322 POLITICAL PARTICIPATION**

How and why citizens participate in politics, and the consequences for participants and their political systems. Requirements include participation-observation in the political arena. Prerequisite: POSC 201 or POSC 205, or permission of instructor. *Fall, even years*

### **POSC 332 PUBLIC POLICY ANALYSIS**

Qualitative and comparative analysis of policy in such areas as rights, welfare, health, education, environment, and criminal justice. Study of the policy process, options, outcomes and evaluation methods. Prerequisite: POSC 201 or POSC 205, or permission of instructor. *Spring, odd years*

### **POSC 341 CONSTITUTIONAL LAW**

The law of the Constitution as interpreted by the U.S. Supreme Court, nature and origins of judicial review, recent cases in political and civil rights, economic regulation, and distribution and scope of governmental powers. Prerequisite: POSC 201, POSC 205, HIST 161, or HIST 162. *Spring*

### **POSC 343 METHODS OF MANAGING AND RESOLVING CONFLICT**

Analysis of social conflict and assessment of alternative processes for resolving disputes at various levels of conflict, including the workplace and diplomacy. Prerequisite: POSC 201 or POSC 205, or permission of instructor. *Fall, odd years*

### **POSC 381 U.S. FOREIGN POLICY**

Analysis of foreign policy formation in the United States as it interacts with the international system. Includes historical setting and contemporary policies and problems. Prerequisite: POSC 201 or POSC 205, or permission of instructor. *Fall, even years*

### **POSC 401 POLITICAL THEORY**

The aims of the political life, justifications for obedience and / or revolution, and other perennial questions. Ideas of classical and modern political theorists. Prerequisites: 9 credits in Political Science, or permission of instructor. *Spring, even years*

### **POSC 405 POLITICAL IDEOLOGY**

The development of political belief systems approached through a consideration of their various philosophical origins and the consequences of applying ideologies to different social systems. Prerequisites: 9 credits in Political Science, or permission of instructor. *Fall, even years*

### **POSC 451 POLITICS OF DEVELOPING AREAS**

Economic and political manifestations of poverty, dependence, and development in the nonindustrialized world. Area foci

may include Latin America, Africa, the Middle East, and Asia. Prerequisites: 9 credits in POSC, or permission of instructor. *Spring, odd years*

### **POSC 461 COMPARATIVE POLITICS**

The structures and political processes of western and non-western political systems. Consideration of party systems, political institutions, political socialization, political economy, political groups, and the role of the military. Prerequisites: 9 credits in Political Science, or permission of instructor. *Spring, even years*

### **POSC 496 PRACTICUM**

*3 or 6 credits*

Application of a political science background to the practical affairs and activities of a political organization or institution as a participant observer. Prerequisites: at least 12 credits in Political Science major, 2.5 cumulative GPA in major, and permission of instructor.

### **POSC 497 INTERNSHIP**

*3 or 6 credits*

Culminating experience using political science course work as background for participant observation in the practical affairs and activities of a political organization or institution. Prerequisite: 24 credits in major, 2.5 cumulative GPA in POSC courses, and permission of instructor.

### **POSC 498 INDEPENDENT STUDY**

*1-6 credits*

Intensive study of an issue, problem, or topic. May be repeated for a maximum of 6 credits. Prerequisite: permission of instructor.

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## **Psychology**

### **PSYC 101 GENERAL PSYCHOLOGY**

Surveys the major topics involved in an understanding of the behavior of humans and animals. *Fall, Spring*

### **PSYC 221 SOCIAL PSYCHOLOGY**

Human thought, feeling, and behavior in the social environment. Topics include the perception of people and social situations, aggression and altruism, competition and cooperation, love and friendship, communication and persuasion, attitudes and attitude change, social influence, and group dynamics. Prerequisite: PSYC 101 or permission of instructor. *Fall, Spring*

### **PSYC 242 PERSONALITY**

Asystematic study of the development, dynamics, and structure of human personality, including major aspects of methodology, theory, and research. Prerequisite: PSYC 101 or permission of instructor. *Fall, Spring*

### **PSYC 251 PSYCHOLOGICAL STATISTICS**

An introduction to descriptive and inferential statistics used in psychological research. Topics include measures of central tendency, variability, and correlation, as well as probability, sampling, hypothesis testing, and analysis of variance. Prerequisite: PSYC 101. May not be taken for credit by students who have completed MATH 141. *Fall, Spring*

### **PSYC 252 RESEARCH METHODS IN PSYCHOLOGY**

The theory of psychological experimentation. An examination of the various techniques and methodologies in psychological research. Must be taken concurrently with PSYC 254. Prerequisite: formal admission to the major in Psychology. *Fall, Spring*

### **PSYC 253 BRAIN AND BEHAVIOR**

This course examines how the central and peripheral nervous systems as well as the endocrine system relate to human and animal behavior. Prerequisites: PSYC 101 or permission of instructor. One BIO course recommended. *Fall, Spring*

### **PSYC 254 RESEARCH METHODS LAB**

*1 credit*

In-depth laboratory experience in psychological research. Students will learn various laboratory techniques, conduct experiments, analyze data, and write research reports on psychological research topics. Corequisite: PSYC 252.

### **PSYC 290 SPECIAL TOPICS**

*1–3 credits*

Exploration and analysis of elementary topics in psychology. Prerequisite: permission of instructor.

### **PSYC 298 INDEPENDENT STUDY**

*1–6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent is required from the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

### **PSYC 311 CHILD AND ADOLESCENT PSYCHOLOGY**

The study of child and adolescent Psychology focusing on current research in cognitive, physical, social, and emotional development. Prerequisite: PSYC 101 or ESEC 150. *Fall, Spring*

### **PSYC 314 ADULTHOOD AND AGING**

A psychological analysis of human development from post-adolescence to death. Topics include femininity, masculinity, self-image, family and work relationships, independence, power, developmental experiences, cross-cultural comparisons, emotional and physical health, and aging. Prerequisites: PSYC 101 and junior standing, or permission of instructor.

### **PSYC 321 CROSS-CULTURAL PSYCHOLOGY**

The study of issues at the intersection of culture and psychology. Topics may include the learning of culture, the impact of culture on behavior, conflict and cooperation across cultural boundaries, and social processes in multicultural communities. Prerequisite: PSYC 101. *Fall*

### **PSYC 332 ETHOLOGY**

Investigates the behavior of animal species to provide a broader frame of reference for evaluating human behavior. Prerequisite: PSYC 101 or permission of instructor. *Fall*

### **PSYC 340 PSYCHOLOGICAL TESTING**

Introductory theory and practice of psychological assessment. Examination of varied approaches to assessment and experi-

ences with select test types. Prerequisites: PSYC 101 and junior standing, or permission of the instructor. *Fall*

### **PSYC 343 HUMANISTIC AND TRANSPERSONAL PSYCHOLOGY**

Examination of the methodologies, theories, and research that emphasize holistic, conscious, and personalistic approaches to psychology. Topics include peak experiences and emotions, identity and self-expression, free will, ultimate values, altered states of awareness, and suprasensory phenomena. Prerequisite: PSYC 242.

### **PSYC 345 ABNORMAL PSYCHOLOGY**

Introduction to major psychological disorders, etiology of mental illness, and issues in diagnosis and treatment. Prerequisites: PSYC 242 and junior standing, or permission of instructor. *Fall, Spring*

### **PSYC 355 PSYCHOLOGY OF LEARNING**

Analysis of contemporary theories of learning. Emphasis on how each theory incorporates such concepts as reinforcement, extinction, motivation, emotion, practice, transfer, forgetting, and problem solving. Prerequisites: PSYC 101 and junior standing, or permission of instructor. *Fall*

### **PSYC 357 COGNITIVE PROCESSES**

An investigation of the continuum of cognitive activities from perception to memory and thought processes. Traditional, neobehavioristic, information processing, and computer model approaches to understanding cognition are considered. Prerequisites: PSYC 101 and junior standing, or permission of instructor. *Fall*

### **PSYC 382 HISTORY AND SYSTEMS OF PSYCHOLOGY**

Historical origins and logical analysis of recent systematic formulations in Psychology, with special attention to psychoanalysis, Gestalt psychology, and behaviorism. Prerequisites: PSYC 101 and junior standing, or permission of instructor. *Fall, Spring*

### **PSYC 412 YOUTH IN TRANSITION**

Psychological examination of biological, social, and historical forces affecting late adolescence and early adulthood. Major focus is on the experience of traditional and nontraditional college students. Includes theory, research, and cases on such topics as identity and intimacy. Prerequisites: PSYC 101 and senior standing, or permission of instructor.

### **PSYC 425 PSYCHOLOGY OF WOMEN**

Exploration of current and historical understandings of the psychology of women. Includes psychoanalytic, biological, and social explanations of women's psychology and development and critical examination of research on gender differences. Prerequisite: PSYC 242 or WS 201.

### **PSYC 444 COUNSELING**

Exposes students to major theories of counseling techniques and offers an opportunity for students to examine their interests and aptitudes as these relate to the counseling profession. Prerequisites: PSYC 343 or PSYC 345 and junior standing, or permission of instructor. *Fall, Spring*

**PSYC 447 CLINICAL PSYCHOLOGY**

Research and practice in clinical psychology, with consideration of problems inherent in assessment and theory. Prerequisites: PSYC 343 or PSYC 345 and junior standing, or permission of instructor. *Fall, Spring*

**PSYC 451 MOTIVATION**

Examines factors that direct human behavior, with emphasis on the influence of physiological changes and learning on motivation. Prerequisites: PSYC 253 and senior standing, or permission of instructor.

**PSYC 453 SENSATION AND PERCEPTION**

Exposure to the sensory capacity of the human organism, perceptual theory, and selected areas of perceptual activity. Prerequisites: PSYC 253 and senior standing, or permission of instructor.

**PSYC 470 PRACTICUM**

*1-6 credits*

Field experience focused on application of psychological theory and data in an organization or service setting under faculty and agency supervision. The readings, work assignments, supervisory sessions, and written product are determined by the student, the faculty, and the agency prior to the practicum. Prerequisites: junior standing and permission of instructor. May be repeated to a total of 6 credits. *Fall, Spring*

**PSYC 490 ADVANCED SPECIAL TOPICS**

*1-4 credits*

Exploration and analysis of advanced topics in Psychology. Prerequisite: permission of instructor.

**PSYC 495 SEMINAR**

Considers major areas of psychology under direction of Psychology faculty. Subject matter contingent on student and faculty interest. Prerequisite: senior standing, or permission of instructor.

**PSYC 496 HONORS SEMINAR**

*1 credit*

Research seminar for participants in the Psychology Honors Program. Prerequisite: admission to Psychology Honors Program. Graded pass/fail. May be repeated up to a total of 2 credits. *Fall, Spring*

**PSYC 498 INDEPENDENT STUDY**

*1-6 credits*

Individual study or research in selected topics in Psychology under direction of a faculty member. Prerequisite: PSYC 101 or permission of instructor. May be repeated up to a total of 6 credits.

**PSYC 499 HONORS RESEARCH**

Independent topical research for participants in the Psychology Honors Program. Prerequisite: admission to Psychology Honors Program. Graded pass/fail. May be repeated up to a total of 6 credits. *Fall, Spring*

**PSYC 698 GRADUATE INDEPENDENT/DIRECTED STUDY**

*1-4 credits*

Individual study or research in selected topics in Psychology under direction of a faculty member. Prerequisites: graduate standing and permission of instructor. May be repeated for a total of up to 8 credits.

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## Social Science

**SOSC 100 FOUNDATIONS OF SOCIAL SCIENCE**

An interdisciplinary introduction to the world of the social sciences: the systematic study of human institutions and behaviors emphasizing theories, concepts, processes, and methods examined in a global context. The course focuses on the various perspectives of the social disciplines. *Fall, Spring*

**SOSC 495 SENIOR SEMINAR**

Capstone course with an interdisciplinary theme selected by the instructor that requires active analysis of causes, manifestations, and consequences of complex social phenomena. A major independent project is required. Prerequisite: senior social science major or permission of the instructor. *Fall*

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## Sociology

**SOC 101 INTRODUCTORY SOCIOLOGY**

Introduces basic concepts, theories, and methods of sociology, which is the systematic study of society, culture, social institutions, organizations, and groups. Develops a sociological perspective on social issues, problems, and events. Provides an overview of major subfields in sociology. *Fall, Spring*

**SOC 203 SOCIOLOGY PROSEMINAR**

*1 credit*

This course enhances student preparation for the major and a career in sociology and related professions through examination of professional research and writing, discussion of career and workplace issues, and exploration of graduate opportunities and other professional development. Prerequisites: SOC 101 and Sociology major. *Fall, Spring*

**SOC 221 CRIMINAL JUSTICE**

An overview of the justice system as it currently operates in its three major components: police, courts, and corrections. A broad-based interdisciplinary perspective is taken to introduce the beginning student to the process of criminal justice in the United States. *Fall, Spring*

**SOC 225 SOCIAL PROBLEMS**

A study of selected social problems using a sociological lens. Problems may include alcoholism and drug addiction, crime, divorce, poverty, gender inequality, race relations, and others. Prerequisite: SOC 101 or permission of instructor.

**SOC 234 INTRODUCTION TO SOCIAL WORK**

An overview of the ethics, philosophy, and methods of the field of social work. Attention will be paid to social problems encoun-

tered in central social institutions and community resources available to address these social problems. Prerequisites: SOC 101 and SOC 225 or permission of instructor. *Fall, Spring*

### **SOC 260 POPULAR CULTURE**

This course focuses on dominant ideas/ideologies of inequality and how they are perpetuated (or not) in mass media and popular culture products such as TV shows, movies, songs, web sites, games, and the like. Prerequisite: SOC 101. *Fall, Spring*

### **SOC 290 TOPICS IN SOCIOLOGY**

Selected topics in sociology. May be repeated as topics change. Maximum 6 credits. Prerequisite: SOC 101. *Occasionally*

### **SOC 301 SOCIOLOGICAL RESEARCH METHODS**

*4 credits*

Methodologies and types of research commonly used in sociology. Focus on the research process, including the research problem and techniques of data gathering. Design and use of the interview, questionnaire, and case study approaches to sociological analysis. 3 hour lecture, 2 hour lab. Prerequisite: SOC 101. *Fall, Spring*

### **SOC 303 SOCIOLOGICAL QUANTITATIVE ANALYSIS**

*4 credits*

Embeds statistical techniques in the sociological research process. Application of statistical techniques to test sociological hypotheses, assess social theories, and draw conclusions about sociological problems from statistical data. Review of descriptive/inferential statistics and instruction of statistical software. 3 hour lecture, 2 hour lab. Prerequisite: SOC 301. *Fall, Spring*

### **SOC 304 QUALITATIVE ANALYSIS**

Innovative, interactive, hands-on approach to social research. Topics include: grounded theory, sampling, intensive interviews, participant observation, and focus groups. Attention to preparing data, developing concepts and coding, using computer-aided search tools, managing projects, assessing validity, and writing up results. Prerequisite: SOC 301. *Spring, even years*

### **SOC 305 SOCIOLOGICAL THEORY**

The assumptions, orientations, and applications used by both classical and contemporary schools of sociological thought in explaining social phenomena. Prerequisite: SOC 203. *Fall, Spring*

### **SOC 321 WOMEN IN SOCIETY**

A political and social/psychological approach to women in contemporary American society, with emphasis on the women's movement, historical development of the position of women, their current roles in political and social institutions, and prospects for change. Compares the women's movement with other civil rights movements. Prerequisite: SOC 101 or permission of instructor. *Spring*

### **SOC 325 ETHNIC RELATIONS**

This course applies sociological theories of ethnicity to the study of past and current ethnic relations across the globe.

Emphasizes sociological research on status of ethnic groups in the broader society and in specific social institutions. Prerequisite: SOC 101 or permission of instructor. *Fall*

### **SOC 326 HOLOCAUST AND GENOCIDE**

Analyzes the Holocaust and other acts of genocide from a comparative, sociological perspective and applies relevant theories/concepts. Investigates hate groups as well as human rights organizations committed to ending ethnic violence. *Spring*

### **SOC 335 PRACTICUM IN SOCIOLOGY**

This course provides an opportunity for students to use sociological learning in a community setting for 8-10 hours each week. Students may select from among applied research, human services, or other social change settings. Prerequisites: SOC 301 and permission of instructor. *Fall, Spring*

### **SOC 340 CRIMINOLOGY**

Analysis of criminal behavior from the functional and social problem points of view. Examination of theories and procedures in prevention and treatment, including history and theories of punishment. Prerequisite: SOC 221 or permission of instructor. *Spring*

### **SOC 345 SOCIOLOGY OF FAMILIES**

This course examines various family forms, with primary emphasis on U.S. families. Includes the history and functions of families, theoretical and methodological approaches to studying families, intimate relationships, parenting and socialization of children, and family disruption. Prerequisite: SOC 101 or permission of instructor. *Spring*

### **SOC 361 JUVENILE DELINQUENCY**

A study of cultural influences defining the juvenile justice system. The structure of the juvenile court, choices for intervention, methods for measuring juvenile crime, and comparisons between juvenile and the adult justice systems are discussed. Prerequisite: SOC 221 or permission of instructor. *Spring, odd years*

### **SOC 370 URBAN SOCIETY**

Analysis of urban structure and ecology. Emphasis is on personality and socialization patterns in large urban communities and consideration of the problems that stem from increasing urbanization in American society. Prerequisite: SOC 101 or permission of instructor. *Spring*

### **SOC 380 ENVIRONMENTAL SOCIOLOGY**

Introduces students to the sociological analysis of human systems as they relate to the natural environment around the world. Topics include population, food energy, sustainable development, environmental justice, the environmental movement, international environmental conflicts, and globalization. Prerequisite: SOC 101. *Fall, odd years*

### **SOC 390 STUDIES IN SOCIOLOGY**

Intensive study of selected topics in sociology. May be repeated as topics change to a maximum of 6 credits. Prerequisite: SOC 101. *Occasionally*

### **SOC 403 COMMUNITY RESEARCH**

Seminar builds on and expands research and proposal-writing skills acquired in SOC 301 that are especially useful to com-

munity agencies. Students either conduct research or write a grant proposal for a local nonprofit or public agency. They present their work to community leaders in a written and oral presentation. Prerequisites: SOC 301 and 305 or permission of instructor. *Spring*

### **SOC 425 TOPICS IN ETHNIC RELATIONS**

This seminar provides an in-depth analysis of one ethnic group in the United States. Ethnic groups analyzed on a rotating basis are African, Native, Latino, or Asian Americans. Emphasizes the culture and social status of the group. Also studies sociological issues confronting the group. Prerequisite: SOC 305 or permission of instructor. Recommended: SOC 325. *Fall, even years*

### **SOC 450 MIND, SELF, AND SOCIETY**

This seminar discusses major theories, problems, and findings concerning the relationship between the individual and society. Topics include consciousness and the construction of meaning, self-concept, and social identity; socialization and interaction; and group behavior and group membership. Prerequisite: SOC 305. *Fall, even years*

### **SOC 455 THE BODY AND SEXUALITY IN SOCIETY**

Seminar introduces students to social benefits and practices related to the human body with a focus on gender and sexuality. Topics include socialization, cultural constructions of masculinity and femininity, body image, aging bodies, sexual harassment, rape, pornography and sex work, and new reproductive technologies. Prerequisite: SOC 325. *Occasionally*

### **SOC 460 SEMINAR IN POPULAR CULTURE**

Seminar with an in-depth investigation and analysis of one major form of popular culture (e.g., movies, sport, fiction), or the in-depth examination of a socialized identity (e.g., social class, race, gender) in several forms of popular culture. Prerequisite: SOC 305 or permission of instructor. *Spring*

### **SOC 461 WHITE-COLLAR CRIME**

This seminar focuses on occupational, corporate, and government crime viewed using a sociological lens. This course will explore the causes, consequences, and criminal justice system response to white-collar crime. Prerequisites: SOC 305 and SOC 340, or permission of instructor. *Spring, even years*

### **SOC 472 SOCIOLOGY OF HEALTH AND MEDICINE**

Seminar examining the contributions of sociological theory and research to understanding the social effects on health, illness, health care, the institution of medicine, and health policy. While the United States is a primary focus, global issues are included. Prerequisite: SOC 305 or permission of instructor. *Fall, odd years*

### **SOC 475 SOCIAL STRATIFICATION**

This seminar examines how the unequal distribution of wealth, power, and prestige among individuals and groups affects life chances. Emphasizes class, race, gender, and occupational divisions in the contemporary United States with some attention to global inequality. Prerequisite: SOC 305. *Fall*

### **SOC 477 SOCIOLOGY OF EDUCATION**

This seminar examines education from a sociological perspective. Evaluates research and theories of schooling, learning, and education, both formal and informal. Analyzes schools, colleges and universities as organizations. Compares practices and policies around the world. Prerequisite: SOC 305 or permission of instructor. *Occasionally*

### **SOC 490 ADVANCED SPECIAL TOPICS IN SOCIOLOGY**

Advanced study of selected topics in sociology. May be repeated as topics change to a maximum of 6 credits. Prerequisite: SOC 101. *Occasionally*

### **SOC 494 COOPERATIVE EDUCATION**

*1-6 credits*

Work-learning experience for Sociology Majors. Placement arranged by student, and approved, supervised, and evaluated by faculty member. Student spends 3-4 hours each week in work setting for each credit earned. Compensation possible. Does not count toward the major. May be repeated to a maximum of 6 credits. Graded Pass/Fail. Prerequisite: Permission of instructor. *Fall, Spring*

### **SOC 498 INDEPENDENT STUDY**

*1-6 credits*

Advanced independent study of a sociology/anthropology area not normally available in the curriculum. Requires written report. Prerequisite: written permission of the instructor. May be repeated to a total of 6 credits. *Fall, Spring*

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## **Spanish**

### **SP 100 BASIC SPANISH LANGUAGE AND CULTURE**

*4 credits*

Introduction to basic Spanish, Spanish history, and Spanish contemporary culture. The course makes extensive use of multimedia resources to include: interactive language programs, video, and the Internet. *Fall, Spring or Summer*

### **SP 101-102 ELEMENTARY SPANISH I AND II**

*4 credits each*

Development of the four basic language skills: listening, speaking, reading, and writing. *Fall, Spring*

### **SP 190 ELEMENTARY SPECIAL TOPICS IN SPANISH**

Study of selected topics in Spanish. May be repeated as topics change. *Occasionally*

### **SP 200 INTERMEDIATE READINGS IN SPANISH**

*4 credits*

Selected readings in Spanish from literary texts, scholarly journals, magazines, newspapers, and web sites. Class discussions are mainly in English. This course meets the A&H language requirement and does not count for the French major. Prerequisite: SP 102 or equivalent. *Fall, Spring*



**SP 201-202 INTERMEDIATE SPANISH I & II***4 credits each*

Continuation of the development of the four basic language skills. *Fall, Spring*

**SP 290 INTERMEDIATE SPECIAL TOPICS**

Study of selected topics in Spanish. May be repeated as topics change. *Occasionally*

**SP 298 INDEPENDENT STUDY***1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent required of the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

**SP 303 INTRODUCTION TO SPANISH LITERATURE**

Study of various critical approaches to Spanish literature; conducted in Spanish. Prerequisite: SP 202 or permission of instructor. *Fall*

**SP 315 CONVERSATION IN SPANISH**

The vocabulary of spoken Spanish and guided practice to increase oral proficiency. Prerequisite: SP 202 or permission of instructor. *Fall*

**SP 316 COMPOSITION IN SPANISH**

Study and practice of Spanish writing styles for various purposes: journals, letters, essays, and creative pieces. Prerequisite: SP 315 or permission of instructor. *Spring*

**SP 320 COMMERCIAL SPANISH**

The terminology and forms used in the Hispanic world of business. Practice with commercial correspondence. Prerequisite: SP 202 or permission of instructor. *Occasionally*

**SP 330 LATINOS IN THE U.S.**

The cultural backgrounds and literary contributions of Chicanos, Puerto Ricans, and Cubans. Readings in Spanish and English; class discussion in Spanish. Prerequisite: SP 202 or permission of instructor. *Fall*

**SP 350 STUDY IN SPAIN OR LATIN AMERICA***Maximum of 18 credits per semester*

Study in a College-approved program. May be used to meet the Arts and Humanities language requirement. Students must meet with Modern Languages faculty for pre-approval of their program of study and for an exit interview upon their return. *Fall, Spring*

**SP 405 CONTEMPORARY SPANISH USAGE**

Advanced study of syntax, semantics, and lexicon based on actual usage in the contemporary Hispanic world. Prerequisite: SP 315 or equivalent. *Occasionally*

**SP 410 ADVANCED SPANISH GRAMMAR**

A study of contemporary Spanish grammar, and a treatment of the typical pitfalls for nonnative users of Spanish. Prerequisite: SP 405, or permission of instructor. *Occasionally*

**SP 495 SEMINAR**

The capstone experience for Spanish majors. Topics based on needs and interests of the group. Prerequisites: SP 405 and senior status. *Spring*

**SP 498 INDEPENDENT STUDY***1-6 credits*

Intensive study of some aspect of Spanish language, literature, or culture adapted to the student's needs. May be repeated to a total of 6 credits. Prerequisite: permission of instructor.

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## Special Education

**SPED 290 SPECIAL TOPICS***1-3 credits*

Exploration and analysis of special topics in Special Education.

**SPED 298 INDEPENDENT STUDY***1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent is required from the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

**SPED 301 CONTEXT FOR TEACHING STUDENTS WITH SPECIAL NEEDS**

An examination of the special education process, characteristics of students with learning differences, and implications for assessment, instruction, and curriculum development. Prerequisites: Admission to Teacher Education; for students in programs other than teacher preparation, permission of instructor. *Fall, Spring*

**SPED 401 INSTRUCTION AND CURRICULUM DESIGN IN SPECIAL EDUCATION**

Focus on designing curriculum and selecting instructional strategies to address student learning profiles and transition needs. Adaptations to the regular education curriculum and alternative teaching approaches in K-12 settings are addressed. Prerequisite: SPED 301, or permission of instructor. *Fall, Spring*

**SPED 420 ASSESSMENT IN SPECIAL EDUCATION**

Procedures used to identify and assess student learning and behavior needs. Includes analyzing observational data as well as student performance on standardized, criterion-referenced, and curriculum-based assessments. Corequisite: SPED 430 or SPED 439. Prerequisite: SPED 401 or permission of instructor. *Fall, Spring*

**SPED 430 METHODS AND PRACTICUM: ELEMENTARY***6 credits*

Development of skills in observing, evaluating, planning, instructing, managing, and collaborating with parents and

teachers in an elementary school setting. Corequisite: SPED 420. Prerequisites: SPED 301 and ESEC 387. *Fall, Spring*

### **SPED 439 METHODS AND PRACTICUM: SECONDARY**

*6 credits*

Development of skills in observing, evaluating, planning, instructing, managing, and collaborating with parents and teachers in a middle and secondary school settings. Corequisite: SPED 420. Prerequisites: SPED 301 and ESEC 387. *Fall, Spring*

### **SPED 460 STUDENT TEACHING**

*12 credits*

Full-time placement in educational setting(s) appropriate to intended certification. Supervision provided by college supervisor and field-based professional towards mastery of principles, attitudes, and techniques for successful teaching. Graded Pass/Fail. Prerequisite: permission of Teacher Education. *Fall, Spring*

### **SPED 465 STUDENT TEACHING**

*6 credits*

Full-time placement in educational setting(s) appropriate to intended certification. Supervision provided by college supervisor and field-based professional towards mastery of principles, attitudes, and techniques for successful teaching. Graded Pass/Fail. Prerequisite: permission of Teacher Education. *Fall, Spring*

### **SPED 490 ADVANCED SPECIAL TOPICS**

*1-3 credits*

Exploration and analysis of special topics in Special Education. *Fall, Spring, Summer*

### **SPED 495 SEMINAR**

*1-3 credits*

Group study of the problems in educating exceptional children and the techniques and procedures by which comprehensive educational care can be provided. Research related to the development of Special Education programs. *Fall, Spring, Summer*

### **SPED 498 INDEPENDENT STUDY**

*1-6 credits*

Intensive study of an educational problem encountered in a school or community. May be repeated to a total of 6 credits. *Fall, Spring, Summer*

### **SPED 520 ASSESSMENT AND EVALUATION FOR SPECIAL EDUCATORS**

Focuses on the theory and practice of assessment for general special education educators at the post-baccalaureate level. Includes procedures to identify and assess student learning and behavior needs and outcomes. Informal and formal strategies including standardized tests, observational tools, and curriculum/criterion referenced tests. Corequisite: SPED 560. Prerequisites: SPED 301 and SPED 401, or permission of instructor. *Fall*

### **SPED 525 TRANSITION PLANNING AND PROGRAMMING**

Examination of the transition from secondary school environments to after-school activities for youth with disabilities relative

to career development and self-determination. Critical components include legal foundations, functional assessment, access to career and technical education, employment, postsecondary training, and independent living. Prerequisite: Admission to Teacher Education or permission of instructor. *Spring*

### **SPED 560 INTERNSHIP IN SPECIAL EDUCATION I**

*6 credits*

This postbaccalaureate internship is the first half of a yearlong field experience and seminar that focuses on the application of special education knowledge and skills in a K-12 school setting. Interns receive support from a college supervisor and mentor/cooperating teacher to meet identified special education program competencies. Corequisite: SPED 520. Prerequisites: SPED 301 and SPED 401. *Fall*

### **SPED 565 INTERNSHIP IN SPECIAL EDUCATION II**

*6 or 12 credits*

This postbaccalaureate internship is the second half of a yearlong field experience and seminar that focuses on the application of special education knowledge and skills in a K-12 school setting. Interns receive support from a college supervisor and mentor/cooperating teacher to meet identified special education program competencies. Corequisite: SPED 525. Prerequisite: SPED 560. *Spring*

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## **Technology, Design and Safety**

### **TDS 100 EXPLORING TECHNOLOGY**

Designed to introduce students to the realm of technology. Focuses on the growth, development, and impact of technology using an activity-based, problem-solving approach. *Fall, Spring*

### **TDS 101 MANUFACTURING PROCESSES**

A study of the processes by which consumer and industrial products are made. Emphasis on process advantages and limitations, safety, environmental impact, and financial concerns in process selection and decision making. Lectures and demonstrations. *Fall, Spring*

### **TDS 110 ELECTRICITY AND ELECTRONICS FUNDAMENTALS**

An introductory course which examines topics from magnetism and electricity to electronics and microcomputers. A hands-on, experiential learning environment is used to stimulate creativity and understanding of the importance of electronics in today's society. Recommended for all majors. 2-hour lecture, 2-hour lab. *Fall*

### **TDS 113 DIGITAL ELECTRONICS**

An introductory course in the design and application of digital logic circuits. A project-oriented approach which uses an experiential learning environment to stimulate creativity and understanding of the basic building blocks of digital electronic products and microcomputers. 2-hour lecture, 2-hour lab. *Fall*

### **TDS 121 DRAFTING AND DESIGN FUNDAMENTALS**

An introduction to graphic language for students with little or no previous experience with drafting or CAD. Freehand sketching, instrumental expression, and the use of computer-assisted drafting are explored. 2-hour lecture, 2-hour lab. *Fall, Spring*

### **TDS 140 INTRODUCTION TO VISUAL COMMUNICATION**

An overview of the systems and techniques used to communicate ideas, knowledge and information with an emphasis on graphic communication processes. 2-hour lecture, 2-hour lab. *Fall, Spring*

### **TDS 152 PRODUCT DESIGN I**

This course is the first of a four-course sequence. It will emulate the product design and development process from start to finish. Topics include initial product ideas, quality control, prototype fabrication and testing. 2-hour lecture, 2-hour lab. *Fall*

### **TDS 153 MACHINE TOOL PROCESSES**

Deals with the processes involved with machining metal. Shop safety, proper use of hand and measuring tools, as well as the use of machine tools are covered. 2-hour lecture, 2-hour lab. *Fall*

### **TDS 160 INTRODUCTION TO POWER AND ENERGY**

Development of concepts and skills related to mechanical, fluid, electrical, and thermal systems. Includes an overview of energy sources and conversion processes. 2-hour lecture, 2-hour lab. *Spring*

### **TDS 170 INTRODUCTION TO WOODWORKING TECHNOLOGY**

Focus on wood working systems in mass production application and one-of-a-kind manufacturing. Emphasis on problem solving and creativity in laboratory activities. Function, maintenance, safety, and use of tools, machinery, and materials included as supportive theory. 2-hour lecture, 2-hour lab. *Spring*

### **TDS 175 CONSTRUCTION MATERIALS AND PROCESSES**

An introduction to construction technology systems, including the planning, materials and processes used by building contractors to frame residential structures. The interrelationship of societal needs, the environment, and quality of life as they affect building design and construction practices, are introduced. 2-hour lecture, 2-hour lab. *Fall*

### **TDS 181 SAFETY AWARENESS**

Assessment of risk-taking and the causes of accidents and health risks. Designed for students of technology, design, safety, management, education, science, health, and industry. Development of safety strategies to produce minimum risk and maximum success in a variety of activities. *Fall, Spring*

### **TDS 210 LINEAR INTEGRATED CIRCUITS**

Design and application of analog (nondigital) circuits, which include transistors, operational amplifiers, and specialized

components such as analog-to-digital converters. Hands-on experiential learning based on team-selected projects. 2-hour lecture, 2-hour lab. Prerequisite: TDS 110. *Spring*

### **TDS 212 PROGRAMMABLE LOGIC CONTROLLERS**

An application-based approach to the study of programmable logic controllers. Ladder Logic and State Logic programming languages are studied for various design projects using IBM PCs for development, testing and documentation. 2-hour lecture, 2-hour lab. Prerequisite: TDS 110. *Spring*

### **TDS 214 INSTRUMENTATION**

An advanced course in the use of metrology for a wide range of testing and measurement applications. Digital and analog meters, oscilloscopes, recorders, digital logic and spectrum analyzers, and the study of sensors are used in an experiential learning environment. 2-hour lecture, 2-hour lab. Prerequisite: TDS 210. *Fall, alternate years*

### **TDS 217 RESIDENTIAL/INDUSTRIAL ELECTRICITY**

An introduction to the principles of residential and industrial electrical wiring following the National Electrical Code. Laboratory hands-on experience and demonstrations enhance understanding of the topics covered. 2-hour lecture, 2-hour lab. Prerequisite: TDS 110. *Fall*

### **TDS 218 COMPLIANCE ENGINEERING**

The design and manufacturing (ISO 9000) requirements of electrical and electronic-based equipment for the marketplace. Conformance to the European safety and electrical standards (CE), Underwriters Laboratories (UL) and Canadian Standards (CSA). Practical applications approach based on team oriented projects. 2-hour lecture, 2-hour lab. Prerequisite: TDS 110. *Fall or Spring, alternate years*

### **TDS 222 DESIGN APPLICATIONS**

Advanced design and drafting problems associated with industrial products manufactured from a variety of materials and by numerous processes. 2-hour lecture, 2-hour lab. Prerequisite: TDS 121, or permission of instructor. *Spring*

### **TDS 228 COMPUTER-AIDED DRAFTING**

Utilizes the computer to generate visual representations of objects. Includes familiarization with standard drafting techniques and practices, as well as various applications of CAD software. 2-hour lecture, lab by arrangement. *Fall, Spring*

### **TDS 231 INTRODUCTION TO ARCHITECTURAL DESIGN**

The design process and basic principles of functional building design and technology, progressing from project definition to final drawings. Student projects involve creating a complete design for a single family residence. 2-hour lecture, 2-hour lab. *Fall, Spring*

### **TDS 247 PRINT PRODUCTION**

Pre-press and production techniques within evolving industry standards. Includes preparation of mechanicals, camera ready copy, color separations and related digital output, offset and

newer printing technologies. Also covers designer's responsibilities in coordinating work with service bureaus and printing companies. 2-hour lecture, 2-hour lab. *Spring*

### **TDS 251 MACHINE TOOL APPLICATIONS**

Advanced laboratory applications and experimentation involving machine processes, instrumentation, inspection and measurement techniques, and the theory of metal removal. 2-hour lecture, 2-hour lab. Prerequisite: TDS 153. *Spring*

### **TDS 252 PRODUCT DESIGN II**

This course is the continuation of Product Design I and emulates the product design and development process from start to finish. Projects of increasing complexity are undertaken. Topics include initial product ideas, quality control, prototype fabrication and testing. 2-hour lecture, 2-hour lab. Prerequisites: TDS 152 or permission of instructor. *Spring*

### **TDS 253 MATERIALS OF MANUFACTURING**

Fundamental properties of a wide range of materials, emphasizing microstructure and physical testing. *Fall, alternate years*

### **TDS 257 METALWORKING STUDIO**

Design and manufacture of products using fabrication, pattern development, casting processes, and welding techniques. Project planning, implementation, and evaluation are stressed. Two 3-hour labs per week. Prerequisite: TDS 101. *Spring, alternate years*

### **TDS 265 ENERGY AND SUSTAINABLE DESIGN**

Study of energy issues and sustainable building design. Primary focus on energy efficient buildings, solar energy systems, and related environmental issues. Projects involve energy analysis of buildings, evaluation of renewable energy options, and world energy issues. *Fall*

### **TDS 270 WOODWORKING PROCESSES**

The design, production, and finishing of furniture, cabinets, and millwork. The historical development of cabinetry, as well as contemporary material and processes are covered. Exploration of advanced woodworking processes in the laboratory. 2-hour lecture, 2-hour lab. Prerequisite: TDS 170. *Spring, alternate years*

### **TDS 281 INTRODUCTION TO FIRE SCIENCE**

An overview of the National Fire Protection Association Codes and Standards which apply to industrial and institutional environments. Special emphasis is placed on inspection procedures and methods of preventing, detecting, and extinguishing common industrial fires. Prerequisite: Safety majors and minors only, or permission of instructor. *Fall, Spring*

### **TDS 283 INTRODUCTION TO TRAFFIC SAFETY**

Study of the elements that compose the driving task and the highway transportation system. Emphasis on human performance variables, traffic engineering, and related research. For educators and those whose responsibilities include motor fleet safety. *Summer - Continuing Education*

### **TDS 284 INDUSTRIAL SAFETY**

The application of scientific and engineering principles to the analysis of processes, equipment, products, facilities

and environments in order to optimize safety and health effectiveness. Topics include legislative overview, problem identification, control concepts, and basic engineering principles. *Fall, Spring*

### **TDS 286 ERGONOMICS**

The application of ergonomic principles to prevent musculoskeletal disorders. Topics include work physiology, cumulative trauma disorders, and risk factors such as temperature, repetition, and manual material handling. *Fall, Spring*

### **TDS 290 SPECIAL TOPICS**

*1-3 credits*

Study of a selected topic in the Technology, Design and Safety Department. May be repeated as topics change. Prerequisites vary with topics. *Fall, Spring*

### **TDS 294 COOPERATIVE EDUCATION**

*1-6 credits*

Introductory work-learning experience related to career interests, for which compensation may be received. Placements arranged and supervised by Cooperative Education with approval and evaluation by full-time faculty. Elective credit only (normally 120 hours/credit) to maximum of 12 credits per degree program. Prerequisites: 24 total credits earned, 2.0 cumulative GPA, and permission of instructor. Graded Pass/Fail. *Fall, Spring*

### **TDS 298 INDEPENDENT STUDY**

*1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent is required from the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

### **TDS 311 MOTION CONTROL SYSTEMS**

An application-based approach to the study and design of open-loop motion systems and closed-loop servo systems. Team-oriented experiential learning environments encourage creative designs for practical applications using DC step-motors and DC and AC servo-motor controls. 2-hour lecture, 2-hour lab. Prerequisites: TDS 113 and TDS 210. *Spring, every three years*

### **TDS 312 ROBOTICS/AUTOMATION**

Explores the industrial applications of robotics and material-handling equipment. The study of the electronic controls, pneumatic, and hydraulic and electromechanical subsystems and control software will be enhanced through practical design applications. 2-hour lecture, 2-hour lab. Prerequisites: TDS 110 and junior standing. *Fall, alternate years*

### **TDS 313 MICROCOMPUTERS**

An advanced digital electronics course which explores the architecture, operation, and practical applications of microcomputers and peripheral hardware components. Assembly language programming for the Intel 80X86 processors will be covered as well as practical microcomputer interfacing applications. 2-hour lecture, 2-hour lab. Prerequisites: TDS 110 and TDS 113. *Spring*

**TDS 320 GRAPHICAL ANALYSIS**

Advanced study of graphic solutions to technical problems. Includes basic concepts in descriptive geometry and an introduction to vector analysis. 2-hour lecture, 2-hour lab. *Fall, alternate years*

**TDS 328 THREE-DIMENSIONAL CAD**

Includes wireframe modeling, surface modeling, shadowing, external referencing, and customizing software. 2-hour lecture, 2-hour lab. Prerequisite: TDS 228. *Spring*

**TDS 331 INTERMEDIATE ARCHITECTURAL DESIGN**

Study of site planning, codes, structural methods, and other design issues for a variety of building types. Students create details for steel, reinforced concrete, wood, and masonry structures, and work in teams creating design solutions for a complex building project. 2-hour lecture, 2-hour lab. Prerequisite: TDS 231. *Fall*

**TDS 334 COLLABORATIVE ARCHITECTURAL PROJECT**

Project-centered course emphasizing team approach to solving complex architectural problems. Students conduct architectural projects in the local community for a specific client and site. Involves planning, design, cost analysis, and construction management. Prerequisite: TDS 231 or permission of instructor. *Spring*

**TDS 335 ARCHITECTURAL SYSTEMS**

Introduction to mechanical and electrical systems for buildings. Basic principles are studied and applied to designs of heating and cooling systems, water and electrical systems for a variety of building types. 2-hour lecture, 2-hour lab. Prerequisites: TDS 265 or permission of instructor. *Spring, every three years*

**TDS 352 PRODUCT DESIGN III**

This course is the third in the Product Design series. Specific design projects are undertaken which require an advanced knowledge of Computer-aided Design/Manufacturing. Topics include initial product design, product specifications, prototype fabrication and evaluation. 2-hour lecture, 2-hour lab. Prerequisite: TDS 252 or permission of instructor. *Fall*

**TDS 353 METHODS ANALYSIS**

Approaches to maximizing production efficiency through the use of methods analysis charts, motion study charts, and time study techniques. Prerequisite: junior standing or above. *Spring, alternate years*

**TDS 365 SOLAR DESIGN**

The design of passive and active solar systems for buildings. Study of basic principles, performance calculations, design optimization, and architectural integration of solar heating, cooling, and photovoltaic systems. Students design buildings using coordinated solar energy systems. 2-hour lecture, 2-hour lab. Prerequisite: TDS 265. *Spring, alternate years*

**TDS 375 CONSTRUCTION APPLICATIONS**

An in-depth study of the material and practices used to construct energy-efficient, residential buildings. Emphasis is

placed on interior and exterior finish, estimating, scheduling, and related trade work. Prerequisite: TDS 175 or equivalent. *Spring, alternate years*

**TDS 380 SAFETY AND HEALTH STANDARDS**

Compliance with OSHA in the workplace, including rights and responsibilities under OSHA, inspections, citations, appeals, and record keeping. The course will also cover the more frequently referenced standards in general industry. Prerequisite: TDS 284 and CHEM 103/107, or permission of the instructor. *Fall, Spring*

**TDS 381 LEGAL ASPECTS OF SAFETY**

Study of liability and the legal ramifications of accidents. Includes safety management concerns, personal and administrative liability, chemical dependency issues, and an introduction to federal and state regulations governing safety in industry, education, and transportation. Prerequisites: TDS 181, TDS 284, CHEM 103/107, and Safety majors and minors only, or by permission of instructor *Fall, Spring*

**TDS 383 HAZARDOUS MATERIALS**

The safe handling, storage, and use of hazardous materials for industrial, commercial, transportation, and public service operations are covered in detail. Accident prevention measures, training, emergency procedures and response, public safety, and regulatory requirements are studied. Prerequisites: TDS 281 or permission of instructor. Safety majors only. *Fall, Spring*

**TDS 385 METHODS OF TEACHING DRIVER AND TRAFFIC SAFETY EDUCATION**

*4 credits*

Professional preparation to meet the traffic and safety needs of schools and communities. Methods of classroom and laboratory teaching. State and national standards and recommended practices for teaching driver and traffic safety education. (Includes laboratory experience.) Prerequisites: valid operator's license, acceptable driving record, and TDS 283, or permission of instructor. *Summer – Continuing Education*

**TDS 387 ACCIDENT INVESTIGATION**

A study of the various techniques and procedures used in investigating accidents, with special emphasis on those procedures used in the industrial environment. Case studies and actual accident scenarios are used as part of the course. Prerequisite: TDS 284, TDS 380, and CHEM 103/107, or permission of the instructor. *Fall, Spring*

**TDS 400 MANUFACTURING ENTERPRISE**

Organization and implementation of a student-managed industrial enterprise, including a general overview of economic systems and corporate structure. Emphasizes laboratory covering design, production and distribution of marketable consumer products. 2-hour lecture, 2-hour lab. Prerequisite: junior standing or above. *Fall*

**TDS 406 STATICS AND STRUCTURAL ANALYSIS**

Analysis of systems in static equilibrium. Begins with fundamental physical laws and progresses to equations of forces and moments on rigid bodies, and analysis of frames, trusses, and

internal forces and moments in beams. Prerequisites: MATH 120 and PHYS 141. *Fall, alternate years*

#### **TDS 410 EMBEDDED CONTROL SYSTEMS**

Ad advanced microcomputer applications course which explores the field of embedded control systems. Assembly and C or C++ languages are used as the main programming tools for single board microcomputer control applications. 2-hour lecture, 2-hour lab. Prerequisites: TDS 313 and CS 280. *Fall, every three years*

#### **TDS 420 MECHANISM DESIGN**

Concepts of motion, displacement, velocity, and acceleration; graphical methods for analysis of vectors and relative motion. Emphasizes the use of drafting skills to solve problems by graphical layout. 2-hour lecture, 2-hour lab. Prerequisite: TDS 222. *Fall, alternate years*

#### **TDS 421 TOOL DESIGN**

Design of industrial tooling using CAD and/or traditional drafting techniques. Includes jigs, fixtures, dies, and molds. 2-hour lecture, 2-hour lab. Prerequisites: TDS 153 and 228. *Spring, every three years*

#### **TDS 422 ADVANCED MECHANICAL DESIGN**

Mechanical design problems including detail and assembly drawings and related dimensional and tolerancing principles utilizing advanced CAD techniques. 2-hour lecture, 2-hour lab. Prerequisites: TDS 222 and 228. *Fall, alternate years*

#### **TDS 434 ARCHITECTURAL DESIGN PROJECT**

Culminating course in architectural program with solution of real problem. Each student develops a complete design and set of drawings for a real client and site. Course emphasizes group interaction, peer review, and evaluation by independent architects. Prerequisite: TDS 331. *Spring*

#### **TDS 436 ARCHITECTURAL MATERIAL SCIENCE**

Study of physical properties of building materials, focusing on strengths, thermal, and moisture related characteristics. Emphasizing concrete, steel, wood, plastic foam and films, and composite materials. Prerequisites: TDS 175 and 331. *Fall, alternate years*

#### **TDS 452 PRODUCT DESIGN IV**

The capstone course for the Product Design series. Students will work on individual projects using advanced computer-aided Design/Manufacturing methodologies. Topics include project selection, development of solutions to design problems, and product fabrication. 2-hour lecture, 2-hour lab. Prerequisite: TDS 352, or permission of instructor. *Spring*

#### **TDS 481 HAZARDOUS MATERIALS**

The safe handling, storage, and use of hazardous materials for industrial, commercial, transportation, and public service operations are covered in detail. Accident prevention measures, training, emergency procedures and response, public safety, and regulatory requirements are studied. Prerequisites: TDS 281 and 284, or permission of instructor. *Fall, Spring*

#### **TDS 482 INDUSTRIAL HYGIENE**

Study of the various techniques and procedures involved in the practice of industrial hygiene. Examines the anticipation, recognition, and control of occupational health hazards in the workplace that can cause illness among workers or citizens of the surrounding community. Prerequisites: TDS 284, TDS 380, TDS 381, CHEM 103/107, and Safety majors only. *Fall, Spring*

#### **TDS 487 SYSTEM SAFETY**

A study of system safety as a technique in the management of industry and the environment using quantitative and qualitative methods of analysis to control risk. Topics include a variety of analytical techniques that are applied to practical systems. Prerequisite: TDS 284, and CHEM 103/107, or permission of instructor. *Fall, Spring*

#### **TDS 489 ORGANIZATION AND ADMINISTRATION OF SAFETY PROGRAMS**

Instructional and administrative aspects of comprehensive safety programs. Emphasizes the application of knowledge and skills through classroom and field experiences. Analysis of personal and environmental safety factors. Recommended for educators and people in safety-related fields. Prerequisites: TDS 181, TDS 284, TDS 380, TDS 381, CHEM 103/107, and senior status, or permission of instructor. *Fall, Spring*

#### **TDS 490 ADVANCED SPECIAL TOPICS**

*1-3 credits*

Study of a selected topic in the Technology, Design and Safety Department at an advanced level. May be repeated as topics change. Prerequisites vary with topics. *Fall, Spring*

#### **TDS 494 ADVANCED COOPERATIVE EDUCATION**

*1-6 credits*

Sequential work-learning experience for which compensation may be received. Placements arranged and supervised by Cooperative Education with approval and evaluation by full-time faculty. Elective credit only (normally 120/hours credit) to maximum of 12 credits per program. Prerequisites: TDS 294, 2.0 cumulative GPA, Declaration of Major, and permission of instructor. May be repeated for credit. Graded Pass/Fail. *Fall, Spring*

#### **TDS 495 SEMINAR**

*1-3 credits*

Small-group discussion of problems and issues in Technology, Design, and Safety. May be repeated as topics change. *Fall, Spring*

#### **TDS 498 INDEPENDENT STUDY**

*1-6 credits*

Advanced independent study of various fields of Technology, Design, and Safety through independent reading, writing, laboratory work, or field investigation. Requires a written report. Prerequisite: permission of instructor. May be repeated to a total of 6 credits. *Fall, Spring*

## Theatre and Dance

### TAD 101 INTRODUCTION TO THEATRE ARTS

A team-taught course that familiarizes students with several aspects of theatre arts and provides a basis either for further participation in or increased appreciation of acting, dance, design, directing, dramatic literature and technical theatre. For lower division students or by permission of instructor. TAD 101 is a prerequisite for all 300-level theatre courses. *Fall, Spring*

### TAD 111 THEATRE MOVEMENT

Training to free the body and develop it into a versatile, aware, responsive instrument of the actor's craft. Movement studies, journals, critiques required. *Spring*

### TAD 121-122 TECHNICAL THEATRE I, II

*3 credits each*

Intensive study of all aspects of technical theatre. First semester: tools and materials, two and three dimensional scenery, costume construction, scenic painting, and casting techniques. Second semester: electricity, lighting and sound, props, rigging, operation of stage crews. TAD 121 may be taken alone for credit, but it is a prerequisite for TAD 122. Corequisite: TAD 123-124. *TAD 121 Fall, TAD 122 Spring*

### TAD 123-124 THEATRE LABORATORY I, II

*1 credit each*

Production training in theatre. Students are assigned to either the costume shop or the scene shop. Projects are assigned according to theatre department production needs. Projects may cover such areas as: scenic construction, painting, lighting, rigging, sound, props, costume construction and accessories. Must be taken concurrently with TAD 121-122. *TAD 123 Fall, TAD 124 Spring*

### TAD 131 WESTERN THEATRE: HIST/LIT I

The history and literature of Western theatre examined from Ancient Greece to the Italian Renaissance. Exploring the great dramatic works and learning the context in which they were written through lectures, readings, videotapes, and discussion. *Fall*

### TAD 132 WESTERN THEATRE: HIST/LIT II

The history and literature of Western theatre examined from the Renaissance in France and England to the end of the 19th Century. Exploring great dramatic works and learning contexts in which they were written through lectures, readings, videotapes and discussion. Prerequisite: TAD 131. *Spring*

### TAD 162 DESIGN FOR THE PERFORMING ARTS

The elements of design used in the creation of a theatrical event. Exploration of the fundamental design elements and practical application of design theory through visual projects. *Fall, Spring*

### TAD 201 ACTING I

The actor's art and craft, with emphasis on the development of technical skills and the emotional and intellectual resources

required in acting. Voice and movement, and the techniques of improvisation and characterization. *Fall, Spring*

### TAD 202 ACTING II

A continuation of TAD 201, this course introduces students to performance styles, textual analysis, and scene study. Students in this course must audition for all Keene State Theatre productions. Prerequisite: TAD 201. *Fall, Spring*

### TAD 208 MAKEUP

The basic principles and techniques of makeup design used to enhance the actor's work. Includes the opportunity to design and execute makeup and serve as makeup directors and crew members on Keene State Theatre productions. Prerequisite: TAD 101, TAD 121, or TAD 201.

### TAD 211-212 MODERN DANCE I, II

*3 credits each*

An introduction to modern dance, designed to enable students to develop an understanding and appreciation for this art form, as well as to experience its discipline and creativity. Includes technique, movement principles, modern dance history, written reports, and fundamentals of dance composition. TAD 212 may be repeated once for credit. TAD 211 may be taken alone for credit, but it is a prerequisite for TAD 212. *TAD 211 Fall, Spring; TAD 212 Spring, Fall alternate years*

### TAD 216 JAZZ DANCE

An introductory course in jazz dance with emphasis placed on rhythm manipulation, isolations and qualitative contrasts within the technique of different jazz styles. Background in modern technique recommended. *Fall*

### TAD 217 BALLET FOR MODERN DANCERS

A studio course composed of barre, centre work, locomotor movements and jumps originating from ballet. Basic anatomy will be introduced to encourage working from the inside out. Prerequisite: TAD 211 and Dance major or minor, or by permission of instructor. *Spring*

### TAD 218 CREATIVE MOVEMENT EDUCATION

Theory and principles of movement in relation to child development, other aspects of education and the learning process. Exploration and discovery of one's own movement potential and creativity. Readings, observations, peer teaching.

### TAD 222 THEATRE LABORATORY III

*1 credit*

Further practice in various arts and crafts of theatre, including construction and painting of scenery and properties, stage operation, lighting, sound, costuming, makeup, and publicity. A minimum of 40 hours of studio work per credit. May be repeated for credit. Corequisite: TAD 225, TAD 227, TAD 361, TAD 362, and TAD 363. *Fall, Spring*

### TAD 225 COSTUME CONSTRUCTION

Basic sewing and patterning techniques used in the construction of theatrical costumes. Includes a series of projects culminating in a drafted bodice sloper. Must be taken concurrently with TAD 222. *Fall*

**TAD 227 STAGE MANAGEMENT**

Theory and practice of stage management. Students study the operation of a theatrical production from first production meeting through closing. Course work culminates in management of a Keene State Theatre production. Corequisite: TAD 222. Prerequisite: TAD 121. *Fall, odd years*

**TAD 231 WESTERN THEATRE: HIST/LIT III**

The history and literature of Western theatre examined from the end of the 19th Century to the present. Exploring great dramatic works and learning contexts in which they were written through lectures, readings, videotapes and discussion. Prerequisites: TAD 131, TAD 132. *Fall*

**TAD 235 MODERN DANCE HISTORY**

Historical survey of modern dance as an art form. Explores choreographers and their choreography from 1900 to the present through lectures, videotapes, films, readings and discussion. *Fall, alternate years*

**TAD 265 RENDERING FOR THE THEATRE**

A study of the major styles of architecture and clothing through the ages while exploring various media for rendering, including pencil, charcoal, pen and ink, watercolor, acrylic, and watercolor. *Fall, odd years*

**TAD 282 VOICE AND DICTION**

Vocal production, use of the International Phonetic Alphabet for sound identification and articulation, and work in techniques of relaxation, breathing, centering, and resonance. Active participation required in warm-ups, articulation drills, memorization for presentations. Formerly TASF 172. *Fall*

**TAD 290 SPECIAL TOPICS**

An exploration of areas not covered by the regular curriculum. Content depends on available faculty and resident artists. May be repeated for credit.

**TAD 297 PRODUCTION CREDIT**

*1 credit*

With the approval of the faculty member concerned, a student may earn credit for fulfilling a position of responsibility on a faculty-directed production. May be repeated for credit. *Fall, Spring*

**TAD 298 APPLIED PERFORMANCE**

*1-3 credit*

This lecture/laboratory course in theatre or dance examines the performance process from audition through conceptual analysis, rehearsal, and ensemble development, to the critical stage experience. May be repeated for credit for a maximum of 6 credits. Prerequisite: Permission of instructor. *Fall, Spring*

**TAD 301 ACTING III**

Training in actor preparation and building a character, with emphasis on establishing character relationships and ensemble work. TAD 301 may be taken alone for credit, but it is a prerequisite for TAD 302. Prerequisites: TAD 131 or TAD 132 and TAD 202, or permission of instructor. *Fall*

**TAD 302 ACTING IV**

A continuation of TAD 301, with concentrated work on traditional and experimental rehearsal techniques and styles of performance. Prerequisites: TAD 101, TAD 131 or 132, and TAD 301, or permission of instructor. *Spring*

**TAD 303 STAGE DIRECTING**

An introduction to the director's functions and the resources available for translating an interpretive idea into a successful production. Requires committed participation in the preparation and performance of production exercises. Prerequisites: TAD 101, TAD 131, TAD 132, TAD 201, and TAD 202. *Fall, odd years*

**TAD 304 DIRECTING WORKSHOP**

A studio workshop for the preparation, rehearsal, performance, and evaluation of scenes and one-act plays. Emphasis is on interpreting a text, choosing controls to support this concept, and working effectively with actors and designers. Prerequisites: TAD 303 and permission of instructor. *Spring, odd years*

**TAD 311-312 MODERN DANCE III, IV**

*3 credits each*

Intensive work in body awareness, movement principles, improvisation, and progressively more advanced dance technique. Sources for choreography and theatrical aspects of dance are explored as students learn to create solo and group dances. Written work required. May be repeated once for credit. Prerequisites: TAD 211-212 or equivalent modern dance training. TAD 311 may be taken alone for credit, but it is a prerequisite for TAD 312. *TAD 311 Fall, TAD 312 Spring*

**TAD 318 CHOREOGRAPHY**

Exploration of the craft and art of choreography through application of compositional theory in dance and improvisation, developing creative resources and theatrical elements. Choreographic projects, studios, readings, papers required. Prerequisites: two modern dance courses or permission of the instructor and concurrent enrollment in TAD 211, TAD 212, TAD 216, TAD 311, or TAD 411. May be repeated once for credit. *Fall*

**TAD 330 PLAYWRITING**

The theory and technique of playwriting, culminating in the writing of a play. Students study the structure of action, character, and dialogue. Written assignments include preliminary exercises, rough drafts, rewrites, and final drafts. Prerequisites: TAD 101, TAD 131 and junior class standing, or permission of instructor. *Fall, odd years*

**TAD 352 STUDIES IN CRITICAL THEORY**

Using a historical perspective, critical theory as it applies to theatre, dance, and film is examined. May be repeated for credit as topics change. Prerequisites: TAD 131, TAD 132, and TAD 231 or permission of the instructor. *Fall*

**TAD 361 SCENIC DESIGN**

How a designer analyzes a script and works with the director to create a design. Students study techniques of rendering, sketching, model building, and drafting. Must be taken concurrently with TAD 222. Prerequisites: TAD 101, TAD 121, TAD 131, TAD 132, TAD 162, and TAD 261, or permission of instructor. *Spring, odd years*



**TAD 362 LIGHTING DESIGN**

The lighting designer's role in the creation of a stage design. Lighting principles, instrumentation, color theory, script analysis, and light plots. Must be taken concurrently with TAD 222. Prerequisites: TAD 101, TAD 121, TAD 131, TAD 132, and TAD 162, or permission of instructor. *Spring, even years*

**TAD 363 COSTUME DESIGN**

The role of the costume designer in the theatrical process. Students study basic costume history, principles of design, script analysis and rendering techniques. Must be taken concurrently with TAD 222. Prerequisites: TAD 101, TAD 121, TAD 131, TAD 132, and TAD 162, or permission of instructor. *Spring, odd years*

**TAD 364 SCENE PAINTING**

The art of scene painting for the stage. Techniques include grid layout, drop painting, architectural detail and shading. Prerequisites: TAD 101 and TAD 122, or permission of instructor. *Fall, odd years*

**TAD 411-412 MODERN DANCE V, VI**

*3 credits each*

Advanced work in modern dance technique. Compositions include group collaborations (V) and studies specific to styles of individual modern dance choreographers (VI). Prerequisites: TAD 311-312 or permission of instructor. TAD 411 may be taken alone for credit, but it is a prerequisite for TAD 412. May be repeated once for credit. *TAD 411 Fall, TAD 412 Spring*

**TAD 490 ADVANCED SPECIAL TOPICS**

An exploration of areas not covered by the regular curriculum. Content and prerequisites depend on available faculty and resident artists. May be repeated for credit.

**TAD 495 SEMINAR**

Intensive study of a particular theme or topic relating to theatre or dance. May be repeated for credit as topics change. Content and prerequisites vary, but will include a TAD course related to the topic of the seminar, and junior standing, or permission of instructor. *Fall, Spring*

**TAD 498 INDEPENDENT STUDY**

*1-6 credits*

Intensive study of an issue, problem, or topic related to theatre arts or dance. May be repeated for a total of 6 credits. Prerequisites: junior standing and permission of instructor. *Fall, Spring*

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## Vocational Education

**VE 207 RELATED OCCUPATIONAL TRAINING**

*1-15 credits*

Designed for students who wish to expand their occupational competency by attending approved business, college, or industry schools, seminars, or workshops. Prerequisite: evaluation and approval by the student's program advisor. *Fall, Spring*

**VE 208 DEMONSTRATED OCCUPATIONAL COMPETENCE**

*1-36 credits*

Students with two or more years of occupational experience beyond the recognized learning period may be awarded up to 36 credits. The number of credits awarded is determined by the results of a standardized occupational competency examination, professional licensure, or recognized equivalents. *Fall, Spring*

**VE 209 COOPERATIVE OCCUPATIONAL INTERNSHIP**

*1-25 credits*

Students secure employment in supervised and approved work situations to further their skills, technical competence, and attitudes in their areas of specialization. They are expected to experience various roles in business and/or industry to expand their occupational competence. 120 hours per credit. Graded Pass/Fail. Prerequisite: permission of instructor. *Fall, Spring*

**VE 298 INDEPENDENT STUDY**

*1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent required of the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

**VE 353 TEACHING VOCATIONAL EDUCATION**

Examination of appropriate instructional methods and media, including class and laboratory management, and evaluation procedures. Fieldwork in the vocational schools of the state is assigned. Available only through the New and Returning Vocational Teacher Certification Program. See the TDS Department Coordinator. *Spring*

**VE 401 VOCATIONAL TEACHING INTERNSHIPS**

*8 credits*

A clinical experience in which the student acquires a fuller understanding of the principles, attitudes, and techniques related to a successful teaching career. Directed practice under guidance of the College supervisor. Open only to matriculated students who are currently teaching in a vocational school in the vocational area for which they are seeking certification. Graded Pass/Fail. *Fall, Spring*

**VE 403 INTRODUCTION TO SPECIAL NEEDS IN VOCATIONAL EDUCATION**

An introduction to the nature and needs of handicapped and disadvantaged students in vocational programs. Covers legislation, philosophy, and identification of secondary students with special educational needs. Includes individual education plans, equal access, and other factors related to vocational programming. *Fall*

**VE 486 PRINCIPLES AND PHILOSOPHIES OF VOCATIONAL EDUCATION**

The basic concepts, development, and practice of occupational education and the educational theories underlying it. Available

only through the New and Returning Vocational Teacher Certification program. See the TDS Department Coordinator. *Fall*

### **VE 590 ADVANCED SPECIAL TOPICS**

*1-6 credits*

Study of selected topics in vocational education based on the needs of the student. Examples are: career education, administration and supervision, adult education, grant writing, creating and using information systems, evaluation, research, special needs, contemporary issues, and cooperative education programs.

### **VE 598 INDEPENDENT STUDY**

*1-6 credits*

Intensive study of an area of industrial/vocational education through individual reading, writing, laboratory work, or field investigation. A written report is required. Prerequisite: permission of instructor. May be repeated to a total of 6 credits.

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## **Women's Studies**

### **WS 201 INTRODUCTION TO WOMEN'S STUDIES**

An interdisciplinary, historical, and global view of women that appreciates their diversity including class, culture, age, race, and sexual preference. Includes the study of the concept of patriarchy and women's responses to intellectual and social exclusion. May be taken for General Education credit in the Arts and Humanities or the Social Sciences, but not both. *Fall, Spring*

### **WS 290 TOPICS IN WOMEN'S STUDIES**

Concentrated study around a specific issue or theme that applies interdisciplinary methods to readings and analysis of

selected topics. Builds on foundations acquired in the introductory course. May be repeated for credit as topics change. Prerequisite: WS 201. *Fall, occasional Spring, Summer*

### **WS 298 INDEPENDENT STUDY**

*1-6 credits*

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent is required from the instructor who will supervise the independent study. Repeatable to a total of 6 credits.

### **WS 301 FEMINIST THEORY**

The study of historical and critical foundations and current principles of feminist theory that can be applied to other disciplines. Prerequisite: WS 201. *Fall, Spring*

### **WS 495 SEMINAR**

Exploration of major issues in women's studies under the direction of the Women's Studies Program faculty. Seminar content contingent on student interest and faculty expertise. Prerequisite: WS 301. *Spring*

### **WS 497 INTERNSHIP**

Culminating experience using Women's Studies course work as background for participant observation in the practical affairs and activities of a women's organization or other institution, private or public, involving women. Prerequisite: WS 301. *Spring*

### **WS 498 INDEPENDENT STUDY**

*1-6 credits*

Independent reading, writing on an approved topic under direction of a Women's Studies faculty member. May include field work. Prerequisites: WS 201, two WS electives, and permission of instructor. May be repeated to a total of 6 credits. *Spring*

# Academic Policies

## Governance

The College Senate, the legislative body of the College, has jurisdiction over educational policy and programs. After appropriate administrative approval, the actions of the College Senate are subject to the approval of the University System of New Hampshire Board of Trustees.

## Students' Responsibility

Students are responsible for being aware of and abiding by all College academic policies outlined in this catalog and in the Student Handbook. These include such things as Attendance Policy; Athletic Eligibility; Auditing; Add/Drop/Withdrawal Policy; Forgiveness Policy; Contract Course Work; Declaration of Major Policy; Grading System; Academic Standing; Academic Probation and Suspension; and Graduation Requirements.

Certain academic requirements must be met before a degree is granted. These requirements govern curricula and courses, majors and minors, and campus residence. Advisors, directors, and deans will help a student meet these requirements, but the student is responsible for fulfilling them. At the end of the student's course of study, the faculty and the Board of Trustees vote on conferring the degree. If requirements have not been satisfied, the degree will be withheld pending fulfillment.

## Catalog Policy

Each new edition of the Keene State College Undergraduate and Graduate Catalog becomes effective at the opening of the fall semester following its publication.

To earn a degree or simultaneous degrees, including components such as a second major, specialization, minor, etc., a student must complete all graduation requirements specified in the Keene State College Undergraduate and Graduate Catalog for the same academic

year. The catalog to be used to determine graduation requirements may be no older than the academic year of official admission. Any student who leaves the College and who is subsequently readmitted to a degree program will be required to meet graduation requirements in effect for the semester of readmission.

Typically, students follow graduation requirements for the catalog in effect at the time of first enrollment as a degree student at Keene State College. A student may choose to follow graduation requirements from any subsequent catalog while matriculated. A student electing to change from one academic program (e.g., major) to another may retain his or her original catalog year provided it is possible for the student to complete the graduation requirements. If that is not possible, a student must select a more recent catalog to determine graduation requirements.

## Enrollment Status

**Course Load.** The maximum credit load for matriculated undergraduate students is 19 credits. **Exceptions to this policy must be approved by the Director of Academic Advising prior to registration for credit overloads.** A student requesting an exception must do so in writing, including the number of credits to be attempted, specific courses, rationale and an unofficial copy of his/her academic transcript. Additional tuition will be charged for credit overloads.

**Academic Year.** Full- and part-time enrollment status for each fall and spring semester is determined according to the following table.

UNDERGRADUATE	
<i>Credits</i>	<i>Status</i>
12 or more	Full-time
9 – 11	3/4 time
6 – 8	Half-time
1 – 5	Less than half-time

**Cooperative Education.** A student participating in full-time or part-time cooperative education experience will be classified as a full-time or part-time student respectively if he/she meets the criteria described below. This classification by the Office of the Registrar will be solely for the purpose of establishing a student's status at the institution, not for payment of tuition. The student pays only for the number of credits for which he/she is registered.

Full-time student status is granted to a student working full-time (as defined by employer) for a minimum of 12 weeks during an academic semester in an approved cooperative education position. The student must also be registered simultaneously for 4-6 cooperative education credits at Keene State College. A student working part-time in a cooperative education position will be considered full-time by Keene State College if the total of cooperative education credits (maximum 3) and other course credits equals 12 or more credits during an academic semester. A student working part-time in a cooperative education position with fewer than 12 total credits during an academic semester will be considered to be a part-time student at Keene State College.

**Summer Sessions.** Full- and part-time enrollment status for each summer session is determined according to the following table. These summer criteria apply to academic status only and are different from regulated federal financial aid enrollment status criteria. See Financial Aid Policies section of the Student Handbook.

#### UNDERGRADUATE

<i>Credits</i>	<i>Status</i>
6 or more	Full-time
4 – 5	3/4 time
3	Half-time
1 – 2	Less than half-time

The maximum credit load for undergraduate students is 7 credits/session. Exceptions to this policy must be approved by the Director of Continuing Education.

**Graduate Studies.** Graduate student enrollment status is described in the "Graduate Programs" section of this catalog.

## Class Status

Class status is determined according to total credits earned and recorded on the student's permanent academic record at Keene State College.

#### CLASS STATUS

Freshman	0 – 29
Sophomore	30 – 59
Junior	60 – 89
Senior	90 to completion

## Attendance Policy

This policy emphasizes the correlation between attendance and academic achievement.

A student is expected to attend all class meetings of courses in which he or she is enrolled. Any form of attendance used by an individual professor as a criterion for evaluation must be specified in the course syllabus and presented to students during the first week of classes.

A student who misses in excess of three weeks of classes prior to the eleventh week of the semester (for any reason whatsoever) must withdraw from the course. The student must follow the regular withdrawal procedure. The faculty member may waive this policy at his/her discretion, but if the faculty member wishes to enforce the policy, he/she will inform the student in writing, who then must initiate the withdrawal. A student so notified who fails to withdraw from the course will be given an F for the course.

An instructor must take attendance in a course at the first class session. At the beginning of the first class session the instructor may "give away" the seat which has been reserved for any student who has failed to attend the first class without an excused absence. The student whose reserved seat has been reassigned must formally withdraw from the course.

A student expecting to be absent from a class meeting which is a scheduled date for tests, projects, papers, or similar assignments must contact the instructor before the absence (if possible) to arrange for making up work that will be missed.

Make-up procedures apply only to excused absences, including those arising from an emergency. Excused absences include: adverse weather conditions, illness, accident, death in the family, occurrences deemed proper by the instructor, and approved activities. Approved activities include: field trips, scheduled athletic events, off-campus use of academic resources, and authorized special projects.

Make-up procedures for excused absences are determined with the individual instructor; they carry no penalty to the student unless he/she fails to comply with the arrangements agreed upon. Instructors are not obliged to provide make-ups for unexcused absences.

Any student who feels that an instructor has incorrectly handled a request for an excused absence has the right to appeal that decision to the appropriate divisional dean. The decision of the dean is final.

## Athletic Eligibility

Keene State College is a member of Division III of the National Collegiate Athletic Association (NCAA) and its regional affiliate, the Eastern Collegiate Athletic Conference (ECAC), and the Little East Conference (LEC). Student athletes must meet all the eligibility requirements of the NCAA in order to participate in intercollegiate athletics.

NCAA eligibility includes, but is not limited to:

- must be a full-time student, enrolled in at least 12 credits per semester and matriculated into a 4-year degree granting program;
- must be accepted through the regular admissions process of the College;
- must be in good academic standing as determined by the institution (see Academic Standing, p. 170);
- must have passed 24 credits applicable to a degree in the preceding two full-time semesters (summer sessions may be included) or must have passed an average of 12 credits applicable to a degree per full-time semester of attendance;
- has 10 full-time semesters to complete four years of eligibility.
- Transfer students from two-year and four-year institutions must meet additional requirements. Contact the Athletic Department for more information.

At the beginning of each semester of competition, each participating student's academic record is reviewed by the Registrar, the Director of Athletics, and the NCAA faculty representative. Eligibility must be certified before a student competes; eligibility interpretations are governed by the NCAA.

## Auditing

Under the audit policy, potential students are encouraged to enroll in courses which provide an opportunity for them to assess their capacity to do college-level work for credit or which enable them to explore a discipline of interest.

Students may register to audit a course on a "space available" basis. Class participation is determined by the instructor; the student does not have to take examinations and does not receive credit for the course. The audit fee is fifty percent of the tuition fee for lecture courses. For studio, computer programming, laboratory/field studies, or skill courses, the fee is one hundred percent of the tuition fee.

Students admitted as auditors may not change their registrations to "credit" after the second week of classes; students registered for credit may not change to "audit" after the second week of classes.

## Adding and Withdrawing from Courses

**Add/Drop Period.** A student may add or drop a course (without fee) beginning with the first class of the semester through the completion of classes on the seventh calendar day of the semester. Any course added during the one-week Add/Drop period requires the signature of the instructor on an Add/Drop form. Any course dropped during the one-week Add/Drop period requires the signature of the instructor or a departmental or divisional administrative assistant. Courses dropped during the Add/Drop period will not be recorded on the student's permanent academic record.

In the case of a course scheduled to begin during (rather than at the beginning) of a semester, a student may add or drop a course by obtaining the instructor's signature on an Add/Drop form and submitting the signed form to the Office of the Registrar. Once the course has begun, a student has seven calendar days to add or drop the course with the instructor's signature on an Add/Drop form.

**Late Course Addition.** Any course addition occurring more than seven calendar days after the beginning of the course will be by exception. The signature of the instructor is required on an Add/Drop form. A fee is charged.

**Course Withdrawal Period.** A student has the option of withdrawing from a course from the end of the add/drop period through the end of the 11th week of classes in a semester. This time period, which includes 70 percent of the total class meetings for a semester, is intended to provide sufficient opportunity for the student to communicate with the course instructor in support of making informed decisions concerning his or her academic progress in a course. A student is strongly urged to discuss the impact any course withdrawal might have on his or her academic and/or financial status with his or her advisor(s), the Elliot Center, or with Student Financial Services before withdrawing from a course.

A student must communicate with the course instructor regarding his or her intention to withdraw from a course. The required signature of the course instructor on an add/drop form indicates that the course instructor has been notified. The completed add/drop form is submitted to the Office of the Registrar. A fee is charged. A "W" will appear on the student's permanent record. The "W" will not affect the student's grade point average.

After the 11th week, a student should be committed to each of his or her classes for the remainder of the semester. The student will receive a letter grade in each course.

Course add/drop and withdrawal regulations and timelines for sessions other than the traditional fall and spring semesters during the academic year (e.g., summer sessions, quarter terms, etc.) are published in the Keene State College Academic Calendar or the appropriate bulletins pertaining to those sessions.

## English Language Competence

Essay Writing (ENG 101) is required of all students. It should be completed during the freshman year and is not open to juniors or seniors unless they are transfer students.

## Forgiveness Policy

Courses not designated as repeatable may be retaken once if a student has received a grade of "CD" or lower.

Students taking advantage of the Forgiveness Policy must register for the course, pay tuition, and complete and submit the Forgiveness form available in the Elliot Center.

All grades received in the course will be entered on the transcript, but only the second grade will be included in the calculation of the grade point average. When the grade is the same, the most recent grade will be included in the calculation of the grade point average. Credit will be given only once.

All grades received at Keene State College are recorded on the student's permanent transcript. If a course is retaken at another college or university, only the credit earned is entered on the student's permanent record. The original grade in the course is neither entered nor calculated into the grade point average. A course substitution form must be completed in order to use a transferred course for Forgiveness.

The Forgiveness Policy does not apply to courses taken for graduate credit.

## Course Repetition

Courses may be designated as repeatable by academic departments and programs. Departments and programs must state in course descriptions the maximum number of credits a student may receive or whether a student may receive unlimited credit. Departments and programs must also state whether the permission of the instructor is required. Prerequisites may be specified by departments and programs as topics change.

## Declaration of a Major

Students declare a major by completing a form provided by their academic advisor or the Elliot Center and returning it to the Elliot Center. Students may declare a major any time after admission but must do so by the time they have earned 60 credits. The Registrar will deny access to course selection for any student who has earned 60 semester hours and has not declared a major.

## Dual Major

A dual major is defined as an academic program that includes one degree and a minimum of two majors (e.g., B.S. Management/Economics). A student earning a dual major must complete the General Education requirements specified by the degree (e.g., Bachelor of Science). Restrictions regarding the use of General Education-eligible courses required by the major(s) are waived. The student **must** complete all courses required by each major.

Students will be awarded only one bachelor's degree (a B.A. or B.S.) at a single commencement ceremony. Exceptions to this policy are noted in the section "Earning a Second Undergraduate Degree" below. However, students may complete a dual major and the second major may be in a different degree program. Thus, students who complete the requirements for more than one major under a single degree may declare and be awarded the bachelor's degree with a dual major (e.g., B.A. Psychology/Sociology). In cases where the majors are in different degree programs (B.A. and B.S.), students must indicate on their Intent to Graduate forms how the diploma should list the majors (e.g., B.S. Management/Psychology or B.A. Psychology/Management).

## Earning a Second Undergraduate Degree

**Consecutive Second Degree.** A student who has completed one undergraduate degree may earn an additional undergraduate degree by completing the requirements for the second degree. The student completing a second degree must satisfy the General Education requirements for the second degree. Restrictions regarding the use of General Education-eligible courses required by the major(s) are waived.

Candidates for a second bachelor's degree must apply through the regular admission process and complete a minimum of 24 credits beyond the first degree. Normally, work toward the second degree must be completed within six years of the time the applicant is officially admitted to the program. Credits used to satisfy the requirements of one or more bachelor's degrees may not be used to satisfy the requirements of a graduate degree.

**Simultaneous Second Degree.** The conferring of two bachelor's degrees at the same commencement requires completion of a minimum of 144 credits (120 plus 24), including fulfillment of requirements for both degree programs. Restrictions regarding the use of General Education-eligible courses required by the major(s) are waived. The conferring of an associate and a bachelor's degree at the same commencement requires completion of all requirements for both degree programs. The same exception to General Education restrictions applies.

## Grading System

Grades at Keene State College are recorded as A (4.0), AB (3.5), B (3.0), BC (2.5), C (2.0), CD (1.5), D (1.0), and F (0.0).

These courses are graded Pass/Fail (P/F):

Music Workshop (MU 100)

Student Teaching (ED/SPED 409, ESEC 460, ESEC 465, SPED 460, SPED 465)

Honors Seminar (PSYC 496)

Honors Research (PSYC 499)

Cooperative Education (294 and 494)

Cooperative Occupational Internship (VE 209)

Sport and Leisure Activities (PE 150-186)

Vocational Teaching Internship (VE 401)

Students who wish to change from credit-to-audit, audit-to-credit, or undergraduate-to-graduate status in a course must do so during the first two weeks of the semester.

An Incomplete ("I") may be given when there have been extenuating circumstances or illness. An "I" is not calculated into a student's quality point average, but becomes an "XF" if the course requirements are not completed by the end of the seventh week of the following semester, or, for students granted an academic leave of absence, by the end of the seventh week of the semester following the leave. The "XF" grade is calculated as an "F" in the student's cumulative G.P.A. Exceptions to the above stated procedure requires approval of the appropriate divisional dean.

The grade In Progress ("IP") is given only for courses requiring more than one semester to complete. The Divisional Deans submit to the Registrar a list of courses in their divisions for which an "IP" grade is appropriate. Any course for which an "IP" is awarded must be completed within one semester after the "IP" is given, at which time the "IP" will change to an "XF" if the work is not finished. Exceptions to the above stated procedure require approval of the appropriate Divisional DSean.

## Grade Appeals

If a student believes that he/she has not been graded according to criteria contained in the course syllabus, or has been graded unfairly or inaccurately, the student should first consult with the course instructor about the course requirements and grading procedures.

If the student is still dissatisfied, he/she may file an appeal in writing to the instructor's Divisional Dean. The Divisional Dean will conduct whatever review is necessary to arrive at a resolution, including, if necessary, a meeting with the instructor and the student.

If the matter is not resolved at this level, the student may appeal in writing to the Vice President for Academic Affairs. If the Vice President for Academic Affairs determines that the matter cannot be otherwise resolved, he/she has the option of removing any record of the student's registration in the course from his/her transcript without penalty to the student.

## Progress Reports

Faculty are encouraged to issue mid-semester progress reports to students in 100- and 200-level courses who are achieving academic excellence or who are achieving below the acceptable class standard.

## Cumulative Grade Point Average (GPA)

The Cumulative Grade Point Average is determined (1) by multiplying the grade weight (A=4, AB=3.5, B=3, BC=2.5, C=2, CD=1.5, D=1, F=0) for the grade in each course times the number of credits the course carries, in order to determine the grade points for each course; (2) by adding all grade points earned; and (3) by dividing this total by the total number of credits for all courses in which grades have been earned. Grades earned at other institutions are not included in the calculation of the cumulative grade point average.

A semester quality point average may be calculated in the same way. For example, the semester quality point average for a student who received one A, three Bs, and one C in five three-credit courses during a given semester would be calculated as follows: 12 grade points for the one A (A=4 times 3 credits), 27 grade points for the three Bs (B=3 times 9 credits for three courses), and 6 grade points for the one C (C=2 times 3 credits), giving a total of 45 grade points. Dividing the total grade points (45) by 15 (5 courses times 3 credits each), yields a semester quality point average of 3.0.

Credits for each course for which a "P" is awarded are used to determine total credits earned by the student toward graduation, but the credits in such courses are not used in calculating grade point averages. Also, non-credit courses are not used in computations for grade point averages. When using the Forgiveness Policy,

repeated courses count only once and grade points are based on the last grade for the course.

## Academic Standing

A matriculated student is required to maintain a cumulative grade point average (GPA) of 2.00 to be in good academic standing.

A minimum grade point average of 1.00 is required of first semester freshmen, transfer, and re-admit New Start students at the conclusion of their initial semester. Any of these students earning a grade point average less than 1.00 at the conclusion of their first semester will be academically suspended.

## Academic Probation and Suspension

Each student is responsible for becoming aware of, and meeting, the standard established for academic performance at Keene State College. A grade point average (GPA) of 2.00 is required to be in good academic standing. Failure to achieve the specified, minimum scholarship standard will result in academic probation or possible academic suspension.

**Academic Probation.** Any matriculated student who has a cumulative GPA greater than or equal to 1.00 and less than 2.00 will be placed on academic probation for the ensuing semester. A student who fails to improve his or her GPA to a minimum of 2.00 at the conclusion of the first semester of probation will be continued one additional semester of probation. A student who fails to achieve the required cumulative GPA of 2.00 at the conclusion of the second successive semester on probation will be suspended. With the exception of an error by the College in assessing or recording academic performance, a student may not appeal for reinstatement.

**Academic Suspension.** A minimum grade point average of 1.00 is required of new students (freshmen, transfer) following their first semester and readmit students following their first semester of re-admittance. Failure to meet this requirement will result in automatic suspension. With the exception of an error by the College in assessing or recording academic performance, a student may not appeal for reinstatement.

A student who fails to achieve the required cumulative GPA of 2.00 at the conclusion of the second successive semester on probation will be suspended. With the exception of an error by the College in assessing or



recording academic performance, a student may not appeal for reinstatement.

Academic suspension from Keene State College results in the loss of matriculated status for one fall or spring semester immediately following the notice of suspension.

Suspension excludes students from all non-academic activities at Keene State College. However, academically-suspended students may enroll for a maximum of seven credits during a fall or spring semester or during the summer school program (session 1 and 2 combined) through the Division of Continuing Education at Keene State College. If completion of these courses causes the student's cumulative grade point average to meet or exceed the appropriate minimum scholarship standard, then the student may apply for readmission to the College for the semester following the mandatory semester of separation.

The criteria for readmission are specified in the Readmission Requirements policy statement in the Undergraduate Admission section of this catalog.

**Grade Appeal Process.** If a student believes that he or she has not been graded according to criteria contained in the course syllabus, or has been graded unfairly or inaccurately, the student should pursue the Grade Appeals process defined elsewhere in the Academic Policies section of this catalog. The student should inform the Office of the Registrar in writing that a grade appeal is in process, including the specific course(s) and grade(s) in question.

In cases where an error has been made by the College in assessing or recording academic performance (e.g., incorrect grade, calculation of GPA), the appropriate adjustments will be made to the student's official academic record. If warranted, a student's academic standing will be corrected and the academically suspended student will be reinstated.

## Policy on Academic Honesty

### Principles

The pleasure and sense of accomplishment in doing original scholarship are central to the college experience. For some students, the resulting excitement and sense of purpose will be so great that they will decide to go beyond the undergraduate experience and dedicate their lives to research and writing. But for all students,

the feeling of satisfaction and pride in producing their own work, without misusing or misappropriating the work of others, helps build confidence in their intellectual abilities and their powers of dealing with the larger world. To encourage this sense of purpose and accomplishment, Keene State College expects students to understand and observe certain widely accepted principles and standards of academic and intellectual honesty.

### What is academic honesty?

Academic honesty is taking full responsibility for your course work and for your intellectual and educational development. One important aspect of academic honesty is acknowledging the writing, ideas, and research of others. This enables you to accept, without reservation, full credit for your own ideas and scholarly work. While learning from the work of others is essential to the educational process and to all serious research, it is important for you and for your audience to discern what is original in your work.

The accepted method of acknowledging the work of others when it appears in your writing is citation and proper quotation. Citation may take one of several forms: footnotes, endnotes, or parenthetical citation within the text of your essay. The best method is the one generally accepted in the field in which you are working. Quotations should be exact and enclosed in quotation marks. Some form of citation usually accompanies quotations. If you are restating in your own words the ideas of others you should use some form of citation to remind the reader that these ideas originated elsewhere. Web sites as well as books and articles are sources you should acknowledge. If in obtaining material from a web site you are unsure of the author, you should at least cite the location of the web page, so your reader can examine it. Current handbooks and manuals such as the MLA Handbook and the Chicago Manual of Style explain how to cite websites as well as all kinds of printed materials. See the discussion of plagiarism (below) for further information.

Beyond the writing and research process, academic honesty extends to every aspect of course work. It requires proper conduct during exams, accepting assignments and carrying them out to the best of your ability, and always being truthful about every aspect of your course work, research, and laboratory work. The academically honest and responsible student respects the work of fellow students, respects the function and

property of the library, honors scientific procedure, and understands the role of exams in determining intellectual growth.

### **What is academic dishonesty?**

Honoring your own work is essential to the principles of academic honesty and integrity. If you plagiarize by incorporating the ideas or words of others without properly acknowledging them, you are violating those principles and doing yourself, your instructor, and the College a disservice. You cannot be fairly evaluated and cannot fairly evaluate your own education without distinguishing your own intellectual accomplishment from the accomplishments of others. If you cheat on exams, you are violating not only the regulations of the College and the trust of your instructor but your own intellectual integrity. If you fail to properly carry out laboratory experiments and simply fake the results, you are violating the principles of scientific research that have made the modern world possible. Because academic honesty is essential to the educational process, College policy must state clearly the grounds of academic dishonesty and must prescribe sanctions for violation of the principles of academic honesty and integrity.

Academic dishonesty is the violation of the principles of academic integrity. Academic dishonesty may include (but is not limited to) any of the following cases:

1. Giving or receiving aid in quizzes or tests, in the writing of papers, or in the preparation of lab reports or other homework assignments, unless an instructor explicitly allows for or requires collaboration; in such cases where collaboration is allowed or required, instructor guidelines on the form(s) and extent of such collaboration must be adhered to;
2. Taking an exam for someone else or having someone take an exam in one's place;
3. Purchasing a term paper, using one from a "file" of old papers, having someone write a paper, or writing one for someone else;
4. Turning in a "dry" lab report (faking the data without doing the experiment);
5. "Padding" items in a bibliography (i.e., listing works not actually used);
6. Feigning illness to avoid an exam or other required work;

7. Stealing a copy of an exam, or selling/using a stolen copy of an exam;

8. Sabotaging someone else's work or removing material from the library that other students are required to use or cutting material out of books or journals in the library;

9. Plagiarizing the work of others, including using material off the internet without proper citation (see also below);

10. Sharing research for a paper or in-class presentation with a student in a different section of the class or in a different class (without specific permission to do so);

11. Altering or forging college documents (e.g., changing information in transcripts or grade reports or forging a faculty/library staff member's name or initials on a form);

12. Using materials, information, illustrations, charts or diagrams from web sites without proper acknowledgment;

13. Not properly citing sources of information in speeches and/or public presentations.

There may be occasions when a faculty/library staff member permits, recommends, or even requires collaborative effort; however, students should be careful to follow whatever guidelines are set up by faculty/library staff for collaborative work. Unless such collaboration is specifically discussed, students should assume that collaboration is not acceptable, that collaboration is, in fact, a punishable offense.

Plagiarism is the use, in a paper or presentation, of the words, ideas, or opinions of someone else, from any source whatsoever, that appear to be your own. The most obvious kind of plagiarism is the use of another's exact words without quotation marks and/or without appropriate citation. A second kind of plagiarism is the use of another's ideas, thoughts, or opinions without proper citation: simply putting another's thoughts into your own words (paraphrasing) is not enough—you must also cite the source of material when you paraphrase another's ideas.

Another, more subtle form of plagiarism is the use of another's sequence of ideas, arrangement of material, or pattern of thought without giving proper citation. Material taken from Internet or web sources must also be acknowledged through appropriate citation, whether

you use the original source's words or not. In general, students should be aware that a good deal of material needs to have the source cited, that citations are not limited only to direct quotations (exact words within quotation marks).

There is, of course, nothing wrong with using the work of others, if the writer gives proper documentation. In fact, the use of sources ("authorities") to support one's views is often a tactic in increasing credibility; indeed, in certain kinds of papers students are often required to use other sources. A simple test:

Have I read any materials, which I am using in this paper but have not cited? Am I deliberately referring to or recalling any particular source of information as I write this paper? Am I quoting or paraphrasing any source as I write?

If the answer to all three questions is no, the writer probably need not worry about using sources dishonestly. If the answer to any of these questions is yes, the student must provide proper citation of his or her source(s). If there is any doubt whatsoever, it is always best to ask the faculty/library staff member for whom the paper is being written. Indeed, any question about any form of academic dishonesty should be addressed to the appropriate faculty/library staff member. It is always "better safe than sorry."

#### **Academic honesty for international students**

Academic honesty can have a very different meaning in educational institutions abroad, and there is an increasing number of international students at Keene State College. The National and International Exchange center provides assistance both to international students and to faculty/library staff who are dealing with issues of academic honesty with students from other countries. However, all Keene State students will be held accountable for adhering to the Academic Honesty Policy.

#### **Brief Overview of the Handling of Academic Honesty Policy Violations**

The College review of Academic Honesty Policy violations is an administrative process. It is not a criminal law process; nor is it intended to resemble one. The College review of Academic Honesty Policy violations is not required to observe formal rules of evidence and may exclude unduly repetitious or immaterial information.

Although all cases of academic dishonesty are serious, some are more serious than others. Those that are less

serious will be handled by the faculty/library staff member, who will decide on the appropriate sanction – from restitution to redoing the assignment to failure for the assignment to an F for the course. The initial sanction will be imposed by the faculty/library staff member, but all violations must be reported to the appropriate Dean/Director of Mason Library, who will schedule a conference with the student to discuss the incident and the student's right to appeal. The Dean/Director of Mason Library will make a final decision regarding the student's responsibility in the case based on the preponderance of evidence. The Dean/Director of Mason Library will report the outcome to the Office of the Vice President for Academic Affairs (VPAA), where the reports will be kept on file. The reports, with appropriate supporting documentation, will be kept in the VPAA's "active" file for five years after a student either graduates or stops taking courses at the College, after which time the reports will be removed to an archival file.

More serious offenses – the stealing, selling, or buying of an exam; the presentation of a paper that is wholly or largely the work of another, including "purchased" or "file copies" of term papers; or having a "substitute" take an exam – will be considered as grounds for, and result in, permanent dismissal from the College. If the Dean/Director of Mason Library determines an offense is serious in nature or is a subsequent offense, he/she may consider it grounds for dismissal.

#### **Academic Honesty Violation Reporting Procedures**

- An alleged violation occurs
- Faculty/library staff fills out form that includes:
  - Charge,
  - Evidence attached,
  - Sanction issued after consulting sanction guidelines (normally within one working day of discovering the violation).
- Faculty/library staff meets with student
  - Form is reviewed with student. Faculty/library staff members explain charges, evidence, and sanctions.
  - Student signs original of the form. This does not indicate responsibility, only that the student has been informed of and understands the process and charges.

A copy of the form is given to the student.

Faculty/library staff explains the hearing process with the dean/library director (normally within 3 working days of filling out the form).

- Divisional dean/library director and faculty/library staff meet and discuss form, evidence, and sanction (normally within 3 days of receipt of form from faculty/library staff).

- Divisional dean/library director and student meet:

Review student history before meeting.

Meet with student and review form (normally within 3 days after meeting with faculty/library staff).

Student gives his/her account.

Student states whether or not he/she takes responsibility for incident.

Dean/director determines student responsibility (finding must normally be rendered within 5 days of meeting with student).

Dean/director shares sanction with student and faculty/library staff.

Dean/director explains the appeal process.

Dean/director explains future consequences of violating policy.

- Dean/director notifies all parties in writing  
Normally, within 15 days of final meeting with student.

- Student determines if she/he wants to appeal

Student has 5 working days from date on outcome letter to submit, in writing, appeal and grounds for appeal.

Appeals are sent to the VPAA.

VPAA determines which cases should be heard by Appellate Board (board hears all cases that resulted in expulsion).

Appellate Board makes recommendations to the VPAA. Decisions of the VPAA are final.

All case records are filed in the Office of Mediation and Dispute Resolution.

More detailed procedures and processes pertaining to the Policy on Academic Honesty can be viewed at [www.keene.edu/policy/academichonesty.cfm](http://www.keene.edu/policy/academichonesty.cfm).

## College Withdrawal

Students wishing to withdraw from the College must secure a withdrawal form from the Associate Vice President for Student Affairs. This form, when complete and authorized with appropriate signatures, must be cleared with the Bursar's Office for settlement of accounts.

Students leaving the College during the course of a semester without officially withdrawing are held responsible for their registration for that semester. An unofficial withdrawal from the College results in failure in all courses and consequent suspension or dismissal action, as well as loss of any refund privileges.

## Academic Leave of Absence

A student seeking a leave of absence must make a written request to the Associate Vice President for Student Affairs. The request must include the reason for the leave and the exact semester the student intends to return to campus.

When a leave of absence has been officially granted by the College, no additional readmission procedure is needed.

## Dean's List

At the end of each semester, matriculated students who complete a semester with a minimum of six credits of indexable (not pass/fail) grades, earn a semester grade point average of 3.5 or higher, receive no failing grades nor grades of Incomplete, and have no missing grades, will be placed on the Dean's List.

## Commencement Policy

Students expecting to meet the requirements for their baccalaureate degree(s) within the calendar year (May, August, December)\* may participate in May commencement. Students may not participate in commencement more than once for the same degree. The requirements for the degree must be completed before a degree is awarded and a diploma is issued.

\*Students will be identified as graduating in May, August, or December and will be designated as such in the May commencement ceremony.

## Graduation Requirements

1. A student must be formally admitted to a degree program before beginning the final 30 credits of a degree. Students intending to participate in the May commencement ceremony (including August and December graduates) must submit the Intent to Graduate Form to the Office of the Registrar by October 1.

2. To earn a degree, a student must complete at least 30 credits in residence at Keene State College. Credits taken through the National and International Exchange programs and the New Hampshire Consortium will be considered credits earned at KSC. *Note: Refer to Transfer of Credit policy in the current Keene State College catalog.*

3. Students must satisfactorily complete the prescribed requirements of the curriculum in which they are enrolled and must present a cumulative grade point average of 2.0 or higher.

4. Payment of relevant fees (e.g., graduation, fines) must be received before a diploma is issued.

The Associate Vice President for Academic Affairs must approve exceptions to graduation requirements.

## Commencement Honors

A graduating student who has earned at least 60 graded credits at Keene State College in a bachelor's degree program, or at least 30 credits at Keene State College in an associate degree program, is eligible to graduate with academic honors.

Recognition of commencement honors at the commencement ceremony is based on the student's cumulative grade point average as of the preceding December.

A student's permanent record (e.g., transcript and diploma) will reflect commencement honors based on the student's cumulative GPA upon completion of his or her degree program.

**Honors in specific disciplines** are awarded to those who complete the honors requirements of their respective academic discipline (3.20 minimum), and who have a cumulative GPA of 3.20 or higher.

A student with a cumulative GPA of **3.9 or higher will earn summa cum laude** honors. A student with a cumulative GPA of **3.70-3.89 will earn magna cum laude** honors. A student with a cumulative GPA of **3.50-3.69 will earn cum laude** honors.

## Transcript (Academic Record)

The Office of the Registrar maintains official academic records, including class rosters, schedules, and transcripts. Upon graduation, one official transcript of a student's academic record accompanies the diploma free of charge. Thereafter, there is a fee for each official transcript. Transcripts will be sent by the Office of the Registrar only upon receipt of a written request with the student's signature, ID number, last year of attendance, full name while attending, and current address, accompanied by payment. Checks should be made payable to Keene State College.

A student requesting a change to his or her academic transcript in an area that, under current policy and procedure, is the student's responsibility, must initiate the change within one calendar year of the conclusion of the semester in question. This limitation does not apply in an area recognized as the responsibility of Keene State College.

## Student Records

Pursuant to the passage of the Family Educational Rights and Privacy Act of 1974 20 U.S.C. 1232g (the "Buckley Amendment") and subsequent amendments and clarifications by the U.S. Senate Joint Resolution No. 40, the Board of Trustees of the University System of New Hampshire adopted a policy which assures a student access to education records which pertain to matriculation within Keene State College.

In general, the law provides that:

a. Student records are confidential, with the exception of predetermined public directory information.

**Privacy Hold Policy.** Directory information, either published or in dealing with routine inquiries, is defined by Keene State College as the following:

Name  
Mailing address  
Mailing telephone  
Local/campus address  
Local/campus telephone  
E-mail address (KSC)  
Date/Place of birth  
Major(s)  
Dates of attendance  
Degree(s) and awards received

All other information contained in official student education records is available only to those persons

within the College who have a legitimate need for it, and to all others, only with the expressed consent (i.e., signature) of the student.

*Choice 1:* All address and telephone information will be held from printed or electronic directories. The student's presence at Keene State College will be acknowledged in response to routine inquiries, and name, date of birth, major, degrees, and awards received will be published such as Dean's List, Commencement program, and announcements. Students will be eligible to receive a College e-mail account.

*Choice 2:* All directory information will be held in confidence which means the student's presence at Keene State College will not be acknowledged in response to routine inquiries. No directory information will be listed in print or electronic media, and the student's name will not be published in Dean's List announcements, honors, recognitions, Commencement program, or newspaper listings. In addition, federal law prohibits our response to inquiries by employers or prospective employers. The student will not be able to receive a College e-mail account.

*Students are advised to seek advice and counseling from the Registrar before choosing this option as it is very restrictive.*

Once a student places a privacy hold of either type upon his/her record, it shall remain in place until the Office of the Registrar is notified in writing, signed by the student, to change or remove the hold. This applies even if the student separates him/herself from the institution.

b. Students shall have access to their official education records with the exception of financial aid records submitted by parents, confidential references submitted prior to January 1, 1975, and medical, psychiatric, and counseling records used only in connection with providing treatment to the student. A student may have a doctor or other professional examine and explain medical, psychiatric, and counseling records, and may, at the discretion of the Coordinator of Health Service, obtain at his/her own expense, copies of his/her medical (exclusive of psychiatric and counseling) records.

c. Students shall have the right to know information contained in their education record and to have a

hearing to determine the appropriateness of such information remaining in the record. The following offices maintain educational records on all students enrolled at the College:

Bursar's Office  
Elliot Hall

Office of the Registrar  
Elliot Hall

Associate Vice President for Student Affairs,  
Student Development  
Elliot Hall

The following offices maintain education records for some of the students enrolled at the College:

Elliot Center  
Elliot Hall

Office of Intercollegiate Athletics  
Spaulding Gymnasium

Arts and Humanities  
Parker Hall

Professional Studies  
Rhodes Hall

Sciences  
Science Center

Health Services  
Elliot Hall

Residential Life Office  
29 Butler Court

Student Financial Services Office  
Elliot Hall

Student Loans Office  
Elliot Hall

Teacher Education and Graduate Studies Office  
Rhodes Hall

For more information concerning the Buckley Amendment or for assistance in locating individuals or offices maintaining a student's educational record, contact the Office of the Vice President for Student Affairs, Lloyd P. Young Student Center.

# Academic Support Programs

## Elliot Center

The Elliot Center offers coordinated support for students in the areas of academic and career development. Combining the areas of academic advising, career services, the Aspire program, and the Office of the Registrar, the Center is a dynamic hub. A teaching/learning collaborative that involves students, faculty and staff, the Elliot Center with its career library is a resource for advising, instruction, use of educational technologies, research, skill building, and exploration dedicated to assisting students in achieving their potential. The Elliot Center also conducts the College's Orientation programs.

Located on the first floor of Elliot Hall, the Elliot Center welcomes all students – prospective, current, and alumni.

## Academic and Career Advising

The major objective of the Elliot Center's academic and career advising program is to assist student growth in the following areas: self-awareness and intellectual potential, the ability to identify realistic academic and career goals and a program of study to achieve them, and the awareness of life as extending beyond the College experience.

The academic and career advisor can assist students in: identifying and assessing options and the consequences of decisions, defining and developing realistic goals, planning an academic program, monitoring progress toward the goal, and referring to appropriate support services.

Ultimately, responsibility for making decisions about life and educational plans rests with the student. A student is expected to gather relevant information; clarify personal values and goals; become knowledgeable of policies, procedures, and requirements; and utilize institutional and community support services.

**Orientation Advising.** New first-year students will have the assistance of faculty, student, and staff advisors during orientation advising. These advisors introduce the College's academic advising system, explain General Education requirements, provide an overview of major requirements for those students who have identified educational goals, and assist students with the advising/course selection process.

**Major Advising.** Department chairs or their designees are responsible for assigning advisors to students who have declared a major or have selected an educational goal. While the student is still responsible for meeting the requirements of his/her academic program, the faculty advisor is available to assist with program requirements, long-range planning, career opportunities, and professional recommendations. Students who are undecided about their educational goal are advised by the Elliot Center.

Students must formally declare a major by the time they have earned 60 credits. Transfer students with more than 60 credits have one semester before they must declare their major.

## Aspire

The Aspire Program is a federally funded program designed to provide academic assistance to Keene State College students. The heart of the program is a peer-tutor program. Tutors are available for many of the 100- and 200-level courses offered at the College. Aspire also coordinates the Supplemental Instruction (SI) Program, which provides peer-facilitated group assistance. Aspire's Tutor Program and SI Program are available to all students.

However, many students are eligible for additional services. Eligible students are those who meet income criteria, are the first in their families to go to college, or have a documented disability. Through the Aspire

Program, students meet individually with a member of the professional staff to improve study skills, organize their time, set goals, and work to their full potential. Aspire staff also work with students to explore additional funding sources, academic majors, careers, and graduate school. Workshops on study skills, time management, and other topics of interest are offered throughout the academic year.

The Adult Learner Program (ALP) in the Aspire Program offers sections of courses specifically for adult learners, along with skill development, academic advising, career exploration, and social activities for new adult students.

## Adult Learner Services

A significant number of students at Keene State College are adult learners, 25 years of age or older. They include both matriculated (formally admitted) and Continuing Education students, attending during the day and evening. The Office of Adult Learner Services is located in the Elliot Center in Elliot Hall. It is the place to start for prospective students who want to know their options. The staff members advise students on college requirements, make referrals to other offices, do courtesy evaluations of previous college credits, and represent the adult learner in the College community. The coordinator of Adult Learner Services also coordinates the Assessment of Prior Learning, which enables a student to earn credit for life experience.

## Assessment of Non-College Learning

Students whose independently acquired knowledge and/or skills are equivalent to those normally gained in an undergraduate college program may attempt to earn college credits through assessment of non-college learning. There are two options available: credits by examination and credits by portfolio assessment. The following criteria must be met:

1. The student is admitted to Keene State College.
2. Credits do not duplicate credits from other sources which have been applied toward Keene State College degree requirements.
3. Keene State College will accept up to 60 credit hours in a four-year program and up to 30 credit hours in a two-year program.
4. Credits may be applied toward General Education requirements or elective credits, or may replace major

requirements if approved by the faculty of the major discipline through the course substitution process.

**Credits by Examination.** Testing programs recognized by Keene State College include the following: the College Level Examination Program (CLEP), American College Testing Proficiency Examination Program (ACT/PEP), and formally approved discipline examinations. The student must score at or above the 50th percentile in order to be eligible for credit.

The CLEP General Examinations may be taken by any student who has not enrolled in or completed a college-level course in the discipline covered by the examination. Credits earned may be applied toward General Education requirements or open electives.

The CLEP Subject Examination may be taken by any student who has not enrolled in or completed an equivalent or more advanced course in the discipline covered by the examination. For ENG 101, Essay Writing, a student must (1) pass the CLEP "Freshman College Composition" Examination and (2) write an acceptable essay supervised by the Coordinator of English Composition.

The ACT/PEP examination may be taken by any student who has not enrolled in or completed an equivalent or more advanced course in the discipline covered by the examination.

Academic disciplines may offer opportunities for students to demonstrate competence through approved standardized examinations or faculty-designed assessment instruments. Such examinations must be approved by the faculty of the discipline and the appropriate divisional dean. Disciplines which offer such examinations will provide students with a written policy regarding the administration of the assessment instruments, the standards of expected performance, the procedure for evaluation, and the process for awarding credit.

**Credits by Portfolio Assessment.** It is possible to seek credit for learning derived from work and life experience through documentation of acquired knowledge and/or skills.

The assessment team is composed of Keene State College faculty and professionals credentialed in the fields in which the student is seeking credit. This team reviews the completed portfolio and recommends the number of credits to be awarded in the assessed areas.

Further information about these opportunities may be obtained in the Elliot Center. Fees are charged on a per credit basis.



## Cooperative Education

The Cooperative Education Program allows students to earn elective credits and valuable work experience in paid and unpaid positions related to their academic programs. To qualify, students must be matriculated undergraduates who have earned at least 24 credits with a minimum 2.0 cumulative grade point average.

Students may research their own cooperative education position or apply for positions posted in their departments.

Students are responsible for recruiting a faculty member from the appropriate discipline to sponsor their cooperative education experience. It is very important that the student establish a solid working relationship with the faculty member before accepting a position.

When a student is hired for a cooperative education position, a Learning Agreement is developed in consultation with the faculty sponsor and the employer. This agreement specifies all expectations/requirements for the position. The Learning Agreement and all accompanying forms must be submitted to the Office of the Registrar before the student begins the cooperative education position.

Cooperative education positions must be new learning experiences for the student and must last a minimum of 10 hours per week for at least 12 weeks within an academic semester. Students can earn 1-3 credits for part-time experiences or 4-6 credits for full-time experiences (full-time status as determined by the employer). A maximum of six credits can be earned per semester; cooperative education is repeatable for a total of 12 credits.

Students may register for cooperative education experiences in the fall, spring, or summer semesters; the credits are paid for in the same manner and at the same rate as other courses. Students who are involved in full-time cooperative education experiences are considered full-time students by the College even though they earn and pay for only six credits.

Once students are registered, they may not drop or withdraw from a cooperative education course. Grading is pass/fail and is assigned by the faculty sponsor, based on satisfactory completion of all requirements.

**Note:** Not all disciplines offer Cooperative Education; check the *Courses of Instruction* section of the Catalog by discipline for course numbers 294 (Cooperative Education) and 494 (Advanced Cooperative Education).

## The Math Center

The Math Center is a relaxed and comfortable place for learning mathematics. Our peer tutors, peer course assistants (PCAs), and course-specific assessment exams can help students succeed from the very beginning of their math study at Keene State.

Tutoring at the Math Center is a drop-in service for students who have questions about quantitative concepts taught in math classes or classes with a quantitative component. Students may come in with specific questions to ask the tutor, or to just do their work and know that the tutor is there to help.

Special review sessions for the math portion of the PRAXIS I exam are held at the Math Center before each testing date on campus during the fall and spring semesters. Specific tutors are also available during the regular tutoring times to help review for the exam.

PCAs are students who are assigned to specific 100-level mathematics courses to provide support for the students. They aid the instructor during the class and outside of class by holding approximately 3 hours of study sessions per week. The availability of PCAs varies from semester to semester, depending on the needs of the instructors.

The Math Center staff administers exams and quizzes for individual faculty members within the mathematics department as well as proficiency and assessment exams for individual courses. Students who need to take an exam or quiz at the Math Center should contact Marianne O'Brien at 603-358-2523 to make an appointment.

For more information, visit us at [www.keene.edu/mathctr](http://www.keene.edu/mathctr) or stop by to see us at 88 Winchester Street.

## The Center for Writing

The Center for Writing assists students with all phases of writing from brainstorming a project to the actual completion and editing of final drafts. The faculty at KSC acknowledge that writing is a shared responsibility that crosses all departmental majors and therefore work closely with the Center to support students' writing in every discipline. Often faculty require that all class writing projects be read and discussed with a Center tutor before final submission. Tutors, who are selected from a pool of recommended students, are required to participate in ongoing training sessions on the teaching of writing to help them become competent and comfortable with one-on-one tutorial sessions.

The Center is located at 81 Blake Street, behind the Student Center and next to the Mathematics Building. Students are welcome at any time, but appointments are recommended. In addition to tutoring sessions, the Center also serves as a resource for handouts and current information about research methods, academic honesty, and plagiarism, as well as skills work. For more information or to make an appointment, call 603-358-2412. The Center for Writing also has helpful tips and useful information at [www.keene.edu/wtf](http://www.keene.edu/wtf).

## National and International Exchange

Keene State College encourages students to consider a semester or a year on exchange. Specific program information is available from the National and International Exchange Center in Elliot Hall.

Program options include:

**National Student Exchange (NSE).** The NSE offers students the opportunity to attend one of 175 colleges and universities within the United States, Guam, Virgin Islands, and Puerto Rico. A domestic alternative to study abroad, NSE is a chance to study the cultural diversity within the United States, to search directly for graduate and job opportunities, and to take courses not offered at KSC.

**Direct International Exchange.** There are 11 direct exchange programs established with colleges and universities in Ecuador, England, France, Ireland, Québec, and Russia. A student is eligible for an exchange during the sophomore, junior, and senior years, and can go more than once, to the same or different places. The cost of student attendance in each of the programs is based on the in-state or out-of-state rate of tuition and fees.

**Facilitated International Programs.** If you are interested in studying in a country outside of the KSC direct exchange options, the Exchange Center can help you find a program that fits your academic and personal needs. Keene State has membership in a number of international consortial programs, including the University of Wollongong in Australia; the Cross-Cultural Center in Seville, Spain; and the University of Salzburg in Austria. Keene State also belongs to the Council on International Educational Exchange and the College Consortium for International Studies, which together offer more than

60 study abroad programs throughout the world. Especially popular consortial destinations are China, Costa Rica, Greece, Italy, Scotland, Spain, and the Dominican Republic. The cost of student attendance in the consortial programs is determined by each program and is not based on the in-state or out-of-state rate of tuition and fees.

The minimum grade point average required to participate in the National Student Exchange is 2.5. The academic requirements for all international direct exchange and consortial programs is also 2.5, with a few exceptions (Oxford Brookes, Wollongong, King Alfred's, and all Irish programs require a 2.9). Students need to apply to participate in any one of our exchange programs. Selection for participation is contingent on meeting the academic requirements for the desired program and that the applicant be in good standing at the college. Financial aid recipients can apply their aid toward all national and international exchange and consortial programs.

Students interested in an international experience on campus can request an international roommate and/or join the Africa Club or International Friends Club, a student organization whose main objective is to welcome incoming exchange students, and introduce them to the campus and community.

Students seeking credit for national and international study programs must consult with the National and International Exchange Center and appropriate major/minor faculty before departure to arrange for program approval and transfer of credit.

A non-refundable deposit is required for all study-away programs. Tuition and fee reimbursements follow policy outlined elsewhere in this catalog.

## Air Force ROTC

Students may enroll in the Air Force Reserve Officers Training Corps (ROTC) program through the University of Massachusetts-Lowell. Students may attend Air Force ROTC classes at UMass-Lowell in Lowell, Mass., or Daniel Webster College in Nashua, N.H. Additional information on Air Force class schedules, scholarships, and eligibility requirements is available by calling AFROTC Detachment 345 at UMass-Lowell, 508-934-2252.

# Academic Resources

**The Arboretum and Gardens of Keene State College** have been created to support the teaching, research, and public service mission of the College by: 1) preserving unique and/or mature plant specimens which may have historic value; 2) developing and adopting a planned and botanically systematic approach to collecting and installing new and diverse plant material; 3) creating a model outdoor field laboratory to promote botanical and horticultural awareness as an educational resource for the College, the community, and region; 4) maintaining interpretive materials, including plant identification, accession, mapping, and maintenance records; and 5) providing a visually appealing, diverse and cohesive, accessible landscape setting that provides a physical and emotional atmosphere conducive to academic advancement, recreation, and reflection.

A printed brochure leads scholars and visitors on a self-guided walk through the central campus, introducing the ornamental trees and shrubs, and the landscape history of the campus.

**The Redfern Arts Center on Brickyard Pond** serves academic and community needs in the fine and performing arts. Opened in 1981, it houses four theatres, eight art studios, a dance studio, band and choral rehearsal rooms, 20 practice modules, scenery and costume shops, and a reception and gallery area.

The building also houses the classrooms and offices of the art, music, and theatre and dance programs. The four theatres – the Main Theatre, seating 572; the Alumni Recital Hall, seating 360; the Wright Theatre, seating 125; and the Putnam Arts Lecture Hall, seating 154 – suit a wide variety of productions.

The Arts Center schedules recitals, concerts, theatrical productions, dance concerts, and art exhibits by the College's academic programs, and a full season of outstanding professional artists in dance, theatre, and music, who frequently offer workshops and master classes.

The Arts Center has been the recipient of numerous grants for innovative programming from the National Endowment for the Arts, the New England Foundation for the Arts, and the New Hampshire State Council on the Arts. It has received national recognition as the host to the American College Regional Theater and Dance Festivals.

**The Thorne-Sagendorph Art Gallery** was a gift to the College in 1964 from beaTrix Sagendorph of Dublin in memory of her mother. The gallery maintains a year-round schedule of shows and exhibits of national and international quality and distinction, while affirming a strong commitment to the historic artistic tradition of southwestern New Hampshire. The exhibitions, receptions, and educational programs are free and open to the public. In addition, an internship program is offered to Keene State art students, and exhibit space is provided for faculty and student shows. The gallery has two skylit exhibit halls, climate control, and a sophisticated security system, and is located on Wyman Way.

**BodyWorks**, the campus fitness center, serves to help motivate the campus community to achieve and maintain a lifestyle of health and wellness. The goals of BodyWorks are based on the expectation of improved physical health and vitality, as well as enhancement of academic and workplace productivity that result from regular physical activity.

BodyWorks is part of the Recreation Center housed inside Spaulding Gymnasium. It offers over 35 cardiovascular machines on the top level, as well as a complete circuit of weight training machines and free weight equipment on the lower level. In addition, BodyWorks offers several services to its members including complete fitness assessments and personal training packages.

BodyWorks serves as a laboratory for students majoring in Health Promotion and Fitness. They make up the entire student staff. Supervised by health fitness

professionals, these students can link the research and theory taught in the classroom to the practical application necessary to successfully manage a fitness facility.

**The Cohen Center for Holocaust Studies** provides access to a wide range of printed materials for anyone who wishes to either study or teach the Holocaust. The Center, which supports a minor in Holocaust Studies and an extensive educational outreach program, contains more than 4,200 volumes, several periodicals and annuals, thousands of articles, over 300 videos, and numerous curricula. Materials are available for a limited circulation period, and may be used in the Center by both members of the College community and the general public. The acquisition of materials is funded largely through private donation. The Center is located on the first floor of the Mason Library.

**The Child Development Center (CDC)** is a best practices laboratory early childhood education center located on campus in the basement of Elliot Hall. The CDC is a learning community dedicated to providing excellent programs for young children and practical experiences for students studying to be teachers. Undergraduate and graduate students are offered supervised experiences, under the guidance of early childhood professionals, in the direct education and care of infants, toddlers, and preschool children. Many students also work in the CDC as volunteers and as work-study students.

The CDC's curricula follow an integrated model in which children learn as they observe, play, and participate in a wide range of child-centered activities. Family communication and involvement are integral to the program. We welcome observations by anyone interested in excellent early childhood programs for young children.

**The Curriculum Materials Library (CML)** makes available a wide range of curriculum and professional development materials for students in education courses. The collection emphasizes vocational-technical education and K-12 math, science, geography, guidance, and safe schools. It contains curricula models, videos, software, kits, and textbook sets. The CML is located in the west wing of Mason Library, second floor.

**The Film Studies Center**, located in the basement of Parker Hall, contains a large collection of laserdiscs, videotapes, and DVDs for study purposes. The equipment facilities include Steenbeck and Moviola film editing benches as well as Avid digital, nonlinear editing systems.

The Department of Film Studies also has screening facilities in Drenan Auditorium (also in Parker Hall) for 8mm, 16mm, and 35mm film prints as well as DVD, laserdisc, and video. Also part of the film department is the KSC Film Society, located in the Putnam Arts Lecture Hall in the Redfern Arts Center on Brickyard Pond. The KSC Film Society is equipped with 35mm, 16mm, and 70mm projection capacity and Dolby Digital sound and runs a year-round, weekly film series.

**The Information Technology Group (IT Group)** provides a wide variety of computing resources for members of the Keene State College community. Students use information technology to complete the requirements of their coursework, to access class lectures and syllabi, to carry out research, and to communicate via e-mail. All students are provided with an e-mail account, student portal access to academic and personal services, HelpDesk support, LAN/WAN and Internet access, and access to computing facilities. On-campus student residents are provided with telephone and cable TV access in addition to the services listed above.

The IT Group HelpDesk provides technical support and training for students, faculty, and staff. The HelpDesk staff assist students in setting up network access (on and off campus), configuring and using MyKSC and telephone/voicemail services, and providing media service and cable service support. The IT Group provides on-site support for specific technical situations and provides some assistance for software and network issues via the telephone.

Along with technical support provided at the HelpDesk, the IT Group is responsible for the College's computing systems and the network and telecommunications infrastructure. They support the effective use of technology facilities by the campus community and the incorporation of computing and information technology into College activities. The IT Group supports technology-enabled classrooms and public and discipline computing labs on campus. The discipline labs offer specialized technology applications to majors within specific disciplines, and the public labs provide tools such as Microsoft Office 2000, multimedia stations, digital scanners, and CD burners. The public computing labs provide over 90 hours per week of open access and are open to all KSC students. Each building on the Keene State campus is connected to a fiber network backbone that provides fast Internet access allowing students, faculty, and staff the ability to connect quickly

and efficiently. All residence facilities are wired for “port per pillow” Internet connections.

**The Language Learning Center, Quadside**, is a state-of-the-art multimedia learning environment. As well as being a unique instructional/presentation facility, the learner-centered computer workstations enable the students to access local, campus-networked, and global resources. They incorporate distributed media sources, such as satellite transmissions and video conferencing, with sites around the world. Language students prepare for study abroad in this authentic interactive immersion experience which brings the world to our campus. Quadside is located on the ground floor of Morrison Hall.

**The Wallace E. Mason Library** offers materials and services in support of the College’s undergraduate and graduate programs. The Library provides timely information services and active instruction in research skills and the use of library resources. The Library seeks to maintain an intellectual environment that encourages creative thinking, while providing an atmosphere that is both informal and comfortable.

Collections housed in the Library include approximately 180,000 titles (300,000 items) – with subscriptions to more than 1,000 periodicals, newspapers, and serials – and an extensive selection of videos, DVDs, and music CDs. Online database providers such as EBSCOhost and FirstSearch offer full-text access to additional journals and newspapers. In addition to the wealth of resources held locally, the Library provides electronic access and document delivery services to the holdings of more than 41,000 libraries through OCLC, an international library network. Numerous links to web resources can be found on the web at [www.keene.edu/library](http://www.keene.edu/library).

The Mason Library and Keene Public Library were automated in 1991 through a single online catalog system called Keene-Link. Students have ready access to the 100,000 volumes available at the public library.

Library renovation, completed in Spring 2003, has provided a fully equipped library instruction classroom and various comfortable study spaces and seminar areas. The Cohen Center for Holocaust Studies, Curriculum Materials Library, Orang Asli Archives, and other special collections are located within the building. For more information about these collections, visit [www.keene.edu/library/collections.cfm](http://www.keene.edu/library/collections.cfm).

**The Office of Multicultural Student Affairs (OMSA)** serves Keene State students of color from the time of

their KSC application all the way to graduation. The office offers various programs and services that support students to succeed in their classes and community life. Among these programs are the Faculty Mentor Program, Peer Mentor Program, Multicultural History Awareness Program, Multicultural Resource Library, and Common Ground Multicultural Club.

OMSA staff work with students to find academic support, campus leadership opportunities, and the rewarding college experience they deserve. Staff also advocate on behalf of student interests and concerns, support individual and student group initiatives, counsel students on social and academic issues, plan programs and workshops, and are available for consultation on issues related to diversity and multiculturalism.

All students are invited to visit our office on the second floor of the Student Center. For more information, visit our web site at [www.keene.edu/msa](http://www.keene.edu/msa) or call 358-2609.

**The OSHA Training Institute Education Center** is operated in a cooperative effort of the Occupational Safety and Health Administration (OSHA) and the Division of Continuing Education to meet the occupational safety and health needs of New England’s business and industrial communities. OSHA courses take place at the Keene State College Safety Center in Manchester, N.H., and other sites throughout New England. These courses are short-term, presenting technical occupational safety and health training with an explanation of OSHA standards, policies, and procedures.

**The Small Business Institute (SBI)** provides a field-based opportunity for students to work in teams as consultants to local small businesses. Senior management students assist companies with specific needs including business planning and development, market research, competition analysis, financial management, production, and human resources management. Each student team completes a comprehensive case study that is presented to the business owner at the end of the semester.

The Small Business Institute Directors Association conducts the annual case competition, which was formerly conducted by the U.S. Small Business Administration. The Keene State College program has merited 26 district and regional awards, including the 1997 national championship. Ten have become national finalists since 1988, an institutional record of distinction exceeding all other SBI colleges and universities.

# Undergraduate Admission

**K**EENE STATE COLLEGE ACCEPTS applications from prospective freshmen and transfer students for both the Fall and Spring semesters.

Students should present average or better academic and personal credentials. A rolling admissions policy affords applicants prompt decisions on their applications.

First-year traditional students are encouraged to submit their first marking period grades with their application in the fall of their senior year in high school. Deadlines for first-year applicants are **April 1** for the Fall semester and **December 1** for the Spring semester. Transfer applicants are urged to apply and complete their credentials by **April 1** for Fall admission and by **December 1** for Spring admission. The College reserves the right to close admissions, irrespective of these deadlines, once class capacity has been reached.

All students who want to be considered for financial aid are encouraged to file the appropriate materials by **March 1**, regardless of the status of their application in admissions. Contact the Office of Student Financial Services for more information.

Applicants are required to pay a non-refundable enrollment services fee by **May 1** for the Fall semester, and by **December 15** for the Spring semester, to confirm their intention to accept admission. After these dates, fees are accepted on a space-available basis.

## Matriculated Student

A matriculated student is one who has applied formally to the Admissions Office and has been accepted for admittance to the College. This acceptance implies admission as a degree-seeking candidate, however, it does not guarantee acceptance into a specific major. All other students attending Keene State College shall be considered non-matriculated.

## Admission Requirements

The following requirements apply to all undergraduate programs except the associate in science technology programs. Although personal interviews are not required, all applicants are encouraged to visit the campus. Tours and interviews are available by appointments arranged through the Admissions Office. Prospective first-year students should provide:

1. **An application accompanied by the application fee.**
2. **An official high school transcript** and evidence of high school graduation, or a satisfactory high school equivalency certificate. Although no prescribed pattern of high school courses is required, applicants should have completed college preparatory course work insuring competency in English grammar and composition skills, college-level reading speed and comprehension, and a distribution of courses in:
  - **the humanities** – English literature, a modern language, history, and philosophy
  - **the social sciences** – political science, sociology, anthropology, psychology, economics, and geography
  - **the sciences** – three are required, one of which must be a lab science, i.e., biology, chemistry, or physics
  - **mathematics** – Algebra I, Algebra II, and Geometry

The above courses are considered basic preparation for admission to Keene State College.

3. **Scores from the College Entrance Examination Board Scholastic Aptitude Test (SAT).** Applicants are responsible for making arrangements to take this test and for having the results forwarded to Keene State College.

Information as to time, place, and fees may be obtained from any guidance counselor, or by writing the College Entrance Examination Board, P.O. Box 592, Princeton, New Jersey 08541, or P.O. Box 1035, Berkeley, California 94701. Applicants who have been out of high school for more than one year are not required to submit SAT results, but may be requested to do so in special circumstances.

4. **Recommendation from the high school guidance counselor, teacher, or school administrator.** Applicants who have been out of high school for more than one year need to submit a letter of recommendation. Questions regarding this requirement should be addressed to the Director of Admissions.

**Art Candidates.** All applicants interested in the Bachelor of Arts degree in Studio Art and/or Graphic Design must submit a portfolio with the admissions application. This portfolio should be in the form of slides, CD-ROM, or Zip disk. Please send between 10 and 20 examples of your work. Portfolios will be reviewed only after the student is admitted to Keene State College. Tours of the Art Department are available upon request; call 603-358-2162. Admission to the College does not guarantee admission into the Art program.

**Music Candidates.** All applicants interested in the Bachelor of Music degree in either Performance or Music Education must participate in an audition. Applicants interested in minoring in Music must also audition. For more information or to schedule an audition, please contact the Music Department at 603-358-2177. Admission into the Music program does not guarantee admission to the College and, conversely, non-admission to the Music program does not mean that one is not admissible to the College.

**Associate in Science Degree Applicants.** Applicants for the associate in science programs in Technology (Drafting & Design Technology, Industrial Electronics Technology, Manufacturing Technology, and General Technology) are not required to take the Scholastic Aptitude Test (SAT). However, they must submit an application with the application fee, an official high school transcript, evidence of high school graduation or a satisfactory equivalency certificate, and (unless the student has been out of school for several years) a recommendation from the high school guidance counselor or principal. High school algebra is required, trigonometry is strongly recommended, and a sound background in English grammar and composition is expected.

**Home-Schooled Students.** Home-schooled students seeking admission to Keene State must submit a completed application, an admission essay, SAT or ACT scores, one or more letters of recommendation, an outline of academic studies (may include reading lists, course syllabi, writing samples, and a work portfolio), and a GED or Home School Diploma, if available.

## Advanced Placement

A student may be granted advanced placement and/or credit by Keene State College by achieving a score of 3, 4, or 5 on an Advanced Placement Test administered by the Educational Testing Service (ETS).

A student who has completed one or more Advanced Placement courses should request the Educational Testing Service (ETS) to send an official Advanced Placement Examination Grade Report to Keene State College, typically as part of the application for admission process. The amount of credit granted for the examination is similar to the amount of credit associated with the Keene State College course that the examination replaces. A student may be required to complete the course substitution process to apply credit granted through Advanced Placement toward a specific requirement in a major.

## Readmission Requirements

Matriculated students who have voluntarily withdrawn from the College, or have been separated from the College due to academic or disciplinary suspension, must apply for readmission. Students on an official leave of absence do not need to request readmission.

Students seeking readmission will be subject to the catalog requirements and academic standards for the academic year they are readmitted to the College. The Admissions Office will provide advisement for students on the correct procedures for Readmission.

**Criteria for Readmission.** Admissions will consider academic, financial, and personal criteria prior to granting or denying readmission. Students who left the College in good personal and academic standing, and have not jeopardized their status during their absence, should not experience difficulty in being readmitted.

For students attempting to return after academic suspension, the following minimum criteria form the basis for a decision on readmission, but do not imply that readmission is automatic:

1. Have completed at least two courses (six credits) with a minimum grade of C in each course, and a minimum cumulative average of 2.00 in liberal arts courses since separation.
2. Have no outstanding financial obligation to the College at the time of application for readmission.
3. Be able to provide evidence of personal responsibility as a student at Keene State College and the community at large.
4. If under a 2.00, the student must provide an academic plan for success as part of the readmission process.

Two academic options – the New Start Program and the Continuation Program – are available to students who seek readmission. Upon request, the Admissions Office will assist students in deciding which option to pursue.

## New Start Program

After a break of at least one full academic semester, a student who is not in good academic standing (see Academic Standing) may seek readmission to the College under the New Start Program. Students readmitted under the New Start Program essentially discard their previous cumulative averages. All courses and grades will be retained on the permanent transcript, but records will carry forward only credits, not grades, from previous course work that received a “C” or better.

No minimum grade point average is required for readmission under the New Start Program. Grades earned at Keene State College prior to matriculation are not included in the computation of the student’s cumulative grade point average. Once readmitted, a student must achieve the minimum grade point average appropriate to his/her current standing, as determined by the total number of credits earned.

A student may elect the New Start Program only one time, and must do so at the time of application for readmission.

A non-matriculated, continuing education student who has completed course work at Keene State College may elect to be admitted under the New Start Program.

## Continuation Program

Students readmitted under the Continuation Program begin where they left off in terms of cumulative averages earned during previous academic work at Keene State.

In an effort to raise their cumulative averages, students may elect to use the “forgiveness policy” which allows them to repeat courses once in which grades of CD or less were received. Only the last grade received will be used in calculating the cumulative average. If a student repeats courses at another college or university, that institution must be regionally accredited, and the student must earn a grade of C or higher in the course(s) to be transferred. Keene State College will accept only the credit earned, not the grade. The original grade earned at Keene State will remain on the permanent transcript, but will not be included in the calculation of the cumulative grade point average. The student is responsible for reviewing, in advance, the content of any course to be repeated at another institution to determine whether the course is acceptable as equal under the forgiveness policy. The appropriate discipline coordinator should be consulted to assist in the determination of course equivalency.

## Transfer Students

Transfer students submit the same credentials as entering freshmen. In addition, they must provide official transcripts of all previous college study and a letter of reference from an employer or college faculty member or administrator. These must be sent by each institution attended, regardless of whether or not transfer credit is being sought. International transfers should refer to the section on International Students below.

The College encourages the competent student who has valid reasons for wishing to transfer, but cannot encourage the applicant with a history of academic or disciplinary difficulty. Grades earned at other institutions are not included in the computation of the student’s grade point average at Keene State. It should also be noted that admission into the College does not guarantee acceptance into a given major or specialization.

## Transfer of Credit

To receive an undergraduate degree from Keene State, students must attain matriculated status before starting their final thirty credit hours of work toward a degree. The Vice President for Academic Affairs is responsible for determining the acceptability of all transfer credits.

Shortly after admission to the College, transfer students will receive an official transfer credit evaluation from the Elliot Center. Students should bring this evaluation to any orientation program or when meeting with an



academic advisor. Credits accepted in transfer may be allocated to General Education requirements or electives. The faculty of each discipline will determine through course substitution which of the transferred courses will fulfill major or minor requirements. Please refer to the degree requirement section of the Catalog for major-specific information. Developmental or remedial coursework is not transferable.

Students should direct requests for the transfer of credits through the Elliot Center in the following categories:

1. Credits received at a regionally accredited institution of higher education, if completed with a grade of C or higher.
2. Credits received at institutions accredited by an association listed in the Directory of the Council of Post-secondary Accreditation, if completed with a grade of C or higher and if documented by the catalog and course descriptions.
3. Credits recommended at the upper division by the American Council on Education for an educational experience in the armed services. Up to 15 credit hours earned through approved DANTES Subject Standardized Tests (DSSTs) or certain other correspondence study courses may be accepted. Guidelines for the evaluation of military credit are available from the Elliot Center.
4. Credits earned at the above institutions in courses graded by Pass/Fail or Credit/Non-Credit, if evidence is presented showing that the courses were completed with the appropriate level of academic achievement.
5. Students who wish to transfer credits into a teacher certification option must apply through the chair of the Department of Education. Ordinarily, no more than four credits from another institution may be applied to satisfy program requirements due to the uniqueness of ESEC courses.

Credits earned at institutions that are non-accredited or are candidates for accreditation generally will not be accepted in transfer. However, students may petition to have these credits accepted. If possible, the student must provide a copy of the textbook(s), the course syllabus, and any other material as requested.

## International Students

Keene State College welcomes well-qualified students from outside the United States. Students from more than 25 countries are currently enrolled, helping enrich the educational opportunities of all.

Most international students enter Keene State with some academic credit from their home institutions. Transfer credit – including final years of secondary schooling – may be granted after a determination of the type of institution involved and its recognition by the educational authorities in the home country, and an evaluation of the content, level, and comparability of the study to courses and programs at Keene State.

### **A complete application for an international student requires the following:**

1. A completed Admissions Application form.
2. Official copies of secondary and post-secondary academic records with official English translations, when necessary, including:

Transcripts/mark sheets/grade reports of all course works completed with grades or marks for each course indicated.

A course-by-course evaluation of international educational credentials completed by a member of the National Association of Credential Evaluation Services, Inc. A list is available from the Office of National and International Exchange, 603-358-2348.

3. International students living in the United States for two or more years attending high school must take the SAT.
4. Proof of English proficiency or agreement to enter our full-time fall semester intensive English as a Second Language (ESL) Program. Proof of English proficiency can be established by on-campus interviews, transcripts from English-language schools, or successful completion of the Test of English as a Foreign Language (TOEFL) with total scores of 500 or above for undergraduates. TOEFL information is available at American embassies and consulates, offices of the U.S. International Communications Agency, U.S. education commissions, foundations, and binational centers, or by writing to TOEFL, Box 899, Princeton, New Jersey 08541. Keene State College provides conditional admission for students needing ESL prior to entering a degree program.

5. Documentation of financial support. Applicants must complete the Certification of Financial Support in the application as well as submit documentation that funds are available. A demonstrated level of support, not only for tuition and room and board, but also for living expenses (pocket money, books, etc.) is necessary. The Declaration of Finances form is available from the Admissions Office, the Office of National and International

Exchange, or the College Entrance Examination Board, P.O.Box 592, Princeton, New Jersey 08541.

## Continuing Education and Extended Studies

The Division of Continuing Education and Extended Studies provides educational opportunities for students returning to college, seeking professional development, preparing to enter a degree program, or taking courses for personal enhancement. Opportunities are available on a part-time basis through credit and non-credit courses, certificate programs, seminars, institutes, conferences, and workshops. Courses can be taken during the day or evening, and many are offered on weekends. The Division also works closely with business and industry to provide customized education and training on a contractual basis.

Students who enroll in courses offered for credit by this Division can select courses that will maximize their efforts toward an educational goal, whether they are working toward an associate's, bachelor's, or master's degree, or pursuing specific career goals. An individual may enroll as a part-time, non-matriculated student and later apply for admission to a degree program. Students who enroll in part-time credit courses are responsible for satisfying all course prerequisites, even though they are not matriculated in a degree program. Academic policy states that Continuing Education students will follow the academic schedule and policies required of all Keene State students. Credits earned may be transferred later either to a Keene State College degree program or to other institutions.

Three Summer School terms are offered by the Division with a comprehensive schedule of undergraduate, graduate, and non-credit courses. These courses fulfill many major and general education requirements and provide a variety of special topic courses for professional development and elective purposes.

Specific information concerning Continuing Education offerings and registration procedures is found in the Continuing Education schedule of courses, *Discovery*, published each fall, spring, and summer.

## Summer Link

Link, "the college connection," is a comprehensive college experience for both recent high school graduates and nontraditional students who may have been out

of school for a number of years. The goal is to develop self-sufficient students ready for the opportunities, responsibilities, and academic expectations of college. The program strengthens academic competencies and study skills and increases self-confidence. The program runs for six weeks and students earn seven college credits.

## Upward Bound

Upward Bound is a college preparatory program designed to generate among able young people from low income backgrounds the skills and motivation necessary for success in education beyond high school. Funded by the U.S. Department of Education, the Keene State College program serves 70 students from 10 high schools within a 50-mile radius of the campus. The heart of the program is a unique six-week summer residential program. Staff, consisting of teachers and tutor-counselors, are drawn from participating high schools, Keene State College, other colleges and universities, and the community. Upon completion of the summer program, students return to their respective high schools and are then active in the academic year follow-up program. Their participation in Upward Bound may continue throughout their high school years.

In the summer, courses are available in modern languages, reading, literature, expository writing, algebra through calculus, computer science, social issues, performing arts, biology, and PSAT preparation. Electives are offered in a variety of interest areas, including the arts, social sciences, and physical activities.

Upward Bound also provides unique opportunities for Keene State College students, who may apply to be on the staff. The program employs students interested in education and psychology. Some Keene State students have earned independent study credits in psychology as a result of their staff involvement.

## New England Regional Student Program

Keene State College participates in a regional cooperative program, administered by the New England Board of Higher Education, which permits qualified, matriculated New England residents to study with reduced tuition and admission privileges in certain programs at other state colleges and universities. This program expands higher education opportunities for New Eng-

landers by making available to all residents on an equal basis majors/courses not commonly offered at every institution, thus reducing duplication of programs and utilizing more efficiently the higher education facilities of each state. The programs that qualify for the 2004-05 academic year for Rhode Island and Vermont residents are the associate's degree program in technology studies (drafting & design) and the bachelor's degree program in American studies and technology studies. Also available to residents of Vermont is the bachelor's degree program in chemistry/physics. Information about this program may be obtained from the Admissions Office, the Elliot Center, high school guidance counselors, or the New England Board of Higher Education, 45 Temple Place, Boston, Massachusetts 02111, 617-357-9620.

## New Hampshire College and University Council

Keene State College is a member of the New Hampshire College and University Council, a consortium of thirteen institutions of higher education formed to combine resources to make more educational opportunities available for students at a lower cost. Students from member institutions may register for courses at member colleges participating in the student exchange and receive transfer credits. Arrangements for registration for such courses is made through the Elliot Center. Some advantages of the Council include the ability to draw on the million-volume library resources of the thirteen member institutions, and access to the computer network and to workshops, seminars, and cultural festivals in a variety of fields.

In addition to Keene State College, Council members participating in the student exchange program include Colby-Sawyer College, College for Lifelong Learning, Daniel Webster College, Franklin Pierce College, New

England College, Plymouth State University, Rivier College, Southern New Hampshire University, St. Anselm College, and the University of New Hampshire (including its branch at Manchester).

The Council's policies on student exchange and enrollment among member institutions are as follows:

**Full Semester Enrollment.** Students who wish to do extensive work at another institution within the Council shall be permitted to do so. Admission may be for a full semester or more, with concurrence of the cooperating institution. Students must have a minimum grade point average of 2.5 to participate.

The student shall remain registered at the home (sending) institution and continue to pay to it the normal home college charges for tuition and fees. Determination of room and board charges will be by individual arrangement between the student and the receiving institution; the receiving institution will bill these charges directly to the student involved.

The sending institution cannot guarantee room and board at the receiving institution.

**Course Enrollment.** Ad hoc enrollment by students at other Council institutions for one or more courses during the academic year shall be permitted. Normally such courses, in addition to on-campus courses, should not exceed a full course load, as defined by the policies of the student's home (sending) institution.

No financial charges shall be made, other than laboratory fees or fees for special instruction, which shall be billed to the student by the receiving institution.

**Home College Approval.** In order to receive academic credit for courses taken in another Council institution, all inquiries regarding the above study opportunities must be directed to the Elliot Center.

# Student Financial Services

**S**TUDENT FINANCIAL SERVICES consists of the Bursar's Office (student accounts) and Financial Aid. Students may make payments, complete financial aid requests, and receive information about financial aid and billing statements from both Student Financial Services windows. This one-stop design is intended to reduce the number of visits students need to make to financial services and the length of time students must spend completing these important functions.

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## Tuition and Fees

### Fees

All students attending Keene State College are responsible for payment of all charges incurred while they are enrolled. Charges may include, but are not limited to:

**Mandatory Fees.** Students enrolled for credit will be charged mandatory fees, which include a Registration Fee, Student Center Fee, Activity Fee, Educational and Technical Fee, Athletics and Recreational Sports Fees, Health and Counseling Services Fees, and Class Dues. The income derived from Mandatory Fees is used to offer and enhance support services to students, and to partially cover the cost of supplies and lab equipment required for successful educational experiences. All students are required to pay mandatory fees whether or not classes they participate in are held on the KSC campus.

**Application Fees.** Charged to all students who are seeking admission to the college and/or special programs offered on-campus, such as the Graduate Program or the Teacher Education Certification Program.

**Enrollment Services Fee.** A one-time fee charged to first-time, readmitted, graduate, and certificate students. This fee covers administrative and technical costs for new students. No student can be admitted until the fee is paid.

**Residence Hall Charge.** Charged to students living in on-campus housing only. Rates vary based on the type and location of the room.

**Dining.** Charged to students who participate in meal plans offered on campus. Currently KSC offers several plans, including 19, 12, and 5 meals per week. All students living in college housing (with the exception of Bushnell, Tisdale, and Pondside apartments) are required to participate in a meal plan.

**Room Damage Deposit.** Charged to all students living in on-campus housing to cover the cost of damage which may result. The unused portion of the deposit will be refunded only after the student moves out of the residence halls.

**Late Payment Fee.** Charged monthly to students whose payments are not received by the published due date.

**Late Add/Withdrawal.** Charged to students who do not complete the add/withdrawal process within the published timelines.

**Applied Music Fee.** Charged to students enrolled in specific classes which offer one-on-one instruction. This fee is in addition to any tuition paid for credit hours.

**Parking Fees.** Charged to students who register a car and receive a permit to park in an on-campus lot.

**Returned Check Fine.** Charged to all persons who issue a check which, for any reason, is returned from the bank unpaid.

**Senior Class Dues.** Charged to students during the year they will complete their degree requirements. Offsets the cost of Senior Activities. It is possible that students will be asked to pay an additional fee to the Senior Class depending on the type and cost of activities planned.

**Graduation Fee.** Charged to students for each degree for which an Intent to Graduate form has been filed.

**Transcript Charge.** Charged to students requesting copies of their official transcript.

Note: Each student is responsible for the timely payment of all outstanding charges on his or her account. Failure to remit payment in full by the stated due date may result in deregistration of courses. Payment of the bill is solely the responsibility of the student, regardless of who remits the actual funds (e.g., parent).

## Determination of Tuition Rates

**Residence Policy.** All students attending any division of the University System of New Hampshire in any capacity are charged tuition at a rate determined by domicile. Those domiciled within the State of New Hampshire pay the in-state rate, whereas those domiciled elsewhere pay the out-of-state rate.

**In-State.** The Board of Trustees fixes the in-state tuition rate annually on the basis of the projected budget, including as part of the budget the applicable funds made available by the Legislature in its biennial budget.

**Out-of-State.** In accordance with the policy established by the Legislative Budget Act, the out-of-state tuition rate is set annually by the Board of Trustees at a figure which reflects actual per capita operating costs, including instructional expenses, overhead, and bond retirement (excluding self-liquidating bonds), as determined by the costs in the fiscal year just preceding the first January for the fiscal year in which tuition is to be charged, all in accordance with the established accounting practices of the University System Student Status.

For tuition purposes, a student is classified as in-state or out-of-state at the time of his/her admission to a unit of the University System of New Hampshire. This decision is made by the Director of Admissions based upon information furnished by the student's application and other relevant and available information.

Each applicant for in-state status for tuition purposes submits an application on forms prescribed by the Director of Admissions, which shall include a sworn statement certifying that the applicant is legally domiciled within the State of New Hampshire. The application shall also include such additional information as the Director may require in support of the affidavit of domicile. At his/her discretion, the Director may require submission of an application form from any in-state student prior to the

commencement of each semester the student plans to attend the College.

**Review of Student Status.** Any student aggrieved by the decision of the Director of Admissions classifying him/her as an out-of-state student for tuition purposes may appeal to the Appeals Committee on forms and in accordance with procedures made available by the Director of Admissions. The student has the right to present to the Appeals Committee such additional evidence as he/she deems appropriate in processing the appeal, and the right to appear in person and be heard.

The decision of the Appeals Committee shall be final unless the Board of Trustees in its discretion elects to review the record before the Committee. No evidence may be adduced or presented before the full Board of Trustees, but reviews shall be of the record only.

**Change in Status.** Any student who has on first admission to the University System been classified as out-of-state for tuition purposes may apply to the Budget Coordinator for a change of status on or before September 1 of any year for the Fall semester, and on or before January 1 of any year for the Spring semester. Applications are considered in the chronological order in which they are presented.

No changes approved during a semester shall be effective until the beginning of the next semester. However, where a change of status from out-of-state to in-state has been denied by the Budget Coordinator prior to the beginning of a semester, and the decision is reversed by the Appeals Committee, the student's status shall become effective from the beginning of that semester.

In the event the Budget Coordinator possesses facts or information indicating that a student's status should be changed from in-state to out-of-state, the student shall be informed in writing of the change of status. The student may appeal the decision to the Budget Coordinator as herein above set forth. No such change made by the Budget Coordinator after the commencement of any semester is effective until the beginning of the following semester. Change to out-of-state status made by the Budget Coordinator prior to the commencement of any semester, but reversed during the semester by the Board of Appeals, is effective as of the beginning of that semester.

## Substantive Rules and Definitions

In all cases of application for in-state status for tuition purposes, the burden of proof is on the applicant. At the

applicant's request, the Director of Admissions states in writing the reason or reasons for his/her decision.

The following definitions and rules prevail, as approved by the University System of New Hampshire Trustees on January 20, 1973 and revised on April 28, 1984.

**Parent.** The term "parent" means a person's father; or, if he/she has no father, his/her mother; or, in the case of separated or divorced parents, "parent" means either a parent with legal custody or a parent providing more than one-half of a student's total financial support; or, if there is a guardian or legal custodian, "parent" means guardian or legal custodian, provided there are no circumstances indicating that such guardianship or custodianship was created primarily for the purpose of conferring the status of an in-state student on an unemancipated person.

**Domicile.** "Domicile" denotes a person's true, fixed, and permanent home and place of habitation. It is the place where the person intends to remain and to which he/she expects to return when he/she leaves without intending to establish a new domicile elsewhere.

No person is eligible for in-state status unless he/she is domiciled within New Hampshire. For University System purposes, a person does not acquire domicile in New Hampshire until he/she has been a resident of the state for twelve consecutive months immediately preceding registration for the term for which in-state tuition status is claimed and meets all other requirements for domicile.

No unemancipated person is eligible for in-state status unless his/her parent has established domicile in New Hampshire.

No person is eligible for in-state tuition status unless he/she establishes that his/her residence in New Hampshire is for some purpose other than the temporary or primary one of obtaining an education.

When a person has established eligibility for in-state tuition based on his/her parent's domicile, and the parent subsequently establishes domicile outside of New Hampshire, the person is eligible for in-state tuition for one academic semester following the academic semester during which the parent established out-of-state domicile.

All evidence relevant to determining domicile may be considered, but the following indicia are, in any case, relevant, without limiting in any way other information the applicant wishes to submit or the Director wishes to require:

- Payment or non-payment of any tax levied by the state or any political subdivision on persons resident or domiciled therein.
- Residence reported on any federal or state tax return.
- Registration of one's automobile.
- State issuing one's driver's license.
- Receipt of support in whole or in part from parents who are resident or domiciled outside the State of New Hampshire.
- Voting residence.
- Claim by any non-resident parent that the applicant is dependent for tax or any other financial purpose.
- Regular departure by the applicant from the State of New Hampshire during recesses or vacations from the College.
- The filing of any claim for benefits under any policy of insurance of any federal, state, or local benefit legislation based on residence or domicile outside the State of New Hampshire.
- Status in some other state which qualifies a person for in-state tuition in that state.

**Emancipation.** No person is deemed emancipated unless his/her parent has entirely surrendered the right to the care, custody, and earnings of such person and unless his/her parent is no longer under any legal obligation to support or maintain such person or, having supported and maintained such person even though under no legal obligation to do so, has ceased to support or maintain such person. Emancipation shall not be found unless all such tests are met.

The following shall be submitted by an applicant upon request by the Director of Admissions:

- Lack of financial support of the person by the parents.
- Lack of contribution to the parents of any earnings or other income received by the person.
- Failure of the parent to claim the person as a dependent on his/her income or other tax returns.
- Establishment by the person of a domicile separate and apart from that of the parent.
- Failure of the person to return to the home of the parent during vacations and other recesses from school.

**Presumptions.** Unless the contrary appears to the satisfaction of the Director of Admissions in individual cases, the following presumptions prevail:

- The domicile of an unemancipated person is that of his/her parents or, if the parents are separated or divorced, that of the parent who has custody of him/her, or that of the parent providing more than one-half of the student's total financial support.
- The domicile of an unemancipated person who has no parents is that of his/her guardian or other legal custodian, unless it appears that such guardianship or custodianship was created for the purpose of establishing in-state status.
- The domicile of any person who first enters the College from the domicile of his/her parent, as defined above, is that of the parent until he/she abandons such domicile and, for purposes other than that of education, acquires a new domicile.
- The domicile of any person who first enters the College from a domicile other than New Hampshire is such a domicile until he/she abandons such domicile and, for purposes other than that of his/her education, acquires a new domicile.
- Attendance at a unit of the University System or at any other educational institution in this state in itself is not evidence of intention to establish or establishment of a domicile in this state.

**Military Personnel.** A member of the armed forces of the United States stationed in this state under military orders is entitled to classification for himself/herself, spouse, and dependent children as in-state for tuition purposes so long as he/she remains on active duty in this State pursuant to such orders.

**Waiver.** Nothing contained in these rules precludes the Director of Admissions from waiving any requirement hereof under special circumstances in individual cases.

## Cost Estimates

Tuition and fees are established during each summer by the Board of Trustees of the University System of New Hampshire and may be adjusted at irregular intervals. Such changes are announced as far in advance as possible. Students are encouraged to consult the current tuition and fee schedule located on the KSC web site at [www.keene.edu/sfs](http://www.keene.edu/sfs).

In order to assist with financial planning, total expenses (tuition/room/board/mandatory fees) for full-time students for the 2003-2004 academic year was approximately \$12,212 for New Hampshire residents and \$18,262 for out-of-state students.

Students enrolled for less than 12 credits pay charges on a per-credit basis, depending on course level and residency.

## Refund Policy

A student who withdraws from the College or changes her or his course load is eligible for refunds according to the following schedule:

**Tuition** 75% within 7 calendar days beginning on the first day of the semester.  
50% in 8-30 calendar days after the first day of the semester.

*No refund beyond 30 days after the first day of the semester.*

**Room** 75% within 7 calendar days beginning on the first day of the semester.  
50% in 8-30 calendar days after the first day of the semester.

*No refund beyond 30 days after the first day of the semester.*

**Board** Pro rata refund minus one week from the date the meal ID is turned in to the Food Service Director upon approved release from the Director of Residential Life and Dining Services.

**Fees** No refund.

A student who is suspended or dismissed for disciplinary reasons forfeits his/her right to any refund.

Refund policy for Keene State College students participating in Direct Exchange Programs in International Education is as follows:

**Program fee** 75% within 7 calendar days beginning on the first day of the semester.  
50% in 8-30 calendar days after the first day of the semester.

*No refund beyond 30 days after the first day of the semester on site. A nonrefundable deposit of \$200 is made upon acceptance.*

**Return of Federal Title IV Financial Aid.** If a student is receiving federal financial aid (Federal Pell Grant, Federal SEOG Grant, Federal Perkins Loan, Federal Stafford Student Loan, and Federal PLUS Loan and LEAPP –State Grants) and withdraws or takes a leave of absence within 60 percent of the enrollment period, a portion of the awarded federal aid must be returned according to the Higher Education Amendments of 1998.

The determination of the return of these funds is calculated by Student Financial Services normally within 10 days of the withdrawal or leave of absence date. The calculation may result in the student's owing a balance to the College and/or the federal Title IV financial aid programs.

Sample return of Title IV funds worksheets are available for review in the Student Development Office in Elliot Hall.

## Student Financial Responsibility

By enrolling in classes at Keene State College, students agree to pay all charges incurred as a result of being enrolled at Keene State College by the stated due date, including any late penalties assessed due to failure to pay. Students also agree that they are responsible for all collection costs incurred if the services of a collection agency are employed.

A student who has outstanding charges or debts due the College, or who is delinquent in scheduled loan repayments, will not receive grade reports, transcripts, placement papers, diplomas, or other services from the College; nor will that student be eligible to participate in registration or housing privileges.

**Billing for Tuition, Mandatory Fees, Room and Board.** Payment in full is due the first Friday in August for the fall semester, and the second Friday in December for the spring semester. It is the sole responsibility of the student to remit payment in full prior to the tuition deadline. Any questions concerning a student's account should be directed to the KSC Student Financial Services office prior to the payment deadline. Other billings may be mailed throughout the year and are normally due within 10 days.

**Payment Plans.** Information about payment plans which allow for payment of KSC charges during the school year is available at Student Financial Services if financial aid awards will not cover all of a student's charges. The office contracts with an outside agent to service and track payment plans for a small fee.

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## Financial Aid

Student Financial Services (SFS) is responsible for the administration of student financial assistance and for helping students develop plans for paying for their education. Financial assistance is available in three basic forms – grants and scholarships, loans, and part-time employment. Grants and scholarships do not have to be repaid. Educational loans must be repaid (unless a student is eligible for special cancellation benefits), but such loans are made on a long-term, low-interest basis. Part-time employment is arranged at on-campus locations.

With the exception of the College's Academic and Talent Scholarship Programs (listed below), the most important factor in determining eligibility for aid is documented financial need. All matriculated students (students admitted into a degree program) are eligible to apply for assistance, if enrolled for at least 6 credits per semester. In addition, to be considered for financial assistance, upperclass applicants must be both in good academic standing (see Academic Policies & Procedures section of this catalog), and making satisfactory progress (see KSC Financial Aid Catalog).

Keene State College complies with all federal regulations concerning disclosure of costs and eligibility criteria. Inquiries should be directed to Student Financial Services.

## Application Procedures

In order for Keene State College to accurately determine financial assistance awards and eligibility, each applicant is required to file a Free Application for Federal Student Aid (FAFSA). FAFSA forms are available at high schools, or from Student Financial Services (SFS) at Keene State. Applications may also be filed via the Internet at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). Please contact SFS for specific requirements. The KSC Financial Aid Catalog and Financial Aid Update are available for detailed instructions and information regarding the financial aid process.

The Financial Aid priority filing date is:

**March 1** – FAFSA must be *received* at the Federal processor by this date.

Students who file prior to this deadline will receive the highest consideration for aid for the following academic year. Students who file after this date will be processed after all on-time filers have been awarded, but cannot



expect to receive a substantial amount of scholarship and grant awards. Funds are limited and students who file early are always given first consideration. If you would like early notification of financial awards, it is recommended that you complete the above requirement as soon as possible after January 1. Beginning in early March, letters of notification regarding the award of financial aid are sent from SFS.

It is emphasized that application materials must be filed early each year as no award is renewed automatically. However, provided that the student applies on time and that financial need persists, applicants may expect to continue to be eligible for assistance assuming they have maintained satisfactory progress and remain in good academic standing.

## Scholarships and Grants (Partial List)

Keene State has broadened its merit-based scholarship opportunities to provide greater access to higher education for high-quality students. Qualified students from the applicant pool are identified by the Admissions Office for the scholarships listed below. These scholarships are awarded on a first-come, first-served basis so students are encouraged to apply for admission early.

The categories are:

Scholarship	Annual Amt.	SAT Score	HS GPA	No. of Awards
President's Scholarship	\$3500	1100+	3.5+	20
Dean's Scholarship	\$2500	1050+	3.25+	60
KSC Enrichment	\$2000	1000+	3.0+	100

Annual amount for incoming applicants only (effective Fall 2002).

These awards are renewable for up to four years by maintaining a required grade point average.

The **KSC Academic Talent Grants-in-Aid Program** provides students with exceptional performing, artistic, or other academic talent with renewable scholarships. Recipients are selected by faculty committees within the Arts and Humanities (for theatre and music students, based on auditions, and art students based on portfolios), Sciences, and Professional Studies Divisions.

The **KSC Scholarship Program** is a College-funded grant program for high-need students. Eligibility is determined by the College through analysis of the Free Application for Federal Student Aid.

The **Federal Pell Grant Program** is a federally administered program for high-need students. Eligibility is determined by an agency of the federal government. Individual grants range from \$200 up to \$4000 per year. Students apply for Pell grants by means of the same Free Application for Federal Student Aid used to apply for other forms of assistance.

The **Federal Supplemental Educational Opportunity Grant Program** is a federally funded program which provides grants to students with financial need as defined by federal regulations, as well as with academic and creative promise. Eligibility is determined by the College through analysis of the Free Application for Federal Student Aid Form.

In addition to the above, scholarships are awarded annually from current gifts and endowment funds which have been established by friends and alumni of Keene State College. There are at present 42 such funds, which provide more than \$225,000 each year in scholarships to needy and worthy Keene State College students. Descriptions of the individual funds, eligibility criteria, and application procedures are found in the Financial Aid Catalog.

Students who have completed at least one year (24 credits) at Keene State College are eligible to apply for merit-based scholarships in March for the following year. Applications for these scholarships are available at Student Financial Services.

## Loans

Brief descriptions of the several types of available loans follow. Further information may be found in the Financial Aid Catalog.

The **KSC Loan Program** is a College-funded, long-term, low-interest loan for students with need established by means of the Financial Aid Form.

The **Federal Perkins Loan Program** is a federal and College-funded program. Eligibility is established through the Free Application for Federal Student Aid. Loans of borrowers employed as full-time teachers in designated hardship areas or as full-time teachers of the handicapped are partially forgivable each year and may result in cancellation of the total amount of the outstanding loan within five years. Loans of borrowers on active duty in the armed services, in an area of hostilities only, are forgivable at the rate of 12.5% per annum up to 50% of the total loan principal.

**The Federal Stafford Loan program** allows students to borrow low-interest loans from participating banks and credit unions. Two types of Stafford Loans exist, one is subsidized and is need-based and the other is non-subsidized and is not based on financial need. Eligibility is established through the Free Application for Federal Student Aid. The loan application process is normally started within the aid office via electronic transmission with your state guarantee agency and/or bank. The lender/guarantee agency mails preprinted/school certified applications to the student. These mailed applications must then be completed by the student and returned to the lender/guarantee agency for these loans to be approved.

**The Federal PLUS (Parent Loan for Undergraduate Students) Loan Program** is available for parents of undergraduate students who need additional funding after other financial aid has been awarded. These loans are not automatically approved, but do have competitive interest rates and other terms. Our office does not award this loan program because bank approval is required. Credit history is considered by lenders approving this program. If you are interested in this program, applications are available at most banks and at the Student Financial Services Office. School certification is required. Student cost of attendance minus other aid is the maximum loan amount possible for this program.

## Employment Opportunities

Funds to support the College's Work-Study Program are provided by the federal government and the College to enable eligible students to work for an average of 6 to 12 hours per week each semester while classes are in session and up to 40 hours per week at other times.

Keene State College also supports its own work program, which provides an additional 400-500 jobs per year. Jobs are offered preferentially to work-study eligible students, although many non-eligible students also find employment on the campus. Students interested in exploring job possibilities should check with Student Financial Services. The average job opportunity

allows a student to earn approximately \$500-\$1000 per semester.

In addition to on-campus job opportunities, many local employers hire students on a part-time basis. The Academic and Career Advising office in the Elliot Center maintains current listings of such vacancies.

## Other Sources of Assistance

To be sure students have explored every possible source of financial assistance, we suggest the following:

- Check with high school guidance counselors about local and national scholarship competitions and citizens scholarship funds in your state of residence.
- Apply to state grant or scholarship programs in your state of residence. Most of these may be applied for by means of the same Free Application for Federal Student Aid used to apply for institutional and federal aid.
- Check with local banks regarding special trusts providing educational assistance to students.
- Check with local Veterans Administration, and/or Vocational Rehabilitation offices if you think you are eligible for these programs.
- Many lenders are offering alternative student loan programs, and some are now being offered to dependent students without co-borrowers regardless of income. The College does not endorse or encourage any of these programs as the terms are not as beneficial as the federal programs, but information about them is available in Student Financial Services.

## Ombudsman

Higher Education amendments of 1998 have provided for the creation of a federal Ombudsman appointed by the U.S. Department of Education to act on behalf of students in the resolution of Title IV federal financial aid program issues. Students with questions or issues with federal financial aid programs may contact this person at 1-877-557-2575 or via the Internet at <http://fsahelp.ed.gov>.

# Student Life

## Student Governance

**Student Government.** Students assume basic responsibility for co-curricular activities through the Student Assembly, which legislates matters of policy and finance.

Student Government consists of the Student Body Representatives (President, Vice President, Student Trustee from KSC on a rotating basis), a legislative Student Assembly (representatives from each class, nontraditional students, and the Student Body president and vice president as nonvoting, ex officio members), class officers, and the Student Government Executive Board (Student Body Representatives, officers of the Student Assembly and class presidents). Members of the Student Government are elected each spring. The leadership is then elected from the membership. The Vice President for Student Affairs and the Student Government advisor also attend the meetings of the Assembly. Assembly members serve on the following Assembly committees: Student Life, Finance, and Constitution; representatives also serve on three College Senate committees: Curriculum, Academic Overview, and Academic Standards; and representatives serve on Presidential Advisory committees.

## College Judicial System

Each student admitted to Keene State College is expected to honor the Statement of Student Rights and Responsibilities, uphold all policies in the Student Handbook and other College publications, and observe all laws of the city, state, and federal governments. The College expects students to behave responsibly and to be considerate of the rights and privileges of others.

Charges of misconduct or violations of College policies are addressed through the College Judicial System, which is composed of members of the College community. The College Judicial Code, which includes the policies and procedures of the Judicial System, is fully described in the Student Handbook.

## Residential Life

The Office of Residential Life and Dining Services fosters a positive living and learning environment for over 2,000 residential students. Fifteen full-time professionals and 68 highly trained student staff members administer residence hall and family housing services and policies. The Residence Hall Association (RHA), whose membership is composed of representatives from each residential area, is responsible for reviewing and recommending to the Director of Residential Life policies governing the living environment in the halls. RHA also sponsors social and educational programs in the residence halls.

A listing of College housing policies, contained in the "Terms and Conditions of the Residence Hall Contract," is provided to students when they sign their housing contracts. Regulations concerning families living in the Tisdale apartments are contained in the Family Housing Handbook.

The Office of Residential Life and Dining Services also maintains a listing of properties submitted by apartment managers and owners of currently available off-campus rental properties. These listings are available on the web at [www.keene.edu/reslife/och\\_list.cfm](http://www.keene.edu/reslife/och_list.cfm). Keene State College makes no warranties or representations concerning these accommodations regarding health, fire, and safety conditions. The only requirement imposed by Keene State for inclusion on the list is that the accommodations be available to all prospective tenants regardless of race, sex, creed, color, national origin, handicap, or marital status.

## Dining Service

The Zorn Dining Commons contains dining rooms and provides cafeteria-style service. All meals are planned and prepared under supervision of a contract food service. Resident students (except Bushnell, Tisdale, and Pondside apartment residents) are required to

select one of four meal plans – a 12- or 19-meal plan, or the flex versions of the 12- or 19-meal plan. Commuter students, Bushnell, Tisdale, and Pondsides apartment residents have the option of any of the above meal plans, the 5- or 5-flex meal plan, or no plan. The flex versions of the 5-, 12-, and 19-meal plan allow students to use their ID cards as debit cards for purchases at the Student Center Food Court.

## Orientation

New students and their parents are invited to an Orientation program on campus in June to become familiar with the curriculum, services, and facilities of the College. Students meet with academic advisors and register for their fall courses at that time. Transfer students are invited to come to campus during the summer to meet with advisors and register for courses.

## Office of Disability Services

Services for students with disabilities are coordinated through the Office of Disability Services (ODS), located in the Elliot Center. In accordance with the Americans with Disabilities Act, the College provides equal access to courses, programs, services, jobs, activities, and facilities. It provides reasonable accommodations, academic adjustments, and/or auxiliary aids and services determined on a case-by-case basis. Depending on the nature of the disability, these accommodations may include alternative testing, note taking, texts on tape, and accessible housing and classrooms. Eligibility for accommodations is dependent on appropriate documentation, including information about the functional limitations of the disability.

## Health Services

Health Services, staffed by nurse practitioners, registered nurses, and a physician, attends to the health and wellness needs of the campus community. Health Services offers a full range of out-patient care, including medical assessment and treatment, lab work, counseling, referral, follow-up care, and health education. Liaison with and referral to area medical facilities are provided when circumstances are beyond the scope of the Health Services facilities.

## Counseling Center

The KSC Counseling Center offers a full range of mental health services with a focus on health and wellness.

These services include individual counseling, couples counseling, group counseling, referral, consultation, and a 24-hour emergency, on call counselor through the fall and spring semesters. The Counseling Center professional staff address issues such as depression, stress reduction and management, self esteem, relationships, assertiveness, communication, substance abuse, histories of physical and sexual assault, dysfunctional family environments, and eating disorders.

Students' use of services at the Counseling Center is supported by their student fee, and there is no additional charge for any services offered. Counseling is confidential and will not be shared with parents, staff/faculty, or others, except for some very specific situations (e.g., imminent danger to self or others), which will be explained before counseling begins.

The Counseling Center also serves the College by helping plan and facilitate programs and by sharing its collections of video and printed resources with the campus community. The Critical Incident Stress Debriefing (CISD) Team is coordinated out of the Counseling Center.

The Counseling Center staff consists of six full-time professional counselors, four graduate interns, an administrative assistant, and a receptionist. Information about the Counseling Center and the current group offerings can be found at [www.keene.edu/counseling](http://www.keene.edu/counseling). Please call 603-358-2437 to make an appointment or get more information.

## Recreational Sports

Keene State's state-of-the-art recreation facility is designed to meet the fitness, sports, and social needs of the entire College community. The Recreation Center offers three courts in the recreation gymnasium for basketball, volleyball, indoor soccer, and other indoor sports; the two-level BodyWorks fitness center with separate weight training and cardiovascular fitness areas; a three-lane walking/jogging track elevated above the recreation gymnasium; two aerobic fitness studios; a fitness testing room; and two multipurpose rooms. The intramural sports, group fitness classes, and informal recreation programs all use facilities in the Recreation Center. The swimming pool and racquetball court in Spaulding Gymnasium are also available for students, faculty, and staff to use. The Recreational Sports department offers lap/recreational swimming at noon, in the evenings, and on weekends. There are

also four outdoor, lit tennis courts, a sand volleyball court, and numerous sports fields available for use by KSC community members.

Student ID cards (for full- and part-time matriculated students) are required to enter the Recreation Center to use the recreational facilities and to participate in all Recreational Sports programs, including intramural sports, sport clubs, and group fitness classes. Full- and part-time matriculated students pay for access to the Recreation Center and to participate in the Recreational Sports programs through their general fees. There is no additional membership fee for full- and part-time matriculated students to use the Recreation Center.

The Recreational Sports Handbook, which outlines policies for facility use, regulations regarding membership, and policies for participation in the program, is available in the Recreational Sports Office, room 103, Recreation Center. For additional information on the Recreational Sports program and the Recreation Center, contact the Recreational Sports Office at 603-358-2814.

## Intercollegiate Athletics

Intercollegiate athletics provide opportunities for students with exceptional athletic ability to represent the College in National Collegiate Athletic Association (NCAA) Division III competition. Varsity sports are listed with student organizations at the end of this section.

## Student Center

The Lloyd P. Young Student Center is a focal point for co-curricular activities, offering a variety of educational, cultural, social, recreational, and leadership programs. Students are encouraged to participate in these activities and in the administration of the College through the Student Assembly.

Student Center facilities include the College Bookstore, the food court, an ATM, convenience store, student organization offices, meeting rooms, lounges, lockers, the Night Owl Cafe, and the Mabel Brown Room, where many social activities, concerts, lectures, and receptions take place.

**The College Bookstore** stocks all textbooks needed by students and will order other books upon request. The Bookstore also sells supplies, clothing, and gift items.

## Religious Advisement

A privately supported Protestant campus minister and Catholic campus minister are available to serve Keene State College students. The Catholic campus minister helps provide activities that balance spirituality, community service, and social gatherings to help produce well-rounded individuals amongst the student body. The Newman Student Organization, headed by a student executive board, is open to students of all faith backgrounds. The Catholic campus minister is the director of the Newman Center. The Newman Center provides a place where students gather to form a community that reflects upon Gospel values. A direct response to this reflection is action taken to improve conditions for humankind. The Protestant minister works with the guidance of the Campus Ministry Board of Directors, and provides counseling, worship services, and social awareness education. The minister fosters interdenominational and interfaith perspective and cooperation. There is also an active Hillel organization on campus, as well as a synagogue in Keene.

## Veterans' Services

New students are urged to visit or contact the Office of the Registrar well in advance of their first registration to process required documentation for veterans' benefits. Also, any changes in a student's registration status must be reported immediately to the Office of the Registrar.

## Community Service

The Office of Community Service, located in the Student Center, links students with volunteer opportunities throughout the greater Keene community. It serves as a resource center and clearinghouse for faculty in locating specific, course-related opportunities for students and assists faculty in designing courses which incorporate service learning. The office also coordinates efforts to involve students with K-12 children in area schools and agencies.

The office regularly publishes a list of volunteer opportunities, sponsors the Student Volunteer Organization and two Community Service Fairs a year, and coordinates Alternative Spring Break trips across the country and internationally with Habitat for Humanity building projects. The College has established a Habitat

for Humanity Campus Chapter for students, faculty, and staff volunteering in building and rehabilitating homes in the area.

The Office of Community Services sponsors campus blood drives, national service days, and weekend service projects with local agencies, including Keene Community Kitchen and Homeless Shelter, Big Brothers/Big Sisters, Pisgah State Forest, and Cedarcrest Children's Home.

Keene State College is a member of Campus Compact, a national coalition of college and university presidents committed to helping students develop the values and skills of citizenship through participation in public and community service.

## Alumni Center

**The Fred L. Barry Alumni Center** is located in the front of Elliot Hall on the second floor, where visitors, friends, parents, and students are always welcome. The Center houses the Office of Advancement, the Office of Alumni and Parent Relations, and includes a suite of guest rooms available to visiting alumni and friends of the College.

**The Keene State College Alumni Association** is governed by an elected Board of Directors whose members serve three-year terms. It provides programs to foster active involvement by Keene State alumni in the life of the College. An elected representative of the Association serves on the Board of Trustees of the University System of New Hampshire.

## Student Organizations

### ACADEMIC CLUBS

American Society of Safety Engineers  
Art Collective  
Architecture Club  
Biology Club  
Chemistry Lyceum  
Education Club  
French Club  
G.E.O.D.E.S.  
Geography Club  
History Club  
Math Club  
Music Educators National Conference  
Physical Education Majors Club  
Psychology Club  
Society for the Advancement of Management  
Society of Physics

### COMMUNITY SERVICE CLUBS

Alternative Spring Break  
Circel K Volunteer Organization  
Foundation for Excellent Schools  
Habitat for Humanity - Campus Chapter  
KSC Reads

### GREEKS

*Fraternities*  
Phi Mu Delta  
Sigma Lambda Chi  
*Sororities*  
Delta Phi Epsilon  
Eta Gamma Chi  
Kappa Gamma  
Phi Sigma Sigma  
Tau Phi Xi  
*Co-Ed*  
Delta Nu Psi  
Interfraternal Council  
Panhellenic Council

### HONOR SOCIETIES

Beta Beta Beta (Biology)  
Lambda Pi Eta (Communication)  
Upsilon Pi Epsilon (Computer Science)  
Omicron Delta Epsilon (Economics)  
Kappa Delta Pi (Education)  
Sigma Tau Delta (English)  
Phi Sigma Iota (Foreign Language)  
Pi Delta Phi (French)  
Gamma Theta Upsilon (Geography)  
Phi Alpha Theta (History)  
Phi Beta Delta (International Scholars)

Delta Mu Delta (Management)  
Kappa Mu Epsilon (Mathematics)  
Phi Epsilon Kappa (Physical Education)  
Sigma Pi Sigma (Physics)  
Psi Chi (Psychology)  
Rho Sigma Kappa (Safety Studies)  
Alpha Kappa Delta (Sociology)  
Sigma Delta Pi (Spanish)  
National Society of Collegiate Scholars

### RECREATIONAL CLUBS

Dance Team  
Environmental Outing Club  
Golf Club  
Ski Club  
Snowboarding Club  
Tennis Club

### RESIDENTIAL LIFE

Residence Hall Association

### SPECIAL INTEREST CLUBS

Amnesty International  
Association for Worksite Health  
Campus Crusade for Christ  
Campus Ecology  
Campus Ministry  
Chock Full of Notes  
Civil Liberties Union – Campus Chapter  
Class Offices  
Common Ground  
Feminist Collective  
Film Society  
Gay Straight Alliance  
Hillel  
International Friends  
Newman Student Organization  
Pagan Fellowship  
Social Activities Council  
SPLAT  
Student Dietetic Association  
Student Government  
Student Performing Arts Project

### STUDENT PUBLICATIONS AND MEDIA

Independent Film Foundation  
*The Kronicle* (yearbook)  
*The Equinox* (newspaper)  
KSC-TV  
*Literary Journal*  
WKNH-FM

## Intercollegiate Athletics

Men's/Women's Basketball  
Men's/Women's Cross Country  
Men's/Women's Lacrosse  
Men's/Women's Soccer  
Men's/Women's Swimming and Diving  
Men's/Women's Indoor and Outdoor Track  
Women's Volleyball  
Field Hockey  
Softball  
Baseball  
Cheerleading

## Recreational Sports

### GROUP FITNESS CLASSES

Abs and More  
Cardio-Combo  
Cardio Kick Boxing  
Hydrorobics  
Muscle Blast  
Pilates  
Step Aerobics  
Step/Dance  
Stretch It Out  
Yogaerobics  
Yoga

### CLUB SPORTS

Men's/Women's Rugby

### INTRAMURAL SPORTS

Badminton  
Basketball  
Flag Football  
Floor Hockey  
Kickball  
Racquetball  
Co-Rec Soccer  
Indoor Soccer  
Softball  
Tennis  
Three on Three Basketball  
Ultimate Frisbee  
Volleyball, Men's/Women's/Co-Rec/Sand  
Whiffleball

*New clubs form each year. Not all  
clubs listed are active every year.*

# Appendix

## Board of Trustees

**John D. Crosier**

Concord, 1998-2006

**Edward C. Dupont**

Durham, 2003-05

**George Epstein**

Madison, 2002-06

**Marie Gross**

Bedford, 2002-06

**Chester L. Jordan**

Bow, 2003-07

**Peter H. Lamb**

Newmarket, 2003-07

**Allysha Lane**

KSC, Student Trustee, 2003-04

**John H. Lawson**

Amesbury, Mass., 2000-04

**Andrew E. Lietz**

Rye, Vice Chair, 2001-04

**John H. Lynch**

Manchester, Chair, 2000-07

**Lorraine Stuart Merrill**

Stratham, Secretary, 1997-2005

**Debra B. Miller**

Londonderry, 2002-04

**John H. Moody**

Derry, 2003-07

**Walter R. Peterson**

Peterborough, 1996-2004

**Kristopher M. Quigley**

PSU, Student Trustee, 2003-04

**Eugene A. Savage**

Concord, 1999-2007

**Merle W. Schotanus**

Grantham, 1998-2005

**Edwinna C. Vanderzanden**

Rochester, 2001-05

## Ex Officio

**Nicholas C. Donohue**

Commissioner: State Department of Education

**Ann W. Hart**

President: University of New Hampshire

**Thomas M. Rocco**

President: College for Lifelong Learning

**Stephen J. Reno**

Chancellor: University System of New Hampshire

**The Honorable Craig Benson**

Governor: State of New Hampshire

**Stephen H. Taylor**

Commissioner: State Department of Agriculture

**Donald P. Wharton**

President: Plymouth State University

**Stanley J. Yarosewick**

President: Keene State College



# Administrators

## **PRESIDENT**

Stanley J. Yarosewick

## **VICE PRESIDENTS**

*Academic Affairs:*

Janet S. Gross

*Finance and Planning:*

Jay V. Kahn

*Student Affairs:*

Corinne P. Kowpak

## **DEANS**

*Arts and Humanities:*

Vacant

*Professional and Graduate Studies:*

David S. Hill

*Sciences:*

Gordon J. Leversee

*Associate Vice President*

*for Academic Affairs:*

Ann M. Rancourt

*Associate Vice President for Finance:*

Karen P. House

*Associate Vice President*

*for Student Affairs:*

Andrew P. Robinson

## **DIRECTORS**

*Academic and Career Advising:*

Judith F. Perry

*Admissions:*

Margaret A. Richmond

*Advancement:*

Judith J. Kalich

*Alumni and Parent Relations:*

Michael F. Maher

*Athletics and Recreational Sports:*

John C. Ratliff

*Bookstore Manager:*

Gail E. Bys

*Bursar:*

Vacant

*Campus Life:*

Paul A. Strifolino

*Campus Purchasing and Contract Services:*

James B. Draper III

*Campus Safety:*

Amanda G. Warman

*Chief Information Officer:*

Ken McCardle

*Child Development Center:*

Mary W. Mayshark-Stavely (interim)

*Cohen Center for Holocaust Studies:*

C. Paul Vincent

*College Relations:*

Michael J. Matros

*Continuing Education and Extended*

*Studies:*

Robert Baker Jr.

*Counseling:*

Candice D. Wiggum

*Elliot Center:*

P. Anne Miller

*Faculty Resource Center:*

Ellen Nuffer

*Health Services:*

Myra M. Skibb

*Human Resources:*

Gloria A. Lodge

*Information Services and Support:*

Laura J. Seraichick

*Institutional Research:*

Cristi L. Carson

*Mason Library:*

Irene M.H. Herold

*Math Center:*

Eileen M. Phillips

*National and International Exchange:*

Angela K. Yang (interim)

*Network and Telecommunications:*

Vacant

*Physical Plant:*

Frank G. Mazzola

*Redfern Arts Center:*

William R. Menezes

*Registrar:*

Susan M. Sielke

*Residential Life*

Judith A. Raper

*Small Business Development Center:*

Gary N. Chabot

*Sponsored Projects and Research:*

Mary-Ellen Fortini

*Student Financial Services:*

Patricia A. Blodgett

*Teacher Education and  
Graduate Studies Office:*

Merle S. Larracey

*Thorne-Sagendorph Art Gallery:*

Maureen J. Ahern

*TRIO Programs:*

Alan M. Glotzer

*Writing Center:*

Phyllis Benay

## **COORDINATORS**

*Adult Learner Services:*

Judith F. Perry

*Budget:*

John D. Halter

*Child and Family, CDC:*

Deirdre McPartlin

*Community Services:*

Donald E. Hayes

*Early College Awareness Program:*

Vacant

*Educational Programs, Aspire:*

Laura K. Mielke

*Educational Programs, Continuing*

*Education:*

Steven C. Kessler

*Educational Programs, National/*

*International Education:*

Angela K. Yang

*Educational Programs, Upward Bound:*

Elizabeth A. Zinn

*Recreational Athletics:*

Patrick K. Hearn

*Recycling:*

Mary E. Jensen

*Disability Services:*

Jane A. Warner

*Sports Information:*

Stuart E. Kaufman

*Travelli-Ayling Scholarships Program:*

R. Michael Haines

# Faculty by Disciplines and Divisions

Listed here are full-time faculty members, lecturer-contract faculty, artists-in-residence, faculty fellows, and teaching PATs. They are listed by department, under the division to which the department reports.

## Associate Vice President for Academic Affairs

**WOMEN'S STUDIES MINOR**  
Patricia Pedroza (CF)

## Interdisciplinary Studies

**HOLOCAUST STUDIES**  
Lawrence M. Benaquist  
Nona Fienberg  
Helen H. Frink  
R. Michael Haines (CF)  
Susan Herman  
Sander H. Lee  
M. Therese Seibert  
C. Paul Vincent  
Andrew Wilson

## Library

Wallace E. Mason Library  
Margaret Barrett  
Kathleen Halverson  
Judith M. Hildebrandt  
Robert Madden  
Lois Merry  
Patrick O'Brien  
Jean E. Plotas  
Peggie Partello

## Arts and Humanities Division

**The Arts and Humanities Division** includes courses in art (graphic design, studio art), communication, dance, English, film studies, French, German, history, journalism, music, philosophy, Spanish, and theatre.

### ART/GRAPHIC DESIGN

Redfern Arts Center  
Butterfield Hall  
Samuel Azzaro  
Rosemarie T. Bernardi  
Henry A. Freedman  
Marsha E. Hewitt  
Robert G. Kostick  
Christopher Nitsche  
Yuan Pan  
John E. Roberts  
Peter Roos

### COMMUNICATION

Elliot Hall  
Ann J. Atkinson  
Joan Donnelly (PAT)  
Diane M. Monahan  
Tara N. Stuart

### ENGLISH

Parker Hall  
Thomas M. Antrim  
Phyllis Bemay (PAT)  
Deborah Robin Dizard  
William E. Doreski  
Nona Fienberg  
R. Michael Haines (CF)  
Kenneth Hodges  
Sally L. Joyce  
Anna D. Kaladiouk  
Richard M. Lebeaux  
Mark C. Long  
Anne-Marie Mallon  
Kirsti A. Sandy  
William J. Stroup  
Janet Youga

### FILM

Parker Hall  
Lawrence M. Benaquist  
Peter J. Condon (PAT)  
Thomas Cook

### HISTORY

Morrison Hall  
Matthew H. Crocker  
Carl R. Granquist  
Gregory T. Knouff  
Margaret A. Orelup  
David Stowell  
Andrew Wilson

### JOURNALISM

Elliot Hall  
Craig Brandon (PAT)  
Rose M. Kundanis  
David G. Payson Jr.  
Marianne Salcetti  
Mark C. Timney

### MODERN LANGUAGES

Morrison Hall  
Thomas J. Durnford (Fr.)  
Helen H. Frink (Ger.)  
Margaret S. Langford (Fr.)  
Patricia Pedroza (Sp.) (CF)  
Lourdes Ramirez-Crusellas (Sp.)  
Barbara B. Ware (Sp.)

### MUSIC

Redfern Arts Center  
Donald Baldini (AIR)  
Joseph E. Darby  
Maura J. Glennon  
I. Gladys Johnsen  
Carroll J. Lehman  
José Manuel Lezcano  
George G. Loring (AIR)  
Douglas A. Nelson  
Craig S. Sylvern

### PHILOSOPHY

Parker Hall  
Charles E. Hornbeck  
Sander H. Lee  
Andrew Wilson

### THEATRE AND DANCE

Redfern Arts Center  
Craig R. Lindsay (PAT)  
Marcia Murdock (AIR)  
Daniel L. Patterson  
Céline Perron  
Elisabeth Tobey Roos  
William R. Seigh  
Ronald B. Spangler

## Professional Studies Division

*The Professional Studies Division includes courses in early childhood, education, health sciences, physical education, safety, special education, and technology studies.*

### EDUCATION/EARLY CHILDHOOD DEVELOPMENT

*Rhodes Hall/Joslin House*  
 Kathleen M. Ahern  
 Thomas Bassarear  
 Dorothy A. Bauer  
 Luz Carime Bersh  
 Stephen Bigaj  
 Deborah Black  
 John Couture  
 Prudence H. Cuper  
 Leonard E. Fleischer  
 Raymond A. Jobin (CF)  
 Judith Lister  
 Thomas J. McGuire  
 Ellen Nuffer  
 Joseph F. Rousseau  
 Susan Theberge  
 Janaki Tschannerl (CF)  
 Steven L. Tullar  
 David E. White

### HEALTH SCIENCE

*Joslin House*  
 Rebecca D. Brown  
 Sandra DiNatale  
 Rebecca L. Dunn  
 Karrie A. Kalich  
 Margaret A. Smith  
 Pamela Smith

### PHYSICAL EDUCATION

*Spaulding Gymnasium*  
 Charles W. Beach  
 Nancy K. Bleam (Athletic Trainer)  
 Sherry L. Bovinet  
 Ronald B. Butcher  
 Beverly R. King  
 Robert Merrow (Athletic Trainer)  
 Linda A. Millard  
 Donna M. Smyth  
 Jeffrey M. Timmer  
 Scot A. Ward (Athletic Trainer)

### SPECIAL EDUCATION

*Rhodes Hall*  
 Evie Gleckel  
 Nancy S. Lory

### TECHNOLOGY, DESIGN AND SAFETY

*Butterfield Hall*  
 Richard L. Foley  
 Lesley N. Johnson  
 Larry H. McDonald  
 Delmar R. Ogg  
 Charles A. Sheaff  
 Peter L. Temple  
 Melinda D. Treadwell

## Sciences Division

### The Sciences Division

*includes courses in astronomy, biology, chemistry, computer science, economics, environmental studies, geography, geology, management, mathematics, meteorology, physics, political science, psychology, and sociology.*

### BIOLOGY

*Science Center*  
 Kenneth D. Bergman  
 Karen R. Cangialosi  
 Patrick M. Eggleston  
 Renate L. Gebauer  
 Scott J. Strong  
 Susan L. Whittemore  
 Benjamin N. Wise  
 Theodore S. Zerucha

### CHEMISTRY

*Science Center*  
 Richard Blatchly  
 Jeudi L. Davis (PAT)  
 Jerry P. Jasinski  
 Sally M. Jean  
 Denise M. Junge

### COMPUTER SCIENCE

*Science Center*  
 Suzanne M. Castriotta  
 Adriana Corcoran  
 Michael J. Hanrahan  
 Gerald P. Joyce II  
 Ronald A. Tourgee

### ECONOMICS

*Rhodes Hall*  
 Patrick Dolenc  
 Marie C. Duggan  
 Thomas E. Duston  
 Robert L. Sherry

### GEOGRAPHY

*Science Center*  
 Kristin Alvarez  
 Klaus J. Bayr  
 Christopher D. Cusack  
 Jo Beth Mullens  
 Albert L. Rydant

### GEOLOGY

*Science Center*  
 Tim Allen  
 Steven Bill  
 Peter A. Nielsen

### MANAGEMENT

*Blake House*  
 Elizabeth H. Brown  
 Barbara Charkey  
 Linda M. Hadden  
 Susan Herman  
 Stephen C. King  
 John Pappalardo  
 Neal R. Pruchansky  
 Robert Simoneau  
 Gail Troseth (CF)

### MATHEMATICS

*88 Winchester St.*  
 Michael Cullinane  
 Vincent Ferlini  
 Beverly J. Ferrucci  
 Richard Jardine  
 Ockle Johnson  
 Karen B. Stanish  
 Joseph C. Witkowski

### PHYSICS

*Science Center*  
 J. Russell Harkay  
 Frederick J. Wolf

### POLITICAL SCIENCE/SOCIAL SCIENCE

*Rhodes Hall*  
 Roland L. Higgins  
 Charles F. Weed Jr.

### PSYCHOLOGY

*Rhodes Hall*  
 Linda Baker  
 Gary Bonitatibus  
 Martin W. Brown  
 Stephen J. Clark  
 Karen E. Jennings  
 Susan Menees  
 Neil M. Montgomery  
 Anthony Scioli  
 Homer E. Stavely Jr.  
 Donna M. Viveiros  
 Lawrence A. Welkowitz

### SOCIOLOGY

*Rhodes Hall*  
 Rosemary Gianno  
 Brian E. Green  
 Karen S. Honeycutt  
 Clinton Nichols III (CF)  
 M. Therese Seibert  
 Peter R. Stevenson  
 Janaki Tschannerl (CF)  
 Margaret M. Walsh

## Principal Administrators

**Yarosewick, Stanley J.**, President; B.S., University of New Hampshire; M.S., Ph.D., Clarkson College of Technology (1994)

**Gross, Janet S.**, Vice President for Academic Affairs; B.A., Goucher College; Ph.D., University of North Carolina (2002)

**Kahn, Jay V.**, Vice President for Finance and Planning; B.A., Northern Illinois University; M.A., Sangamon State University; Ph.D., University of Illinois, Chicago (1988)

**Kowpak, Corinne P.**, Vice President for Student Affairs, B.A., Hunter College, CUNY; M.Ed., Ed.D., University of Vermont (2000)

## Faculty

*As of January 2004. Year of appointment is in parentheses.*

**Ahern, Kathleen M.**, Instructor, ESEC; B.S., University of Massachusetts-Amherst; M.Ed., St. Joseph's College (2000)

**Allen, Timothy T.**, Professor, Geology; B.A., Harvard University; M.S., Ph.D., Dartmouth College (1993)

**Alvarez, Kristin J.**, Assistant Professor, Geography; B.A., University of South Florida; M.Ed., Ph.D., University of Southern Mississippi (1999)

**Antrim Jr., Thomas M.**, Associate Professor, English; B.S., Massachusetts Institute of Technology; M.A., Ph.D., University of Michigan (1968)

**Atkinson, Ann J.**, Assistant Professor, Communication; B.A., State University of New York at Oswego; M.S., State University of New York at Oneonta; Ph.D., University of Massachusetts, Amherst (2003)

**Azzaro, Samuel**, Professor, Art; B.S., Indiana University of Pennsylvania; M.F.A., Alfred University (1969)

**Baker, Linda J.**, Associate Professor, Psychology; B.A., Brandeis University; M.A., Lesley College; Ph.D., University of Massachusetts, Amherst (1995)

**Barrett, Margaret A.**, Associate Professor/Reference Librarian; B.A., Keene State College; M.L.I.S., University of Rhode Island (1970)

**Bassarrear, Thomas J.**, Professor, Education; B.A., Claremont-McKenna College; M.A., Claremont Graduate School; Ed.D., University of Massachusetts, Amherst (1986)

**Bauer, Dorothy A.**, Associate Professor, Early Childhood Education; B.A., Pomona College; M.Ed., Lesley College; Ed.D., University of Massachusetts, Amherst (1991)

**Bayr, Klaus J.**, Professor, Geography; Baccalaureate, Philosophical and Theological College, Austria; M.A., Ph.D., University of Graz (1969)

**Beach, Charles W.**, Associate Professor, Physical Education; B.S., University of New Hampshire; Ph.D., Michigan State University (1978)

**Benaquist, Lawrence M.**, Professor, Film Studies; State University of New York at Buffalo; M.A., New Mexico Highlands University; Ph.D., Syracuse University (1969)

**Bergman, Kenneth D.**, Professor, Biology; B.A., University of California, Berkeley; Ph.D., Harvard University (1979)

**Bernardi, Rosemarie T.**, Associate Professor, Art; B.A., St. Mary's University; M.F.A., University of Cincinnati (1998)

**Bersh, Luz Carime**, Assistant Professor, ESEC; B.A., Universidad de los Andes, Colombia; M.A., Ed.D., University of Alabama (2003)

**Bigaj, Stephen J.**, Associate Professor, ESEC; B.A., St. Norbert College; M.A., University of Minnesota; Ph.D., University of Connecticut (1999)

**Bill, Steven D.**, Associate Professor, Geology; B.S., Cleveland State; Ph.D., Case Western Reserve University (1987)

**Black, Deborah J.**, Associate Professor, Education; B.A., University of Massachusetts, Amherst; M.Ed., Smith College; Ed.D., University of Massachusetts, Amherst (1994)

**Blatchly, Richard**, Associate Professor, Chemistry; B.A., Williams College; M.A., M. Phil., Ph.D., Columbia University (1991)

**Bonitatibus, Gary J.**, Associate Professor, Psychology; B.A., Emory University; Ph.D., Stanford University (1993)

**Bovinet, Sherry L.**, Professor, Physical Education; B.S., Southern Illinois University; M.S., Ph.D., University of Illinois (1970)

**Brown, Elizabeth H.**, Associate Professor, Management; B.S., Washington University; M.B.A., Ed.D., University of Massachusetts, Amherst (1988)

**Brown, Martin W.**, Associate Professor, Psychology; B.A., Tufts University; Ph.D., University of Maine (1968)

**Brown, Rebecca D.**, Associate Professor, Health Science; M.A., Northern Arizona University; B.S., Ed.D., Brigham Young University (1986)

**Butcher, Ronald B.**, Assistant Professor, Physical Education; B.Ed., Plymouth State College; M.S., Indiana University; Ed.D., Highland University (1970)

**Cangialosi, Karen R.**, Professor, Biology; B.A., University of Maryland – Baltimore County; M.S., University of Cincinnati; Ph.D., Miami University (1992)

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**Brown, Hal G.**, Health Science/Sociology; B.S., Hawthorne College

**Caldon, Beverly A.**, Music; B.S., M.S., University of New Hampshire



- Carr, Daniel P.**, Art; B.A., Clark University
- Collins, Stephen H.**, Journalism; B.A., Hobart College; M.A., University of Missouri School of Journalism
- Cullity, Paul**, Modern Languages; B.A., Chapter Oak College
- Cummings, Jean (Dede)**, Art; B.A., Middlebury College
- Cushing, Diane T.**, Music; M.M., Boston Conservatory
- Dearth, Donna L.**, Music; B.M., M.Ed., Keene State College
- Doubleday, Deborah**, Education; B.A., M.Ed., Keene State College
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- Gonthier Jr., David F.**, Film Studies; B.A., University of New Hampshire; M.S., Boston University Graduate School of Film
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- Lichtenstein, Sally**, English/Women's Studies; B.A., Vermont College of Norwich University
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- Matathias, Robin T.**, Music; B.A., University of California; M.A., City College of New York
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**Cunningham, Richard E.**, English (1967-1998)

**Curran, A. Ranger**, Management (1982-1996)

**Davis, Clarence G.**, Philosophy (1968-1985)

**DeSantis, Richard P.**, Health Science (1970-2004)

**Doble, Richard F.**, Technology, Design and Safety (1968-2000)

**Eaves, Jeanne M.**, Home Economics (1963-1994)

**Ebbighausen, Margaret D. (Rogers)**, Special Education (1974-1991)

**Felton, William S.**, Sociology (1964-1996)

**Flemming, Donald N.**, Modern Languages (1971-2000)

**Fosher, Frederick J.**, English (1967-1992)

**Franc, Lillian**, Education (1976-1986)

**Goder, Harold A.**, Biology (1962-1998)

**Goder, Miriam E.**, Music (1962-1994)

**Goff, Stuart**, Mathematics (1969-1999)

**Grayson, Janet M.**, English (1966-2003)

**Greer, William B.**, Industrial Technology and Safety (1965-1994)

**Gregory, David P.**, Biology (1967-1999)

**Haley, Francis L.**, Geology (1961-1987)

**Harvey, David E.**, History (1965-1991)

**Havill, Thomas L.**, Geography (1966-1997)

**Hawes, Robert B.**, Industrial Technology and Safety (1969-1998)

**Hildebrandt, Charles A.**, Sociology (1969-1998)

**Jones, Frangcon L.**, English (1959-1985)

**Keddy, Ruth W.**, Physical Education (1947-1967)

**King, Keith V.**, Physical Education (1957-1987)

**Kurk, Heleen**, Wheelock School (1983-2002)

**Layman, Frederic G.**, Geology (1968-1988)

**Leinster, David R.**, History (1966-1998)

**Lenthall, Gerard**, Psychology (1978-2001)

**LeParte, Michael G.**, Sociology (1971-2000)

**Lohman, Ernest E.**, Education (1969-1992)

**Lovering, Sherman A.**, Education (1957-1985)

**Lyle, Cornelius R., II**, Journalism (1960-1986)

**Mallat, Norma M.**, Wheelock School (1956-1995)

**Marshall, John G.**, Art (1973-2002)

**Martin, Roger E.**, Management (1987-2002)

**Mize, Glenna J.**, Education (1972-2004)

**Mosely, J. Albert**, Mathematics (1954-1988)

**Neuman, Robert S.**, Art (1972-1990)

**Notman, Edith**, Theatre (1976-1998)

**Nugent, Harold E.**, English (1965-1989)

**Pardus, William D.**, Music (1996-1998)

**Peters, Ann C.**, Mathematics (1948-1972)

**Plaisted, Carole A.**, Wheelock School (1965-1994)

**Quirk, James D.**, Physics (1967-1997)

**Riley, Charles A.**, Mathematics (1966-1969, 1972-1996)

**Roelofs, Joan**, Political Science (1979-2003)

**Rosenstock, Raymond H.**, Music (1972-1998)

**Saucier, Karen L.**, Health Science (1969-2003)

**Schmidt, Terry A.**, Technology, Design and Safety (1977-2003)

**Shepherd Jr., Clyde W.**, Special Education (1968-2000)

**Smallman, Shirley**, Journalism (1979-2001)

**Smart, James G.**, History (1966-1994)

**Smith, M. Glenn**, Special Education (1976-2001)

**Spangenberg, James L.**, Home Economics (1971-1986)

**Spearman, Carlesta E.**, Music (1979-1993)

**Stepenuck, Stephen J., Jr.**, Chemistry (1970-2003)

**Sullivan, William J.**, English (1969-1998)

**Sweeney, Christine M.**, Education (1969-1992)

**Taylor, George H.**, Industrial Education and Technology (1955-1985)

**Trumbull, Virginia H.**, Special Education (1974-1998)

**Waling, Ann Britt**, Health Science (1972-2001)

**Whitaker, Kenneth W.**, Wheelock School (1964-1987)

**Wolf, Jo Beth**, Political Science (1976-1996)

## Professional/Administrative/Technical Staff

*As of January 2004. Year of appointment is in parentheses.*

**Ahern, Maureen J.**, Art Gallery Director; B.F.A., University of Massachusetts, Amherst; M.A., State University of New York, Albany (1980)

**Anderson, Ramona K.**, Counselor, Student Counseling; B.S., Mankato State University; M.A., Antioch New England Graduate School (1999)

**Andrews, Lynne**, Associate Director of Athletics and Recreational Sports; B.S., M.S., Miami University (1992)

**Armstrong, Steven A.**, Media Specialist, Information Technology Group; B.A., Keene State College (1980)

**August, Melissa R.**, Residence Director, Residential Life Office; B.A., Regis College (2002)

**Babonis, Helen Z.**, Assistant Manager, Bookstore; B.S., University of Connecticut (2001)

**Backes, Pamela S.**, Assistant Director, Elliot Center—Academic and Career Advising; B.A. Alma College; M.A. Michigan State University (1986)

**Baker Jr., Robert**, Director, Continuing Education; B.S., Franklin Pierce College (1990)

**Barrett, Marcia J.**, Housing Coordinator, Residential Life; B.A., Keene State College (1999)

**Benay, Phyllis**, Skills Application Teacher, Director, Center for Writing; B.A., Brooklyn College; M.A., New York University; M.S., University of Maine, Portland/Gorham; Ed.D, University of Massachusetts, Amherst (1997)

**Bickford, Robin M.**, Nurse, Health Services; R.N., Concord Hospital School of Nursing (2000)

**Bleam, Nancy K.**, Athletic Trainer, B.A., Adrian College; M.A., Austin Peay State University (1996)

**Blodgett, Patricia A.**, Director of Student Financial Services; B.S., Keene State College (1983)

**Boucher, Keith**, Women's Basketball Coach; B.S., Plymouth State College; M.P.E., Norwich University (1989)

**Brandon, Craig M.**, Skills Application Teacher, Journalism; B.A., State University of New York, Oswego (1995)

**Brush, Francis**, Manager, Mail Services; A.A., Trenton Junior College (1994)

**Burke, Christine M.**, Director, Wellness Promotion; B.S., University of Massachusetts; M.Ed., Lesley University (2003)

**Bury, Kenneth J.**, Information Technologist, Information Technology Group; B.S., M.S., Polytechnic University (2003)

**Bush, Christopher N.**, Information Technologist, Student Financial Services; B.S., M.S., State University of New York, Albany (1998)

**Bys, Gail E.**, Bookstore Manager (1962)

**Cahoon, Elizabeth A.**, Assistant Director, Admissions; B.S., Keene State College (1990)

**Carley, James K.**, Associate Director of Residential Life; B.S., M.Ed., Penn State University (1990)

**Carson, Cristi L.**, Director, Institutional Research; B.S., Weber State University; Ph.D., University of California, Riverside (2003)

**Chabot, Gary N.**, Director, Small Business Development Center; A.S., North Hampton Junior College; B.S., University of Massachusetts-Lowell; M.B.A., Babson College (1998)

**Child, Cheryl**, Information Technologist, Information Technology Group; B.S., Keene State College (1991)

**Colbert, Robert E.**, Men's Basketball Coach; B.A., Marist College (1999)

**Condon, Peter J.**, Skills Application Teacher, Film; B.A., M.A., Keene State College (2001)

**Darrow, Jennifer**, Academic Web Specialist/Blackboard Administrator, Information Technology Group; A.S., Greenfield Community College; B.A., University of Massachusetts; M.A.T., Person School of Marlboro College (2003)

**Davis, Jeudi L.**, Chemistry Lab Specialist; B.S., Pacific Lutheran University (1982)

**Demmons, Daniel C.**, Associate Manager, Bookstore; A.S., Keene State College (1997)

**Denehy, Brendan S.**, Redfern Arts Center Manager; B.A., M.A., Keene State College (1990)

**Dickson, Julie**, Executive Assistant to the President; B.A., College of Wooster; M.A., Temple University (1985)

**Diffin, Jennifer A.**, Systems Librarian/Head of Library Services; B.S., M.L.S., Simmons College (2002)

**Dintino, Maria**, Associate Director, Aspire Program; B.A., University of New Hampshire; M.A.L.S., Keene State College (1992)

**Dombroski, Martin J.**, Assistant Manager, Bookstore; B.S., Keene State College (2000)

**Donnelly, Joan M.**, Skills Application Teacher, Communication; B.S., New Hampshire College; M.Ed., University of Southern Maine; Ph.D., Boston College (1988)

**Doyle, Martha**, Nurse, Health Services; Hartford Hospital School of Nursing (1990)

**Doyon, Marc E.**, Assistant Director of Physical Plant-Trades; A.S., New Hampshire Technical Institute (1991)

**Draper, James B., III**, Director of Campus Purchasing and Contract Services; B.B.A., University of Massachusetts, Amherst (1986)

**Duhaime, Lisa J.**, Information Technologist, Information Technology Group; B.A., Keene State College (2001)

**Eldridge, Carrie E.**, Residence Director, Residential Life Office; B.S., Emerson College (2001)

**Esperanza, Brenda**, Counselor, Counseling Center; B.A., Antioch Graduate School; M.A., University of Massachusetts, Amherst (2002)

**Fairbanks, Carol A.**, Administrative Accounting Specialist; A.A., B.A., Keene State College (1982)

**Farina, Linda B.**, Information Technologist, Information Technology Group (1988)

**Featherston, Katherine K.**, Biology Lab Coordinator, Science Center; B.S., University of Maine (1998)

**Felch, Anna**, Information Technologist, Information Technology Group (1998)

**Fortin, Stacey**, Facilitating Teacher, Child Development Center; B.A., M.A.Ed., Northern Arizona University (2003)

**Fortini, Mary-Ellen**, Director, Sponsored Projects and Research; B.A., University of Kansas; M.A., Ph.D., University of Vermont (2003)

**Friedman, Jeffrey M.**, Information Technologist, Admissions Office (1998)

**Gagnon, Ann M.**, Senior Administrative Assistant, President's Office; A.A., Keene State College (2003)

**Gallagher, Steven M.**, Assistant Director, Student Financial Services; B.S., Plymouth State College (1999)

**Gempler, Mark N.**, Assistant Director, Operations, Young Student Center; B.A., Grinnell College (1996)

**Gibson, Tomi A.**, Information Technologist, Information Technology Group; B.A., M.Ed., Keene State College (1997)

**Glutzer, Alan M.**, Director, TRIO Programs; B.S., M.A., Hofstra University (1979)

**Grimstad, Sandra J.**, Information Technologist, Information Technology Group; B.F.A., Ohio State University (1998)

**Haggarty, Nancy M.**, Graphic Designer, College Relations; B.A., Simmons College; B.A., Keene State College (1995)

**Halloran, Pat A.**, Assistant Director, Academic and Career Advising – Elliot Center; B.A., Boston College; M.Ed., Keene State College (1995)

**Halter, John D.**, Budget Coordinator; B.S., Rollins College (1982)

**Hapgood, Jennifer**, Residence Director, Residential Life Office; B.A., Keene State College; M.Ed., University of Maine (1999)

**Harkness, Kimberly**, Assistant Director, Human Resources; B.A. Keene State College (1986)

**Hayes, Donald E.**, Community Services Coordinator; B.A., Vermont College; M.A., New Hampshire College (1994)

**Hearn, Jeanne S.**, Assistant Director, Aspire; B.S., M.Ed., Springfield College (1988)

**Hearn, Patrick K.**, Recreational Athletics Coordinator, Intramural Recreation; B.S., St. Lawrence University; M.Ed., Springfield College (1999)

**Herold, Irene M.H.**, Director, Mason Library; B.A., M.L.S., University of Washington (2002)

**Hill, David S.**, Dean, Professional and Graduate Studies; B.A., Allegheny College; M.Ed., Ed.D., Temple University (1985)

**Hodges, David Mark**, Information Technologist, Information Technology Group; B.A., University of California-Berkeley (2001)

**House, Karen P.**, Associate Vice President for Finance; B.S., University of Virginia (2000)

**Howe, Kenneth N.**, Baseball Coach; B.A., Keene State College (1999)

**Huntley, Sheryl L.**, Information Technologist, Registrar's Office; A.A., B.A., Keene State College (1985)

**Hutchinson III, Edwin R.**, Residence Director, Residential Life Office; B.A., Keene State College; M.A., University of Rhode Island (2003)

**Jamieson, Benjamin J.**, Residence Director, Residential Life Office; B.A., University of Virginia; M.S., Miami University at Ohio (2001)

**Jasmin, Heather M.**, Information Technologist, Institutional Research; B.S., Keene State College; M.B.A., Plymouth State College (1990)

**Jensen, Mary E.**, Program Coordinator; B.A., Keene State College; M.A., Vermont College of Norwich University (1999)

**Jewell, Craig A.**, Educational Program Coordinator Trainee, Upward Bound; B.A., Bowdoin College (2002)

**Justice, Chris M.**, Graphic Designer, College Relations; B.A., University of Delaware; B.A., Keene State College (1985)

**Justice, Kevin**, Admissions Officer; B.S., Whitman College (2003)

**Kalich, Judith J.**, Director of Advancement; B.A., Pennsylvania State University; M.A., Michigan State University (1995)

**Kaufman, Stuart E.**, Sports Information Coordinator; B.A., University of Massachusetts, Amherst; M.Ed., Springfield College (1992)

**Kelley, Fanny M.**, Assistant Bursar, Student Financial Services; B.A., Keene State College (1993)

**Kelley, Robert J.**, Information Technologist, Information Technology Group; B.S., University of Rhode Island (1994)

**Kent, Sarah H.**, Assistant BodyWorks Manager, Recreational Sports; A.S., B.S., Keene State College; M.Ed., Springfield College (2003)

**Kessler, Steven C.**, Assistant Director, Continuing Education; B.A., M.A.T., Colgate University (1997)

**King, Christine M.**, Academic/Career Counselor, Elliot Center; B.A., SUNY College at Geneseo; M.Ed., Hunter College (2003)

**Klenotic, Deborah**, Staff Writer/Editor, College Relations; B.A., Pennsylvania State University (2002)

**Larracey, Merle A.**, Director, Teacher Education/Graduate Studies Office; B.S., State University of New York, Plattsburgh; M.Ed., Keene State College (1972)

- LeBlanc, Diane R.**, Information Technologist, Information Technology Group; A.S., Mount Wachusett Community College; B.S., Lesley University (2003)
- Leversee Jr., Gordon J.**, Dean of Sciences; B.A., Dartmouth; Ph.D., Duke University (1981)
- Lindsay, Craig R.**, Skills Application Teacher, Theatre and Dance; B.A., Bishops University (1997)
- Lodge, Gloria A.**, Director of Human Resources; B.A., University of New Hampshire (1997)
- Lothrop, Carol L.**, Early Childhood Teacher, Child Development Center; B.S., University of Massachusetts, Amherst (1996)
- Lyons, Denise T.**, Women's Soccer Coach; B.S., Keene State College (1996)
- Maceda, Kathleen**, Educational Program Coordinator, Aspire; B.A., University of the Philippines; M.A., Harvard Graduate School of Education (2003)
- Maher, Michael F.**, Director of Alumni and Parent Relations; B.A., Keene State College; M.A., Pennsylvania State University (1993)
- Martin, Beth**, Information Technologist, Advancement; B.S., Keene State College; M.B.A., Plymouth State College (1993)
- Martinez-Bohannon, Misty M.**, Assistant Director, Student Financial Services; B.A., Keene State College (1994)
- Matros, Michael J.**, Director, College Relations; A.B., Duke University; M.F.A., University of North Carolina-Greensboro (1997)
- Mayshark-Stavelly, Mary W.**, Interim Director, Child Development Center; B.A., Antioch College; M.A., Sonoma State University (1986)
- Mazzola, Frank G.**, Director, Physical Plant Operations; B.S., State University of New York College of Technology (1993)
- McCardle, Ken**, Chief Information Officer, Information Technology Group; B.S., University of Florida; B.S., Towson State College; M.S., Rensselaer Polytechnic (2002)
- McElhiney, Den'Al**, Assistant Director, Student Financial Services; B.A., California State University, Chico (2002)
- McGreer, Heather J.**, Assistant Director, Human Resources; B.S., Syracuse University (1997)
- McPartlin, Deirdre**, Early Childhood Teacher, Child Development Center; B.S., Keene State College (1995)
- Mead, Margaret L.R.**, Facilitating Teacher, Child Development Center; B.S., University of Connecticut; M.S., Eastern Connecticut State University (2002)
- Medved, Carla**, Nurse Practitioner, Health Services; University of Vermont (1990)
- Menezes, William R.**, Director, Redfern Arts Center; B.A., St. Mary's College, California; M.F.A., University of Massachusetts, Amherst (1987)
- Merrow, Robert**, Athletic Trainer; B.S., Plymouth State College; M.A., Marshall University (1986)
- Mielke, Laura K.**, Education Program Coordinator, Upward Bound; A.S., B.A., Keene State College; M.Ed., University of New Hampshire (2001)
- Miles, Christine A.**, Manager, Fitness Center; A.S., Bryant College; B.S., Keene State College (2000)
- Miller, P. Anne**, Director, Elliot Center; B.S., M.S., Michigan State University (1993)
- Mobilia, Charles L.**, Information Technologist, Information Technology Group; B.A., Lycoming College (1997)
- Monyo-Tetteh, Monica E.**, Admissions Officer; B.A., M.A., University of Buffalo (2003)
- Mosier, Melinda A.**, Assistant Director, Advancement; B.S., Northern Arizona University (2002)
- Mucci, Beth M.**, Early Childhood Teacher, Child Development Center; B.S., University of Vermont; M.S., Wheelock College (2000)
- Mundahl, Beth**, Substance Abuse Counselor, Counseling Service; B.A., Keene State College; M.S.W., Adelphi University (1989)
- Orsman, David J.**, Writer/Editor, College Relations; B.B.S., Massey University of New Zealand (2000)
- Palmer, Ralph**, Energy and Administrative Coordinator; B.A., Antioch College (1979)
- Paré, Kimberly E.**, Information Technologist, Information Technology Group; A.S., Endicott Junior College; B.S., Johnson State College (1997)
- Parsons, John W.**, Information Technologist, Information Technology Group; A.S., Finger Lakes Community College (1997)
- Perry, Cheryl A.**, Theatre Operations Manager, Redfern Arts Center; B.A., Keene State College (1991)
- Perry, Judith F.**, Director of Academic & Career Services and Coordinator of Adult Learner Services – Elliot Center; B.A., Syracuse University; M.Ed., Keene State College (1989)
- Phillips, Eileen M.**, Skills Application Teacher, Director, Math Center; B.A., Utica College; M.S., SUNY College at Potsdam (1998)
- Piper, Pat A.**, Information Technologist, Information Technology Group; B.A., University of Maryland (1985)
- Poirier, Bertrand**, Associate Director of Admissions; B.A., Keene State College (1985)
- Powers, Bonnie J.**, Information Technologist, College Relations; B.A., Keene State College (1998)
- Powers, Glenn T.**, Information Technologist, Residential Life; B.S., Keene State College (1997)
- Price, Dolores Rose**, Educational Program Coordinator, OSHA Office; B.S., M.S., University of Massachusetts, Lowell (2003)
- Putzel Price, Judith**, Associate Director of Counseling Services; B.A., Vassar College; M.Ed., Ed.D., University of Massachusetts, Amherst (1986)

**Rancourt, Ann M.**, Associate Vice President for Academic Affairs; B.S., Plymouth State College; M.S., Northeastern University; M.A., Central Michigan University; Ph.D., Florida State University (1997)

**Rand, Thomas**, Recreational Athletic Coordinator, Recreational Sports; B.A., University of Vermont; M.Ed., University of South Florida (2002)

**Raper, Judith A.**, Director, Residential Life; B.A., Indiana University; M.A., Ed.D., University of Vermont (2003)

**Ratliff, John C.**, Director of Athletics and Recreational Sports; B.S., Davidson College; M.S., Ohio University (1995)

**Reynelli, Amy L.**, Residence Director, Residential Life Office; B.A., M.A., Slippery Rock University (2001)

**Richard, Thomas M.**, Academic Support; B.S., University of Massachusetts, Amherst; M.O.E., Keene State College; Registered Dietitian (1980)

**Richmond, Margaret A.**, Director, Admissions; B.A., University of New Hampshire (1984)

**Robinson, Andrew P.**, Associate Vice President for Student Affairs; B.A., Allegheny College; M.S., Ph.D., Syracuse University (1991)

**Rothberg, Aaron D.**, Information Technologist, Information Technology Group; B.S., Keene State College (2003)

**Rousseau, Barbara**, Project Director, OSHA Office; B.A., Plymouth State College; M.E., University of New Hampshire (1998)

**Russell, Carole L.**, Early Childhood Teacher, Child Development Center; B.S., Michigan State University (1997)

**Rymes, William E.**, Supervisor, Plumbing and Heat Plant Operations (1994)

**Sands, Carole E.**, Facilitating Teacher, Child Development Center; B.A., Wesleyan University; M.A., Wheelock College (1990)

**Santiago, Christopher M.**, Assistant Director, Campus Safety; A.S., B.S., Mount Ida Junior College (2003)

**Schmidl-Gagne, Kimberly A.**, Residence Director; B.A., North Adams State; M.A., Ohio State University (1989)

**Schmidl-Gagne, Mark**, Dispute Resolution Coordinator, Student Development; B.A., University of Massachusetts, Amherst; M.Ed., Keene State College (1995)

**Seraichick, Laura J.**, Director, Information Services and Support, Information Technology Group; B.A., University of Massachusetts, Amherst (1997)

**Sielke, Susan M.**, Registrar; B.S., East Stroudsburg State College; M.Ed., Plymouth State College (1984)

**Skibb, Myra M.**, Director of Health Services; R.N., Orange Memorial School of Nursing (1975)

**Sprague, Deborah J.**, Assistant Director, Student Financial Services; A.A., A.S., Keene State College (1989)

**Stanmore, Carol E.**, Associate Director, Student Financial Services (2002)

**Stevenson, Jennifer E.**, Accountant, Business Office; B.A., University of Michigan (2003)

**Strifert, Patrice L.**, Assistant Director of Programs, Young Student Center; B.A., Meredith College; M.A., Appalachian State University (1990)

**Strifflino, Paul A.**, Director, Campus Life; B.S.Ed., State University of New York, Geneseo; M.A., Bowling Green State University (1989)

**Swisher, Karen R.**, Manager of Academic Technology, Information Technology Group; B.S., Merrimack College; M.Ed., Keene State College (1979)

**Tandy, Peter S.**, Academic Counselor, Graduate Studies; B.A., University of New Hampshire; M.S., Antioch New England Graduate School (1995)

**Testo, Martin W.**, Admissions Officer; B.S., Keene State College; M.Ed., Springfield College (2003)

**Thomas, Peter G.**, Track/Cross Country Coach; B.S., Keene State College (1999)

**Tilton, Robert L.**, Information Technologist, Student Financial Services; B.S., Keene State College (2000)

**Traviss-Velazquez, Nora M.**, Environmental Health and Safety Specialist, Physical Plant; B.S., Pennsylvania State University; M.S., New Jersey Institute of Technology (2002)

**Ullman, Erik B.**, Information Technologist, Information Technology Group (1999)

**Viall, Sasha J.**, Assistant Director, Admissions; B.A., Keene State College (1997)

**Ward, Scot A.**, Athletic Trainer, Physical Education; M.S., Indiana University (1999)

**Warman, Amanda G.**, Director, Campus Safety; B.S., Northeastern University (2001)

**Warner, Jane A.**, Coordinator, Disability Services; B.S., M.Ed., Springfield College (2000)

**White, Thomas**, Educational Program Coordinator, Cohen Center for Holocaust Studies; B.A., Norwich University; M.A.T., Keene State College (2003)

**Whittaker, Kenneth C.**, Information Technologist, Information Technology Group; A.S., Thames Valley State Technical Institute (1979)

**Whitemore, Suzanne**, Information Technologist, Information Technology Group; B.G.S., College for Lifelong Learning (1993)

**Wiggum, Candice D.**, Director, Counseling Center; B.S., Washington State University, Pullman; M.S., Western Washington University; Ph.D., Oregon State University (2002)

**Williams, Elizabeth J.**, Telecommunications Specialist, Information Technology Group; B.A., Kalamazoo College (1995)

**Williams, Michel P.**, Assistant Director of Residential Life; B.A., M.A., California State University, Chico (1986)

**Winsor, Arthur, Jr.**, Assistant Director of Physical Plant/ Grounds; B.S., University of Rhode Island (1993)

**Yampanis, Karen M.**, Early Childhood Teacher, Child Development Center; B.S., Keene State College (2001)

**Yang Handy, Angela K.**, Interim Director, National and International Exchange; B.A., M.A., Clark University (2001)

**Zinn, Elizabeth A.**, Educational Program Coordinator, Upward Bound; B.S., Simmons College; M.Ed., Antioch New England Graduate School (2000)

## Operating Staff

*As of January 2004. Year of appointment is in parentheses.*

**Adler, Douglas C.**, Physical Plant (2002)

**Anderson, Agnes C.**, Scheduling Office; B.S., SUNY-Albany; M.Ed., Keene State College (1992)

**Arsenault, Carol**, Professional Studies; B.S., Keene State College (1979)

**Arsenault, Dianne**, Athletics (1989)

**Atherton, Kerry S.**, Science Division; A.A., Keene State College (1985)

**Aubrey, Nancy A.**, Arts and Humanities Division (2001)

**Balla, Nancy**, Residential Life; B.S., Keene State College (1990)

**Berntsen, Barbara A.**, Elliot Center; A.A., Keene State College (2002)

**Bond, Pamela**, Residential Life (1990)

**Bosquet, Brendan**, Campus Safety (2003)

**Boswell, Catherine A.**, Mason Library (1992)

**Bosworth Sr., Norman T.**, Physical Plant (1993)

**Bottomley, Kathryn E.**, Admissions; A.A., Bryant College (2002)

**Briggs, Barbara**, Teacher Education Office (1971)

**Brockway, Barbara**, Admissions Office (1990)

**Butler, Deborah A.**, Athletics (1994)

**Carpenter, Lea M.**, Campus Safety (1998)

**Carrien, Dorothy D.**, Professional Studies Division; A.A., Montgomery Junior College; B.A., Keene State College (1993)

**Clark, Carol**, Elliot Center (1990)

**Clark, Deborah**, Registrar's Office (1980)

**Clark, Elizabeth W.**, Mail Services (1998)

**Collins, Tasha**, Residential Life (2003)

**Cormier, Christopher R.**, Physical Plant; B.S., Keene State College (2000)

**Croteau, Beth**, Bookstore (2001)

**Cucchiara, Linda M.**, Mason Library; A.S., Mount Wachusett Community College; B.S., Keene State College (1985)

**Demond, Nathan L.**, Physical Plant (2000)

**Desmarais, Adrian R.**, Physical Plant Office (1984)

**Dettelback, Rosemary**, Vice President for Finance and Planning Office; B.S., Keene State College (1988)

**Dionne, Pauline A.**, Vice President for Academic Affairs Office (1966)

**Dufresne, Alan G.**, Physical Plant (2000)

**Dumond, Nathan**, Physical Plant (2000)

**Dumond, Robert D.**, Physical Plant (1994)

**Dunne, Audrey**, Campus Safety (2002)

**Dwyer, Michael G.**, Mason Library (1996)

**Edwards, Deborah**, Business Office (1998)

**Ellsworth, Jane L.**, Physical Plant (1993)

**Ericson-West, Susan**, Dean of Professional Studies Division Office; B.A., University of New Hampshire; M.Ed., Antioch New England Graduate School (1989)

**Evans, Rebecca A.**, Bookstore; B.A., Keene State College (2002)

**Favreau, Felicia**, Professional Studies Division (1989)

**Feiker, Frederick C.**, Physical Plant (1976)

**Filipi, Joseph M.**, Campus Safety (2001)

**Flanagan, Christina L.**, Registrar's Office; A.S., Mount Wachusett College (2000)

**Ford, Judith A.**, Curriculum Materials Library; B.A., Transylvania University (1989)

**Freitas, Sue A.**, Business Office; A.S., Greenfield Community College (2000)

**Fuller, Michael H.**, Physical Plant (2001)

**Fuller, Michelle**, Student Financial Services (1987)

**Garland, Jeffrey**, Physical Plant; B.A., University of New Hampshire; B.S., Stockbridge School of Agriculture (1996)

**Garland, Timothy J.**, Physical Plant (2002)

**Gibson, Dana W.**, Mail Services (2001)

**Gitchell, Nancy J.**, Science Division; B.S., University of Maine (1988)

**Goding, Susan E.**, Registrar's Office (1989)

**Gomez, Michael**, Campus Safety (2000)

**Goodrich, Derek M.**, Physical Plant (2002)

**Green, Stephen M.**, Physical Plant (1989)

**Greene, Catherine J.**, Human Resources (1986)

**Haines, Beverly A.**, Mason Library (1991)

**Hale, Anne L.**, Student Financial Services (1999)

**Harlow, Shane B.**, Campus Safety (2001)

**Hartz, Peter H.**, Physical Plant; B.A., Keene State College (1989)

**Hinz, Donna M.**, Associate Vice President for Academic Affairs Office (2002)

**Hitchner, Patricia A.**, Arts and Humanities Division; A.S., Keene State College (1988)

**Howe, Melissa**, Student Financial Services (2002)

**Huntley, Joel T.**, Campus Safety (1995)

**Huston, Robert**, Mason Library (1988)

- Iovieno, Joe G.**, Physical Plant; B.S., M.A., Keene State College (2002)
- Johnson, Colleen J.**, Thorne-Sagendorph Art Gallery (1995)
- Johnson, Ramona Martineau**, Residential Life; B.A., Keene State College (1996)
- Kaminski, Karyn**, Human Resources (1987)
- Karr, Katherine F.**, Central Stores (2001)
- Knowlton, Paul R.**, Thorne-Sagendorph Art Gallery (1999)
- LaFreniere, Tomasa D.**, Purchasing Office (1983)
- Lankhorst, Dorothy E.**, Business Office (1994)
- Lariviere, Christopher J.**, Physical Plant (2001)
- Leonard, Mary**, Disability Services (1990)
- Liimatainen, Rosean E.**, Human Resources; A.S., Franklin Pierce College (2000)
- Lockerby, Sally M.**, Upward Bound (1978)
- Loucks, Glenn J.**, Purchasing; B.A., Yale University (1994)
- Mackenzie, Robert D.**, Physical Plant (2001)
- MacLean, Kay M.**, Alumni and Parent Relations; B.S., Trinity College (1997)
- Manning, Kathryn A.**, Mason Library; B.A., Keene State College (2000)
- Maynard, Kenneth**, Physical Plant (1983)
- McBeth, Linda**, Bookstore (1994)
- McMillan, Anne F.**, Counseling Center; A.A., Vermont College; A.A., University of Bridgeport; B.A., Albertus Magnus College (2003)
- Meany, Sharon L.**, Science Division, B.S., Central Connecticut State University (2000)
- Miller, Bradley**, Campus Safety (2003)
- Miner Jr., William H.**, Physical Plant (1987)
- Morss, Amy**, Campus Safety; B.A., University of Connecticut (2002)
- Myhaver, Amy L.**, Advancement; A.A., Franklin Pierce College (2003)
- Nadeau, Ronald H.**, Physical Plant; B.S., Keene State College (2001)
- Naeck, Michelle M.**, Continuing Education (1998)
- Nicholas, Debra L.**, Recreational Sports (1997)
- Nicholson, Stephanie J.**, Advancement; B.Ed., Keene State College (1996)
- Norcross, Joan M.**, Arts and Humanities Division; B.S., Keene State College (1984)
- O'Reilly, Lillian T.**, Young Student Center (1980)
- O'Reilly, Linda M.**, National and International Exchange (1997)
- Ouellette, Barbara P.**, Registrar's Office (1990)
- Palmer, Shelly J.**, Purchasing Office (2001)
- Palmer, Tracy B.**, Vice President for Student Affairs Office (2001)
- Park, Anne**, Child Development Center; B.A., Sweet Briar College (1990)
- Petitto, John R.**, Campus Safety (2001)
- Petschik, Wendy N.**, Continuing Education (1999)
- Powers, Judy L.**, Arts and Humanities Division; A.A., Keene State College (1985)
- Pratt, Charles C.**, Mason Library; B.S.Ed., Boston University; M.Ed., University of New Hampshire (1978)
- Rouillard, Marilee H.**, Mason Library; B.S.Ed., Keene State College; M.A., Eastern Michigan University (1985)
- Russell, Steven R.**, Bookstore (2000)
- Schnyer, Stephen R.**, Physical Plant (1997)
- Searles, Katherine**, Student Financial Services (1973)
- Sears, John D.**, Registrar's Office; B.S., University of Maine (1992)
- Seigny, William F.**, Physical Plant (1993)
- Sherrick, Donald R.**, Physical Plant (1990)
- Sherwood, Sandra L.**, Professional Studies Division; B.S., Keene State College (1989)
- Shover, Gladys**, Advancement (Alumni Volunteer)
- Sibley, Maria E.**, Health Services (1985)
- Slanetz, John W.**, Physical Plant (1997)
- Spangler, Cheryl**, Director of Mason Library Office; B.A., Wittenberg University (1990)
- Sperry, Kathryn J.**, OSHA Office (2003)
- St. Pierre, Scott A.**, Physical Plant (1999)
- Surrell, Jeannie M.**, Payroll; B.S., Lyndon State College (2003)
- Symonds, Carol A.**, Student Development Office (1988)
- Taylor, Toni**, Campus Safety (2003)
- Tilton, Anna L.**, Cohen Center for Holocaust Studies; B.S., University of New Hampshire (2002)
- Trombley, Vicki L.**, Continuing Education (1999)
- VanderWoude, Meredith**, Elliot Center—Academic and Career Advising; A.S., Rhode Island Junior College (1988)
- Waldren David J.**, Physical Plant (2003)
- Ward, Michael C.**, Young Student Center; B.A., Western Maryland College (1997)
- Warne, R. Cliff**, Physical Plant (1989)
- Washer, Jayne M.**, Elliot Center—Aspire Program; B.Ed., Keene State College (1985)
- Weeks Jr., Charles D.**, Physical Plant (2003)
- Whippie Sr., Ronald R.**, Physical Plant (1987)
- Whitcomb, Jean M.**, Dean of Arts and Humanities Division Office; A.S., Champlain College; B.S.Ed., Keene State College (1982)



**Whitney, Bette**, Mail and Print Services; A.A., B.A., Keene State College (1990)

**Whittle, Ann M.**, Admissions Office; A.A., Northampton Junior College (1971)

**Williams, Mary Ann**, Dean of Sciences Division Office; B.A., Keene State College (1981)

**Wilson, Laura S.**, Redfern Arts Center; B.A., Keene State College (1984)

**Woodward, Suzanne**, Student Center (1998)

**Wright, Carole**, Student Financial Services (2001)

**Yeaw, Robert W.**, Physical Plant; B.S., Keene State College (1993)

# Awards Conferred by the College

## Honorary Degrees

**2003**

**Yaffa Eliach**

*Doctor of Humane Letters*

**Wesley McNair**

*Doctor of Humane Letters*

**2002**

**John Hockenberry**

*Doctor of Humane Letters*

**2001**

**Ernest Hebert**

*Doctor of Letters*

**Katherine Paterson**

*Doctor of Letters*

**2000**

**Gerald Wheeler**

*Doctor of Science*

**1999**

**Patricia Gallup**

*Doctor of Laws*

**Millard D. Fuller**

*Doctor of Letters*

**1998**

**Jules Olitski**

*Doctor of Arts*

**Jane Yolen**

*Doctor of Letters*

**1997**

**Lorene Carey**

*Doctor of Letters*

**1996**

**Stacey W. Cole**

*Doctor of Laws*

**1995**

**James L. Koontz**

*Doctor of Laws*

**Maxine Kumin**

*Doctor of Humane Letters*

**1994**

**Virginia Eskin**

*Doctor of Humane Letters*

**1993**

**Elmer E. Dunbar Jr., M.D.**

*Doctor of Humane Letters*

**1992**

**Joseph A. Baute**

*Doctor of Humane Letters*

**1991**

**Jill Ker Conway**

*Doctor of Humane Letters*

**G. Richard Hopwood**

*Doctor of Humane Letters*

**1990**

**F. Marion Wood**

*Doctor of Humane Letters*

**1989**

**Judson Hale**

*Doctor of Humane Letters*

**1988**

**Caroline Bird**

*Doctor of Humane Letters*

**1987**

**J. Bonnie Newman**

*Doctor of Laws*

**1986**

**James C. Cleveland**

*Doctor of Laws*

**1984**

**Elting E. Morison**

*Doctor of Humane Letters*

**John B. Tucker**

*Doctor of Laws*

**1983**

**David T.W. McCord**

*Doctor of Literature*

**1982**

**William Morris Meredith**

*Doctor of Literature*

**1981**

**Bramwell Fletcher**

*Doctor of Humane Letters*

**Thomas Winship**

*Doctor of Humane Letters*

**1980**

**Fred L. Barry**

*Doctor of Humane Letters*

**Clesson J. Blaisdell Jr.**

*Doctor of Laws*

**Roland V. Stoodley Jr.**

*Doctor of Science*

**1979**

**Justice Charles J. Contas**

*Doctor of Laws*

**C. Robertson Trowbridge**

*Doctor of Humane Letters*

**1979**

**Margaret M. Dixon**

*Bachelor of Arts*

**1978**

**George Robert Stibitz**

*Doctor of Science*

**1977**

**Dean C. Corrigan**

*Doctor of Science*

**Alfred W. Thomas**

*Doctor of Humane Letters*

**1976**

**Frank H. Blackington III**

*Doctor of Humane Letters*

**Lael Tucker Wertenbaker**

*Doctor of Literature*

**1975**

**Fairfax D. Downey**

*Doctor of Humane Letters*

**Frank W. Lane Jr.**

*Doctor of Science*

**David F. Putnam**

*Doctor of Laws*

**1974**

**Leon W. Anderson**

*Doctor of Humane Letters*

**1973**

**Arthur E. Cohen**

*Doctor of Science*

**James D. Ewing**

*Doctor of Humane Letters*

**Clara A. Giovannangeli**

*Master of Education*

**1972**

**Joseph H. Oakey**

*Doctor of Humane Letters*

**Frederick J. Simmons**

*Doctor of Literature*

**1971**

**Malcolm H. Keddy**

*Doctor of Humane Letters*

**Newell J. Paire**

*Doctor of Humane Letters*

**1970**

**Neil V. Sullivan**

*Doctor of Humane Letters*

**William A. Wolffer**

*Doctor of Laws*

**1969**

**John R. Goodnow**

*Doctor of Laws*

**1968**

**Ellen Faulkner**

*Doctor of Humane Letters*

**1967**

**Amos Noyes Blandin Jr.**

*Doctor of Laws*

**Elizabeth Yates McGreal**

*Doctor of Humane Letters*

## Granite State Awards

- 2003 Marsha Ammann, Winchester  
Timken Super Precision and the Timken Foundation, Keene
- 2002 Wendy Dwyer, Dublin  
Friends of the Thorne-Sagendorph Art Gallery, Keene
- 2001 Mervin E. Stevens, Walpole  
Norma Wright Walker, West Swanzey
- 2000 George R. Hanna, Keene  
The MacDowell Colony, Peterborough
- 1999 Richard A. Gustafson, Manchester  
Thomas P. Putnam, Keene
- 1998 Nury Marquez, Merrimack  
Patricia Russell, Keene
- 1997 Lewis M. Feldstein, Hancock
- 1996 William Lynch, Keene  
The Apple Hill Chamber Players, Sullivan
- 1995 Melinda Cambiar, Keene  
James Putnam, Keene
- 1994 Charlton MacVeagh Jr., Marlborough  
Lois K. Stabler, Swanzey Center
- 1993 Mary P. Chambers, Etna  
John F. Swope, Concord
- 1992 Charles H. McMurphy, M.D., Keene
- 1991 Alice P. Irwin, Newport  
Gail S. Talbot, West Swanzey
- 1990 Mary Louise Hancock, Concord
- 1989 Robert M. Clark Jr., Keene
- 1988 James L. Koontz, Keene
- 1987 Windsor G. Brooks, Keene  
Andrea A. Scranton, Keene
- 1986 Margaret C. Bean, Jaffrey  
Priscilla Frechette Maynard, Keene
- 1984 Sheldon L. Barker Sr., Keene  
Charles H. O'Neil Jr., M.D., Keene
- 1983 Bernard A. Streeter, Keene
- 1982 Rev. Denis Horan, Marlborough
- 1981 Pat Haley, Spofford  
Richard T. Snowman, M.D., Keene
- 1979 David R. Proper, Keene
- 1978 Robert F. Babcock, Keene  
Newton F. Tolman, Nelson
- 1977 Eric Kromphold, Keene  
Ralph Page, Keene
- 1976 Ruth Seaver Kirk, Keene  
Marjorie Whalen Smith, Sullivan
- 1975 John C. Perry, Keene  
Carol J. Pierce, Laconia
- 1974 Harry C. Tenney, Surry  
Dorothy M. Young, Keene  
(awarded posthumously)
- 1973 Kay Fox, Keene  
Dorothy F. Kingsbury, Keene

- 1972 Cleon E. Heald, Keene  
Kenneth F. Zwicker, Keene
- 1971 Edward C. Sweeney, Keene
- 1970 BeaTrix Sagendorph, Dublin
- 1969 James E. O'Neil, Chesterfield
- 1968 Edward J. Kingsbury, Keene

## Distinguished Teacher Awards

- 2003 Janet M. Youga, English
- 2002 Ockle E. Johnson, Mathematics
- 2001 Nancy S. Lory, Special Education
- 2000 Kenneth D. Bergman, Biology
- 1999 Douglas A. Nelson, Music
- 1998 Charles F. Weed Jr., Political Science
- 1997 Edith Notman, Theatre
- 1996 Glenna Mize, Education
- 1995 Klaus Bayr, Geography
- 1994 Charles A. Hildebrandt, Sociology
- 1993 Janet M. Grayson, English
- 1992 David B. Andrews, Psychology
- 1991 Albert L. Rydant, Geography
- 1990 David R. Leinster, History
- 1989 Eleanor M. Vander Haegen, Sociology
- 1988 Virginia H. Trumbull, Special Education
- 1987 Lawrence M. Benaquist, Film
- 1986 Jo Beth Wolf, Political Science
- 1985 David E. White, Education
- 1984 Richard E. Cunningham, English
- 1983 Norman Silberdick, Management
- 1982 Hubert C. Bird, Music
- 1981 Stephen Stepenuck, Chemistry
- 1980 Peter H. Jenkins, Psychology
- 1979 Michael G. LeParte, Sociology
- 1978 Cornelius R. Lyle II, Journalism
- 1977 Stephen M. Smith, Education
- 1976 Malcolm H. Keddy, English
- 1975 Henry A. Freedman, Art
- 1974 Joan B. Davis, Social Sciences
- 1973 Keith V. King, Physical Education
- 1972 Michael J. Franklin, Education
- 1971 Ann C. Peters, Mathematics & Education

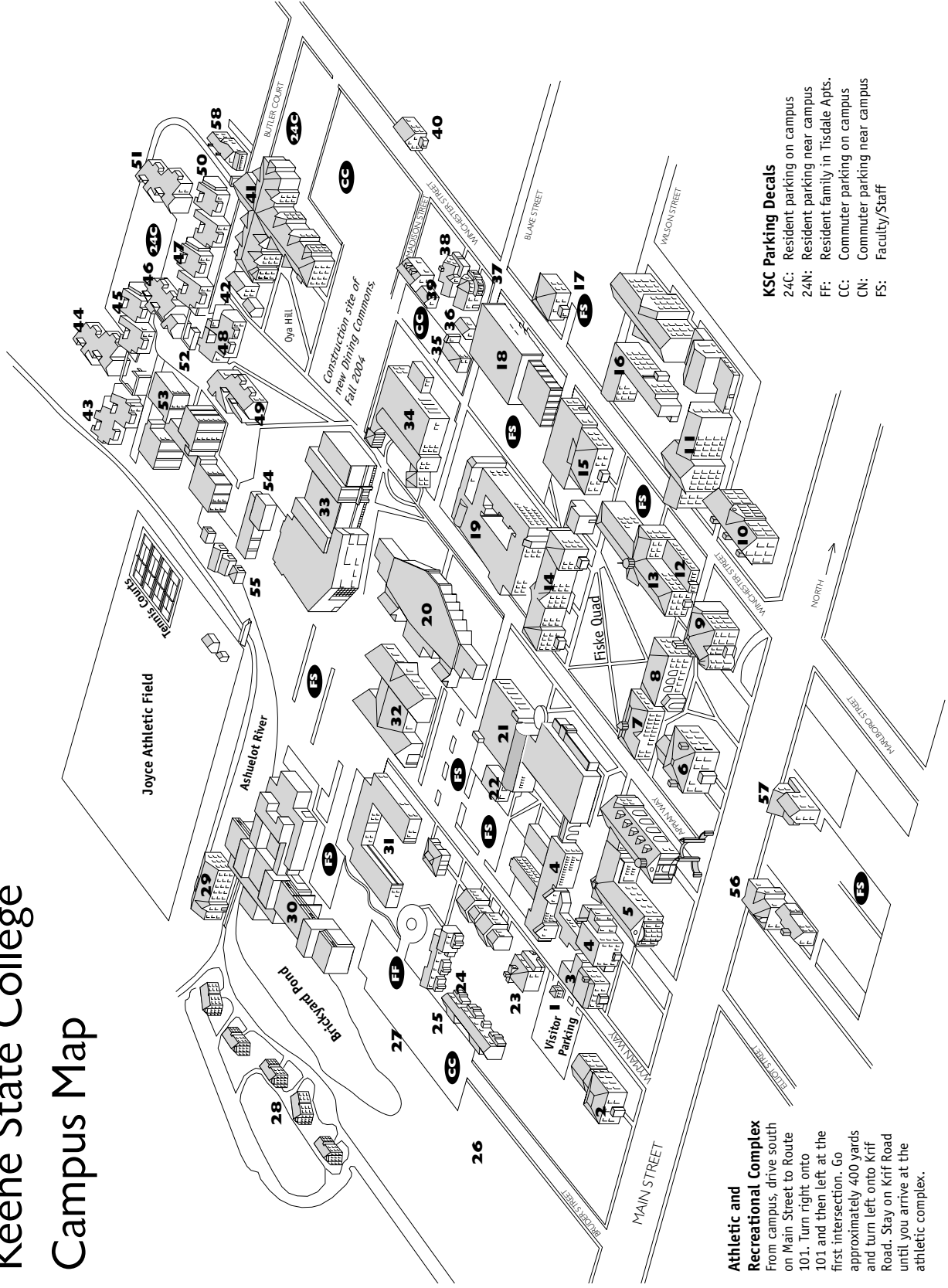
## Faculty Distinction in Research and Scholarship Award

- 2003 José Manuel Lezcano, Music
- 2002 William E. Doreski, English
- 2001 Jerry P. Jasinski, Chemistry

## Community Service Award

- 2003 Stephen J. Stepenuck Jr, Chemistry
- 2002 Thomas E. Duston, Economics

# Keene State College Campus Map



**Athletic and Recreational Complex**  
From campus, drive south on Main Street to Route 101. Turn right onto 101 and then left at the first intersection. Go approximately 400 yards and turn left onto Krif Road. Stay on Krif Road until you arrive at the athletic complex.

## KSC Parking Decals

- 24C: Resident parking on campus
- 24N: Resident parking near campus
- FF: Resident family in Tisdale Apts.
- CC: Commuter parking on campus
- CN: Commuter parking near campus
- FS: Faculty/Staff

# Numerical Key

1.	Visitor Information Booth	30.	Redfern Arts Center
2.	Keddy House	31.	Bushnell Apartments
3.	Joslin House	32.	Thorne-Sagendorph Art Gallery
4.	Elliot Hall	33.	Rec Center/Spaulding Gym
5.	Rhodes Hall	34.	Young Student Center
6.	President's House	35.	83-85 Blake Street
7.	Morrison Hall	36.	Center for Writing
8.	Parker Hall	37.	Mathematics Building
9.	Hale Building	38.	Merrimack House
10.	Blake House	39.	8-10 Madison Street
11.	Randall Hall	40.	115 Winchester Street
12.	Fiske Annex	41.	Holloway Hall
13.	Fiske Hall	42.	48 Butler Court
14.	Huntress Hall	43.	Owl's Nest No. 1
15.	Butterfield Hall	44.	Owl's Nest No. 2
16.	Monadnock Hall	45.	Owl's Nest No. 3
17.	Cheshire House	46.	Owl's Nest No. 4
18.	Adams Technology Bldg	47.	Owl's Nest No. 5
19.	Science Center	48.	Owl's Nest No. 6
20.	Zorn Dining Commons	49.	Owl's Nest No. 7
21.	Mason Library	50.	Owl's Nest No. 8
22.	Sculpture Studio	51.	Owl's Nest No. 9
23.	Grafton House	52.	Laundry
24.	Tisdale Apartments	53.	Carle Hall
25.	51 Bruder Street	54.	Whitcomb Building
26.	34 Bruder Street	55.	Recycling and Kiln
27.	27 Appleton Street	56.	Proctor House
28.	Pondside Apartments	57.	Carroll House
29.	Pondside Hall	58.	Residential Life Office

# Alphabetical Key

Administrative Buildings	Residential Buildings
Center for Writing	84-85 Blake Street 35
Cheshire House	34 Bruder Street 26
Elliot Hall	Bushnell Apartments 31
Fiske Annex	48 Butler Court 42
Grafton House	Carle Hall 53
Hale Building	Carroll House 57
President's House	Fiske Hall 13
Residential Life Office	Holloway Hall 41
115 Winchester Street	Huntress Hall 14
Young Student Center	Keddy House 2
	27 Appleton Street 27
	8-10 Madison Street 39
	Merrimack House 38
	Monadnock Hall 16
	Owl's Nest No. 1-9 43-51
	Pondside Apartments 28
	Pondside Hall 29
	Proctor House 56
	Randall Hall 11
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