

# 2015 -16

## Keene State College Undergraduate and Graduate Catalog



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STATE COLLEGE

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## Programs of Study

### **BACHELOR'S DEGREES**

*B.A.: Bachelor of Arts*  
*B.S.: Bachelor of Science*  
*B.F.A.: Bachelor of Fine Arts*  
*B.M.: Bachelor of Music*

### **MASTER'S DEGREES**

*M.Ed.: Master of Education*  
*M.S.: Master of Science*

### **COLLEGE HONORS PROGRAM**

### **INDIVIDUALIZED MAJOR, BA/BS**

## School of Arts and Humanities

### **BACHELOR'S DEGREES**

#### **American Studies, B.A.**

#### **Art, B.A.**

*options in*  
 Graphic Design  
 Studio Art

#### **Art, B.F.A.**

*options in*  
 Graphic Design  
 Graphic Design and Studio Art  
 (dual option)  
 Studio Art

#### **Communication, B.A.**

*options in*  
 Communication Studies  
 Philosophy

#### **English, B.A.\***

*options in*  
 Literature  
 Writing

#### **Film Studies, B.A.**

*options in*  
 Critical Studies  
 Film Production

#### **French, B.A.\***

**History, B.A.\*<sup>2</sup>**  
*specializations in*  
 U.S. History  
 European History  
 19th-Century Studies

20th-Century Studies

DEPARTMENT HONORS PROGRAM

#### **Holocaust and Genocide Studies, B.A.**

#### **Journalism, B.A.**

#### **Music, B.A.**

#### **Music Composition, B.M.**

#### **Music Technology, B.M.**

#### **Music Education, B.M.\***

*specializations in*  
 Instrumental  
 Choral

#### **Music Performance, B.M.**

#### **Spanish, B.A.\***

#### **Theatre and Dance, B.A.**

*options in*  
 Theatre Arts  
*specializations in*  
 Acting  
 Directing  
 Design and Technical Theatre

#### **Dance**

*specializations in*  
 Choreography and Performance  
 Dance Education  
 Dance Education/Dual Degree

#### **Women's and Gender Studies, B.A.**

### **MINORS**

American Studies  
 Art History  
 Art Studio  
 Communication  
 Dance  
 English  
 Film Studies  
 French  
 German  
 History  
 Holocaust and Genocide Studies  
 Journalism: Broadcast Media  
 Journalism: Print Media  
 Medieval and Early Modern Studies  
 Multimedia Journalism  
 Music  
 Philosophy

Spanish

Theatre

Writing

Women's and Gender Studies

## School of Professional and Graduate Studies

### **BACHELOR'S DEGREES**

#### **Architecture, B.S.**

#### **Athletic Training, B.S.**

#### **Education, B.S.\***

*options in*  
 Early Childhood Development\*  
 Elementary Education\*  
 Secondary Education\*  
 Elementary and Special Education\*

#### **Health Science, B.S.**

*options in*  
 Health Promotion and Wellness  
*specializations in*  
 Community Health  
 Behavior and Health  
 Nutrition  
 Addictions

#### **Nursing, B.S.\***

*options in*  
 Pre-Licensure Student  
 RN Completion

#### **Physical Education, B.S.\***

*options in*  
 Exercise Science  
*specializations in*  
 Health  
 Coaching  
 Teacher Certification

#### **Safety and Occupational Health**

#### **Applied Sciences, B.S.\***

DEPARTMENT HONORS PROGRAM

#### **Sustainable Product Design and Innovation, B.S.\***

### **MINORS**

Safety and Occupational Health  
 Applied Sciences  
 Addictions

Sustainable Product Design and Innovation

### **GRADUATE STUDIES**

#### **Master of Education**

Curriculum and Instruction  
Educational Leadership  
School Counselor  
Special Education  
*Certification is available in each M.Ed graduate program.*

#### **Master of Science**

Safety and Occupational Health  
Applied Sciences

#### **Post-Master's Certification Program**

Educational Leadership  
School Counselor

#### **Post-Baccalaureate Certification Program**

#### **Graduate Educator Certification Program**

## School of Sciences and Social Sciences

### **BACHELOR'S DEGREES**

**Anthropology/Sociology, B.A.**

**Biology, B.A.\*/B.S.\***

**Chemistry, B.A.\*/B.S.\***

**Chemistry-Physics, B.S.\*<sup>1</sup>**

**Computer Science, B.S.**

*specializations in*  
General Computer Science  
Information Systems

Software Engineering  
System and Networking  
Web Development  
Computational Mathematics

**Criminal Justice Studies, B.A.**

**Earth/Space Science, B.A.**

**Economics, B.A.**

**Engineering, B.S.**  
*(transfer program)*

**Environmental Studies, B.S.\***

**General Science, B.A.\***

options in  
General Science  
Elementary or Early Childhood  
Education  
Middle School

**Geography, B.A.\*<sup>2</sup>**

**Geology, B.S.\*<sup>3</sup>**

**Management, B.S.\***

**Mathematics, B.A.\***

*options in*  
Mathematics  
Mathematics Secondary Teaching  
Mathematics Middle School/Junior  
High

**Mathematics, B.S.**

**Mathematics Education, B.A.  
for Elementary Teachers**

**Mathematics-Physics, B.S.\***

**Political Science, B.A.**

**Psychology, B.A.**

DEPARTMENT HONORS PROGRAM

**Social Science, B.A.\*<sup>2</sup>**

**Sociology, B.A.\*<sup>2</sup>**

### **MINORS**

Anthropology  
Biology  
Chemistry  
Computer Science  
Criminal Justice Studies  
Economics  
Environmental Studies  
Geography  
Geology  
International Studies  
Management  
Mathematics  
Physics  
Political Science  
Psychology  
Sociology  
Statistics

## Mason Library

### **MINOR**

#### **Information Studies**

*\* Majors in which teacher certification is available.  
Note: All elementary, early childhood, and elementary/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*

## Undergraduate Programs

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:

- **Integrative Studies** – requirements, established by the College, purposefully and intentionally help students engage ethical issues, approach global issues from multiple perspectives, apply diverse perspectives to their thinking and their actions, and analyze key social and environmental issues confronting us all
- **Major/Option/Specialization Requirements**, specified by discipline faculty, offer depth of scholarship through specialization in a field of interest
- **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

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 Educator Preparation Programs Office to learn of any recent changes.

## Bachelor's Degree Programs

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 an integrated study 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.

Effective beginning with students who matriculate in the Fall of 2012, Keene State College requires a minimum of forty upper level credits (300 or 400 level) for successful completion of any baccalaureate degree.

The Bachelor of Arts degree and the Bachelor of Science degree require a minimum of 120 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 Integrative Studies 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 12 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 12 to 20 credit hours within a degree option.

## Language Requirement

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

The minimal requirement for all students with a major in American Studies, Art, Communication, English, Film Studies, History, Holocaust and Genocide Studies, Journalism, Music, or Theatre and Dance is one course in a foreign language, normally French, Spanish, or German. Students should complete this requirement as early in their college careers as possible.

Those with two or more years of recent high school study in French, Spanish, or German must enroll in 102 or above. Those with three or more years of recent high school study should enroll in 201 or above. Individual student placements will be

verified on the basis of a placement test available to students before they register. Students may also satisfy the requirement through AP or CLEP credit.

Those with near-native fluency in a language should consult Modern Languages faculty for appropriate placement.

Students may also fulfill this requirement by enrolling in a study abroad program in a non-English speaking country, provided the program has been approved by their major department in consultation with the Global Education Office.

Students with documented learning disabilities should apply to the Office of Disability Services and then to the chair of Modern Languages to seek a waiver.

101- to 201-level courses completed to satisfy the language requirement may be applied to the Arts and Humanities component of the Integrative Studies Program.

## Integrative Studies Program

Students at Keene State College complete two programs of study to earn a degree – the College’s Integrative Studies Program and their major program of study.

Keene State College’s Integrative Studies Program purposefully and intentionally helps students develop an understanding of how they and others engage their worlds. The program provides students with the opportunity to develop the skills necessary for success in academics and careers and preserves the breadth of a liberal arts education that enables students to succeed in a global environment. The integrative teaching and learning process approaches teaching and learning in intentionally connected ways.

Students will connect knowledge and skills from multiple sources and experiences, apply knowledge and skills in varied settings, utilize diverse points of view, and learn how to understand issues contextually. Knowledge in both individual and multiple disciplines is the foundation upon which integrative learning builds. Integrative learning often occurs as students put theory into practice, “making meaning” as students apply abstract concepts in practical settings.

Though they are not required as part of the Integrative Studies Program, students should also consider as part of their learning, developing competence in a second language, participating in a study abroad program, and participating in experiential learning in which disciplinary, interdisciplinary and multidisciplinary knowledge can be applied.

### Program Outcomes

The program has three sets of outcomes: disciplinary or interdisciplinary, integrative and skills (reading, writing, quantitative reasoning information literacy, critical thinking, creative thinking, critical dialogue, technological fluency). Specific outcomes and criteria may be accessed on the ISP web and proto pages.

### Requirements

*40 credits minimum*

Students complete a total of 40 credits as follows, including a minimum of two courses (8 credits) at the 300 or 400 level. Students may enroll in the upper-level courses once they have completed a minimum of 24 credits of lower-level (100- to 200-level) courses, including ITW 101 and IQL 101 in the Integrative Studies Program. The upper-level requirement must be completed at Keene State College. Students are expected to complete ITW 101 within their first two semesters and IQL 101 within their first three semesters. Keene State College students must meet the quantitative literacy requirement. Most students will meet the requirement by successfully completing an IQL 101 course in their first year at Keene State. Students who successfully complete MATH 120, or MATH 141, or MATH 172, or MATH 175, or MGT 202 will meet, in lieu of IQL 101, the quantitative literacy requirement. However, IQL 101 courses do not substitute for MATH 120, or MATH 141, or MATH 172, or MATH 175, or MGT 202.

#### I. Foundations (8 credits)

- Thinking and Writing (4 credits)
- Quantitative Literacy (4 credits)

#### II. Three courses in the Arts and Humanities (12 credits) - Courses must be taken in three different disciplines.

- 1 course in the Humanities
- 1 course in the Fine and Performing Arts
- 1 course in either the Humanities or the Fine and Performing Arts

### III. Three courses in the Sciences (12 credits) - Courses must be taken in three different disciplines.

- 1 course in the Natural Sciences
- 1 course in the Social Sciences
- 1 course in either the Natural or Social Sciences

### IV. One course in Interdisciplinary Studies (4 credits)

### V. One course in the Arts, Humanities, Social Sciences, Natural Sciences or Interdisciplinary area. Do not repeat a discipline from category II or III.

\* A minimum of two upper-level (300 or 400) ISP courses must be completed. Students may enroll in upper-level courses once they have completed a minimum of 24 credits of lower level ISP courses, including ITW and IQL.

#### Integrative Outcomes

The integrative outcomes provide students with the opportunity to learn and discuss overarching themes, perspectives, and paradigms that necessitate their active engagement in the KSC learning environment. In order to achieve this engagement, every course in the Integrative Studies Program must address at least one of the integrative outcomes.

#### Intellectual/Academic Skills Outcomes

Critical reading and dialogue, writing, quantitative reasoning, critical and creative thinking, information and technological fluency and skills are the skills students use to communicate what they know. These are skills that lay the foundation for both academic and professional success. In the Integrative Studies Program, faculty work with students to develop these skills at a level commensurate with a baccalaureate degree. They are practiced extensively, across the program, in the context of progressively more challenging problems, projects and expectations.

## College Honors Program

The College Honors Program provides academically motivated students with intellectual stimulation and rich experiences for personal and professional growth by offering courses that prepare them to produce exemplary, creative, and challenging work. As an option for meeting the College's liberal arts requirements, it provides an alternative to the Integrative Studies Program and involves both residential and classroom opportunities. In addition to working closely with fellow students and professors to engage in creative and critical inquiry, honors students integrate and expand on what they are learning in Honors courses by participating in enrichment activities and events both on and off campus.

Residential Honors students will be housed in a Living and Learning Community (LLC) in a College residence hall for their first year and may choose to continue in Living and Learning Communities in later years. The director of the College Honors Program serves as the LLC faculty advisor.

A distinctive feature of the College Honors Program is the requirement that students study abroad. Each year travel study courses led by Keene State College faculty will be made available to sophomore Honors students. See HNRS 301 Global Engagement for details. Honors course requirements cannot be met with Advanced Placement credits or with credits from other institutions.

### COLLEGE HONORS PROGRAM

(24 credits)

#### REQUIRED COURSES:

- HNRSTW 101 Honors Thinking and Writing
- Three Honors Courses (12 credits) in the Arts and Sciences taken from three areas: HNRSA 290 Honors Arts, HNRSH 290 Honors Humanities, HNRSN 290 Honors Natural Sciences, and HNRSS 290 Honors Social Sciences. These Honors courses meet Integrative Studies Program Outcomes and Honors Program outcomes appropriate to the area.
- HNRS 301 Global Engagement
- HNRSI 401 Interdisciplinary Senior Seminar

#### ADMISSION TO THE COLLEGE HONORS PROGRAM

Students who apply to Keene State College are invited to submit an application and portfolio to the College Honors Program if they have a high school GPA of 3.25 or above. Details of the submission process can be found at the Admissions website:

[admissions.keene.edu/honors/application/](https://admissions.keene.edu/honors/application/). A subcommittee of the Honors Program Advisory Committee reviews applications and makes decisions on admission.

Beginning in 2011 early in the spring semester, first year non-Honors students at Keene State College who have completed between 16 and 28 credits and who have a cumulative GPA of 3.50 will be invited to apply for admission effective in the fall semester. Students admitted after their first semester need not take an Honors Thinking and Writing course, but will be expected to complete other College Honors Program requirements.

College Honors Program students must maintain a semester grade point average of 3.25 during their first semester. At the end of their second semester, they must have a cumulative GPA of 3.50 in both Honors and non-Honors courses and maintain that in all subsequent semesters in order to graduate with the designation College Honors Program. Students whose GPA falls below 3.25 at the end of the first semester or 3.50 at the end of the second semester will be on Honors probation for the following semester. Those whose semester GPA remains below the standard for two consecutive semesters will be dropped from the Honors Program and will lose Honors scholarship funds. Students have a maximum of two non-consecutive semesters of probation before being dropped from the program.



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## American Studies

### Bachelor of Arts

#### School of Arts and Humanities

The American Studies program offers students an interdisciplinary liberal arts education. Students in American Studies engage in a challenging 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 around three core courses; an individualized set of area requirements in American history, literature, and Arts and/or Social Sciences; and a thesis requirement. American Studies prepares students for career opportunities in elementary and secondary education; graduate school; law school; business; work in libraries, museums, and historic preservation; newspaper, magazine, broadcast journalism; film or media work; work in federal, state, and local agencies, both public and private; government and politics; nonprofit organizations; writing, editing, and publishing; international relations and diplomacy; public relations and advertising; and social services.

#### LANGUAGE REQUIREMENT

Each student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the School of Arts and Humanities.

#### INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

#### MAJOR REQUIREMENTS

*40 credits*

At least one American Studies or English course must meet a Differing Cultural Perspectives Requirement. Differing Cultural Perspectives courses investigate discursive traditions that have been historically marginalized. All course substitutions must be approved by the coordinator of American Studies.

#### Core Courses

*20 credits*

IIAMST 210 Introduction to American Studies  
IIAMST 250 Interpreting American Cultures  
AMST 350 Perspectives on American Culture  
AMST 495 Seminar

Select **one** of the following:

- AMST 390 Critical Approaches
- AMST 490 Advanced Special Topics

#### Area Courses

*20 credits*

Select **two** courses from American history:

- HIST 261 U.S. Social History I: 1603-1865
- HIST 265 Military in U.S. Society I
- HIST 266 Military in U.S. Society II
- HIST 338 European Encounters in the New World
- HIST 360 The American Colonies to 1763
- HIST 361 The American Revolution
- HIST 362 The Early American Republic: 1789-1850
- HIST 363 The United States in the Civil War Period: 1850-1876
- HIST 364 19th-Century America
- HIST 365 Gilded Age and Progressive Era America
- HIST 366 U.S. in Crisis: 1920-1950
- HIST 367 Modern America: 1950-Present

Select **one** course in American literature:

- ENG 280 Cultural Studies
- ENG 341 Early American Literature
- ENG 344 Studies in American Literature
- ENG 345 Studies in African American Literature (Differing Cultural Perspectives)
- ENG 346 Transcendentalism
- ENG 347 American Indian Writers and their Cultures (Differing Cultural Perspectives)
- ENG 370 Studies in Literatures of the Americas (Differing Cultural Perspectives when appropriate)

Select **two** courses from Arts and Humanities and/or Social Sciences:

- IHAMST 248 Cultures of Northern Plains Indians
- IAMU 112 Latin American Music
- IAMU 216 History of Rock and Roll
- IAMU 218 History of Jazz
- IAMU 242 Listening to America
- IHENG 240 Readings in American Literature
- IIENG 245 Readings in African American Literature and Culture
- ISPOSC 210 U.S. Politics
- ISPOSC 211 State and Local Politics
- ART 214 Modern Art
- CJS 101 Introduction to Criminal Justice Studies
- ECON 455 Topics in Economic History
- PHIL 304 American Philosophy
- POSC 316 Constitutional Law
- POSC 321 U.S. Foreign Policy and Globalization
- SOC 270 Urban Society
- SOC 345 Sociology of Families
- SOC 472 Sociology of Health and Medicine
- SOC 475 Social Stratification

### Certification as a Social Studies Teacher

American Studies is an approved major for students seeking Secondary Social Studies certification. Students will need to take the following certification requirements:

#### Dual Major in Education

- Secondary Education

#### Requirements for Certification

IHHIST 161 American Perspectives to 177 or HIST 161 Topics in United States History I  
 IHHIST 162 American Perspectives to 177 or HIST 162 Topics in United States History II  
 IHHIST 111 The Ancient and Medieval World or HIST 111 Traditional World Civilization  
 IHHIST 112 The Modern World or HIST 112 Modern World Civilization  
 ISECON 104 Introduction to Macroeconomics  
 PSYC 101 General Psychology

Select **one** of the following:

- ISGEOG 101 World Regional Geography
- ISGEOG 201 Geography for Teachers

Select **one** of the following:

- ISANTH 110 Cultural Anthropology
- 100- to 200-level course in Sociology (SOC 270 also applies to the A&H and/or Social Studies area of the American Studies major)

Select **one** of the following:

- ISPOSC 210 U.S. Politics (This course also applies to the A&H and/or Social Studies area of the American Studies major)
- ISPOSC 220 Global Politics

## ELECTIVES

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

## DEGREE REQUIREMENTS

*120 credits*

## Anthropology/Sociology

Bachelor of Arts

School of Sciences and Social Sciences

The Anthropology/Sociology Major prepares students for the social and professional demands of living in an increasingly multicultural world. Our students examine what it means to be human, how we evolved physically and developed culturally over time, how society and culture influence behavior, and how culture provides a lens through which people understand and interpret their world. While we in anthropology and sociology teach about particular cultures and societies, this is accomplished by examining patterns of behavior using a comparative method. Learning is based on empirical investigation which emphasizes observation skills, participation, and critical analysis to create knowledge necessary for understanding these differing behaviors and worldviews. A primary focus of the major is its ability to help students develop a set of practical skills and conceptual tools necessary for continuing to learn about other cultures, sub-cultures, and societies after they leave college.

### INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

### MAJOR REQUIREMENTS

*44 credits*

ISANTH 110 Cultural Anthropology\*

ISANTH 111 Archeology and Physical Anthropology\*

MATH 141 Introductory Statistics

SOC 201 Introduction to the Sociology Major\*

SOC 301 Sociological Research Methods\*

ANTH 330 Cultural Investigations\*

ANTH 413 Anthropological Thought

\*course MUST be completed with a grade of "C" or better.

Four (4) credits in Anthropology at the 200-level or higher.

Four (4) credits in Sociology at the 200-level or higher.

Four (4) credits in Anthropology at the 300-level or higher.

Four (4) credits in Sociology at the 300-level or higher.

Students may not combine an Anthropology/Sociology major with the Sociology major to create a dual major. Students who wish to do more advanced study in Sociology should take the Sociology major.

### Anthropology/Sociology Honors Program

Motivated students completing the Anthropology/Sociology major may participate in an advanced program of research culminating in graduation with Honors in Anthropology/Sociology. Students electing to participate in this program complete all requirements for the Anthropology/Sociology major plus 8 credits of ANTH 499 Senior Honors Thesis during the two semesters of the senior year.

**Admission to the Honors Program is based on:**

1. Self-nomination after completion of 80 credits with an overall and major GPA of 3.50 or above.
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 Anthropology. The Honors Committee will interview the student prior to enrollment in ANTH 499 and notify successful applicants of their admission prior to enrollment.
3. Completion of, or enrollment in, at least five anthropology courses, including ANTH 330 and two 300 level ANTH electives. Final admission requires successful completion of those Anthropology 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 sociological knowledge, in a colloquium open to the public.
3. 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 overall and major GPA of 3.50 or above in Anthropology/Sociology will graduate with Honors in Anthropology/Sociology.

**Certification as a Social Studies Teacher**

Anthropology/Sociology is an approved major for students seeking Secondary Social Studies certification. Students will need to take the following additional certification requirements:

**Dual Major in Education**

- Secondary Education

**Requirements for Certification**

IHHIST 161 American Perspectives to 1877 or HIST 161 Topics in United States History I  
 IHHIST 162 American Perspectives from 1877 or HIST 162 Topics in United States History II  
 IHHIST 111 The Ancient and Medieval World or HIST 111 Traditional World Civilization  
 IHHIST 112 The Modern World or HIST 112 Modern World Civilization  
 ISECON 104 Introduction to Macroeconomics  
 PSYC 101 General Psychology

Select **one** of the following:

- ISGEOG 101 World Regional Geography
- ISGEOG 201 Geography for Teachers

Select **one** of the following:

- ISPOSC 210 U.S. Politics (This course also applies to the A&H and/or Social Studies area of the American Studies major)
- ISPOSC 220 Global Politics

**ELECTIVES**

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

**DEGREE REQUIREMENTS**

*120 credits*

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## Architecture

Bachelor of Science

School of Professional and Graduate Studies

The Architecture major at Keene State College is a pre-professional four-year program designed to give students a solid foundation in the artistic, scientific, and technical aspects of architecture. The curriculum offers a range of courses in studio design, building science, sustainable design, history/theory, digital technology, and practice.

The education of KSC architecture majors, grounded in the liberal arts, focuses on teaching students to become effective, creative problem solvers with the tools to adapt and evolve their career paths to meet the needs of a rapidly changing world. Graduates in architecture are prepared to pursue graduate study or transition directly into careers in architecture, planning, building science, construction management, environmental design, design-build, or other related professions.

### INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

### MAJOR REQUIREMENTS

*52 credits*

#### **Core Courses**

*32 credits required*

ARCH 180 Introduction to Architectural Design  
ARCH 230 Architectural Design I  
ARCH 260 Sustainable Design and Building Science  
ARCH 270 Commercial Construction  
ARCH 280 Collaborative Architectural Project  
ARCH 350 Architectural History I  
ARCH 355 Architectural History II  
ARCH 370 Architectural Systems

#### **Architecture Electives**

Select a minimum of 8 credits

- ARCH 120 Architectural CAD I
- ARCH 220 Architectural CAD II
- ARCH 235 Architectural Design II
- ARCH 275 Residential Construction
- ARCH 290 Special Topics
- ARCH 320 Architectural CAD III
- ARCH 330 Architectural Design III
- ARCH 360 Solar Design and Building Science II
- ARCH 375 Statics and Structural Analysis
- ARCH 430 Architectural Design IV
- ARCH 435 Portfolio Design
- ARCH 490 Advanced Special Topics
- ARCH 498 Independent Study

#### **Architecture Capstone (4 credits)**

ARCH 480 Senior Design Project

#### **Architecture Allied Requirements**

IAART 103 Three-Dimensional Design  
MATH 120 Applied Algebra and Trigonometry (or any higher level MATH)

## ELECTIVES

Students are encouraged to take ARCH 494 Advanced Cooperative Education.

## MINOR/ADDITIONAL ELECTIVES

Select additional courses of your choice to bring total number of credits earned to 120. Students are encouraged to complete a minor or an organized cluster of courses related to their career interests.

## DEGREE REQUIREMENTS

*120 credits*

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## Art

### Bachelor of Fine Arts

#### School of Arts and Humanities

The Bachelor of Fine Arts degree program is designed to provide students with an intensely comprehensive course of study consisting of a minimum of 72 credits in visual arts courses. The B.F.A. degree can lead directly to graduate study (M.F.A.) or to professional careers in the Graphic Design field. To be eligible for the B.F.A. degree, students must first be accepted into the B.A. program in Art.

The B.F.A. degree is organized into the following three options:

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

### Graphic Design

Following acceptance into the Art Department, students are encouraged to select the B.F.A. option in Graphic Design. Students will consult with their advisor when submitting their Declaration of Major form.

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

The Studio Art option and the Studio Art and Graphic Design dual option are highly selective programs. Accepted students will have the opportunity to have an individual studio space and work one on one with an Art professor mentor. All accepted candidates will mount a B.F.A. Solo Thesis Exhibition as a graduation requirement. Students may apply to the Studio Art option or the Studio Art and Graphic Design dual option after completion of a minimum of 6 courses (24 credits) that must include the Foundation Core. Studio Art and Graphic Design dual option applicants must take ART 250 Graphic Design I and ART 258 Typography I as part of the 24-credit minimum. Students are expected to have maintained a minimum cumulative GPA of 3.0 in those 6 courses. Acceptance to the program is based on an assessment of a portfolio<sup>1</sup> of artwork from these courses. The portfolio, a written statement of personal educational goals, and an official transcript must be submitted to the B.F.A. Studio Options Committee. Portfolio reviews for acceptance are conducted each spring prior to the course selection and registration period.

Transfer students are also eligible to apply for the B.F.A. Studio Art option or the B.F.A. Studio Art and Graphic Design dual option provided they meet the admissions standards for the B.A. degree in Art as well as those for the B.F.A. Studio Art degree or the Studio Art and Graphic Design dual option 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 B.F.A. candidates must maintain a minimum cumulative GPA of 3.0 in the major (Art courses). The B.F.A. Studio Options Committee will also conduct mid-level reviews of accepted students during the fall semester. 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 at the appropriate level for the B.F.A. Studio Art option or the Studio Art and Graphic Design dual option will no longer be eligible for the options and will be returned to the B.A. in Studio Art or B.F.A. in Graphic Design. Students who have not maintained B.F.A. standards in the Studio Art option or the Studio Art and Graphic Design dual option will be allowed to reapply provided the deficiencies have been corrected. B.F.A. candidates in the Studio Art option or the Studio Art and Graphic Design dual option will also meet with

the B.F.A. Studio Options Committee after their completion of their B.F.A. Senior Exhibition. The committee will conduct an oral review in which the candidate will outline the rationale followed for their exhibition.

<sup>1</sup> Portfolio Criteria for B.F.A. in Studio Art or Studio Art and Graphic Design Dual Options

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

Each student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the School of Arts and Humanities.

## INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

### MAJOR REQUIREMENTS

*74 credits – Graphic Design*

*72 credits – Studio Art*

*74 credits – Studio Art and Graphic Design (dual option)*

#### **Foundation Core**

*12 credits*

ART 101 Foundations of Design or IAART 100

IAART 110 Introduction to Art History

ART 125 Drawing I or IAART 120

#### Graphic Design Option

*62 credits*

#### **100-level course**

*2 credits*

ART 151 Technology Workshop

#### **200-level courses**

*12 credits*

ART 250 Graphic Design I

ART 253 Digital Imaging

ART 258 Typography I

#### **200 or 300 level courses**

*8 credits*

**One** 200- or 300-level Art History course

**One** 200- or 300-level Studio Art course

#### **300-level courses**

*24 credits*

ART 333 Printmaking I

ART 350 Graphic Design II

ART 351 History of Graphic Design

ART 354 Web-Based Media I

ART 356 Time-Based Media I

**One** 300-level Graphic Design course

**400-level courses**

16 credits

ART 450 Graphic Design III

ART 459 Graphic Design Portfolio

Select a total of **8 credits** from the following:

- ART 455 Topics in Graphic Design
- ART 497 Graphic Design/Studio Internship

NOTE: Students may take 8 credits of either ART 455 Topics in Graphic Design (different topics) or 8 credits of ART 497 Graphic Design/Studio Internship or a combination of ART 455 and ART 497 for 8 credits total in order to meet this requirement.

**Studio Art Option**

60 credits

**200-level courses**

18 credits

ART 208 Ceramics I

ART 224 Photography I or ART 226 Painting I

ART 225 Drawing II

ART 244 Sculpture I

ART 295 Sophomore Studio/Exhibit Practice (2 credits)

**Art History courses**

8 credits

Select **two** from the following:

- ART 211 Ancient Art
- ART 212 Medieval Art
- ART 213 Italian Renaissance Art
- ART 214 Modern Art
- ART 315 Contemporary Art
- ART 290 Topics in Art History
- ART 492 Art History Seminar
- IAART 391 Global Perspectives

**300-level courses**

16 credits

ART 308 Ceramics II or ART 344 Sculpture II

ART 333 Printmaking I

Select **two** from the following:

- ART 308 Ceramics II
- ART 324 Photography II
- ART 325 Drawing III
- ART 326 Painting II
- ART 334 Printmaking II
- ART 344 Sculpture II

**400-level courses**

18 credits

ART 495 Senior Studio/Exhibit Practice (2 credits)

ART 496 BFA Senior Studio (2 semesters)



Select **two** from the following:

- ART 408 Ceramics III
- ART 424 Photography III
- ART 426 Painting III
- ART 434 Printmaking III
- ART 444 Sculpture III
- ART 490 Advance Studio Topics

It is strongly recommended that BFA Studio Art students repeat either ART 225 Drawing II or ART 325 Drawing III.

### Studio Art and Graphic Design Dual Option

*62 credits*

#### **100-level courses**

*2 credits*

ART 151 Technology Workshop

#### **200-level courses**

*26 credits*

ART 250 Graphic Design I

ART 253 Digital Imaging I

ART 258 Typography I

ART 295 Sophomore Studio/Exhibit Practice (2 credits)

Select **three** from the following:

- ART 208 Ceramics I
- ART 224 Photography I or ART 226 Painting I
- ART 225 Drawing II
- ART 244 Sculpture I

#### **Art History Course**

*4 credits*

Select **one** from the following:

- ART 211 Ancient Art
- ART 212 Medieval Art
- ART 213 Italian Renaissance Art
- ART 214 Modern Art
- ART 290 Topics in Art History
- ART 315 Contemporary Art
- ART 492 Art History Seminar
- IAART 391 Global Perspectives

#### **300-level courses**

*20 credits*

ART 333 Printmaking I

ART 350 Graphic Design II

ART 354 Web-Based Media I

ART 356 Time-Based Media I

Select **one** from the following:

- ART 308 Ceramics II
- ART 324 Photography II
- ART 325 Drawing III

- ART 326 Painting II
- ART 334 Printmaking II
- ART 344 Sculpture II

#### **400-level courses**

*10 credits*

ART 495 Senior Studio/Exhibit Practice (2 credits)

ART 496 B.F.A. Senior Studio

ART 459 Graphic Design Portfolio

It is strongly recommended B.F.A. Studio Art and Graphic Design dual option students take a second semester of ART 496 Senior Studio.

#### **ELECTIVES**

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

#### **DEGREE REQUIREMENTS**

*120 credits*

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## **Art**

### **Bachelor of Arts**

#### **School of Arts and Humanities**

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 that 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, Photography, 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 multimedia 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 to 20 pieces of artwork in Graphic Design or Studio Art 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 to the Art Department as part of the application process. Based on a favorable assessment of 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 20 pieces of original artwork, including drawings, in Graphic Design, Studio Art, or both.
2. Criteria used in evaluation include skill with design, drawing, materials, and creativity.
3. The portfolio should include original artwork in 35mm slide or digital format compatible with Macintosh operating system (jpeg preferred).
4. All slides or discs must be clearly labeled with your name and be numbered.
5. A sheet numbered with each work's title, medium, dimensions, and level of completion (freshman, sophomore, junior, or senior). If the work was completed independently, be sure to clearly state your concept.
6. Please include your name, address, telephone number, and e-mail address.
7. Please include the following information:
  - a. Indicate your area of interest with regard to Graphic Design, Studio Art, or both, in relation to your career goals.
  - b. List the number and description of all art courses taken on the high school or college level.
  - c. List extracurricular activities and interests.
8. Please send portfolio to:  
*Art Department Portfolio Review Committee*  
*Art Department Office*  
*Keene State College*  
*229 Main St*  
*Keene NH 03435-2405*
9. Application deadline is April 1.

Portfolios without the above information will be automatically placed on a waiting list while all other portfolios are reviewed. After this time, if there are 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 May 1.

**Art 350 Graphic Design II Portfolio Review**

At the end of ART 350 Graphic Design II students will submit a portfolio of work completed during the core Graphic Design courses (ART 151, ART 250, ART 258, and ART 350). A panel of three Graphic Design faculty will review the portfolio and a written evaluation will be supplied to each student. This portfolio review is a graduation requirement for all students in the Graphic Design Option.

**Graphic Design Transfer Students**

Graphic Design transfer students must take ART 151, ART 250, ART 258, and ART 350. ART 151 and/or ART 250 may be substituted for equivalent courses from an accredited institution; however, ART 258 and ART 350 must be taken at Keene State College. Transfer students will be required to submit a portfolio of quality work from these classes at the completion of ART 350 (see ART 350 Graphic Design II Portfolio Review).

**Art Department Fellowships**

The Art Department 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.

**Use and Return of Student Artwork**

Due to space limitations, 2-D student artwork left behind will be held for one semester and then disposed of; 3-D student artwork must be removed at the end of the semester in which it was completed or it will be disposed of (unless arrangements have been made between the individual instructor and the student).

**LANGUAGE REQUIREMENT**

Each student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the School of Arts and Humanities.

**INTEGRATIVE STUDIES REQUIREMENTS**

*40 credits minimum*

## MAJOR REQUIREMENTS

*48 credits – Studio Art Option*

*50 credits – Graphic Design Option*

### **Foundation Core**

*12 credits*

ART 101 Foundations of Design or IAART 100

IAART 110 Introduction to Art History

ART 125 Drawing I or IAART 120

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

### Graphic Design Option

*38 credits*

#### **100-level course**

*2 credits*

ART 151 Technology Workshop

#### **200-level courses**

*12 credits*

ART 250 Graphic Design I

ART 253 Digital Imaging

ART 258 Typography I

#### **300-level courses**

*12 credits*

ART 350 Graphic Design II

ART 354 Web-Based Media I

ART 356 Time-Based Media I

#### **400-level courses**

*12 credits*

ART 450 Graphic Design III

ART 455 Topics in Graphic Design

ART 459 Graphic Design Portfolio

### Studio Art Option

*36 credits*

#### **200-level courses**

*18 credits*

- ART 208 Ceramics I
- ART 224 Photography I or ART 226 Painting I
- ART 225 Drawing II
- ART 244 Sculpture I
- ART 295 Sophomore Studio/Exhibit Practice (2 credits)

#### **Art History Course**

Select **one** from the following:

- ART 211 Ancient Art
- ART 212 Medieval Art
- ART 213 Italian Renaissance Art

- ART 214 Modern Art
- ART 290 Topics in Art History
- ART 315 Contemporary Art
- ART 492 Art History Seminar
- IAART 391 Global Perspectives

### 300-level courses

*8 credits*

ART 333 Printmaking I

Select **one** from the following:

- ART 308 Ceramics II
- ART 324 Photography II
- ART 325 Drawing III
- ART 326 Painting II
- ART 334 Printmaking II
- ART 344 Sculpture II

### 400-level courses

*6 credits*

ART 495 Senior Studio/Exhibit Practice (2 credits)

Select **one** from the following:

- ART 408 Ceramics III
- ART 424 Photography III
- ART 426 Painting III
- ART 434 Printmaking III
- ART 444 Sculpture III
- ART 490 Advanced Studio Topics

## ELECTIVES

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

It is recommended that students in the B.A. program in Studio Art take additional studio art courses at the 300- and 400-level as well as additional Art History courses.

It is recommended that students in the B.A. program in Graphic Design take ART 333 Printmaking I, ART 226 Painting I, and additional 300- and 400-level Graphic Design courses. Students who plan to apply to graduate programs in the visual arts should consider the B.F.A. program.

## DEGREE REQUIREMENTS

*120 credits*

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## Athletic Training

Bachelor of Science

School of Professional and Graduate Studies

Keene State College offers a CAATE (Commission on Accreditation of Athletic Training Education) accredited undergraduate athletic training education program designed for those students who wish to pursue certification as an athletic trainer. Students who graduate with a degree in Athletic Training are eligible to take the BOC (Board of Certification) Athletic Training Certification Examination. The program prepares students for athletic training positions in educational, professional sport, military/law enforcement training, performing arts and clinical settings, as well as for graduate programs in Sports Medicine/Athletic Training, Exercise Physiology and Biomechanics or other Medical and Allied Health fields.

The Athletic Training major is a competitive program, with enrollments limited to sixteen per academic year. Because of the professional nature of Athletic Training and its responsibility to the public, the Program has established admissions, progression, and graduation standards for student selection and graduation; as such retention guidelines are REQUIRED.

### **COMPETENCY REQUIREMENTS FOR ATHLETIC TRAINING**

All students majoring in Athletic Training are required to be certified in Standard First Aid and CPR for the Professional Rescuer. Proof of a current certification card must be provided for the application and maintained for courses marked with a <sup>1</sup>. Once admitted, all students majoring in athletic training are required to be certified as an Emergency Medical Technician. Proof of certification must be provided and maintained for courses marked with a <sup>2</sup>. Students may enter Keene State College with these competencies or choose to enroll in course electives at Keene State College to complete the required competencies. These courses include PE 191 Standard First Aid/CPR; PE 240 Emergency Medical Technician <sup>1</sup>; PE 242 EMT Practicum (2 credit)<sup>1</sup>.

### **ATHLETIC TRAINING CANDIDATE DECLARATION**

Entering first-year students must meet minimum entry requirements of the college. Students must complete a Declaration of Major form for the B.S. in Athletic Training at the time of First-Year Orientation. Students enrolled in PE-140 Orientation to Athletic Training will be provided an Athletic Training Program Booklet with specific instructions and guidelines for retention & progression.

### **FEES**

Additional expenses associated with the athletic training education program include:

- Students maintain Standard First Aid and CPR for the Professional Rescuer at the point of application and must maintain certification until after graduation
- Students maintaining EMT Certification at the point of off-campus clinical assignments.
- Students must provide a physical examination and proof of immunization prior to clinical placement. Immunizations include: Tb, Varicella, MMR, Hepatitis B series.
- Travel outside of the Keene area is required for clinical experiences, and students are responsible for their own transportation.
- Students are responsible for the purchase of uniforms and medical equipment for clinical courses.
- Students are responsible for expenses associated with a required criminal background check prior to clinical placement.
- Students are responsible for maintaining professional memberships and may attend or present at conferences and workshops.
- Liability Insurance: Students admitted to and enrolled in Athletic Training major clinical course, including the advanced clinical, are provided medical liability insurance; however, students may opt to purchase additional liability insurance for additional coverage.

### **INTEGRATIVE STUDIES REQUIREMENTS**

*40 credits minimum*

Professional practice of Certified Athletic Trainers specifies the importance of understanding basic concepts in psychology. Athletic Training majors are advised to enroll in one psychology course as part of their Integrative Studies Program.

#### **Athletic Training**

(including major + allied requirements)

63+28=91

### **MAJOR REQUIREMENTS**

(63 credits)

PE 140 Introduction to Athletic Training (2 credits)

PE 141 Wellness from Theory to Practice

PE 284 Injury Prevention Strategies<sup>1</sup> (2 credits)

PE 294 Athletic Training: Foundations Practicum<sup>1</sup> (1 credit)

PE 340 Epidemiology of Injury and Illness

PE 341 Recognition of Sport-related Injuries and Illness  
 PE 342 Therapeutic Interventions I  
 PE 343 Therapeutic Interventions II  
 PE 344 Sports Nutrition  
 PE 383 Clinical Examination Strategies (2 credits)<sup>1</sup>  
 PE 384 Advanced Clinical Examination (2 credits)<sup>1</sup>  
 PE 385 Emergent Care Strategies<sup>2</sup> (2 credits)  
 PE 441 Pharmacology and Pathology for Athletic Trainers  
 PE 443 Health Care Administration of Athletic Training  
 PE 460 Experimental Design and Analysis for Physical Education  
 PE 483 Athletic Training: Clinical I<sup>2</sup>  
 PE 484 Athletic Training: Clinical II<sup>2</sup>  
 PE 493 Athletic Training: Advanced Clinical<sup>2</sup> (6 credits)  
 PE 494 Athletic Training: Advanced Practicum<sup>2</sup> (2 credits)

### ALLIED REQUIREMENTS FOR ATHLETIC TRAINING

*28 credits*

- MATH 141 Introductory Statistics
- INCHEM 103 Fundamentals of Chemistry (Accepted course substitution: INCHEM 100 or INCHEM 111)
- INPHYS 141 College Physics I
- BIO 230 Human Anatomy and Physiology I
- BIO 232 Human Anatomy and Physiology II
- PE 200 Applied Kinesiology
- PE 201 Physiology of Exercise

### PROGRESSION CRITERIA

Students are accepted to the College as Athletic Training Majors. Students are advised and assisted with program planning throughout the program of study. Because of the professional nature of Athletic Training and its responsibility to the public, the Athletic Training program has established standards for progression and graduation.

With an enrollment target of 16 pre-certification students in each cohort, progression to upper level courses & the clinical component of the Athletic Training Major occurs in April for first year students and November for eligible Accelerated Transfers. Requirements are reviewed each semester to monitor student's eligibility for progression. Pre-Certified Athletic Trainer candidates are eligible to sit for the Board of Certification-ATC exam during their last semester before completion of the Athletic Training major.

The Athletic Training curriculum is tightly structured and has sequential coursework, so it is essential that new students begin the major in their first year at Keene State College. Transfers and other students who begin the major at the sophomore or junior year should plan on staying 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 likely complete the Athletic Training major in more than four years because of conflict of practice times and required athletic training clinical education. First year students who intend to apply to this major must enroll in INCHEM and PE 141 for the Fall semester and PE 140 and MATH 141 for the Fall or Spring semester and BIO 230 for the Spring semester.

### TECHNICAL STANDARDS FOR ADMISSION

The Athletic Training Educational Program at Keene State College 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 Educational Program establish the essential abilities considered necessary for students progressing through the clinical education portion of this program. In the event a student is unable to fulfill these technical standards, with or without reasonable accommodation, the student will not be eligible for progression.

### TRANSFERS:

- More than 30 credits
- Successful completion of Human Anatomy and Physiology I, a Chemistry course, and Statistics

- Attend mandatory Athletic Training meeting with the Program Coordinator to complete an Accelerated Transfer Sequence form
- Meet the minimum GPA requirement of a 2.5 from the previous institution
- Enter the institution with Standard First Aid and CPR for the Professional Rescuer. Proof of a current certification card must be provided.

The progression to the clinical component of the program requires Accelerated Transfers to submit portfolios by November 30 and complete the Certified Background package by December 30. Review of transfer students' applications and official notification of the results of this review would occur before the start of the spring semester.

#### **FIRST YEAR:**

The progression to the clinical component of the program requires freshman/first-year students to submit portfolios by April 15 and complete the Certified Background package by May 15. Review of portfolios and official notification of the results of this review would occur during the summer.

#### **ATHLETIC TRAINING CLINICAL PORTFOLIO**

Students progressing to begin the clinical portion of the major must submit a portfolio documenting each of the following components (please note details of the Retention Application and some components will occur in PE 140):

- Overall GPA of 2.5
- Required allied courses of a grade C or better
- Required major courses of grade BC or better.
- Successful proof or completion of required competencies including: Proof of Emergency Cardiac Care (i.e. CPR for the Professional Rescuer/Healthcare Provider)
- Students must provide a Certified Background packaged with a current physical (on program form), proof of immunization (Hepatitis B), and signed copy of the technical standards, compliance with HIPAA/FERPA verification of training Blood Borne Pathogens.
- Retention Application
  - Performance evaluation by the Keene State College Clinical Faculty
  - A minimum of 25 observation hours of pre-professional clinical experience in the Keene State College Athletic Training Room
  - Recommendation Form for admission by two Keene State College faculty or staff.

Eligible students' progression to the clinical portion of the program will be based on seat availability. In the event that more students are eligible than there are seats, students will be ranked based on GPA in Allied requirements and quality of Retention Application.

Students must meet the following criteria to progress to each clinical course. Clinical Athletic Training I, II, Athletic Training Advanced Clinical, Athletic Training Advanced Practicum require the following:

1. Proof of CPR for Standard First Aid and CPR for the Professional Rescuer.
2. Proof of successful completion of Emergency Medical Technician course, with eligibility for National Registry Examination and Certification
3. Maintain a 2.5 GPA.
4. Completion of the required Athletic Training major courses with a grade BC or better
5. Completion of Allied courses with a grade C or better.
6. Background check

Admission to PE 493 Athletic Training: Advanced Clinical: Students are required to submit letters of intent to register for PE 493 Athletic Training: Advanced Clinical following completion of courses leading up to and including junior level courses in the Athletic Training Major. the Advanced Clinical Application Deadline is March 1 of the junior/3rd year. Students should apply for a fall sport rotation or for a winter/spring sport rotation. Portfolios will be reviewed prior to placing students in the Advanced clinical.

In addition to the progression requirements, the following criteria will be applied to PE 493 enrollment:

1. Successful completion of a minimum of 75 credits
2. Successful completion of required clinical proficiencies and comprehensive competencies at the proficient level (evaluated in previous clinical courses).



If a student is not retained, the student will receive a letter that will clearly indicate the deficiency and clearly define how it should be addressed. A consultation will be scheduled with the Athletic Training Education Program Coordinator. During this conference, the student will be notified of any course adjustments and will need to indicate their willingness to address the deficiency in order to progress toward degree completion. The student will be eligible for progression once the deficiency is met.

## DEGREE REQUIREMENTS

### Electives

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

### Degree Requirements

*120 credits*

(Total degree requirements may change pending Integrative Studies requirements.)

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## Biology

### Bachelor of Science

#### School of Sciences and Social Sciences

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 aspects of biological knowledge. The B.S. program also provides undergraduate preparation for technical employment or post-baccalaureate study in graduate school or for professions such as medicine, dentistry, veterinary medicine, teaching, and natural resource management. A 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.

## INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

## MAJOR REQUIREMENTS

*76 credits*

### Core Courses

*24 credits*

BIO 110 Molecules and Cells <sup>1</sup>

BIO 111 Evolution <sup>1</sup>

BIO 210 Ecology

BIO 211 Genetics

BIO 212 Cells and Physiology

BIO 495 Senior Seminar

<sup>1</sup> Students must earn a grade C or higher in both BIO 110 and BIO 111 in order to take any 200-level or higher BIO course.

### Upper-Level Biology Courses

*24 credits*

Select **one** course in biological diversity (4 credits) from the following:

- BIO 333 Invertebrate Zoology
- BIO 334 Vertebrate Zoology
- BIO 335 Ornithology
- BIO 365 Plant Evolution

### Upper-Level BIO Electives

*20 credits*

Select any five 300- or 400-level BIO courses to bring total credits in Biology to 48 credits. Students may take BIO 232 Human Anatomy and Physiology II for 4 credits of the upper-level elective BIO credits. Note: This applies to the B.S. degree only.

### **Related Science or Math Courses**

*28 credits*

INCHEM 111 General Chemistry I

CHEM 112 General Chemistry II

CHEM 221 Organic Chemistry I

CHEM 222 Organic Chemistry II

INPHYS 141 College Physics I

PHYS 142 College Physics II

MATH 141 Introductory Statistics

Teacher Certification

### **Dual Major in Education**

- Secondary Education

### **ELECTIVES**

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

### **DEGREE REQUIREMENTS**

*120 credits*

## **Biology**

Bachelor of Arts

School of Sciences and Social Sciences

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 Chemistry, Psychology, Elementary Education, Journalism, Art, Management, or Computer Science; thus, it satisfies the needs of students with a combination of interests.

### **INTEGRATIVE STUDIES REQUIREMENTS**

*40 credits minimum*

### **MAJOR REQUIREMENTS**

*52 credits*

#### **Core Courses**

*24 credits*

BIO 110 Molecules and Cells <sup>1</sup>

BIO 111 Evolution <sup>1</sup>

BIO 210 Ecology

BIO 211 Genetics

BIO 212 Cells and Physiology

BIO 495 Senior Seminar

<sup>1</sup> Students must earn a grade C or higher in both BIO 110 and BIO 111 in order to take any 200-level or higher BIO course.

#### **Upper-Level Courses**

*12 credits*

Select **one** course in biological diversity (4 credits) from the following:

- BIO 333 Invertebrate Zoology
- BIO 334 Vertebrate Zoology
- BIO 335 Ornithology
- BIO 365 Plant Evolution

Select any **two** 300- or 400-level BIO courses for an additional 8 credits to bring total credits in biology to 36 credits.

#### **Related Science or Math Courses**

*16 credits*

INCHEM 111 General Chemistry I

CHEM 112 General Chemistry II

MATH 141 Introductory Statistics

Select **one** of the following:

- INPHYS 141 College Physics I
- INGEOL 151 Physical Geology

#### **Teacher Certification**

Dual Major in Education

- Secondary Education

#### **ELECTIVES**

Select additional courses to reach a total of 120 credits.

#### **DEGREE REQUIREMENTS**

*120 credits*

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## **Chemistry**

Bachelor of Science

School of Sciences and Social Sciences

The Chemistry major is accredited by the Committee on Professional Training of the American Chemical Society (ACS).

Completion of this program leads to a B.S. in Chemistry with American Chemical Society Certification. The major is generally oriented toward preparing students to become professional scientists. At the same time, the curriculum is rigorous, yet flexible enough to prepare students for immediate employment, graduate study, or work in an allied profession.

From introductory through advanced courses, students have access to departmental instrumentation and facilities. The faculty values a hands-on approach to chemical education. The major is structured to provide a strong foundation and to allow for 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 Chemistry courses.

#### **INTEGRATIVE STUDIES REQUIREMENTS**

*40 credits minimum*

#### **MAJOR REQUIREMENTS**

*72 credits*

#### **Core Courses**

*48 credits*

INCHEM 111 General Chemistry I  
CHEM 112 General Chemistry II  
CHEM 221 Organic Chemistry I  
CHEM 222 Organic Chemistry II  
CHEM 251 Quantitative Analysis  
CHEM 341 Physical Chemistry I  
CHEM 342 Physical Chemistry II  
CHEM 363 Inorganic Chemistry  
CHEM 375 Biochemistry  
CHEM 421 Advanced Synthetic Chemistry  
CHEM 454 Instrumental Analysis

Select **one** from the following:

- CHEM 321 Organic Chemistry III
- CHEM 333 Medicinal Chemistry
- CHEM 365 Organometallics
- CHEM 373 Polymer Chemistry

#### **Related Field**

*24 credits*

BIO 110 Molecules and Cells  
MATH 141 Introductory Statistics  
MATH 151 Calculus I  
MATH 152 Calculus II

Select **one pair** from the following:

- INPHYS 141 College Physics I **and** PHYS 142 College Physics II  
– **or** –
- INPHYS 241 University Physics I **and** PHYS 242 University Physics II

#### **ELECTIVES**

Select additional courses to reach a total of 120 credits.

#### **DEGREE REQUIREMENTS**

*120 credits*

## **Chemistry**

Bachelor of Arts  
School of Sciences and Social Sciences

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 majors or minors, considerable flexibility is provided to the student. A specific articulation with the Education department (secondary option) is available and allows students to complete a dual major (B.A. in Chemistry, B.S. in Education) with Chemistry certification.

#### **INTEGRATIVE STUDIES REQUIREMENTS**

*40 credits minimum*

#### **MAJOR REQUIREMENTS**

*60 credits*

**Core Courses**

*28 credits*

INCHEM 111 General Chemistry I  
CHEM 112 General Chemistry II  
CHEM 221 Organic Chemistry I  
CHEM 222 Organic Chemistry II  
CHEM 251 Quantitative Analysis  
CHEM 342 Physical Chemistry II  
CHEM 375 Biochemistry

**Related Field**

*24 credits*

BIO 110 Molecules and Cells  
MATH 141 Introductory Statistics  
MATH 151 Calculus I  
MATH 152 Calculus II  
INPHYS 141 College Physics I  
PHYS 142 College Physics II

Teacher Certification

**Dual Major in Education**

- Secondary Education

**Additional Major Requirements**

- CHEM 363 Inorganic Chemistry

**ELECTIVES**

For the B.A. in Chemistry, 8 credits of CHEM Electives at the 300 level or above must be completed. Select additional courses to reach a total of 120 credits.

**DEGREE REQUIREMENTS**

*120 credits*

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**Chemistry-Physics**

Bachelor of Science

School of Sciences and Social Sciences

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.

For a dual major in Education, please refer to the Secondary Education option. In addition, students are required to take Molecules and Cells (BIO 110) and Biochemistry (CHEM 375).

**INTEGRATIVE STUDIES REQUIREMENTS**

*40 credits minimum*

**MAJOR REQUIREMENTS**

*72 credits*

The Chemistry/Physics program consists of 28 credits in Chemistry and 24 credits in Physics. For graduate study in either field, a few additional courses may be necessary.

**Core Courses**

*52 credits*

INCHEM 111 General Chemistry I  
CHEM 112 General Chemistry II  
CHEM 221 Organic Chemistry I  
CHEM 222 Organic Chemistry II  
CHEM 251 Quantitative Analysis  
CHEM 342 Physical Chemistry II  
CHEM 363 Inorganic Chemistry  
INPHYS 241 University Physics I  
PHYS 242 University Physics II  
PHYS 260 Electronics  
PHYS 275 University Physics III  
PHYS Electives (8 credits; 300-level and above)

**Related Courses**

*20 credits*

MATH 141 Introductory Statistics  
MATH 151 Calculus I  
MATH 152 Calculus II  
MATH 251 Vector Calculus (MATH 251 is waived for the Teacher Certification Option only)  
ISCS 140 Programming Foundations I

**Teacher Certification****Dual Major in Education**

- Secondary Education

**Additional Major Requirements**

- BIO 110 Molecules and Cells
- CHEM 375 Biochemistry

**ELECTIVES**

Select additional courses to reach a total of 120 credits.

**DEGREE REQUIREMENTS**

*120 credits*

**Communication****Bachelor of Arts****School of Arts and Humanities**

The Communication major is an interdisciplinary program combining courses in Communication 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 the development of skills as students learn to work with various communication tools to improve their own ability to interact effectively with others. Students will also increase their critical awareness as they study the structure, patterns, and effects of communication on both themselves and society. Communication majors go on to graduate and professional schools, work as teachers, writers, and social activists, or work in a variety of fields utilizing a liberal arts education including human resources, media, advertising, public relations, politics, and many other fields.

Students majoring in Communication must complete a minimum of 9 courses (36 credits) in the areas specified below. An average of C or higher must be earned in courses counted toward the major. Communication majors may count three courses used for the major toward a minor in Philosophy; however, credits may not be counted twice.

## LANGUAGE REQUIREMENT

Each student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the School of Arts and Humanities.

## INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

## MAJOR REQUIREMENTS

*36 credits*

To be admitted to the major, the student must have completed IHCOMM 171 and COMM 175 with an average of C or higher in those two courses. If the grade requirements are met, a Communication advisor will sign the Declaration of Major form that formally admits the student to the major. The application for formal admission to the Communication major typically occurs by the end of the sophomore year. At the time of declaration, the student must select either the Communication Studies Option or the Philosophy Option.

### Introductory Courses

*8 credits*

IHCOMM 171 Public Speaking  
COMM 175 Introduction to Communication Studies

### Research Methods

*4 credits*

Select **one** research Methods course:

- COMM 472 Quantitative and Qualitative Methods
- COMM 473 Rhetorical Criticism
- PHIL 313 Philosophy and the Holocaust
- PHIL 370 Philosophy of Language
- PHIL 406 Existentialism and Film

### Ethics

*4 credits*

Select **one** Ethics course:

- COMM 220 Ethics in Communication
- IHPHIL 220 Ethics

### Electives in the Major

*8 credits*

Select **two** of the following courses from different areas (Communication, Philosophy or II). At least one course must be at the 300 or 400 level.

- COMM 240 Visual Communication
- COMM 250 Children and the Media
- COMM 275 Interpersonal Communication
- COMM 278 Group Interaction
- COMM 290 Special Topics
- COMM 371 Speech Writing
- COMM 372 Intercultural Communication
- COMM 375 Business and Professional Communication
- COMM 378 Persuasion
- COMM 379 Internship
- COMM 472 Quantitative and Qualitative Methods
- COMM 473 Rhetorical Criticism

- COMM 478 Rhetorical Theory
- COMM 490 Advanced Special Topics
- COMM 495 Seminar
- PHIL 231 Comparative Religion
- PHIL 240 Skin, Sex, and Genes
- PHIL 260 Theories of the Body
- PHIL 280 Knowledge and Reality
- PHIL 290 Special Topics
- PHIL 304 American Philosophy
- PHIL 306 Existentialism and Literature
- PHIL 313 Philosophy and the Holocaust
- PHIL 350 Aesthetics
- PHIL 360 Philosophy of Law
- PHIL 370 Philosophy of Language
- PHIL 406 Existentialism and Film
- PHIL 490 Advanced Special Topics
- IL 310 Love and Existentialism

### **Sequence Courses**

*12 credits*

#### **Communication Studies Option**

IHPHIL 100 Logical Argumentation  
 COMM 376 Theory of Communication and Rhetoric  
 COMM 479 Senior Project

#### **Philosophy Option**

IHPHIL 100 Logical Argumentation  
 PHIL 350 Aesthetics OR PHIL 360 Philosophy of Law  
 COMM 479 Senior Project

### **ELECTIVES**

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

### **DEGREE REQUIREMENTS**

*120 credits*

## **Computer Science**

### **Bachelor of Science**

#### **School of Sciences and Social Sciences**

The Bachelor of Science in Computer Science provides students with a thorough grounding in a set of core courses in computer science (CS) and other related areas, followed by the opportunity to hone their CS education in certain areas of specialization. The anticipated end result is a set of graduates who are adequately prepared for their chosen vocation, be it graduate school or employment.

### **INTEGRATIVE STUDIES REQUIREMENTS**

*40 Credits*

### **MAJOR REQUIREMENTS**

*62 Credits*

### **Core Requirements**

*26 Credits*



ISCS 140 Programming Foundations I  
 CS 185 Programming Foundations II

**One** of the following:

- ISCS 150 Website Design & Construction
- INCS 160 Microcomputer Systems

**One** of the following:

- CS 215 Operating System Administration
- CS 265 Computer Architecture

CS 280 Data Structures & Algorithms

**One** course from the following:

- CS 205 Visual Programming
- CS 225 C++ Programming
- CS 230 Procedural Programming
- CS 310 Systems Programming: C & Assembler

**One** of the following:

- CS 293 Supervised Field Experience (2 Credits)
- CS 493 Advanced Supervised Field Experience (2 Credits)

### **Cognate Requirements**

*8 Credits*

MATH 135 Discrete Mathematics for CS (Mathematics majors may have MATH 225 and either MATH 141 or MATH 241 substituted for this requirement)

**One** of the following:

- MATH 151 Calculus I
- MGT 101 Introduction to Management
- INPHYS 241 University Physics I

Also recommended: MATH 152 Calculus II

### **Specialization**

*28 Credits*

Each student will choose at least one of the following specializations. Each specialization will include 28 credits. The specializations are: General CS, Information Systems, Software Engineering, System & Networking, Web Development, and Computational Mathematics. Please note that some courses within the specializations may require prerequisite courses outside of the CS discipline.

#### General CS Specialization

*28 Credits*

Select **seven (7)** of the following courses, including a minimum of three (3) 400-level courses:

- CS 310 Systems Programming: C & Assembler
- CS 320 Operating Systems Design \*\*
- CS 340 Internet Programming \*\*
- ISCS 350 Systems Analysis & Project Management
- CS 355 Computer Networks \*\*
- CS 360 Database Systems \*\*
- CS 375 Software Engineering \*\*
- CS 395 Mobile Computing
- CS 410 Advanced Software Development

- CS 420 E-Commerce Development
- CS 430 Principles of Programming Languages
- CS 440 Software Engineering Project
- CS 455 Cryptography & Network Security
- CS 460 Data Warehousing & Advanced SQL
- CS 490 Advanced Special Topics
- CS 495 Artificial Intelligence & Robotics
- CS 496 Games Programming
- CS 498 Independent Study

\*\* Highly Recommended

### Information Systems Specialization

*28 Credits*

CS 360 Database Systems

Select **six (6)** of the following courses, including a minimum of three (3) 400-level courses (appropriate CS 490 and CS 498 topics will be allowed with department approval):

- CS 320 Operating Systems Design \*\*
- CS 340 Internet Programming \*\*
- ISCS 350 Systems Analysis & Project Management
- CS 355 Computer Networks
- CS 375 Software Engineering \*\*
- CS 395 Mobile Computing
- CS 420 E-Commerce Development \*\*
- CS 430 Principles of Programming Languages
- CS 440 Software Engineering Project
- CS 460 Data Warehousing & Advanced SQL
- CS 495 Artificial Intelligence & Robotics
- MGT 301 Organizational Theory & Behavior \*\*

\*\* Highly Recommended

### Software Engineering Specialization

*28 Credits*

CS 360 Database Systems

CS 375 Software Engineering

CS 440 Software Engineering Project

Select **four (4)** of the following courses, including a minimum of two (2) 400-level courses (appropriate CS 490 and CS 498 topics will be allowed with department approval):

- CS 320 Operating Systems Design \*\*
- CS 340 Internet Programming \*\*
- ISCS 350 Systems Analysis & Project Management
- CS 355 Computer Networks \*\*
- CS 395 Mobile Computing
- CS 410 Advanced Software Development
- CS 420 E-Commerce Development
- CS 430 Principles of Programming Languages
- CS 455 Cryptography & Network Security
- CS 460 Data Warehousing & Advanced SQL
- CS 495 Artificial Intelligence & Robotics
- CS 496 Games Programming

\*\* Highly Recommended

## System & Networking Specialization

28 Credits

CS 320 Operating Systems Design

CS 355 Computer Networks

CS 455 Cryptography & Network Security

Select **four (4)** of the following courses, including a minimum of two (2) 400-level courses (appropriate CS 490 and CS 498 topics will be allowed with department approval):

- CS 310 Systems Programming: C & Assembler
- CS 340 Internet Programming
- ISCS 350 System Analysis and Project Management
- CS 360 Database Systems \*\*
- CS 375 Software Engineering \*\*
- CS 395 Mobile Computing
- CS 410 Advanced Software Development
- CS 420 E-Commerce Development
- CS 440 Software Engineering Project
- CS 460 Data Warehousing and Advanced SQL
- CS 495 Artificial Intelligence & Robotics
- CS 496 Games Programming
- PHYS 242 University Physics II

\*\* Highly Recommended

## Web Development Specialization

28 Credits

CS 340 Internet Programming

**One** of the following:

- CS 410 Advanced Software Development
- CS 420 E-Commerce Development

Select **five (5)** of the following courses, including a minimum of two (2) 400-level courses (appropriate CS 490 and CS 498 topics will be allowed with department approval):

- CS 320 Operating Systems Design \*\*
- ISCS 350 Systems Analysis & Project Management
- CS 355 Computer Networks
- CS 360 Database Systems \*\*
- CS 375 Software Engineering \*\*
- CS 395 Mobile Computing
- CS 410 Advanced Software Development (if not taken above)
- CS 420 E-Commerce Development (if not taken above)
- CS 440 Software Engineering Project
- CS 455 Cryptography & Network Security
- CS 460 Data Warehousing & Advanced SQL
- CS 496 Games Programming
- MGT 301 Organizational Theory & Behavior \*\*

\*\* Highly Recommended

Students selecting the Web Development Specialization must complete ISCS 150 Website Design & Construction, required from the Core Requirements.

## Computational Mathematics Specialization

*28 Credits*

MATH 152 Calculus II

Select **two (2)** of the following MATH courses:

- MATH 231 Linear Algebra & Differential Equations
- MATH 225 Introduction to Abstract & Discrete Mathematics
- MATH 241 Probability & Statistics I
- MATH 362 Math Modeling and Computing

Select **four (4)** of the following courses, including a minimum of one (1) 400-level courses (appropriate CS 490 and CS 498 topics will be allowed with department approval):

- CS 320 Operating Systems Design \*\*
- CS 340 Internet Programming
- CS 355 Computer Networks \*\*
- CS 360 Database Systems \*\*
- CS 375 Software Engineering \*\*
- CS 410 Advanced Software Development
- CS 430 Principles of Programming Languages
- CS 440 Software Engineering Project
- CS 455 Cryptography & Network Security
- CS 460 Data Warehousing & Advanced SQL

\*\* Highly Recommended

## GENERAL ELECTIVES

*18 Credits*

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

## DEGREE REQUIREMENTS

*120 Credits*

## Criminal Justice Studies

Bachelor of Arts

School of Sciences and Social Sciences

Criminology/Criminal Justice is a broad field of study that includes the contributions and approaches of many of the social and behavioral sciences, as well as areas of study such as law and ethics, as they relate to the phenomenon of crime. The criminal justice studies major prepares students for employment in a wide variety of criminal justice agencies, under local, state and federal jurisdictions, as well as the private sector. This major can also serve as a foundation for graduate study in criminology, law, social work, sociology, psychology, and government including public administration.

The application process for admission to the Criminal Justice Studies Major should be initiated upon enrolling in CJS 240 Criminology. Students should meet with their Criminal Justice Studies faculty advisor and submit an "Application to the CJS Major" form. The review of applications and notification of the results of this review will be made at the start of the following semester. If a student is not accepted, they should schedule a consultation with their faculty advisor. During the conference, the student will be notified of any areas of deficiency that need to be addressed and will have an opportunity to retake courses once and/or improve their GPA. Students may only reapply after all deficiencies have been addressed. It should be noted that the minor in Criminal Justice Studies has no admissions criteria. Once admitted, the student must officially declare their major through a faculty advisor with a "Declaration of Major" form.

**Admission Criteria**

Overall GPA of 2.5 and an average of B or higher in both CJS 101 Introduction to Criminal Justice Studies and CJS 240 Criminology is required. For transfer students, equivalent transferred courses may be considered if approved by Criminal Justice Studies faculty.

**INTEGRATIVE STUDIES REQUIREMENTS**

*40 credits minimum*

**MAJOR REQUIREMENTS**

*44 credits*

**Criminal Justice Studies Required Courses**

*28 credits*

CJS 101 Introduction to Criminal Justice Studies  
 CJS 240 Criminology  
 CJS 300 Research Methods for Criminal Justice Studies  
 CJS 330 Criminal Law and Procedure **or** POSC 316 Constitutional Law  
 CJS 342 Advanced Criminology  
 MATH 141 Introductory Statistics

Select **one** of the following capstone courses:

- CJS 461 White-Collar Crime
- CJS 463 Law and Society
- CJS 467/PSYC 467 Human Behavior and the Legal System
- CJS 469 The Sociology of Punishment
- CJS 471 Women and Crime
- CJS 473 Race and Crime in the Media
- CJS 490 Advanced Special Topics in Criminal Justice Studies

**CRIMINAL JUSTICE STUDIES ELECTIVE COURSES**

*16 credits minimum*

Students must select **Four (4)** additional courses (or courses totaling 16 credits) from the CJS Elective Courses list. **Two (2)** of these courses must be at the 300 level or higher. Note that special topics courses may be available. Contact the Criminal Justice Studies coordinator for a list of qualified topics courses. Furthermore, the student should be aware that some of the courses listed below have prerequisites that must be met or waived by the instructor of record before they can be registered for the course.

**Topics in Criminal Justice Studies**

- CJS 201 Corrections
- CJS 290 Topics in Criminal Justice
- CJS 310 Perspectives on U.S. Policing
- CJS 320 Case Studies in Violence
- CJS 365 Juvenile Delinquency
- CJS 390 Studies in Criminal Justice
- IHPHIL 220 Ethics

**Courts, Law and Politics**

- CJS 340/WGS 340 Gender and the Law
- HGS 313/PHIL 313 Philosophy and the Holocaust
- ISPOSC 211 State and Local Politics
- PHIL 360 Philosophy of Law
- SAFE 304/ENST 304 Environment Law and Regulation

**Topics in Sociology and Anthropology**

- ANTH 323 Anthropology of Conflict and Violence
- ISSOC 310 Social Problems
- SOC 325 Ethnic Relations
- SOC 475 Social Stratification

**Topics in Psychology and the Human Services**

- HLSC 200 Alcohol and Other Drugs: The Fundamentals
- IIPSYC 350 When Harm is Done
- PSYC 221 Social Psychology
- SOC 234 Introduction to Social Work

**Topics in Forensics**

- ANTH 332/CJS 332 Forensic Anthropology
- INCHEM 201 Forensic Science

**Internships**

- CJS 494 Cooperative Education (1-4 cr.)

**ELECTIVES**

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

**DEGREE REQUIREMENTS**

*120 credits*

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**Earth/Space Science****Bachelor of Arts****School of Sciences and Social Sciences**

This program is designed to prepare candidates for teaching Earth/Space science in grades 7-12. In addition to meeting all of the degree requirements set by Keene State College (Earth/Space, education, and integrative studies), this program will result in certification for secondary school teaching by the state of New Hampshire in a nationally recognized science education program. Graduates of this program will possess the skills and knowledge necessary to be successful secondary teachers who can fill the critical shortage in this teaching area not only in New England, but across the country.

**INTEGRATIVE STUDIES REQUIREMENTS**

*40 credits minimum*

Specific requirements for Integrative Studies can be found in the appropriate section of the catalog. In addition, asterisked (\*) courses listed in the following Major Requirements section are required for the major and may be applied toward the Natural Sciences and Foundations component of the Integrative Studies requirements.

**MAJOR REQUIREMENTS**

*60 credits*

Sixty (60) credits, including courses applied to Integrative Studies. Please note that students seeking certification at the secondary level in Earth and Space Science should refer to the Secondary Education option in the Education major section of the catalog for a list of additional course requirements.

INGEOL 151 Physical Geology  
GEOL 206 Oceanography  
GEOL 252 Evolution of the Earth  
GEOL 301 Mineralogy

GEOL 305 Paleontology  
 GEOL 306 Sedimentation and Stratigraphy  
 GEOL 315 Environmental Geology  
 INMET 225 Meteorology  
 INCHEM 111 General Chemistry I and Lab \*  
 CHEM 112 General Chemistry II and Lab  
 INPHYS 141 College Physics I \*  
 BIO 111 Evolution  
 MATH 141 Introductory Statistics \*

Select **one** of the following Astronomy courses:

- INASTR 101 Introduction to Astronomy
- INASTR 315 Visions of the Universe

Select **one** of the following Mathematics courses:

- MATH 120 Applied Algebra and Trigonometry
- MATH 130 Precalculus
- MATH 151 Calculus I

## DEGREE REQUIREMENTS

### **B.A. WITHOUT CERTIFICATION**

*120 credits*

### **B.A. WITH CERTIFICATION**

*126 credits*

## Economics

### Bachelor of Arts

#### School of Sciences and Social Sciences

The B.A. in Economics combines rigorous training in economic theory with application to contemporary issues such as globalization, financial market volatility, and the environment. The Economics program is a tight-knit community, and majors and minors can expect to work closely with faculty and with each other. The economic honors society, Omicron Delta Epsilon, organizes field trips to conferences and brings in visiting speakers and alumni. Recent graduates have gone on to careers in business and government, to law school, and to graduate programs in economics and politics, as well as M.B.A. programs.

All majors will complete a four-course economic theory sequence that includes ISECON 104 and ECON 103 (in either order), and ECON 203 and ECON 204 (in either order). It is strongly recommended that students take ECON 203 and ECON 204 soon after the ISECON 104 and ECON 103 prerequisites to get the most benefit from this theoretical background in their elective courses. Both ECON 203 and ECON 204 should be completed by the end of the junior year, so that the student is prepared for advanced (400 level) electives.

In addition, majors will take ISECON 360 and complete four additional economics electives (at least two of these economics electives must be at the 400 level). Econometrics (ECON 420) is recommended, but not required. Employers value this skill, and graduate programs in economics will expect it. Finally, each major must complete one course in introductory statistics (MATH 141 or PSYC 251) as well as either Precalculus (MATH 130) or Calculus (MATH 151).

If you plan to continue into any graduate program, it is strongly suggested that you meet with a faculty member by your junior year to ensure that you are adequately prepared. Statistics is the only math preparation required if you intend to pursue an M.B.A., law school, or a graduate program in a field other than economics. However, a graduate program in economics will require calculus and linear algebra as well.

## INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

IHPHIL 100 Logical Argumentation is recommended (but not required) for ECON majors.

## MAJOR REQUIREMENTS

*44 credits*

### Core Courses

Select **one** of the following:

- MATH 141 Introductory Statistics
- PSYC 251 Psychological Statistics

Select **one** of the following:

- MATH 130 Precalculus
- MATH 151 Calculus I

ECON 103 Introduction to Microeconomics  
 ISECON 104 Introduction to Macroeconomics  
 ISECON 360 History of Economic Thought  
 ECON 203 Intermediate Microeconomics  
 ECON 204 Intermediate Macroeconomics

### Economics Electives

16 credits of 300- or 400-level Economics courses; of which **at least eight credits are 400-level.**

### Certification as a Social Studies Teacher

Economics is an approved major for students seeking Secondary Social Studies certification. Students will need to take the following additional certification requirements:

### Dual Major in Education

- Secondary Education

### Requirements for Certification

IHHIST 161 American Perspectives to 1877 or HIST 161 Topics in United States History I  
 IHHIST 162 American Perspectives from 1877 or HIST 162 Topics in United States History II  
 IHHIST 111 The Ancient and Medieval World or HIST 111 Traditional World Civilization  
 IHHIST 112 The Modern World or HIST 112 Modern World Civilization  
 PSYC 101 General Psychology

Select **one** of the following:

- ISGEOG 101 World Regional Geography
- ISGEOG 201 Geography for Teachers

Select **one** of the following:

- 100- to 200-level course in Sociology
- ISANTH 110 Cultural Anthropology

Select **one** of the following:

- ISPOSC 210 U.S. Politics
- ISPOSC 220 Global Politics

## ELECTIVES

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

## DEGREE REQUIREMENTS

*120 credits*



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## Education

### Bachelor of Science

#### School of Professional and Graduate Studies

The Education major has four options:

- Early Childhood Development
- Elementary Education
- Secondary Education
- Special Education – Elementary

Additionally, students in two specialized programs that lead to K-12 certification – Physical Education Teacher Certification and Music Education – take courses offered in the program.

Building on the historical legacy of teacher preparation at Keene State College, the Education program mission is to prepare competent, reflective classroom teachers and other professional school personnel who utilize effective teaching practices and who create developmentally appropriate educational environments for diverse learners. We integrate liberal arts knowledge and professional preparation for each program we offer and incorporate state and national standards for each specialty area. Keene State College has been an NCATE accredited institution since 1954; each education program option meets state and national standards and prepares teacher candidates who demonstrate appropriate content knowledge, pedagogical knowledge and skills, ability to impact student learning, and professionalism.

Our curriculum is based on the KSC Educator Preparation Conceptual Framework, which states that we prepare teacher candidates who: (1) explore the dynamic nature of the teaching and learning process, (2) demonstrate professional and ethical behaviors that meet high expectations and standards, (3) understand the world from multiple perspectives, and (4) contribute to a just and equitable world. The coursework builds on ecological theories of human development and examines the contexts in which educational systems exist from the perspective of multiple worldviews. Students thereby develop an understanding of themselves as learners and future teachers as they examine the ways in which developmental theories can be helpful in understanding children and curriculum. Field experiences are systematically integrated throughout the program to provide authentic theory-to-practice opportunities for exploring effective pedagogy and assessment strategies.

Admission to Keene State College does not necessarily guarantee admission to Educator Preparation, admission to Student Teaching, or eligibility for certification. Students are assigned an official advisor upon acceptance into the Educator Preparation program. Materials for application to the Educator Preparation program are available in the Educator Preparation and Graduate Studies Office in Rhodes Hall S111.

#### Transfer Credits

Students who wish to transfer credits into a teacher certification option must apply through the department chair. Transfer students are advised to contact the department chair immediately after acceptance to obtain information about admission to Educator Preparation, PRAXIS testing requirements, and transfer equivalencies.

#### Liberal Arts Major

The New Hampshire State Department of Education requires students completing Education majors to also demonstrate depth of knowledge in a content area. Therefore, Education majors must also fulfill requirements of a liberal arts major. Each Education program option has a specific list of the possible liberal arts majors. See the appropriate catalog section for requirements and additional information for each major.

Students seeking certification in Early Childhood (option 1), Elementary (option 2), and Special Education - Elementary (option 4) are required to complete a liberal arts major in one of the following areas:

- American Studies
- Anthropology/Sociology
- Art (portfolio requirement)
- Biology
- Chemistry
- Chemistry-Physics
- Communication
- Computer Science

- Criminal Justice
- Economics
- English
- Environmental Studies
- Film Studies
- French
- General Science
- Geography
- Geology
- History
- Holocaust and Genocide Studies
- Individualized Major
- Journalism
- Mathematics
- Mathematics for Elementary Teachers
- Mathematics-Physics
- Music (audition required)
- Political Science
- Psychology
- Sociology
- Spanish
- Theatre and Dance
- Women's and Gender Studies

Students seeking certification in Middle or Secondary Education (option 3) are required to complete a liberal arts major in one of the following areas:

- American Studies
- Anthropology/Sociology
- Biology
- Chemistry
- Chemistry-Physics
- Economics
- English
- General Science
- Geography
- Geology
- History
- Holocaust and Genocide Studies
- Mathematics
- Modern Languages (French or Spanish)
- Political Science
- Sociology

For a dual major in Education, please refer to the appropriate Education program option.

Students seeking certification to become a K-12 Music Educator or K-12 Physical Educator will complete the Music Education or Physical Education Teacher Certification major. See the appropriate catalog section (Music or Physical Education) for these program requirements.

## INTEGRATIVE STUDIES REQUIREMENTS

### *40 credits minimum*

All students in an educator preparation program must meet the New Hampshire General Education Studies standard (Ed 609.01). This standard is met by successful completion of Keene State College Integrative Studies program. Some Education options require specific courses outside of the Education major; these courses may be included in the student's Integrative Studies program (if appropriate courses are available).

## MAJOR REQUIREMENTS

Numbering conventions – middle digit:

- 0 = open to all options (but not necessarily required)
- 1 = early childhood only
- 2 = elementary only
- 3 = middle school/secondary only
- 4 = K-12 Music only

### 1. Early Childhood Development Option

*48 credits, plus liberal arts major*

This option provides students with a multidisciplinary understanding of early childhood development and prepares them for employment in public education (K-3) and in the early care and education field. The program includes theory and practice with children from infancy through third grade and fulfills requirements for Birth to Age Eight teacher certification.

#### **Option Requirements:**

EDUC 100 Issues in Education (2 credits)  
 EDUC 200 Social Contexts of Education  
 EDSP 202 Development, Exceptionality, and Learning  
 MATH 171 Structure of Number Systems  
 A course in Children's Literature  
 EDUC 311 Early Childhood Methods I: Infant/Toddler/Preschool (8 credits)  
 EDUC 312 Early Childhood Methods II: Primary Grades (K-3) (8 credits)  
 EDUC 405 Student Teaching (6 credits)  
 EDUC 405 Student Teaching (6 credits)  
 EDUC 410 Early Childhood Student Teaching Seminar (2 credits)

### 2. Elementary Education Option

*48 credits, plus liberal arts major*

This option provides students with a multidisciplinary understanding of teaching and learning in the elementary grades and prepares them to teach in elementary schools and in nondepartmentalized middle schools. The program includes theory and practice with children from kindergarten to grade 6 and fulfills requirements for Elementary Education teacher certification.

#### **Option Requirements:**

EDUC 100 Issues in Education (2 credits)  
 EDUC 200 Social Contexts of Education  
 EDSP 202 Development, Exceptionality, and Learning  
 MATH 171 Structure of Number Systems  
 MATH 172 Application of Number Systems  
 EDUC 321 Elementary Methods I: Integrating Literacy, Social Studies and the Arts (8 credits)  
 EDUC 322 Elementary Methods II: Integrating Math, Science and Literacy (8 credits)  
 EDUC 400 Student Teaching (12 credits)  
 EDUC 420 ELED Student Teaching Seminar (2 credits)

### 3. Secondary Education Option

*34 credits, plus liberal arts major*

This option prepares students to teach middle and high school students in the following disciplines:

- Biology (Grades 7-12)
- Chemistry (Grades 7-12)
- Earth/Space Science (Grades 7-12)
- English (Grades 5-12)
- General Science (Grades 5-8)
- Mathematics (Grades 5-8 and Grades 7-12)
- Modern Languages (French and Spanish - all grades)

- Physics (Grades 7-12)
- Social Studies (Grades 5-12)

#### Option Requirements:

EDUC 131 Issues in Secondary Education (2 credits)  
 EDUC 231 Curriculum for a Diverse World  
 EDUC 331 Secondary Methods I  
 EDUC 332 Secondary Classroom Management (2 credits)  
 EDSP 333 Secondary Special Education Issues (2 credits)  
 EDUC 431 Secondary Methods II  
 EDUC 432 Educational Theories/Trends  
 EDUC 400 Student Teaching (12 credits)

#### 4. Special Education Option – Elementary

Special Education certification (K-12) is available as a one-year Master of Education degree or Graduate Educator Certification program for students who have completed a bachelor's degree with teacher certification in early childhood, elementary or secondary education programs. Please visit Master of Education - Special Education Option or Graduate Educator Certification Program for further information or Contact the Graduate Studies office.

Special education courses are offered at the undergraduate level; however, the undergraduate special education major is currently under review and there is an administrative hold on admissions into the undergraduate special education program.

#### DEGREE REQUIREMENTS

*120 credits minimum*

Degree requirements may exceed 120 credits, depending on the choice of liberal arts major.

## Engineering

### Transfer Programs

#### School of Sciences and Social Sciences

These programs prepare students to transfer to engineering schools after completing integrative studies 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.

#### INTEGRATIVE STUDIES REQUIREMENTS

*44 credits minimum*

#### MAJOR REQUIREMENTS

##### **2+2 Program (28 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 such as Chemistry, depending on the prospective engineering field, or to meet requirements of a particular engineering school.

##### *Mathematics Courses*

MATH 151, MATH 152, and MATH 251 Calculus Sequence  
 MATH 231 Linear Algebra and Differential Equations

*Physics Courses*

INPHYS 241, PHYS 242, University Physics I, II

*Computer Science Courses*

ISCS 140 Programming Foundations I

**3+2 Program (40 credits)**

Students spend three years at Keene State and two years in engineering school and receive a BS in Math/Physics from Keene State College and an appropriate BS 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.

ISCS 140 Programming Foundations I

MATH 151, MATH 152, MATH 251 Calculus Sequence

MATH 231 Linear Algebra and Differential Equations

INPHYS 241, PHYS 242 University Physics I, II

PHYS 260 Electronics

PHYS electives (8 credits; 300-level or higher)

## English

### Bachelor of Arts

#### School of Arts and Humanities

The English program encourages students to develop sophisticated ways of understanding, creating, and responding to texts. English majors and minors study the historical development of literary and rhetorical traditions, of literatures written in English, as well as world and European literatures in English translation. Students in the literature option read a wide range of literature from various cultures and historical periods. Students in the writing option also read a great deal of literature and study literary method, but focus their coursework on the writing of poetry, fiction, and creative nonfiction. English/Secondary Education majors must choose the Literature option and take one additional course, ENG 312 Descriptive Grammar.

The English faculty emphasizes 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, and we work closely with students as academic advisors to plan the course of study. Faculty members also guide students to consider such opportunities as a semester of study abroad or a writing internship.

In addition to fostering a lifelong appreciation of literature and language and a high degree of literacy, 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. English majors go on to graduate and professional schools; they work in the field of teaching; they become writers; and they are employed in publishing, journalism, business, public relations, library science, and many other fields.

#### LANGUAGE REQUIREMENT

Each student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the School of Arts and Humanities.

#### INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

#### MAJOR REQUIREMENTS

*40 credits*

#### Literature Option

Students choosing the Literature option in English must complete a minimum of ten courses.

- ENG 215 Literary Analysis (must be taken before completing 9 credits toward the major)
- ENG 315 Literary Form and History (prerequisite: completion of ENG 215)

- ENG 395 Advanced Sequence I
- ENG 495 Advanced Sequence II
- Six additional English courses: one at the 200 level, four at the 300 level, and one at the 400 level - either ENG 402 or ENG 490. (At least four of these six courses must be in literature.) One course must be in pre-1800 literature (may be satisfied with an appropriate sequence). One course must be a Differing Cultural Perspectives course (may be satisfied with an appropriate sequence).
- Additional Requirement for English/Secondary Education majors: ENG 312 Descriptive Grammar

### Writing Option

Students electing the writing option in English must complete a minimum of 10 courses. Students may not pursue both the Writing option and the Writing minor. English/Secondary Education majors may not choose the Writing option.

Choose **one** course from:

- IAENG 204 Creative Writing
- IAENG 202 Creative Nonfiction Writing

Also required:

- ENG 215 Literary Analysis (must be taken before completing 9 credits toward the major)
- ENG 315 Literary Form and History (prerequisite: completion of ENG 215)
- ENG 402 Theory and Practice
- ENG 405 Writing Portfolio (must be completed in senior year)
- Two ENG electives in literature at the 300 or 400 level

Choose **three** additional writing courses (two courses must be at the 300 level or 400 level, other than ENG 402 and ENG 405):

- ENG 201 Writing with Style
- IAENG 202 Creative Nonfiction Writing (if not previously completed)
- ENG 203 Women's Writing
- IAENG 204 Creative Writing (if not previously completed)
- ENG 208 Topics in Writing (if not previously completed)
- ENG 301 Fiction Workshop
- ENG 302 Poetry Workshop
- ENG 303 Nonfiction Workshop
- ENG 306 Autobiography Workshop
- ENG 307 Writing in the World
- ENG 308 Advanced Topics in Writing
- ENG 497 Writing/Publishing Internship

### Certification as an English Teacher

#### Dual Major in Education

- Secondary Education

#### Additional Major Requirements

- ENG 312 Descriptive Grammar

### 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

School of Sciences and Social Sciences

The Environmental Studies (ENST) major provides students with a conceptual framework and set of skills needed to make effective, relevant, and sustaining contributions to society with respect to environmental issues, both as professional practitioners and as individual citizens. Through field and inquiry-based projects in the regional setting, students gain knowledge and develop skills in investigating environmental issues and formulating solutions.

Students intending to major in Environmental Studies are encouraged to select a faculty advisor and formally declare their major as early as possible, preferably by the end of their first year. In addition, ENST majors are strongly encouraged to undertake a disciplinary minor to develop an area of specialization, which will help with postgraduate placement.

### INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

The following ISP courses are recommended (but not required) for ENST majors:

Natural Science Perspectives:

- INGEOL 151 Physical Geology
- INCHEM 103 Fundamentals of Chemistry

Social Science Perspectives:

- ISECON 104 Introduction to Macroeconomics
- ISGEOG 204 Physical Geography

Quantitative Literacy:

- MATH 141 Introductory Statistics

Students are encouraged to consult with their advisor regarding the selection of ISP courses that would best complement their interests.

### MAJOR REQUIREMENTS

*44 credits*

IENST 150 Global Environmental Change **OR** IENST 151 The Environment of Central New England

ENST 250 Principles of Sustainability

ENST 251 Matter and Energy in the Environment

ENST 252 Ecology of a Changing Planet

ENST 253 Environmental Governance

ENST 395 Junior Seminar

ENST 495 Senior Seminar

Select **one** of these human dimensions courses:

- ENST 304 Environmental Law and Regulation
- ENST 308 Environmental Issue Management
- ENST 404 Risk and the Environment
- ENST 431 Environmental Policy Analysis

Select **one** of these environmental science courses:

- ENST 312 Energy and Sustainability
- ENST 352 Conservation of Ecological Systems
- ENST 452 Ecosystems and the Environment
- ENST 460 Groundwater in the Environment

Select **two** additional courses at the 300 level or above in ENST. The following courses may be substituted to meet this requirement (note that these courses have pre-requisites that are not part of the ENST major, but may be part of the ISP):

- ECON 340 Environmental Economics
- GEOG 330 Natural Resource Management
- GEOG 332 Global Water Resources
- GEOG 324 Fundamentals of GIS
- GEOG 327 Environmental Remote Sensing
- POSC 315 Environmental Policy
- SOC 380 Environmental Sociology
- Still other courses, for example special topics courses, may also be substituted to meet this requirement with the approval of the Environmental Studies Department Chair.

Students must earn a grade C or higher in ENST 250, ENST 251, ENST 252, and ENST 253 in order to take ENST 395.

## ELECTIVES

Select courses to reach a total of 120 credits.

## DEGREE REQUIREMENTS

*120 credits*

## Film Studies

Bachelor of Arts

School of Arts and Humanities

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

Each student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the School of Arts and Humanities.

### INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

### MAJOR REQUIREMENTS

*42-46 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

Upon acceptance to the College, any prospective Film Studies student must submit an application via the following process:

- I. Any student may declare Film Studies as his or her major by formalizing a Film Faculty member as his or her advisor and then filling out a formal Declaration of Major form with the Academic Advising Office.
- II. To retain Film Studies major status, a student must achieve an average grade of B or higher in FILM 250, FILM 270, and FILM 271, at which point the student must declare an option within the Film Studies major (either Critical Studies or Film Production) and formally apply to the chosen option as follows.
- III. Applying to the Critical Studies Option:  
Students electing to follow the Critical Studies option within the Film Studies major must fulfill the following criteria:



- a. Submission for critical assessment of a coursework portfolio comprised of one paper completed for FILM 270 or FILM 271.
  - b. Submission of a Letter of Intent that states the student's intention to major in Critical Studies.
  - c. Interview with a Film Studies full-time faculty member, whose approval of portfolio is required for admission.
- IV. Applying to the Film Production Option:  
Students electing to follow the Film Production option within the Film Studies major must fulfill the following criteria:
- a. Submission for critical assessment of a coursework portfolio comprised of one project completed for FILM 250.
  - b. Submission of a Letter of Intent that states the student's intention to major in Film Production.
  - c. Interview with a Film Studies full-time faculty, whose approval of portfolio is required for admission.
- V. Retention Criteria  
Following application to the Film Studies program and acceptance into the major (and/or subsequent option), students must maintain a GPA within the program curriculum of 2.50 (BC), 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 Studies program a maximum of two times (thus, students accepted into the program but later dismissed may reapply once). Further applications will not be permitted.
- VI. Transfers and Lateral Option Moves  
Students transferring to Keene State College and wishing to declare Film Studies as their major, and students already matriculated at Keene State College and wishing to change their major to Film Studies, must follow all previously listed criteria and guidelines, including portfolio process. Any student wishing to change options within the program must redeclare and formally resubmit per the established application guidelines (Section III: Applying to the Critical Studies Option or Section IV: Applying to the Film Production Option).

### Core Courses

*26 credits*

FILM 240 Introduction to Digital Media Management (2 credits)  
 FILM 250 Film Production I  
 FILM 270 Introduction to Film Analysis  
 FILM 271 Introduction to Film History  
 FILM 353 Cinema and Diversity  
 FILM 355 Film Theory  
 FILM 495 Seminar

### Critical Studies Option

*16 credits*

FILM 352 Topics in Film Studies (8 credits)  
 FILM 495 Seminar  
 FILM 499 Senior Research Project

### Film Production Option

*20 credits*

FILM 350 Film Production II  
 FILM 351 Intermediate Film Production  
 FILM 440 Advanced Production Techniques  
 FILM 450 Film Production III  
 FILM 451 Film Production IV

### 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

#### School of Arts and Humanities

This major allows students to acquire an active command of written and spoken French, with a knowledge of historical and contemporary issues in the French-speaking world. It is designed to complement programs such as Film Studies, Management, English, History, Music, and Education. French majors must study in Africa, France, or Québec through our exchange programs or through other approved programs. Students planning to study abroad must consult with the Global Education Office and French faculty before departure to arrange for program approval and transfer of credit and detailed study away requirements. Students seeking teacher certification in French or Spanish must also take the ACTFL Oral Proficiency Interview and attain a score of "Advanced Low" or higher.

New students who have had no prior French should register for IHFR 101. Students with one or two years of successful high school study or one college semester should register for IHFR 102. Students with three or more high school years or two college semesters should register for IHFR 103. Students must consult French faculty to find the most appropriate level.

#### LANGUAGE REQUIREMENT

Each student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the School of Arts and Humanities.

A student majoring in French satisfies this requirement by virtue of completing course requirements for the major.

#### INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

#### MAJOR REQUIREMENTS

*40 credits*

FR 201 Intermediate French  
FR 315 Conversation & Composition I  
FR 316 Conversation & Composition II  
FR 325 Introduction to French Literature  
FR 350 Study in Africa, France or Quebec  
FR 405 Contemporary French Usage  
FR 410 Advanced French Grammar  
FR 495 Seminar

#### Teacher Certification in French

##### Dual Major in Education

- Secondary Education
- Students pursuing a dual major in Education will refer to the appropriate Education option. Also, students seeking teacher certification in French or Spanish are required to take and pass the Praxis II Content Knowledge Test before they begin student teaching as well as the Official ACTFL Oral Proficiency Interview (OPI). The (OPI) must be completed no later than 30 days following the student's return from study abroad.

#### ELECTIVES

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

#### DEGREE REQUIREMENTS

*120 credits*

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## General Science

Bachelor of Arts

School of Sciences and Social Sciences

The B.A. in General Science provides a broad-based foundation in three major areas: Earth/Space Science, Life Science, and Physical Science. This major would provide general science knowledge for working in science museums, zoos, science camps, or state or national parks. It is an ideal major for the preservice elementary or middle school teacher as it addresses national recommendations for improving science education with an activity and hands-on focus. The middle school option meets N.H. state certification requirements for grades 5-9.

### INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

### MAJOR REQUIREMENTS

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

#### Core Courses

*28 credits*

INASTR 101 Introduction to Astronomy

BIO 110 Molecules and Cells

BIO 111 Evolution

INGEOL 151 Physical Geology

GEOL 206 Oceanography

INMET 225 Meteorology

Select **one** of the following:

- MATH 120 Applied Algebra and Trigonometry
- MATH 130 Precalculus
- MATH 151 Calculus I

#### Option 1: Bachelor of Arts

*48 credits*

In addition to the core courses, the following must be taken:

- MATH 141 Introductory Statistics
- BIO 210 Ecology
- INCHEM 111 General Chemistry I
- CHEM 112 General Chemistry II
- CHEM 221 Organic I
- CHEM 222 Organic II
- GEOL 252 Evolution of the Earth
- INPHYS 141 College Physics I
- PHYS 142 College Physics II
- In addition to the requirements listed above for option 1, complete a specialization (three or more additional courses at the 300 level or higher) in **one** of the following areas: Biology, Chemistry, Environmental Studies, or Geology.

#### Option 2: Elementary or Early Childhood

*20 credits*

In addition to the core courses, the following must be taken:

- INCHEM 103 Fundamentals of Chemistry
- INPHYS 201 Phenomenal Science
- GS 301 The Web of Science

- In addition to the requirements listed above for option 2, select **two** additional science courses (8 credits) at the 200 level or higher in either the same or different areas of the following sciences: Biology, Chemistry, Environmental Studies, and/or Geology.

### Option 3: Middle School Option

*32 credits*

In addition to the core courses, the following must be taken:

- INCHEM 111 General Chemistry I
- CHEM 112 General Chemistry II
- BIO 210 Ecology
- MATH 141 Introductory Statistics
- INPHYS 201 Phenomenal Science
- IIPHYS 210 History of Science
- In addition to the requirements listed above for option 3, complete a specialization (two or more additional courses at the 200 level or higher) in **one** of the following areas: Biology, Chemistry, Environmental Studies, or Geology.

### Teacher Certification

#### Dual Major in Education

- Elementary Education
- Secondary Education

### DEGREE REQUIREMENTS

B.A. in General Science – option 1  
*120 credits (76 major)*

B.A. in General Science/Education – dual major

- Elementary – option 2  
*136 credits (48 major, 48 elementary education)*
- Middle School – option 3  
*130 credits (60 major, 34 education)*

## Geography

### Bachelor of Arts

#### School of Sciences and Social Sciences

Geography is an empowering discipline that examines the Earth through the lens of human-environment interaction. Geography is recognized for both its physical and its cultural attributes. The physical realm examines the Earth's dynamic systems and landscape evolution while the cultural realm focuses on human interaction to the constantly changing forces of nature. Major topics of study include population distributions, climate change, technology, language, urbanization, globalization, resource management, and environmental impacts. Geospatial technologies, including GIS, remote sensing, and computer mapping, form an integral component of analysis.

Abundant employment opportunities are available for geographers in local, state, and federal agencies concerned with such issues as regional planning, geopolitics, economic development, and environmental impact. Industry and business employ geographers as market researchers, analysts, and consultants. The U.S. Department of Labor has identified spatial technologies and expertise (geography/GIS) as one of the three primary areas of employment opportunity for the 21st century. Geography students who complete the educator preparation option are eligible for Secondary Social Studies certification.

The geography major requires 40 credits of geography courses. One statistics course is recommended. Students considering graduate work in geography should develop strong skills in GIS.

### INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

## MAJOR REQUIREMENTS

40 credits

ISGEOG 203 The Human Cultural Mosaic

ISGEOG 204 Physical Geography

GEOG 395 Seminar I

GEOG 495 Seminar II

Select **one** of the following regional courses:

- GEOG 340 Topics in Regional Geography
- GEOG 341 Geography of the U.S. and Canada (recommended for Teacher Certification)
- GEOG 371 or GEOG 571 Geography Field Studies

Select **two** of the following systematic fields of geography:

- GEOG 303 The Politics of Place
- GEOG 304 Population Geography
- GEOG 305 The Global Economy
- GEOG 307 Urban Geography and Planning
- GEOG 330 Natural Resource Management
- GEOG 332 Global Water Resources

Select **two** of the following geographic skills courses:

- GEOG 321 Geospatial Technology for K-12 (recommended for teacher certification candidates only)
- GEOG 323 Cartography and Surveying
- GEOG 324 Fundamentals of GIS
- GEOG 325 Cartographic Design and Analysis
- GEOG 327 Environmental Remote Sensing

### Teacher Certification - Secondary Social Studies

Geography is an approved major for students seeking Secondary Social Studies certification. Students will need to take the following additional Certification requirements:

#### Dual Major in Education

- Secondary Education – Secondary Social Studies certification

#### Additional Major Requirements

IHHIST 111 or HIST 111

IHHIST 112 or HIST 112

ISECON 104 Introduction to Macroeconomics

PSYC 101 General Psychology

Select **one** of the following:

- ISPOSC 210 U.S. Politics
- ISPOSC 220 Global Politics

Select **one** of the following:

- 100- to 200-level course in Sociology
- ISANTH 110 Cultural Anthropology

## ELECTIVES

One additional course in Geography, bringing total to 40 credits in Geography.

Select additional courses to reach a total of 120 credits.

## DEGREE REQUIREMENTS

*120 credits*

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### Geology

Bachelor of Science

School of Sciences and Social Sciences

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; for 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 Educator Preparation option, students are prepared for certification as Earth Science Education teachers in secondary schools.

#### INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

#### MAJOR REQUIREMENTS

*64 credits*

##### Core Courses

*28 credits*

INGEOL 151 Physical Geology

GEOL 252 Evolution of the Earth

GEOL 301 Mineralogy

GEOL 302 Igneous and Metamorphic Petrology

GEOL 305 Paleontology

GEOL 306 Sedimentation and Stratigraphy

GEOL 403 Structural Geology

##### Upper-Level Elective Courses

*12 credits*

Choose a minimum of **three** additional 300- or 400-level GEOL courses from the following list to bring total credits in Geology to 40 credits:

- GEOL 309 Geomorphology
- GEOL 310 Glacial Geology
- GEOL 315 Environmental Geology
- GEOL 412 Environmental Geochemistry
- GEOL 460 Hydrogeology
- GEOL 490 Advanced Special Topics (1-4 credits)
- GEOL 498 Independent Study (1-4 credits)

##### Related Science/Math Courses

*24 credits*

INCHEM 111 General Chemistry I and Lab <sup>1</sup>

CHEM 112 General Chemistry II and Lab

Select **one** of the following:

- INPHYS 141 College Physics I <sup>1</sup>
- INPHYS 241 University Physics I <sup>1</sup>

Select **one** of the following:

- PHYS 142 College Physics II
- PHYS 242 University Physics II

MATH 151 Calculus I

Select **one** of the following:

- MATH 141 Introductory Statistics
- MATH 152 Calculus II

Geology majors are strongly advised to take **one** of the following Geography courses:

- GEOG 324 Fundamentals of GIS <sup>2</sup>
- GEOG 325 Cartographic Design and Analysis <sup>2</sup>
- GEOG 326 Raster GIS <sup>2</sup>
- GEOG 327 Environmental Remote Sensing

<sup>1</sup> These courses may also be counted toward filling the Integrative Studies Program Natural Science Perspective course requirements.

<sup>2</sup> These courses list ISGEOG 204 as a prerequisite. Students who take ISGEOG 204 may also count ISGEOG 204 in the Integrative Studies Program Social Science Perspectives area.

Teacher Certification in Earth Science

#### Dual Major in Education

- Secondary Education

#### ELECTIVES

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

#### DEGREE REQUIREMENTS

*120 credits*

## Health Science

Bachelor of Science

School of Professional and Graduate Studies

Health Science is an interdisciplinary program grounded in the liberal arts. The major is comprised of courses in Health Promotion, Nutrition, Addictions, Physical Activity, Biology, Chemistry, and Psychology. Students learn how environmental, socioeconomic, and personal factors influence the health of individuals and populations. All Health Science majors complete the Health Science core, which focuses on health and health promotion. To complete the Health Science major, students select one of three options: Health Promotion, Nutrition, or Addictions. Prospective students should meet with a faculty advisor during their first semester to review the application process that is required for each of the options within Health Science. Specific requirements and standards are listed for each of the options.

#### INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

#### MAJOR REQUIREMENTS

*68-92 credits*

#### Core Courses

*32 credits*

HLSC 101 Health and Wellness  
 INHLSC 175 Essentials of Nutrition Science  
 HLSC 285 Health in Society  
 HLSC 360 Physical Activity and Health  
 HLSC 380 Addiction and Compulsive Behaviors  
 HLSC 385 Behavior Change  
 HLSC 485 Health Promotion Practice

Select **one** of the following:

- HLSC 494 Health Science Capstone
- HLSC 495 Seminar: Health Science Research

### Health Promotion Option

The Health Promotion option offers two specializations: Community Health and Behavior and Health. Students select one of the specializations and complete option requirements and specialization requirements. Health Promotion option graduates work to change policies, environments, attitudes, and behaviors that affect health. The Community Health specialization prepares students for professional careers in community health education, global health, or for graduate programs in public health or health education. The Behavior and Health Specialization prepares students for such graduate programs as Health Psychology, Pain Management, or Behavioral Health.

The application process for admission to the Health Promotion option should be initiated during the first semester for students intending to major in Health Science and typically completed by the end of the second semester. Each student should meet with a Health Science faculty advisor and take HLSC 101 Health and Wellness. The review of applications and notification of the results of this review will be made following the second semester. If a student is not accepted, he or she should schedule a consultation with his or her Health Science faculty advisor. 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 a faculty advisor.

#### Admission Criteria

Overall GPA of 2.5, major GPA of 2.5, and a grade C or higher in HLSC 101 Health and Wellness is required. For transfer students, equivalent transferred courses may be considered if approved by health science faculty.

#### Health Promotion Requirements

##### Allied Discipline Requirements

*16 credits*

BIO 230 Human Anatomy and Physiology I and Lab  
 BIO 232 Human Anatomy and Physiology II and Lab  
 INCHEM 100 Introduction to Chemistry  
 IHCOMM 171 Public Speaking

Allied discipline courses are prerequisites for courses in the major. The BIO sequence should be started in the second semester of the first year.

##### *Community Health Specialization*

*24 credits*

HLSC 305 Epidemiology in Health Science

Select **one**:

- HLSC 318 Nutrition throughout the Lifespan
- ISPSYC 312 Lifespan Psychology

HLSC 325 Community Health  
 HLSC 330 Health Psychology  
 IIENST 150 Global Environmental Change



Select **one**:

- MATH 141 Introductory Statistics
- MATH 242 Applied Statistics

### *Behavior and Health Specialization*

*28 credits*

PSYC 101 General Psychology

Select **one**:

- HLSC 318 Nutrition throughout the Lifespan
- ISPSYC 312 Lifespan Psychology

HLSC 330 Health Psychology

PSYC 221 Social Psychology

PSYC 242 Personality

PSYC 253 Brain and Behavior

PSYC 345 Abnormal Psychology

### **ELECTIVES**

Select courses to reach a total of 120 credits for the degree. Please meet with a faculty advisor for selecting electives.

### **DEGREE REQUIREMENTS**

*120 credits*

#### Nutrition Option

*60 credits*

The Nutrition option is currently granted initial accreditation by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics, 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995. This 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 ACEND-approved curriculum, an ACEND-accredited internship or pre-professional practice program, and the registration examination becomes qualified as a health professional responsible for services in areas such as nutrition service-related management, clinical or community dietetics, education, consultation, private practice, and research.

The application process for admission to the Nutrition option occurs during the first semester for freshmen and transfers. Each student should meet with a faculty advisor and take HLSC 101 Health and Wellness. 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, he or she should schedule a consultation with one or more members of the Health Science 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 a faculty advisor.

#### **Admission Criteria**

Students must have an overall GPA of 2.8. Application for permanent admission to the option is typically completed at the end of the student's first year. After completion of the following courses with an average of B or higher (3.0), students interested in pursuing the Nutrition option must submit an application for permanent admission to the Health Science Nutrition option:

- HLSC 101 Health and Wellness
- INHLSC 175 Essentials of Nutrition Science
- INCHEM 103 Fundamentals of Chemistry

For transfer students, equivalent transferred courses may be considered if approved by the Admissions Committee.

### Application Process

The application process for admission to the Nutrition option occurs just after grades are finalized in the spring semester. The following steps should be followed by all students interested in applying to the Nutrition option:

- Arrange an appointment with an advisor in the Nutrition option and complete a Declaration of Major form that is then submitted to the Registrar's office.
- Complete the following introductory courses required before the "official" application for permanent admission to the Nutrition option will be considered: HLSC 101 Health and Wellness, INHLSC 175 Essentials of Nutrition Science, INCHEM 103 Fundamentals of Chemistry. An overall GPA of 2.8 and an average grade of B or better in those courses previously listed are required for application submission.

If the above criteria are met, applications can be officially submitted for permanent admission to the option. Applications should be submitted to the Nutrition option program director immediately upon completion of the spring semester. Applications need to be postmarked by one week following the last day of final exams in the spring semester. Enrollment in additional Health Science/Nutrition option major courses will not be allowed if application has not been made.

The review of applications and notification of the results of this review will be made in writing before the start of the fall semester. Students who have met the application criteria will be considered admitted to the option. The overall GPA of these students will then be monitored by their Nutrition option advisor to assure that it remains at the 2.8 or higher level.

Students who are not admitted into the Nutrition option or do not submit application materials to the option by due dates will be deregistered from HLSC 215 and/or HLSC 216. These students will be able to adjust their schedule using the online registration process at least 1 week prior to the start of classes. If a student is not permanently accepted into the Nutrition option they should complete the following steps:

- If the student desires to continue to pursue the option, schedule a consultation with her/his Nutrition option advisor. During this conference, the student will be notified of any areas of deficiency, which need to be addressed.
- If the student does not desire to continue to pursue the Nutrition option, complete a new "Declaration of Major" form removing them from the Nutrition option. If the student does not complete this step, their advisor will notify the Registrar's office to change their major to "undeclared."
- If interested and if deficiencies are addressed, the student can reapply one time at the conclusion of the following fall semester.

### Nutrition Option Requirements

*40 credits*

HLSC 215 Nutrition Science and Application  
 HLSC 216 Current Topics in Food Culture  
 HLSC 225 The Nutrition Profession (2 credits)  
 HLSC 240 Microbiology for Health Professionals  
 HLSC 310 Food Science  
 HLSC 313 Foodservice Management  
 HLSC 318 Nutrition throughout the Lifespan  
 HLSC 414 Medical Nutrition Therapy I (2 credits)  
 HLSC 415 Nutritional Biochemistry  
 HLSC 416 Medical Nutrition Therapy II  
 HLSC 473 Practicum: Nutrition

The following courses are required for ACEND:

### Allied Discipline Requirements

*20 credits*

BIO 230 Human Anatomy and Physiology I and Lab  
 BIO 232 Human Anatomy and Physiology II and Lab  
 INCHEM 103 Fundamentals of Chemistry and Lab  
 CHEM 220 Fundamental Organic Chemistry and Lab  
 IHCOMM 171 Public Speaking

Allied Discipline courses are prerequisites for courses in the major. The BIO sequence should be started in the second semester of the freshman year.

**DEGREE REQUIREMENTS***120 credits*

(Integrative Studies + HLSC core + Option + Allied)

*Community Health Specialization**24 credits*

HLSC 305 Epidemiology in Health Science

Select **one**:

- HLSC 318 Nutrition throughout the Lifespan
- ISPSYC 312 Lifespan Psychology

HLSC 325 Community Health

HLSC 330 Health Psychology

IIENST 150 Global Environmental Change

Select **one**:

- MATH 141 Introductory Statistics
- MATH 242 Applied Statistics

*Behavior and Health Specialization**28 credits*

PSYC 101 General Psychology

Select **one**:

- HLSC 318 Nutrition throughout the Lifespan
- ISPSYC 312 Lifespan Psychology

HLSC 330 Health Psychology

PSYC 221 Social Psychology

PSYC 242 Personality

PSYC 253 Brain and Behavior

PSYC 345 Abnormal Psychology

**ELECTIVES**

Select courses to reach a total of 120 credits for the degree. Please meet with a faculty advisor for selecting electives.

**DEGREE REQUIREMENTS***120 credits***Addictions Option***36 credits*

The Addictions option at Keene State College is an academic program with practical training in preparation for further studies in the field or entry-level employment in Addictions. The program provides students with a theoretical understanding of addictions and an introduction to counseling, treatment, and related practices. The curriculum emphasizes research, theory, and practice regarding the continuum of care in addictions. Students can specialize in the area of prevention or treatment in course selection and internship placement.

Depending on the criteria of each state, the work in this Addictions program may be applied toward becoming a licensed or certified alcohol and drug abuse counselor or prevention specialist. However, this process is pursued separately through the students' State Bureau of Substance Abuse, Prevention, and Treatment Services.

The application process for admission to the Addictions option should be initiated during the first semester for students intending to major in Health Science and typically completed by the end of the second semester. Each student should meet with a Health Science faculty advisor and take HLSC 101 Health and Wellness. The review of applications and notification of

the results of this review will be made following the second semester. If a student is not accepted, he or she should schedule a consultation with his/her Health Science faculty advisor. 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 a faculty advisor.

### **Admission Criteria**

Overall GPA of 2.5, major GPA of 2.5, and a grade C or higher in HLSC 101 Health and Wellness is required. For transfer students, equivalent transferred courses may be considered if approved by Health Science faculty.

### **Addiction Requirements**

*20 credits*

HLSC 200 Alcohol and Other Drugs: The Fundamentals  
HLSC 382 Addiction Counseling and Management  
HLSC 386 Chemical Dependency Diagnosis and Treatment  
HLSC 492 Internship in Addictions

Select **one** of the following:

- HLSC 489 Drug Abuse Prevention
- HLSC 491 Advanced Drug Treatment Methods

### **Allied Discipline Requirements**

*16 credits*

IHCOMM 171 Public Speaking  
BIO 230 Human Anatomy and Physiology I and Lab  
BIO 232 Human Anatomy and Physiology II and Lab  
INCHEM 100 Introduction to Chemistry

Allied Discipline courses are prerequisites for courses in the major. The BIO sequence should be started in the second semester of the first year.

### **ELECTIVES**

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

### **DEGREE REQUIREMENTS**

*120 credits*

#### *Community Health Specialization*

*24 credits*

HLSC 305 Epidemiology in Health Science

Select **one**:

- HLSC 318 Nutrition throughout the Lifespan
- ISPSYC 312 Lifespan Psychology

HLSC 325 Community Health  
HLSC 330 Health Psychology  
IENST 150 Global Environmental Change

Select **one**:

- MATH 141 Introductory Statistics
- MATH 242 Applied Statistics

#### *Behavior and Health Specialization*

*28 credits*

PSYC 101 General Psychology

Select **one**:

- HLSC 318 Nutrition throughout the Lifespan
- ISPSYC 312 Lifespan Psychology

HLSC 330 Health Psychology

PSYC 221 Social Psychology

PSYC 242 Personality

PSYC 253 Brain and Behavior

PSYC 345 Abnormal Psychology

### **ELECTIVES**

Select courses to reach a total of 120 credits for the degree. Please meet with a faculty advisor for selecting electives.

### **DEGREE REQUIREMENTS**

*120 credits*

## **History**

Bachelor of Arts

School of Arts and Humanities

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 lifelong 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 governmental 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, 20 credits of which must be in **one** of the following areas of specialization:

- U.S. History
- European History
- 19th-Century Studies
- 20th-Century Studies

At least 16 of the 20 credit hours toward the area of specialization must be at the 300 level (or higher). At least 4 of the 20 credit hours must be at the 400 level.

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

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**

Each student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the School of Arts and Humanities.

### **INTEGRATIVE STUDIES REQUIREMENTS**

*40 credits minimum*

History courses completed to fulfill major requirements may also count toward fulfillment of Integrative Studies in Humanities.

## MAJOR REQUIREMENTS

*36 credits*

**4 credits** at the 100 level

**8 credits** at the 200 level, including HIST 200

**16 credits** at the 300 level

**8 credits** at the 400 level

**20 credit hours** must be completed in **one** of the following areas of specialization:

- U.S. History
- European History
- 19th-Century Studies
- 20th-Century Studies

**At least 16 credit hours** toward the area of specialization must be at the 300 level (or higher) and at least 4 of the 20 credit hours must be at the 400 level. All History majors must complete **8 credit hours** in non-U.S./non-European history.

## Certification as a Social Studies Teacher

### Dual Major in Education

- Secondary Education

### Additional Major Requirements

**One** course in U.S. history

**One** course in non-U.S./non-European history

ISECON 104 Introduction to Macroeconomics

PSYC 101 General Psychology

Select **one** of the following:

- ISGEOG 101 World Regional Geography
- ISGEOG 201 Geography for Teachers

Select **one** of the following:

- 100- to 200-level course in Sociology
- ISANTH 110 Cultural Anthropology

Select **one** of the following:

- ISPOSC 210 U.S. Politics
- ISPOSC 220 Global Politics

## ELECTIVES

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

## DEGREE REQUIREMENTS

*120 credits*

### History Honors Program

Motivated history majors may have the opportunity to participate in an advanced program of study concentrating on professional research and writing skills. Students who meet the program requirements and high disciplinary standards as determined by the faculty of the History Department will graduate with Honors in History. The program will require students to engage in an intensive study of relevant primary and scholarly secondary sources, formulate an original argument, and defend it in a substantial thesis project. Students who participate in the History Honors Program must complete all requirements for

the History major, including a sequence of Honors Independent Studies over the course of two semesters, beginning the first semester of their senior year. These courses may be applied for course credit within the History major.

Admission to the Honors Program will be based on the following criteria:

- Students must have a minimum 3.2 GPA overall and a minimum 3.5 GPA in the major.
- Prior to the end of their junior year, students will submit writing samples, which will be evaluated by the department as a whole; approval of the writing sample will be based on criteria agreed on by the members of the department.
- Students must have a thesis proposal approved by the members of their Honors committee before the end of the schedule adjustment period during the first semester of their senior year. Each student's honors committee will be composed of three members - one primary and two secondary advisors. The precise composition of the committee will be agreed on by the student and faculty members.

Participation in the History Honors Program will culminate in an oral defense of the Honors thesis, which will be adjudicated by the student's committee members. Following the defense, committee members will meet privately to determine the outcome of the defense. Members can choose between three outcomes: pass with honors, pass with no honors, fail.

Students whose defense of their Honors theses pass with honors, and who have maintained a minimum major GPA of 3.5 and a minimum overall GPA of 3.2, will graduate with Honors in History.

Students taking part in the program will take two Honors designated courses in sequence, starting the first semester of their senior year. Honors students will be required to take HIST 498 Honors Thesis Research (4 credits) first semester senior year and conclude with HIST 498 Honors Thesis Writing (4 credits) during the second semester of their senior year. These classes will be conducted under the current program rubric as Independent Studies. In HIST 498 Honors Thesis Research, students will conduct intensive research into their approved topic, being directed by and reporting progress to their Honors Committee, in a form deemed suitable by the members of the committee (e.g., bibliographical essays, annotated bibliography, scholarly book reviews, etc.). In HIST 498 Honors Thesis Writing, students will compose an honors thesis, under the supervision of their Honors Committee, which will be evaluated in accord with professional scholarly standards. HIST 498 Honors Thesis Writing will culminate, as explained above, in an oral defense adjudicated by the members of their Honors Committee. Both HIST 498 Honors Thesis Research and HIST 498 Honors Thesis Writing will receive letter grades.

Under certain circumstances, to be determined by the department, students can apply to the History Honors Program one semester early in order to complete the sequence of required courses before the final semester of their senior year.

## Holocaust and Genocide Studies

### Bachelor of Arts

#### School of Arts and Humanities

Students examine both the Holocaust and the broader topic of genocide. The graduate in Holocaust and Genocide Studies is prepared to support curriculum development in the social studies and history and to pursue careers in social and governmental service. The major also prepares students for graduate studies in history, as well as Holocaust and genocide studies, and for other postgraduate work, such as law.

The program in Holocaust and Genocide Studies is rooted in the conviction that the Holocaust was a cataclysmic episode in the course of Western history impacting culture, society, politics, ethics, science, and religion, and that there is no discipline in the academy un-touched by its shadow. In a world still tormented by mass murder and genocide, the program also rests on the moral imperative that learning from both the past and present may serve as a basis of hope for the future. The program combines historical background with an interdisciplinary exploration of both the Holocaust and other genocidal events through film, literature, philosophy, psychology, sociology, religious studies, women's studies, and other offerings. With an understanding of such issues as prejudice, discrimination, and racism, students are equipped to analyze contemporary political situations, think critically about ethical responsibility, and respond actively to injustice.

Students selecting a Holocaust and Genocide Studies major are required to complete 36 credit hours in the field, 12 of which (i.e., three courses) are specified below. Of the remaining six course electives (24 credits), one must be a Holocaust elective (4 credits) and one must be a genocide elective (4 credits), as designated by course title (see below). Three of the six electives (12 credits) must be at the 300 level or higher.

### INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

## LANGUAGE REQUIREMENT

Each student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the School of Arts and Humanities.

## MAJOR REQUIREMENTS

*12 credits*

IHHGS 252/IHHIST 252 The Holocaust  
 IHHGS 255 Genocide  
 HGS 495 Seminar

## ELECTIVES

*24 credits*

Of the remaining six courses (24 credits), one must be a Holocaust elective (4 credits) and one must be a genocide elective (4 credits), as specified by course title. Three electives (12 credits) must be at the 300 level or higher.

### Holocaust-Specific Electives

- IHHGS 251/IHENG 251 Literature of the Holocaust
- IHHGS 254/IHWGS 254 Women in the Holocaust
- HGS 290 Special Topics (Holocaust must be specified by course title)
- HGS 313/PHIL 313 Philosophy and the Holocaust
- HGS 326/SOC 326 Sociology of the Holocaust
- HGS 340 Film and the Holocaust
- HGS 353/HIST 353 Nazi Germany and the Holocaust
- IHHGS 356 The Holocaust and the Christian World
- HGS 494 Senior Honors (Holocaust must be specified by course title)
- HGS 490 Advanced Special Topics (Holocaust must be specified by course title)
- HGS 497 Internship (Holocaust must be specified by course title)
- HGS 498 Independent Study (Holocaust must be specified by course title)

### Genocide-Specific Electives

- HGS 290 Special Topics (Genocide must be specified by course title)
- HGS 327/SOC 327 Sociology of Genocide
- HGS 374 Comparative Genocide
- HGS 427/SOC 427 Sociological Topics in Genocide
- HGS 490 Advanced Special Topics (Genocide must be specified by course title)
- HGS 494 Senior Honors (Genocide must be specified by course title)
- HGS 497 Internship (Genocide must be specified by course title)
- HGS 498 Independent Study (Genocide must be specified by course title)

### Other Electives:

- IHHGS 189 Judaism, Christianity, Islam
- IHPHIL 220 Ethics
- PHIL 231 Comparative Religion
- IHHGS 232 Introduction to Judaism
- IHHGS 233 A History of the Jews
- IHHIST 253 The Second World War
- IHHGS 355 Religion and Violence
- HIST 351 19th-Century Germany
- HGS 373/HIST 373 Race, Disability, and Eugenics

## Certification as a Social Studies Teacher

Holocaust and Genocide Studies is an approved major for students seeking Secondary Social Studies Certification. Students will need to take the following additional Certification requirements:



**Dual Major in Education**

- Secondary Education

**Additional Major Requirements**

IHHIST 161 American Perspectives to 177 or HIST 161 Topics in United States History I  
 IHHIST 162 American Perspectives to 177 or HIST 162 Topics in United States History II  
 IHHIST 111 The Ancient and Medieval World or HIST 111 Traditional World Civilization  
 IHHIST 112 The Modern World or HIST 112 Modern World Civilization  
 ISECON 104 Introduction to Macroeconomics  
 PSYC 101 General Psychology

Select **one** of the following:

- ISGEOG 101 World Regional Geography
- ISGEOG 201 Geography for Teachers

Select **one** of the following:

- 100- to 200-level course in Sociology
- ISANTH 110 Cultural Anthropology

Select **one** of the following:

- ISPOSC 210 U.S. Politics
- ISPOSC 220 Global Politics

**DEGREE REQUIREMENTS**

*120 credits*

**Individualized Major**
**Bachelor of Arts or Bachelor of Science  
 Interdisciplinary Programs**

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 a combination of courses that is different from existing undergraduate majors and program outcomes.

Students at Keene State College are expected to declare a major by the time they have accumulated 60 credits.

The minimum number of credits is 120 credits for a Bachelor of Arts or a Bachelor of Science degree, with a minimum of 40 Integrative Studies program credits and a minimum of 36 credits of major courses. Whereas major requirements are usually established by the academic discipline, the Individualized Major program of study is designed by the student in consultation with a faculty advisory committee, subject to approval by the associate vice president for Academic Affairs.

In the event students choose to complete the Individualized Major as a second major, a total of 8 credits from the other major may be applied to the individualized major.

**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 the 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 cosigned by members of the Advisory Committee prior to approval by the associate vice president for Academic Affairs.

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.

### **Completing and Modifying the Individualized Major**

1. The student is responsible for (a) completing all Transitional General Education Program 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 program must be cosigned by the Advisory Committee members and approved by the associate vice president for Academic Affairs. These amendments must be in writing and accompanied by appropriate rationale.

### **Program Requirements**

Each program of study is divided into Integrative Studies requirements, major requirements, and electives.

#### **INTEGRATIVE STUDIES REQUIREMENTS**

##### *40 credits minimum*

Integrative learning is a process by which students connect knowledge and skills from multiple sources and experiences, apply knowledge and skills in varied settings, utilize diverse points of view, and understand issues contextually.

This program reflects Keene State College's institutional values (through the integrative outcomes), provides and develops the experiences necessary for success in an academic environment (the skills outcomes), and preserves the breadth of a liberal arts education that should enable our graduates to succeed in a global environment (the perspectives and interdisciplinary outcomes). The integrative teaching and learning process approaches teaching and learning in intentionally connected ways.

Students participating in an integrative learning experience see connections in seemingly disparate information; adapt skills learned in one situation to problems encountered in another; demonstrate a breadth of outlook and an awareness of complex interdependencies; judge/decide (synthesize); take into account different dimensions of a problem, seeing it from different perspectives, making conceptual links; connect skills and knowledge from multiple sources and experiences; utilize diverse and contradictory points of view; and understand contextual frames.

Knowledge in both individual and multiple disciplines is the foundation upon which integrative learning builds. Integrative learning often occurs as learners put theory into practice, "making meaning" as they apply abstract concepts in practical settings.

Students should also consider as part of their course of study developing competence in a second language and including an experiential learning experience in which discipline-based knowledge can be applied.

#### **MAJOR REQUIREMENTS**

##### *36 credits minimum*

Must include program objectives and learning outcomes; consist of a minimum of 36 credits, of which a minimum of 20 credits must be in courses at the 300 or higher level; include courses from a minimum of two academic disciplines, with a combination of a minimum of five courses (a minimum of 20 credits) in one discipline and minimum of four courses (a minimum of 16 credits) in the other discipline; and may include a maximum of 12 credits of Independent Study courses.

If a student chooses to complete an Individualized Major as a second major, a maximum of eight credits from the original major may be applied to the Individualized Major.

#### **ELECTIVES**

Select courses to reach a total of 120 credits for a B.A. or a B.S. Electives are selected by the student and are usually related to personal and professional interests.

#### **DEGREE REQUIREMENTS**

##### *120 credits*

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## Journalism

Bachelor of Arts

School of Arts and Humanities

The Journalism major at Keene State College is dedicated to the investigation of the roles of the mass communications in contemporary society within a liberal arts perspective. The major has a strong journalism core with mass media options in News Media, Public Relations, and Multimedia.

The major provides students with a comprehensive understanding of the media and prepares them for careers in the field by enabling them to develop print, electronic media, visual media, social media, photojournalism, and public relations skills in an applied setting. The curriculum emphasizes the professional concepts and practices of press objectivity, fairness, accuracy, and freedom of the press, and public relations strategies as well as the development of analytical writing, research, production, and presentation skills.

The curriculum covers the skill areas of journalistic writing, editing, electronic journalism, news production and public relations writing. It includes at least 40 credit hours of study within Journalism. A grade C or higher must be earned in each Journalism course or Journalism course substitution counted toward the major.

### LANGUAGE REQUIREMENT

Each student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the School of Arts and Humanities.

### INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

### MAJOR REQUIREMENTS

*40 credits*

#### Core

*16 credits*

IHJRN 101 Media & Society

JRN 130 Writing for the Media

JRN 155 Digital Journalism

JRN 323 Journalism Law and Ethics

**Students must choose one of the following three options:**

#### News Media Option

*24 credits*

- JRN 230 Print Journalism
- JRN 235 Broadcast Journalism
- JRN 280 Media Production (2 credits)
- JRN 281 Television Production (2 credits)

Choose **8 credits** from the following:

- JRN 330 Public Affairs Reporting
- JRN 335 Television Journalism
- JRN 430 Feature Writing
- JRN 435 Community Television News

Elective - Choose **4 credits** from the following:

- IJRN 268 Environmental Issues and the Media
- JRN 356 Media Practicum
- JRN 311 Mass Media History and Theory

- JRN 330 Public Affairs Reporting
- JRN 335 Television Journalism
- JRN 345 Radio Journalism
- JRN 355 Multimedia Journalism
- JRN 365 Photojournalism
- JRN 380 Internship
- JRN 430 Feature Writing
- JRN 435 Community Television News
- JRN 467 Specialized Journalism
- JRN 498 Independent Study

### Public Relations Option

*24 credits*

JRN 230 Print Journalism

JRN 280 Media Production and JRN 281 Television Production (2 credits each) OR JRN 380 Internship (4 credits)

JRN 276 Intro to Public Relations

JRN 355 Multimedia OR JRN 365 Photojournalism

JRN 376 Public Relations Practice

Elective - Choose **4 credits** from the following:

- JRN 235 Broadcast Journalism
- IJRN 268 Environmental Issues and the Media
- JRN 311 Mass Media History and Theory
- JRN 330 Public Affairs Reporting
- JRN 335 Television Journalism
- JRN 355 Multimedia Journalism
- JRN 356 Media Practicum
- JRN 365 Photojournalism
- JRN 380 Internship
- JRN 430 Feature Writing
- JRN 435 Community Television News
- JRN 467 Specialized Journalism
- JRN 498 Independent Study

### Multimedia Journalism Option

*24 credits*

- JRN 235 Broadcast Journalism
- JRN 335 Television Journalism OR JRN 435 Community Television News
- JRN 355 Multimedia Journalism
- JRN 365 Photojournalism
- JRN 345 Radio Journalism

Elective - Choose **4 credits** from the following:

- JRN 230 Print Journalism
- IJRN 268 Environmental Issues and the Media
- JRN 280 Media Production and JRN 281 Television Production (2 credits each)
- JRN 356 Media Practicum
- JRN 311 Mass Media History and Theory
- JRN 330 Public Affairs Reporting
- JRN 335 Television Journalism
- JRN 380 Internship
- JRN 430 Feature Writing
- JRN 435 Community Television News

- JRN 467 Specialized Journalism
- JRN 498 Independent Study

## ELECTIVES

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

## DEGREE REQUIREMENTS

*120 credits*

# Management

Bachelor of Science

School of Sciences and Social Sciences

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.

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.

## INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

## MAJOR REQUIREMENTS

*60 credits*

A grade C or higher is required in MGT 101, MGT 202, MGT 213, and MGT 301.

MGT 101 Introduction to Management

MGT 202 Quantitative Decision-Making <sup>1</sup>

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 Capstone Seminar: Strategic Management

MGT electives (8 credits at 300- or 400-level)

Credits earned in MGT 493, MGT 494, and MGT 498 may not be applied to the MGT electives requirement.

## ALLIED DISCIPLINE REQUIREMENTS

*12 credits*

IHCOMM 171 Public Speaking <sup>2</sup>

ISECON 104 Introduction to Macroeconomics <sup>2</sup>

ECON 103 Introduction to Microeconomics

<sup>1</sup> May be used to fulfill IQL 101 Integrative Studies requirement.

<sup>2</sup> May be used to fulfill an Integrative Studies requirement.

## ELECTIVES

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

## DEGREE REQUIREMENTS

*120 credits*

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## Mathematics

Bachelor of Arts

School of Sciences and Social Sciences

The Bachelor of Arts in Mathematics provides students breadth and depth through an integrated approach to the study of mathematics. The program prepares students for either an immediate career, especially teaching, or graduate school.

A decision to undertake the 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.

### INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

### MAJOR REQUIREMENTS

#### Mathematics Option

*48 credits*

##### Core Courses

MATH 151 Calculus I

MATH 152 Calculus II

MATH 220 Mathematical Reasoning and Proof

MATH 231 Linear Algebra and Differential Equations

MATH 241 Probability and Statistics I

MATH 330 Abstract Algebra

MATH 350 Real Analysis

MATH 400 Capstone in Mathematics

Select **one** course from the pure area:

- MATH 320 Geometry
- MATH 337 Number Theory
- MATH 490 Topics in Pure Mathematics

Select **one** course from the applied area:

- MATH 218 Computer Tools for Problem Solving
- MATH 242 Applied Statistics
- MATH 251 Vector Calculus
- MATH 341 Probability and Statistics II
- MATH 361 Differential Equations
- MATH 362 Math Modeling and Computing

ISCS 140 Programming Foundations I

INPHYS 241 University Physics I

#### Mathematics Secondary Teaching Option

*48 credits minimum*

**Core Courses**

MATH 151 Calculus I  
 MATH 152 Calculus II  
 MATH 218 Computer Tools for Problem Solving  
 MATH 220 Mathematical Reasoning and Proof  
 MATH 231 Linear Algebra and Differential Equations  
 MATH 241 Probability and Statistics I  
 MATH 320 Geometry  
 MATH 330 Abstract Algebra  
 MATH 350 Real Analysis  
 MATH 400 Capstone in Mathematics

Plus **one** course from the applied area:

- MATH 242 Applied Statistics
- MATH 251 Vector Calculus
- MATH 341 Probability and Statistics II
- MATH 361 Differential Equations
- MATH 362 Math Modeling and Computing

INPHYS 241 University Physics I

Mathematics Middle School/Junior High Teaching Option

*44 credits minimum*

**Core Courses**

MATH 151 Calculus I  
 MATH 152 Calculus II  
 MATH 175 Data Analysis for Teachers  
 MATH 218 Computer Tools for Problem Solving  
 MATH 220 Mathematical Reasoning and Proof  
 MATH 231 Linear Algebra and Differential Equations  
 MATH 275 Geometry for K-8 Teachers  
 MATH 337 Number Theory  
 MATH 375 Algebraic Concepts for K-8 Teachers

Select **one** of the following:

- MATH 320 Geometry
- MATH 330 Abstract Algebra
- MATH 350 Real Analysis

Select **one** additional mathematics course at the 300-level or above, including IIMATH 310 and IIMATH 315.

**Teacher Certification**

Students selecting either the Mathematics Secondary Teaching Option or the Mathematics Middle School/Junior High Teaching Option must meet the requirements for secondary teacher certification. Refer to the Educator Preparation section of this catalog for information on these requirements, including courses that are to be included as part of the Integrative Studies Program requirements.

**Dual Major in Education**

- Secondary Education

**ELECTIVES**

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

**DEGREE REQUIREMENTS**

*120 credits*

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## Mathematics

Bachelor of Science

School of Sciences and Social Sciences

The Bachelor of Science in Mathematics provides students additional breadth and depth of knowledge of mathematics beyond the course of study required for the Bachelor of Arts in Mathematics, as well as the chance to pursue a minor related to mathematics. The program prepares students for either graduate school or an immediate career in business, industry, or government.

A decision to pursue the BS in Mathematics should be made in a student's first year of study if the program is to be completed in four years. Students should both meet with a mathematics advisor and take MATH 151 Calculus I as soon as possible.

### INTEGRATIVE STUDIES REQUIREMENTS

40 credits minimum

### MAJOR REQUIREMENTS

76 - 84 credits

Core Courses

(56 credits)

MATH 151 Calculus I

MATH 152 Calculus II

MATH 220 Mathematical Reasoning and Proof

MATH 231 Linear Algebra and Differential Equations

MATH 241 Probability and Statistics I

MATH 251 Vector Calculus

MATH 330 Abstract Algebra

MATH 350 Real Analysis

MATH 361 Differential Equations

MATH 400 Capstone in Mathematics

Two additional mathematics courses at the 300/400 level, excluding IIMATH 310, IIMATH 315, MATH 375, MATH 378, MATH 475

ISCS 140 Programming Foundations I

INPHYS 241 University Physics I

Related Minor

(20 - 28 credits)

Minor in Biology, Chemistry, Computer Science, Economics, Geology, Management, Physics or another related field approved by the Mathematics Department

### ELECTIVES

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

### DEGREE REQUIREMENTS

120 Credits

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## Mathematics Education for Elementary Teachers

Bachelor of Arts

School of Sciences and Social Sciences

This program is designed to prepare candidates for grades K-8 elementary school teaching with a specialization in mathematics. In addition to meeting all the degree requirements set by Keene State College (mathematics, education, and integrative studies) and the certification requirements for elementary school teaching by the state of New Hampshire,



graduates of this major, with sufficient teaching experience and graduate work, could become elementary school mathematics specialists in school districts.

## INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

## MAJOR REQUIREMENTS

*40 credits minimum*

### Core Courses

MATH 151 Calculus I

MATH 171 Structure of Number Systems

MATH 175 Data Analysis for Teachers

MATH 218 Computer Tools for Problem Solving

MATH 220 Mathematical Reasoning and Proof

MATH 275 Geometry for K-8 Teachers

MATH 337 Number Theory

MATH 375 Algebraic Concepts for K-8 Teachers

MATH 475 Issues and Trends in Math Education

Select **one** of the following:

- One mathematics elective at the 200 level or higher
- MATH 152 Calculus II

### Teacher Certification

Students selecting this major must meet the requirements for elementary teacher certification. Refer to the Educator Preparation section of this catalog for information on these requirements, including courses that are to be included as part of the Integrative Studies Program requirements.

## ELECTIVES

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

## DEGREE REQUIREMENTS

*120 credits*

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# Mathematics-Physics

Bachelor of Science

School of Sciences and Social Sciences

This interdisciplinary program provides sufficient groundwork in both mathematics and physics for employment in industry, the commercial sector, or further study in graduate school. In order to complete the program within four years, the student should begin the Physics sequence in the spring of the first year of studies. Calculus I should be selected as soon as possible.

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

The program is comprised of:

- 20 credits of Mathematics
- 24 credits of Physics
- 4 credits of Computer Science
- 8 credits of Chemistry

## INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

### MAJOR REQUIREMENTS

*56 credits*

MATH 151 Calculus I  
MATH 152 Calculus II  
MATH 251 Vector Calculus  
MATH 231 Linear Algebra and Differential Equations  
MATH 361 Differential Equations  
INPHYS 241 University Physics I  
PHYS 242 University Physics II  
PHYS 260 Electronics  
PHYS 275 University Physics III  
PHYS electives (**8 credits**, 300 level or higher)

### RELATED FIELDS

ISCS 140 Programming Foundations I  
INCHEM 111 General Chemistry I  
CHEM 112 General Chemistry II

### ELECTIVES

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

### DEGREE REQUIREMENTS

*120 credits*

## Music

### Bachelor of Arts

#### School of Arts and Humanities

This program provides a broad foundation in music and is also appropriate for students planning on graduate study. Program objectives are located at: <http://www.keene.edu/catalog/programs/detail/347/ba/music/outcomes.html>. 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/aural skills sequence in the first year. All students must pass a piano proficiency exam, a basic aural skills proficiency exam, and complete the Mid-Level Review before the end of the sophomore year. All B.A. Music candidates are required to complete ten (10) electives beyond the core degree requirements. Students have the option of specializing in either Music Composition or Music Technology, but a specialization is not required. The Music Composition specialization requires two (2) additional electives. Participation in at least one large ensemble appropriate to the student's program (chosen from MU 172, MU 173, MU 174, MU 175, MU 177, or MU 178) is required each semester of applied music study. Additionally, students are required to take at least one semester of a small ensemble (MU 171). A grade of C or higher must be earned in each music course counted toward the major. A minimum of 40 total credits must be at the 300-400 level (Music and non-Music courses).

### MID-LEVEL REVIEW

All music majors must complete a Mid-Level Review prior to the junior year. The Review is normally conducted during the student's fourth semester of study, with adjustments made for transfer credits, participation in national and international exchange programs, and official leaves of absence. The Mid-Level Review consists of an application (information form, transcript, and reflective essay) and an assessment meeting between the candidate and the Faculty Review Panel. Application forms and additional information are available from the Music Department Office.

The purpose of the Mid-Level Review is three-fold: 1) to assess the student's academic progress, 2) to assess the student's artistic progress, and 3) to advise the student on academic, artistic, and career goals. Music Education and Music Performance majors whose academic record and/or artistic growth are not at an appropriate level based on state and national

standards cannot continue in either of those two Bachelor of Music degree programs, but may continue to be a music major in the Bachelor of Arts in Music program.

## LANGUAGE REQUIREMENT

Each student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the School of Arts and Humanities.

## INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

## MAJOR REQUIREMENTS

*51 credits*

### Core Courses

*43 credits*

Select **one** of the following World Music courses (4 credits):

- IAMU 112 Latin American Music Survey
- IAMU 114 Music Cultures of the World
- IIMU 241 Listening to Brazil
- IHMU 305 History of Jewish Music
- IAMU 312 Latin American Music, Society & Culture
- IAMU 330 Music of Africa & the Diaspora

MU 100 Music Workshop (6 semesters, 0 credits total)

MUA 101, MUA 102, MUA 201, MUA 202, MUA 301, and MUA 302 Applied Music (6 semesters, 6 credits total)

MU 118, MU 119 Functional Piano I and II (1 credit each, 2 credits total) (Pianists/organists may substitute MU 181 Accompanying for MU 118 and MU 119 for a total 2 credits)

MU 151, MU 152, MU 251, and MU 252 Music Theory I-IV (2 credits each, 8 credits total) Students who do not pass the theory placement test given at the time of their audition are advised to seek a private tutor to eliminate this deficiency before starting the sequence of theory classes.

MU 161, MU 162, MU 261, and MU 262 Aural Skills I-IV (1 credit each, 4 credits total)

MU 171 Chamber Ensemble (1 credit)

MU 172, MU 173, MU 174, MU 175, MU 177, or MU 178 Ensembles (1 credit each, to total 4 credits). Pianists/organists may substitute up to two semesters of MU 171 (Piano Ensemble) for these ensembles.

MU 281 Aural Skills Proficiency Assessment Exam (0 credits)

MU 282 Mid-Level Review Assessment Exam (0 credits)

MU 283 Piano Proficiency Assessment Exam (0 credits)

MU 310 Western Music Before 1700 (2 credits)

MU 312 Western Music After 1700 (4 credits)

MU 495 Seminar (4 credits each, must be repeated for a total of 8 credits)

### Electives in Music

*8 credits*

Select from the following courses (all courses 4 credits unless noted):

- IAMU 112 Latin American Music Survey
- IAMU 115 Women in Music
- IAMU 216 History of Rock & Roll
- IAMU 218 History of Jazz
- IAMU 242 Listening to America
- IAMU 312 Latin American Music, Society & Culture
- IAMU 330 Music of Africa & the Diaspora
- IAMU 407 Teaching Music to Children
- IAMU 417 Avant Rock
- IIMU 241 Listening to Brazil
- IIMU 243 Film Music History & Technique

- MU 105 Voice Class (1 credit)
- MU 110 Guitar Class (1 credit)
- MU 171 Chamber Ensemble (0-1 credit)
- MU 211 Introduction to Music Technology
- MU 213 Composition I (2 credits)
- MU 214 Composition II (2 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 290 Special Topics in Music (1-4 credits)
- MU 298 Independent Study (1-8 credits)
- MU 315 Conducting I (2 credits)
- MU 316 Conducting II (2 credits)
- MU 326 Applied Pedagogy (2 credits)
- MU 335 Performance Literature (2 credits)
- MU 498 Independent Study (1-8 credits)

## ELECTIVES

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

Electives must include 16 credits outside of Music.

A minimum of 40 total credits must be at the 300 - 400 level (Music and non-Music courses)

## DEGREE REQUIREMENTS

*120 credits*

# Music Composition

Bachelor of Music

School of Arts and Humanities

The B.M. in Music Composition prepares students for careers in composition, independent teaching, or graduate study in music. The degree conforms to standards in composition set by the National Association of Schools of Music, including the development of a composition from concept to finished product; the competency to work with both electronic and acoustic media; working with a variety of forms, styles, and notations; and applying principles of scoring appropriate to particular compositions. Students will achieve fluency in the use of tools needed by composers, including keyboard skills, spoken and written language, conducting and rehearsal skills, analytical techniques, and applicable technologies. Students will have opportunities to hear fully realized performances of their original compositions in workshop settings and public performances, culminating in a capstone Senior Recital.

All students are auditioned before admission to the program.

A grade C or higher must be earned in each music course counted toward the major.

## MID-LEVEL REVIEW

All music majors must complete a Mid-Level Review prior to the junior year. The Review is normally conducted during the student's fourth semester of study, with adjustments made for transfer credits, participation in national and international exchange programs, and official leaves of absence. The Mid-Level Review consists of an application (information form, transcript, and reflective essay) and an assessment meeting between the candidate and the Faculty Review Panel. Application forms and additional information are available from the Music Department Office.

The purpose of the Mid-Level Review is threefold: 1) to assess the student's academic progress, 2) to assess the student's artistic progress, and 3) to advise the student on academic, artistic, and career goals. Music Education and Music Performance majors whose academic record and/or artistic growth are not at an appropriate level based on state and national

standards cannot continue in either of those two Bachelor of Music degree programs, but may continue to be a music major in the Bachelor of Arts in Music program.

## LANGUAGE REQUIREMENT

Each student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the School of Arts and Humanities.

## INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

## MAJOR REQUIREMENTS

*80 credits (Four credits will be applied to Integrative Studies requirement)*

### Core Courses

*75 credits*

Select **one** of the following World Music sources (4 credits):

- IAMU 112 Latin American Music Survey
- IAMU 114 Music Cultures of the World
- IIMU 241 Listening to Brazil
- IHMU 305 History of Jewish Music
- IAMU 312 Latin American Music, Society & Culture
- IAMU 330 Music of Africa & the Diaspora

MU 100 Music Workshop (6 semesters, 0 credits)

MUA 101, MUA 102, MUA 201, MUA 202, MUA 301, MUA 302 Applied Music (1 credit each, 6 credits total)

MUC 301, MUC 302, MUC 401, and MUC 402 Applied Composition (2 credits each, 8 credits total)

MU 118, MU 119, MU 218, MU 219 Functional Piano I-IV (1 credit each, 4 credits total) Pianists/organists may substitute MU 181 Accompanying for MU 118 and MU 119 for a total 4 credits.

MU 151, MU 152, MU 251, MU 252 Music Theory I-IV (2 credits each, 8 credits total) Students who do not pass the theory placement test given at the time of their audition are advised to seek a private tutor to eliminate this deficiency before starting the sequence of theory classes.

MU 161, MU 162, MU 261, MU 262 Aural Skills I-IV (1 credit each, 4 credits total)

MU 171 Chamber Ensemble (1 credit each, 3 credits total)

MU 172, MU 173, MU 174, MU 175, MU 177, or MU 178 Ensembles (1 credit each, 6 credits total) Pianists/organists may substitute up to two semesters of MU 171 (Piano Ensemble) for these ensembles.

MU 211 Intro to Music Technology (4 credits)

MU 213, MU 214 Composition I, II (2 credits each, 4 credits total)

MU 222 Musical Improvisation (1 credit)

MU 281 Aural Skills Proficiency Assessment Exam (0 credit)

MU 282 Mid-Level Review (0 credit)

MU 283 Piano Proficiency Exam (0 credit)

MU 310 Western Music Before 1700 (2 credits)

MU 312 Western Music After 1700 (4 credits)

MU 315, MU 316 Conducting I, II (2 credits each, 4 credits total)

MU 495 Seminar (4 credits each, must be repeated for a total of 16 credits total)

### Electives

*5 credits*

Select music courses or an allied discipline recommended by National Association of Schools of Music, such as Computer Science, Physics, Film Studies, or Journalism to reach 120 credits.

## DEGREE REQUIREMENTS

*120 credits*

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## Music Education

### Bachelor of Music

#### School of Arts and Humanities

The Music Education curriculum prepares teachers and supervisors of music for kindergarten through grade 12. Program objectives are located at: <http://www.keene.edu/catalog/programs/detail/353/bm/musiceducation/outcomes.html>. 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 proficiency test and a basic aural 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 large ensemble appropriate to the student's program (chosen from MU 172, MU 173, MU 174, MU 175, MU 177, or MU 178) is required each semester of applied music study, with the exception of the semester of student teaching. Additionally, students are required to take at least one semester of a chamber ensemble (MU 171).<sup>1</sup>

A grade C or higher must be earned in each music course counted toward the major. A minimum of 40 total credits must be at the 300-400 level (Music and non-Music courses). Student GPA must average 2.50 to qualify for student teaching.

<sup>1</sup> Pianists/organists may substitute up to two semesters of MU 171 Piano Ensemble for these ensembles.

#### MID-LEVEL REVIEW

All music majors must complete a Mid-Level Review prior to the junior year. The Review is normally conducted during the student's fourth semester of study, with adjustments made for transfer credits, participation in national and international exchange programs, and official leaves of absence. The Mid-Level Review consists of an application (information form, transcript, and reflective essay) and an assessment meeting between the candidate and the Faculty Review Panel. Application forms and additional information are available from the Music Department Office.

The purpose of the Mid-Level Review is threefold: 1) to assess the student's academic progress, 2) to assess the student's artistic progress, and 3) to advise the student on academic, artistic, and career goals. Music Education and Music Performance majors whose academic record and/or artistic growth are not at an appropriate level based on state and national standards cannot continue in either of those two Bachelor of Music degree programs, but may continue to be a music major in the Bachelor of Arts in Music program.

#### LANGUAGE REQUIREMENT

Each student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the School of Arts and Humanities.

#### INTEGRATIVE STUDIES REQUIREMENTS

##### *40 credits minimum*

All students in an educator preparation program must meet the New Hampshire General Education Studies standard (Ed 609.01). This standard is met by successful completion of Keene State College Integrative Studies program.

#### MAJOR REQUIREMENTS

##### *96-97 credits*

(Four credits will be applied to Integrative Studies requirements.)

##### **Educator Preparation**

##### *22 credits*

EDUC 100 Issues in Education (2 credits)

EDSP 202 Development, Exceptionality, and Learning

MU 356 General Music K-12 Practicum (1 credit)

MU 359 Ensemble Music Practicum (1 credit)

MU 475 Music Student Teaching - Elementary (6 credits)

MU 476 Music Student Teaching - Secondary (6 credits)

MU 477 Music Student Teaching Seminar (2 credits)

### **Music Courses**

#### *74-75 credits*

Select **one** of the following World Music courses (4 credits):

- IAMU 112 Latin American Music Survey
- IAMU 114 Music Cultures of the World
- IIMU 241 Listening to Brazil
- IHMU 305 History of Jewish Music
- IAMU 312 Latin American Music, Society & Culture
- IAMU 330 Music of Africa & the Diaspora

MU 100 Music Workshop (6 semesters)

MUA 101, MUA 102, MUA 201, MUA 202, MUA 301, MUA 302, and MUA 401 Applied Music (2 credits each)

MU 118, MU 119, MU 218, and MU 219 Functional Piano I-IV (1 credits each, total 4 credits) (Piano majors may substitute MU 181 Accompanying for MU 118, MU 119, MU 218, and MU 219 for a total 4 credits.)

MU 151, MU 152, MU 251, and MU 252 Music Theory I-IV (2 credits each). Students who do not pass the theory placement test given at the time of their audition are advised to seek a private tutor to eliminate this deficiency before starting the sequence of theory classes.

MU 161, MU 162, MU 261, and MU 262 Aural Skills I-IV (1 credit each)

MU 171 Chamber Ensemble (1 credit each)

MU 172, MU 173, MU 174, MU 175, MU 177, or MU 178 Ensembles (1 credit each, total 6 credits)

MU 220 Technology for Music Educators

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) (Percussion majors may substitute a Music Elective)

MU 231 Guitar Methods (2 credits) (Guitar majors substitute MU 326)

MU 281 Aural Proficiency Assessment Exam (0 credits)

MU 282 Mid-Level Review (0 credits)

MU 283 Piano Proficiency Exam (0 credits)

MU 310 Western Music Before 1700 (2 credits)

MU 312 Western Music After 1700

MU 315, MU 316 Conducting I and II (2 credits each)

MU 357 General Music K-12

MU 358 Choral Music Education (2 credits)

MU 360 Instrumental Music Education (2 credits)

#### **Specialization (select one):**

##### Instrumental

#### *6 credits*

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 (1 credit) (Percussionists substitute a Music elective)

##### Choral

#### *7 credits*

MUAS 101, MUAS 102, and MUAS 201 Applied Music (1 credit each, 3 credits total; secondary instrument)

MU 140 Vocal Diction I (1 credit)

MU 141 Vocal Diction II (1 credit)  
MU 326 Applied Pedagogy (2 credits)

## DEGREE REQUIREMENTS

*136-137 credits*

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## Music Performance

Bachelor of Music  
School of Arts and Humanities

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. Program objectives are located at: <http://www.keene.edu/catalog/programs/detail/357/bm/musicperforman/outcomes.html>.

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 proficiency test and a basic aural 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 large ensemble appropriate to the student's program (chosen from MU 172, MU 173, MU 174, MU 175, MU 177, or MU 178) is required each semester of applied music study. Additionally, students are required to take at least one semester of a chamber ensemble appropriate to the student's program (MU 171).<sup>1</sup>

A grade C or higher must be earned in each music course counted toward the major. A minimum of 40 total credits must be at the 300-400 level (Music and non-Music courses).

<sup>1</sup> Pianists/organists may substitute up to two semesters of MU 171 Piano Ensemble for these ensembles.

### MID-LEVEL REVIEW

All music majors must complete a Mid-Level Review prior to the junior year. The Review is normally conducted during the student's fourth semester of study, with adjustments made for transfer credits, participation in national and international exchange programs, and official leaves of absence. The Mid-Level Review consists of an application (information form, transcript, and reflective essay) and an assessment meeting between the candidate and the Faculty Review Panel. Application forms and additional information are available from the Music Department Office.

The purpose of the Mid-Level Review is three-fold: 1) to assess the student's academic progress, 2) to assess the student's artistic progress, and 3) to advise the student on academic, artistic, and career goals. Music Education and Music Performance majors whose academic record and/or artistic growth are not at an appropriate level based on state and national standards cannot continue in either of those two Bachelor of Music degree programs, but may continue to be a music major in the Bachelor of Arts in Music program.

### LANGUAGE REQUIREMENT

Each student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the School of Arts and Humanities.

### INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

### MAJOR REQUIREMENTS

*82 credits*

Select **one** of the following World Music courses (4 credits):

- IAMU 112 Latin American Music Survey
- IAMU 114 Music Cultures of the World
- IIMU 241 Listening to Brazil
- IHMU 305 History of Jewish Music
- IAMU 312 Latin American Music, Society & Culture
- IAMU 330 Music of Africa & the Diaspora



MU 100 Music Workshop (8 semesters)

MUAP 101, MUAP 102, MUAP 201, MUAP 202, MUAP 301, MUAP 302, MUAP 401, and MUAP 402 Applied Music (4 credits each, total 32 credits; primary instrument)

MUAS 101, MUAS 102, Applied Music (1 credit each, 2 credits total; secondary instrument)

MU 118, MU 119, MU 218, and MU 219 Functional Piano I-IV (1 credit each, total 4 credits) (Piano majors may substitute MU 181 Accompanying for MU 118, MU 119, MU 218, and MU 219 for a total 4 credits)

MU 151, MU 152, MU 251, and MU 252 Music Theory I-IV (2 credits each) Students who do not pass the theory placement test given at the time of their audition are advised to seek a private tutor to eliminate this deficiency before starting the sequence of theory classes.

MU 161, MU 162, MU 261, and MU 262 Aural Skills I-IV (1 credit each)

MU 171 Chamber Ensemble (1 credit each)

MU 172, MU 173, MU 174, MU 175, MU 177, or MU 178 Ensembles (1 credit each, total 8 credits)

MU 222 Musical Improvisation (1 credit each)

MU 281 Aural Proficiency Exam (0 credit)

MU 282 Mid-Level Review (0 credit)

MU 283 Piano Proficiency Exam (0 credit)

MU 310 Western Music Before 1700 (2 credits)

MU 312 Western Music After 1700 (4 credits)

MU 315 Conducting I (2 credits)

MU 495 Seminar in Music (4 credits)

*And:*

**Vocalists Take:**

- MU 140 Vocal Diction I (1 credit)
- MU 141 Vocal Diction II (1 credit)
- MU 335 Performance Literature (2 credits)
- MU 326 Applied Pedagogy (2 credits)

**Instrumentalists Take:**

- MUAS 201, MUAS 202 Applied Music (1 credit each, 2 credits)
- MU 326 Applied Pedagogy (2 credits)
- MU 335 Performance Literature (2 credits)

**DEGREE REQUIREMENTS**

*122 credits*

## Music Technology

Bachelor of Music

School of Arts and Humanities

The B.M. in Music Technology prepares students for careers in audio engineering, sound design, or graduate study in music.

Program objectives are located at:

<http://www.keene.edu/catalog/programs/detail/465/bm/musictechnology/outcomes.html>. The degree conforms to standards in music technology set by the National Association of Schools of Music, including audio recording, audio engineering, and studio sound. Students will achieve fluency in microphone technique and develop a knowledge base of other peripheral equipment.

The program emphasizes fundamentals of recording equipment and practice, including equipment calibration, alignment, and testing, and studio set-up for recording in various professional settings. In addition, students receive advanced practica in professional recording studio operation.

All students are auditioned before admission to the program.

A grade C or higher must be earned in each music course counted toward the major.

## MID-LEVEL REVIEW

All music majors must complete a Mid-Level Review prior to the junior year. The Review is normally conducted during the student's fourth semester of study, with adjustments made for transfer credits, participation in national and international exchange programs, and official leaves of absence. The Mid-Level Review consists of an application (information form, transcript, and reflective essay) and an assessment meeting between the candidate and the Faculty Review Panel. Application forms and additional information are available from the Music Department Office.

The purpose of the Mid-Level Review is threefold: 1) to assess the student's academic progress, 2) to assess the student's artistic progress, and 3) to advise the student on academic, artistic, and career goals. Music Education and Music Performance majors whose academic record and/or artistic growth are not at an appropriate level based on state and national standards cannot continue in either of those two Bachelor of Music degree programs, but may continue to be a music major in the Bachelor of Arts in Music program.

## LANGUAGE REQUIREMENT

Each student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the School of Arts and Humanities.

## INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

## MAJOR REQUIREMENTS

*80 credits*

Select **one** of the Following World Music courses (4 credits):

- IAMU 112 Latin American Music Survey
- IAMU 114 Music Cultures of the World
- IIMU 241 Listening to Brazil
- IHMU 305 History of Jewish Music
- IAMU 312 Latin American Music, Society & Culture
- IAMU 330 Music of Africa & the Diaspora

MU 100 Music Workshop (6 semesters, 0 credits)

MUA 101, MUA 102, MUA 201, MUA 202 (2 credits each), MUA 301, MUA 302, MUA 401 Applied Music (1 credit each, 11 credits total)

MU 172, MU 173, MU 174, MU 175, MU 177, or MU 178 Large Ensembles (1 credit each, 6 credits total)

During semesters of applied music study, enrollment in at least one large ensemble appropriate to the student's program is required. Pianists/organists may substitute up to two semesters of MU 171 (Piano Ensemble).

MU 118, MU 119, MU 218, MU 219 Functional Piano I-IV (1 credit each, 4 credits total) (Pianists/organists may substitute MU 181 Accompanying for MU 118 and MU 119 for a total of 2 credits).

MU 151, MU 152, MU 251, MU 252 Music Theory I-IV (2 credits each, 8 credits total)

MU 161, MU 162, MU 261, MU 262 Aural Skills I-IV (1 credit each, 4 credits total)

MU 211 Intro to Music Technology (4 credits)

MU 212 Audio Recording Techniques (2 credits)

MU 213, MU 214 Composition I, II (2 credits each, 4 credits total)

MU 222 Musical Improvisation (1 credit)

MU 281 Aural Proficiency Exam (0 credit)

MU 282 Mid-Level Review (0 credit)

MU 283 Piano Proficiency Exam (0 credit)

IIPHYS 305 Physics of Music (4 credits)

MU 310 Western Music Before 1700 (2 credits)

MU 311 Sound Design (4 credits)

MU 312 Western Music After 1700 (4 credits)

MU 315 Conducting I (2 credits)

MU 411 Advanced Sound Design (4 credits)

MU 412 Recording Studio (2 credits)

MU 495 Seminar (4 credits)

MU 496 Senior Project (4 credits)  
 MU 497 Internship in Music Technology (2 credits)

## DEGREE REQUIREMENTS

*120 credits*

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## Nursing

Bachelor of Science  
 School of Professional and Graduate Studies

Nursing is an interdisciplinary program grounded in the liberal arts. The major offers two options: a Pre-Licensure option and an RN Completion option. Pre-licensure students are undergraduates who do not have an RN license. RN Completion students are those who hold an associate's degree in nursing from a community college and a license to practice as a registered nurse. The integrated curriculum is designed to provide meaningful learning experiences for Pre-Licensure students and RN Completion students and to ensure that graduates possess the knowledge, skill, and attitude reflecting the standards of the State of New Hampshire Board of Nursing (BON) and the Commission on Collegiate Nursing Education (CCNE). The program of study in nursing, with the identified course learning outcomes, expectations, and cumulative semester competencies, is designed to reflect the academic integrity expectations of all Keene State College programs while also achieving the requirements of state and national accreditation for our nursing graduates.

## INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

## MAJOR REQUIREMENTS

*(28-92 credits)*

Pre-Licensure Student Option

### **Allied Discipline Requirements:**

*INCHEM 100 Introduction to Chemistry*  
*BIO 230 Human Anatomy and Physiology I*  
*BIO 232 Human Anatomy and Physiology II*  
*HLSC 101 Health and Wellness*  
*INHLSC 175 Essentials of Nutrition Science*  
*HLSC 240 Microbiology for Health Professionals*  
*HLSC 285 Health in Society*  
*One course in a foreign language*  
*ISPSYC 312 Lifespan Psychology*  
*MATH 141 Introductory Statistics*

*52 credits*

NURS 301 Introduction to Professional Nursing (2 credits)  
 NURS 302 Introduction to Patient-Centered Care  
 NURS 303 Pharmacology and Pathophysiology  
 NURS 304 Clinical: Patient-Centered Care  
 NURS 305 Evidence-Based Practice  
 NURS 306 Legal and Ethical Foundations  
 NURS 307 Clinical: Evidenced-Based Practice  
 NURS 401 Collaborative Care of Populations  
 NURS 402 Specialty Nursing Practice  
 NURS 403 Clinical: Specialty Settings  
 NURS 404 Nursing Leadership  
 NURS 405 Nursing Research  
 NURS 406 Clinical: Advanced Care (6 credits)

## RN Completion Option

*28 credits*

NURS 301 Introduction to Professional Nursing (2 credits)

NURS 306 Legal and Ethical Foundations

NURS 401 Collaborative Care of Populations

NURS 403 Clinical: Specialty Settings (2 credits)

NURS 404 Nursing Leadership

NURS 405 Nursing Research

MATH 141 Introductory Statistics

Select **one** of the following:

- NURS 309 Holistic Healthcare
- NURS 310 Healthcare Informatics

## ELECTIVES

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

## DEGREE REQUIREMENTS

*120 credits*

## FEES

Additional expenses associated with the Nursing program include payment for immunizations, differential fees for clinical courses, travel expenses to and from off-campus clinical assignments, uniforms, professional memberships, and occasional conferences and workshops.

## ADMISSION CRITERIA

### PRE-LICENSURE ADMISSION AND PROGRESSION CRITERIA

Students are accepted to the College as Nursing majors. Students are advised and assisted with program planning throughout the program of study.

Progression within the Nursing course sequence occurs in the fall each year for the next January admission cycle, with 48 pre-licensure students in each cohort. Previously unlicensed nursing candidates are eligible to sit for the RN licensure exam following the completion of their fourth semester in the Nursing major.

Because of the professional nature of nursing and its responsibility to the public, the Nursing program has established the following admissions, progression, and graduation standards for student selection and graduation.

### Pre-licensure Nursing candidate declaration

Entering first-year students must meet minimum entry requirements of the college.

Students must have a high school GPA of 3.25.

Students must complete a Declaration of Major form in Nursing at the time of First-Year Orientation.

### Program in Nursing

Pre-Licensure Track

- A cumulative GPA of at least 3.0, and GPA of 3.0 in science classes.
- Students must attend a mandatory nursing orientation meeting in the fall of their junior year.

### Non-Nursing Majors (internal transfers) and Transfer Students from Other Institutions (external transfers)

Each cohort of Nursing majors is limited to 48 students; and few openings for transfer students are expected. Should openings become available, individual students may apply to become Nursing majors. Eligible students must be able to complete the ISP and Allied Discipline requirements by December of their Junior year in order to begin the Nursing course sequence in January.

Selection to the Nursing major will be based on:

- the availability of open seats, and
- the applicant's cumulative GPA (minimum 3.0).

In the event two or more students have the same cumulative GPA, the tie will be broken based on:

- their cumulative GPAs in Science courses and/or
- the discretion of the Director of Nursing.

Students transferring from other institutions must apply to the College and be accepted.

All interested students must contact the Nursing program in the first week of September for potential progression to the Nursing course sequence in January. Applications are reviewed on a rolling basis when they are submitted, and candidate applications are not carried over year to year.

#### **Additional expectations and responsibilities for program progression and fees**

- Students are responsible for the purchase of uniforms and expenses associated with required criminal background checks prior to clinical placement.
- Students must provide proof of immunization prior to clinical placement. Immunizations include: Tb, Varicella, MMR, Hepatitis B series (HEPVAC). HEPVAC requires that the series start around the time of application submission to ensure the six-month series is entirely complete by January.
- Students must provide proof of certification in cardiopulmonary resuscitation for health care providers at the point of application and must maintain certification until after graduation.
- Travel outside of the Keene area is required for clinical experiences, and students are responsible for their own transportation.
- Students must maintain a cumulative GPA of 3.0 for required nursing courses and allied discipline requirements for credit toward the Bachelor of Science degree in Nursing.
- A minimum of 120 credit hours is required to complete the degree.

#### **RN COMPLETION ADMISSION AND PROGRESSION CRITERIA**

Registered Nurses who have completed an associate's degree in nursing with a licensure as a registered nurse (RN Completion students) must apply for admission to the college.

All applicants must have an unencumbered New Hampshire license as an R.N.

All applicants must be accepted to the college.

Students must maintain a cumulative GPA of 3.0 for required nursing courses toward the Bachelor of Science degree in Nursing.

For the RN Completion option, the courses listed under the option requirements must be completed at Keene State College.

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## **Physical Education**

Bachelor of Science

School of Professional and Graduate Studies

This interdisciplinary program provides students with multidimensional professional preparation in Physical Education. The Physical Education major is completed by selecting one of the following two options: Teacher Certification or Exercise Science. An application process is required for each of the options in the major. Specific requirements and standards are listed for each of the two options.

### **MAJOR REQUIREMENTS**

Teacher Certification Option

*84 credits*

### **DECLARATION OF MAJOR AND RETENTION CRITERIA**

Students are accepted to the College as Physical Education majors, Teacher Certification (PETC) option, as described below. Students are advised and assisted with program planning throughout the program of study.

### **PETC Declaration**

Students accepted to the College who wish to pursue the Physical Education major, Teacher Certification option must complete a Declaration of Major form within the PE 100 Foundations of Physical Education course, or upon consultation with the P.E. Department chair.

Both internal and external transfer students, upon consultation with the P.E. Department chair may complete the Declaration of Major form. Retention within the PETC program, beyond the first-year classes, will depend upon available openings, and will be consistent with established retention guidelines.

### **PETC Retention**

Retention within the PETC program occurs each year. Because of the professional nature of the PETC program, the following criteria for retention, and program completion have been established.

#### End of First Year

Upon completion of the first year of study (May), each cohort of PETC majors is limited to 18 students. In order to be retained within the program, students must submit a portfolio that meets retention standards, 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 grade C or higher in the following PE courses (must have taken a minimum of two of the following):
  - PE 100 Foundations (2 credits)
  - PE 260 Total Fitness (2 credits)
  - PE 278 Racquet Sports (2 credits)
  - PE 286 Basketball (1 credit)
  - PE 288 Soccer/Speedball (1 credit)
- **Teaching Skills:**  
Demonstration of basic competencies in planning, instruction, reflection, and assessment.
- **Professional Orientation:**  
Documentation of progress in professional role modeling, professional writing, and professional experience.

NOTE: Admission to Educator Preparation is a separate process and is required of all students (refer to Decision Points for Undergraduate Initial Certification Programs, Decision Point 1).

#### During the Second Year

- Admission to the Educator Preparation Program (Decision Points for Undergraduate Initial Certification Programs, Decision Point 1)
- Following admission to Educator Preparation, progression through the program is dependent upon meeting the criteria for successful completion of Decision Points 2-5

#### Following the Second Year

- Decision Points for Undergraduate Initial Certification Programs, Decision Point 2: First Practicum
- Decision Points for Undergraduate Initial Certification Programs, Decision Point 3: Second Practicum
- Decision Points for Undergraduate Initial Certification Programs, Decision Point 4: Prior to Student Teaching
- Decision Points for Undergraduate Initial Certification Programs, Decision Point 5: Recommendation for Endorsement

## **B.S. PHYSICAL EDUCATION MAJOR TEACHER CERTIFICATION OPTION COURSE OF STUDY**

### **INTEGRATIVE STUDIES REQUIREMENTS**

*40 credits minimum*

All students in an educator preparation program must meet the New Hampshire General Education Studies standard (ED 609.1). This standard is met by successful completion of the Keene State College Integrative Studies Program.

### **ALLIED REQUIREMENTS FOR PHYSICAL EDUCATION**

*12 credits*

BIO 230 (Human Anatomy and Physiology I) and BIO 232 (Human Anatomy and Physiology II) are prerequisites for courses in the major for all students majoring in Physical Education Teacher Certification option. This sequence is normally started in the spring semester of the freshman year.

The prerequisite for BIO 230 is INCHEM 100, INCHEM 103, or INCHEM 111. Therefore, a chemistry course should be taken during the first semester of the freshman year.

**COMPETENCY REQUIREMENTS FOR PHYSICAL EDUCATION**

All students majoring in Physical Education with an option in Teacher Certification are required to be certified in Standard First Aid and CPR for the Professional Rescuer for courses marked with a <sup>1</sup>.

**Physical Education Teacher Certification Requirements***72 credits*

EDUC 100 Issues in Education (2 credits)  
 EDSP 202 Development, Exceptionality, and Learning  
 PE 100 Foundations of Physical Education (2 credits)  
 PE 200 Applied Kinesiology  
 PE 201 Physiology of Exercise  
 PE 360 Teaching Physical Education  
 PE 361 Adapted Physical Education  
 PE 362 Organization and Administration of Physical Education Programs  
 PE 363 Assessment of K-12 Physical Education Learners (2 credits)  
 PE 375 Practicum: Teaching-Elementary <sup>1</sup>  
 PE 376 Practicum: Teaching-Secondary <sup>1</sup>  
 PE 475 Student Teaching: Elementary <sup>1</sup> (6 credits)  
 PE 476 Student Teaching: Secondary <sup>1</sup> (6 credits)  
 PE 477 Student Teaching Seminar

**Skills and Techniques**

The following courses, which must be taken in sequence as follows:

**Freshman Year:**

PE 260 Total Fitness - Fall (2 credits)  
 PE 288 Soccer/Speedball - Fall (1 credit)  
 PE 278 Racquet Sports - Spring (2 credits)  
 PE 286 Basketball - Spring (1 credit)

**Sophomore Year:**

PE 255 Developmental Movement - Fall (2 credits)  
 PE 265 Secondary Activities - Fall (1 credit)  
 PE 287 Softball - Fall (1 credit)  
 PE 283 Gymnastics - Spring (2 credits)  
 PE 285 Volleyball - Spring (1 credit)

**Junior Year:**

PE 261 Fitness Curriculum for K-12 Learners - Fall (1 credit)  
 PE 282 Track and Field - Fall (1 credit)  
 PE 256 Rhythms - Spring (2 credits)  
 PE 268 Outdoor Skills - Spring (1 credit)

**Additional expectations and responsibilities for program retention and fees**

- Students are responsible for the purchase of PETC shirts (pending successful completion of PETC retention portfolio) and expenses associated with Admission to Educator Preparation, and required criminal background checks for specific clinical placements.
- Travel is required for practicum and student teaching experiences. Students are responsible for their own transportation.

*Health Specialization**12 credits*

HLSC 285 Health in Society

Select **one**

- HLSC 330 Health Psychology
- IIPE 310 The Psycho-Social Aspects of Sport

HLSC 431 Stress Management

*Coaching Specialization**11 credits*

PE 210 Introduction to Coaching (3 credits)

Select **one**

- MGT 260 Introduction to Sports Management
- IIPE 310 The Psycho-Social Aspects of Sport

PE 371 Coaching Practicum

**Exercise Science Option***65-66 credits*

This option is designed for students who are interested in studying the body as it pertains to human movement and the changes that occur in the body in response to exercise. It is intended for students who would like to pursue a career in exercise science, sports medicine, or allied health. Exercise Science is a multidisciplinary science-based program, which is fast-growing and ever-changing. Exercise Scientists use their knowledge of the human body and exercise leadership skills to help people improve physical performance, fitness, and quality of life. Exercise Science is an area of study that prepares students for a variety of professions that include competitive sports, community recreation, health and wellness, rehabilitation, and medicine. The Exercise Science option has some flexibility where students must choose a concentration that best accomplishes their career objectives.

**DECLARATION OF MAJOR AND RETENTION CRITERIA**

Students will be accepted to the College as a Physical Education major, Exercise Science option (PEEX), as described below. Students will be advised by faculty in the Physical Education Department and assisted with program planning throughout their program of study.

**PEEX Declaration**

Students accepted to the College who wish to pursue the PEEX option must complete a Declaration of Major form either during Orientation, or upon consultation with the program coordinator, Dr. Jeffrey Timmer.

All students who declare PEEX as their major will have the opportunity to register for the appropriate first year courses within the program as recommended by their Exercise Science faculty advisor. After the completion of two semesters within the PEEX program however, retention within the program and the ability to register for upperlevel PEEX courses will depend on the completion of the established retention standards (see below).

**PEEX Retention**

End of Second Semester within PEEX

Completion of the following Allied Requirement Courses

- INCHEM 100 Introduction to Chemistry or INCHEM 103 Fundamentals of Chemistry
- BIO 230 Human Anatomy and Physiology I

Overall GPA of 2.5, major GPA of 2.5 and a grade C or higher in the following courses:

- HLSC 101 Health and Wellness
- PE 191 Standard First Aid/CPR



- PE 250 Concepts of Exercise Training

Submission of a Retention Portfolio consisting of the following items (Portfolio requirements will be discussed in detail during PE 250 Concepts of Exercise Training):

- **Personal Identity Statement**
- **Professional Recommendations:** Two recommendations for admission by KSC faculty (minimum one faculty member recommendation from outside of the Physical Education Department).
- **Professional Orientation:** Documentation of progress in professional role modeling, professional writing, and professional experience.

Third Semester in PEEEX until Graduation

Enrollment in PE 372, PE 472, and PE 492 requires the following standards:

1. Student must receive a grade C or better in all required Exercise Science option courses.
2. Student must maintain a cumulative GPA of 2.5 and a major GPA of 2.5.
3. Student must maintain current certification in Adult CPR & First Aid

## **B.S. PHYSICAL EDUCATION MAJOR - EXERCISE SCIENCE OPTION COURSE OF STUDY**

### **INTEGRATIVE STUDIES REQUIREMENTS**

*40 credits minimum*

All Physical Education majors in the Exercise Science option must follow guidelines provided in the KSC catalog for completion of the Integrative Studies Program.

### **ALLIED REQUIREMENTS FOR EXERCISE SCIENCE OPTION**

*12 - 16 credits*

BIO 230 (Human Anatomy and Physiology I) and BIO 232 (Human Anatomy and Physiology II) are prerequisites for courses in the major for all students majoring in Physical Education Exercise Science option. This sequence is normally started in the spring semester of the freshman year.

The prerequisite for BIO 230 is INCHEM 100, INCHEM 103, or INCHEM 111. Therefore, a chemistry course should be taken during the first semester of the freshman year. Also, ISPSYC 100 is required in order to fulfill prerequisites in the health concentration of the Exercise Science option.

### **Exercise Science Option Requirements**

*41 - 49 credits*

HLSC 101 Health and Wellness

PE 191 Standard First Aid/CPR (1 credit)

PE 200 Applied Kinesiology

PE 201 Physiology of Exercise

PE 250 Concepts of Exercise Training

PE 332 Exercise Testing and Programming <sup>2</sup>

PE 335 Advanced Strength and Conditioning <sup>2</sup>

PE 344 Sports Nutrition

PE 372 Practicum: Exercise Leadership <sup>2</sup>

PE 460 Experimental Design and Analysis in PE

Select **one**

- PE 472 Exercise Science Externship <sup>2</sup>
- PE 492 Exercise Science Seminar <sup>2</sup>

<sup>2</sup> Students are required to have current certification in Adult CPR and First Aid.

### **Specialization Requirements**

Complete one of the following in the specialization areas:

*Health Specialization**12 credits*

HLSC 285 Health in Society

Select **one**

- HLSC 330 Health Psychology
- IIPE 310 The Psycho-Social Aspects of Sport

HLSC 431 Stress Management

*Coaching Specialization**11 credits*

PE 210 Introduction to Coaching (3 credits)

Select **one**

- MGT 260 Introduction to Sports Management
- IIPE 310 The Psycho-Social Aspects of Sport

PE 371 Coaching Practicum

## OPEN ELECTIVES

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

## DEGREE REQUIREMENTS

*120 credits***Political Science**

Bachelor of Arts

School of Sciences and Social Sciences

The Political Science major provides students with an understanding of politics and government as practiced in the United States and throughout the world, a knowledge of global political relationships, opportunities to develop skills that are useful both in the course of participating first-hand in politics and in the rigorous analysis and communication of complex information, familiarity with methods used in the study of political science, and preparation for professional careers in law, government, international affairs, and the teaching of politics and the social sciences.

Students pursuing a major in political science should receive a grade C or higher in each course that counts toward the major.

## INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

## MAJOR REQUIREMENTS

*36 credits***Core Courses***20 credits*

ISPOSC 210 U.S. Politics

ISPOSC 220 Global Politics

ISPOSC 230 Foundations of Political Thought

POSC 250 Writing and Research

POSC 401 Keystone in Political Science

In addition students must take another **16 credits** in the discipline at the 200-level or higher, at least 8 of which must be at the 300 level or higher.

## Certification as a Social Studies Teacher

Political Science is an approved major for students seeking Secondary Social Studies Certification. Students will need to take the following additional certification requirements:

### Dual Major in Education

- Secondary Education

### Requirements for Certification

IHHIST 161 American Perspectives to 1877 or HIST 161 Topics in United States History I  
 IHHIST 162 American Perspectives from 1877 or HIST 162 Topics in United States History II  
 IHHIST 111 The Ancient and Medieval World or HIST 111 Traditional World Civilization  
 IHHIST 112 The Modern World or HIST 112 Modern World Civilization  
 ISECON 104 Introduction to Macroeconomics  
 PSYC 101 General Psychology

Select **one** of the following:

- ISGEOG 101 World Regional Geography
- ISGEOG 201 Geography for Teachers

Select **one** of the following:

- 100- to 200-level course in Sociology
- ISANTH 110 Cultural Anthropology

## ELECTIVES

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

## DEGREE REQUIREMENTS

120 credits

# Psychology

## Bachelor of Arts

### School of Sciences and Social Sciences

The psychology program prepares students for success in a graduate program in psychology and/or a career in a psychology related field. The program exposes students to the methodologies, problems, bodies of knowledge, and broad range of perspectives found currently in psychology.

Students majoring in psychology will gain an understanding of

1. the applied fields in psychology
2. individual differences
3. the biological basis of behavior
4. the social basis of behavior

Core courses in the major provide students with the fundamentals for understanding psychology as a science. Elective courses expand and enhance students' knowledge through a variety of topics such as child and adolescent psychology, counseling, motivation, personality, culture and psychology, and ethology. Psychology majors also have the opportunity to be involved in practica that provide them with real-world experiences working in the field of psychology. They may also conduct independent research with faculty members exploring topics beyond the available curriculum. Especially motivated students may participate in the honors program in which they develop, carry out, and present a research project.

Psychology majors are employed in diverse fields and many go on to attain masters and doctoral degrees. The program prepares them to meet those challenges.

## INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

## MAJOR REQUIREMENTS

*40 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, e.g., 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 2.5 and no less than a grade C in any of these three courses, and must 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.

### Core Courses

*24 credits*

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

### Psychology Electives

*16 credits*

Select at least **two** courses from one of the following groups (8 credits) and at least **one** course from each of the remaining groups (8 credits):

#### Group 1

- PSYC 242 Personality
- PSYC 340 Psychological Testing
- PSYC 345 Abnormal Psychology
- PSYC 444 Counseling
- PSYC 447 Clinical Psychology

#### Group 2

- PSYC 221 Social Psychology
- PSYC 311 Child and Adolescent Psychology
- PSYC 314 Adulthood and Aging
- PSYC 332 Ethology
- PSYC 425 Psychology of Women

#### Group 3

- PSYC 321 Culture and Psychology
- PSYC 355 Psychology of Learning
- PSYC 357 Cognitive Processes
- PSYC 451 Motivation
- PSYC 453 Sensation and Perception

## OPEN 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 open 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 80 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. 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 and Occupational Health Applied Sciences

Bachelor of Science

School of Professional and Graduate Studies

This major prepares students for a variety of occupational safety and health program management positions in the private and public sector. Emphasis is placed on critical thinking, hazard identification and prioritization, problem solving, cost effectiveness, professional skills in programmatic management, and safety and environmental regulatory compliance. Graduates will have the capacity to pursue graduate study, participate in applied research, or transition directly into careers in loss control, risk management, organizational safety, and consulting.

### INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

### MAJOR REQUIREMENTS

*44 credits*

SOHAS majors must achieve a grade of "C" or higher in all Core Courses and the Capstone Course.

#### **Core Courses**

*24 credits*

INSAFE 103 Safety Chemistry  
 SAFE 202 Occupational Safety  
 SAFE 302 Law and Ethics in Safety  
 SAFE 303 Safety and Health Standards  
 SAFE 305 Health Hazard Identification  
 SAFE 307 Safety Management Systems

**Safety Electives**

*16 credits*

Select **four** of the following (two must be 300 level or above):

- SAFE 101 Safety Awareness
- SAFE 203 Fire and HAZMAT Response
- SAFE 204 Human Factors in Safety
- SAFE 206 Construction Safety Standards
- SAFE 306 Behavioral Based Safety
- SAFE 290 Special Topics in Safety
- SAFE 301 Loss Prevention
- SAFE 304 Environmental Law and Regulation
- SAFE 401 Industrial Hygiene
- SAFE 402 Critical Incident Response
- SAFE 490 Special Topics in Safety
- SAFE 495 Safety Seminar

**SAFETY CAPSTONE**

*4 credits*

SAFE 497 Innovative Safety Leadership

**HONORS PROGRAM**

*8 credits*

(Selective enrollment; see below for requirements.)

SAFE 491 Honors Research (Can be used as Safety Electives.)

**INTERNSHIPS**

(Highly recommended.)

SAFE 200 Safety Internship *2-8 credits* (Open Elective Credit only.)

SAFE 400 Adv Safety Internship *2-8 credits* (Open Elective Credit only.)

**OPEN ELECTIVES**

Select additional courses of your choice to bring total number of credits earned to 120.

**DEGREE REQUIREMENTS**

*120 credits*

**SAFETY HONORS PROGRAM**

Motivated Safety students can participate in an advanced program of research through independent study projects and internship experiences. This program recognizes and formalizes outstanding academic achievement, culminating with graduation with Honors in Safety. This program allows students to pursue supervised research or applications of safety in greater depth than provided in principal course offerings during their final years as an undergraduate at Keene State College. Students electing to participate in this program complete all requirements for the Safety major plus 4 credits of SAFE 401 Industrial Hygiene.

**Admission to the Safety and Honors Program is based on:**

1. Self-nomination after completion of 75 credits; consistent with the Rho Sigma Kappa National Safety Honor Society requirements, students will hold an overall grade point average of 3.0 and a grade point average in the Safety and Occupational Health Applied Sciences major of 3.4 or better.
2. Support of an Honors Committee consisting of three full-time tenure-track Safety faculty selected by the Safety Faculty. Students accepted into the Safety Honors Program will participate in research projects funded by external grants. Honors Program capacity may fluctuate due to availability of research project positions or seats in Graduate classes. To maintain program capacity, final selection will be based on students with the highest overall GPA at the time of application to the program.

3. Completion of, or enrollment in, all SAFE Core Courses. Final admission requires successful completion of those Safety courses enrolled in at the time of application for admission to the Honors Program.

Qualified candidates may complete the Safety Honors program via two separate tracks.

**1. Honors Research Track** (This track is dependent on availability of research positions.)

Complete eight credits of SAFE 491 Honors Research during the two semesters of the senior year. These credits may be in lieu of or in addition to Safety Elective credits used to fulfill the requirements for the Safety major.

At the end of the senior year, to graduate with the distinction of Honors in Safety, each participant in the Honors Research Track:

1. Submits a final written report (or publication-ready document) 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 safety profession.
3. Immediately following the project presentation, the student's Honors Committee votes on whether or not to accept the Honors project.

Students are encouraged to apply for applicable undergraduate research grant funding.

**2. Advanced Study Track**

Complete two 600-level Safety courses, one from the Fall schedule and one from the Spring schedule. Safety Honors students are limited to two Graduate level classes and may enroll for one in a semester. Undergraduate students who successfully complete two 600-level Safety courses totaling 8 credits, with a minimum grade of B, will not be required to repeat those courses if they enroll in the Graduate program.

**Courses Available for Honors Enrollment (select two - one per semester)**

- SAFE 601 Current Issues in Safety
- SAFE 602 Best Practices in Safety
- SAFE 603 Applied Occupational Health
- SAFE 604 Leading Safety Change
- SAFE 605 Safety Management Systems
- SAFE 610 Risk and Safety

Students successfully completing all facets of the Honors Program and having an average of 3.00 overall and 3.40 in Safety Studies will graduate with Honors in Safety.

## Sociology

Bachelor of Arts

School of Sciences and Social Sciences

The Sociology program offers students knowledge and resources to search systematically for answers to questions about society. Sociology students develop a sociological imagination, which is the ability to grasp the close relationship between personal experiences and the larger social world. Our majors study social and cultural forces that shape individual and group behavior using a variety of scientific methods such as surveys, interviews, observation, and content analysis. By studying and critically assessing sociological theories, sociology students also describe, interpret, and explain how the world works.

Core courses provide excellent training in sociological concepts, theories, and methods. Electives focus on topics like the environment, popular culture, families, inequalities, race and ethnicity, crime and deviance, anthropology, and global society. Sociology majors may also engage in community research, service-learning projects, internships, and travel through coursework. Students with a bachelor's degree in sociology are well prepared for graduate and professional studies and careers using their interpersonal skills and specialized knowledge in the areas of education, social services, human rights, health and wellness, justice, advocacy, and research.

### INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

## MAJOR REQUIREMENTS

### *40 credits*

To receive a degree in Sociology, a student must earn a grade C or better in the following core courses: SOC 201, ISANTH 110, ISANTH 111, SOC 301, SOC 303, and SOC 305. Courses may be retaken as needed to meet this requirement.

SOC 201 Introduction to Sociology Major

Select **one** of the following courses:

- ISANTH 110 Cultural Anthropology
- ISANTH 111 Archeology and Physical Anthropology

SOC 301 Sociological Research Methods

SOC 303 Sociological Quantitative Analysis

SOC 305 Sociological Theory

Select **one** of the following:

- CJS 461 White-Collar Crime
- HGS 427/SOC 427 Sociological Topics in Genocide
- SOC 433 Social Movements
- SOC 450 Mind, Self, and Society
- SOC 455 The Body and Sexuality in Society
- SOC 472 Sociology of Health and Medicine
- SOC 475 Social Stratification
- SOC 480 Political Sociology
- SOC 485 Science and Society
- SOC 490 Advanced Special Topics in Sociology

### **MAJOR ELECTIVES: 16 credits**

**Twelve (12)** major credits must be taken at the 300 level or higher. **Eight (8)** credits from ANTH or CJS may be used toward major electives. ISSOC 125 does not apply.

Students may not combine a Sociology major with Anthropology/Sociology as a second major/dual major. Sociology majors who wish to do more advanced study in Anthropology should add an Anthropology minor, or complete only the Anthropology/Sociology major.

### **Sociology Honors Program**

Motivated sociology students may participate in an advanced program of research culminating in graduation with Honors in Sociology. Students electing to participate in this program complete all requirements for the Sociology major plus 8 credits of SOC 499 Senior Honors Thesis during the two semesters of the senior year.

Admission to the Honors Program is based on:

1. Self-nomination after completion of 80 credits with an overall and major GPA of 3.50 or above.
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 Sociology. The Honors Committee will interview the student prior to enrollment in SOC 499 and notify successful applicants of their admission prior to enrollment.
3. Completion of, or enrollment in, at least five sociology courses, including SOC 301, SOC 303, and SOC 305. Final admission requires successful completion of those Sociology 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 sociological knowledge, in a colloquium open to the public.
3. 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 overall and major GPA of 3.50 or above will graduate with Honors in Sociology.



## Certification as a Social Studies Teacher

Sociology is an approved major for students seeking Secondary Social Studies Certification. Students will need to take the following additional certification requirements:

### Major in Education

- Secondary Education

### Requirements for Certification

IHHIST 161 American Perspectives to 1877 or HIST 161 Topics in United States History I  
 IHHIST 162 American Perspectives from 1877 or HIST 162 Topics in United States History II  
 IHHIST 111 The Ancient and Medieval World or HIST 111 Traditional World Civilization  
 IHHIST 112 The Modern World or HIST 112 Modern World Civilization  
 ISECON 104 Introduction to Macroeconomics  
 PSYC 101 General Psychology

Select **one** of the following:

- ISGEOG 101 World Regional Geography
- ISGEOG 201 Geography for Teachers

Select **one** of the following:

- ISPOSC 210 U.S. Politics (This course also applies to the A&H and/or Social Studies area of the American Studies major)
- ISPOSC 220 Global Politics

## ELECTIVES

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

## DEGREE REQUIREMENTS

*120 credits*

## Spanish

### Bachelor of Arts

#### School of Arts and Humanities

This major allows students to acquire an active command of written and spoken Spanish, with a knowledge of historical and contemporary issues in the Spanish-speaking world. It is designed to complement programs such as Film Studies, English, History, Management, Music, and Education. Spanish majors must study in Spain or Latin America through our exchange programs or through other approved programs. Students planning to study abroad must consult with the Global Education Office and Spanish faculty before departure to arrange for program approval and transfer of credit and detailed study away requirements. Students must meet with Modern Language faculty for preapproval and additional proficiency requirements. Students seeking teacher certification in French or Spanish must also take the Oral Proficiency Interview and attain a score of "Advanced Low" or higher.

New students who have had no prior Spanish should register for IHSP 101. Students with one or two years of successful high school study or one college semester should register for IHSP 102. Students with three or more high school years or two college semesters should register for IHSP 103. Students must consult Spanish faculty to find the most appropriate level.

### LANGUAGE REQUIREMENT

Each student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the School of Arts and Humanities.

A student majoring in Spanish satisfies this requirement by virtue of completing course requirements for the major.

## INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

### MAJOR REQUIREMENTS

*40 credits*

SP 201 Intermediate Spanish  
 SP 315 Conversation & Composition I  
 SP 316 Conversation & Composition II  
 SP 325 Introduction to Spanish Literature  
 SP 350 Study in Spain or Latin America  
 SP 405 Contemporary Spanish Usage  
 SP 410 Advanced Spanish Grammar  
 SP 495 Seminar

Teacher Certification in Spanish

#### **Dual Major in Education**

- Secondary Education
- Students pursuing a dual major in Education will refer to the appropriate Education option. Also, students seeking teacher certification in French or Spanish are required to take and pass the Praxis II Content Knowledge Test before they begin student teaching as well as the Official ACTFL Oral Proficiency Interview (OPI). The (OPI) must be completed no later than 30 days following the student's return from study abroad.

## ELECTIVES

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

## DEGREE REQUIREMENTS

*120 credits*

# Sustainable Product Design and Innovation

Bachelor of Science

School of Professional and Graduate Studies

The Sustainable Product Design and Innovation major at Keene State College is a pre-professional four-year program offering a cross-disciplinary curriculum to give the student a solid foundation in the artistic, scientific, and technical aspects of product design and the social and scientific aspects of sustainability concerns. Product Design involves the synthesis of consumer needs and production capabilities in the creation of new products and their affiliated services. The integrated sustainability issues link the multitude of human factors, environmental, and resource depletion concerns to the decision-making process. The curriculum draws from five disciplines: art, management, mathematics, safety, and industrial/product design to build the student's capacity in design theory and practice, material sciences, production processes, digital technology, and the quantitative and qualitative issues of sustainability and business practices.

The Sustainable Product Design and Innovation major is designed to provide students with a hands-on project-based learning curriculum focusing on real-world applications grounded in a liberal arts foundation. The emphasis on innovation complemented with business management encourages creative problem-solving and entrepreneurship, providing students with the tools to adapt and evolve their career paths to meet the needs of a rapidly changing world. Integrated sustainability values prepare students for engagement in the product realization arena in the "lean" and "green" global production economy. Graduates are prepared to pursue graduate study or transition directly into careers in product design/engineering, technology/evaluation, planning, supply, production, quality control, technical services, marketing, sales, or other related professions.

## INTEGRATIVE STUDIES REQUIREMENTS

*40 credits minimum*

## MAJOR REQUIREMENTS

(64 credits)

### SPDI Core Courses

24 credits

SPDI 110 Electricity and Electronics Fundamentals  
SPDI 152 Product Design I  
SPDI 180 Metal Processes and Prototyping  
SPDI 252 Product Design II  
SPDI 253 Materials: A Life-Cycle View  
SPDI 221 Three-Dimensional CAD

### Management Core Courses

16 credits

MGT 101 Introduction to Management  
MGT 202 Quantitative Decision-Making  
MGT 215 Accounting for Sustainable Business

Choose **one** of the following courses:

- MGT 331 Principles of Marketing
- MGT 446 Competitive Manufacturing Management

### SPDI/Management Electives

Select 4 credits from the following courses

- SPDI 121 Drafting, Sketching, and CAD
- SPDI 170 Introduction to Woodworking Technology
- SPDI 270 Woodworking Processes
- SPDI 280 CAD/CAM: Using MasterCAM
- SPDI 290 Special Topics
- SPDI 298 Independent Study
- SPDI 321 Advanced 3D CAD
- MGT 451 Social, Legal, and Political Environment of Business
- SPDI 490 Advanced Special Topics
- SPDI 495 Seminar
- SPDI 498 Independent Study

### Required Allied Discipline Courses

12 credits

IAART 103 Three-Dimensional Design  
SAFE 204 Human Factors in Safety

Select **at least one** of the following MATH courses:

- MATH 120 Applied Algebra and Trigonometry
- MATH 130 Precalculus
- MATH 151 Calculus I

### SPDI Capstone Courses

8 credits

SPDI 352 Product Design III  
SPDI 400 Manufacturing Enterprise

**Internships and/or Cooperative Education Experiences are recommended:**

SPDI 294 Cooperative Education (count toward elective credit)  
SPDI 494 Advanced Cooperative Education (count toward elective credit)

**ELECTIVES**

Select additional courses of your choice to bring total number of credits earned to 120. Students are encouraged to complete a minor or an organized cluster of courses related to their career interests.

**DEGREE REQUIREMENTS**

*120 credits*

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**Theatre and Dance**

Bachelor of Arts  
School of Arts and Humanities

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 gives students the opportunity to specialize in Acting, Directing, Design and Technical Theatre, and Dance. The Acting and Directing concentrations offer advanced performance work, with core course sequences and a wide variety of individual courses in specialized areas. The Design and Technical Theatre concentration 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 Dance option focuses primarily on modern dance technique and theory, choreography, dance history, and performance.

The ideal graduate of the Theatre and Dance program will be well prepared for a lifetime of appreciation, participation, and further study in these Performing Arts.

**INTEGRATIVE STUDIES REQUIREMENTS**

*40 credits minimum*

**LANGUAGE REQUIREMENT**

Each student must demonstrate proficiency in a language other than English as specified by the Language Requirement for Students with Majors in the School of Arts and Humanities.

**THEATRE AND DANCE (TAD) REQUIREMENTS**

A major in Theatre and Dance must fulfill the core requirements and all of the requirements for one of the specializations within the Theatre Arts Option or the Dance Option.

Integrative Studies Opportunities for Theatre and Dance

- IATAD 100 Theatre: The Art of Imagination
- IATAD 102 Acting: Identity and the Creative Process
- IATAD 113 Dance as a Way of Knowing
- IATAD 370 Playwriting

**MAJOR REQUIREMENTS**

*51-53 credits minimum*

**TAD Core Courses**

*17 credits*

IATAD 102 Acting: Identity and the Creative Process

Select **one** of the following:

- TAD 112 Modern Dance/Composition I
- IATAD 113 Dance as a Way of Knowing

TAD 121 Introduction to Technical Theatre (2 credits)

TAD 123 Theatre Lab I (1 credit)

TAD 124 Theatre Lab II (1 credit, repeatable)

TAD 162 Design for the Performing Arts

TAD 397 Production Process (1-4 credits, repeatable)

### Theatre Arts Option

#### *Acting Specialization*

*36 credits*

TAD 231 Theatre History/Literature I

TAD 232 Theatre History/Literature II

TAD 205 Theatre Movement

TAD 206 Acting: Scene Study

TAD 282 Voice and Diction

TAD 301 Acting: Character Development

TAD 490 Special Topics

TAD 398 Performance Process (1-4 credits, depending on the depth of the students' responsibility in performance. It may be necessary for students to take this course more than once for a total of 4 credits.)

TAD 491 Advanced Acting/Directing Performance Process

#### *Directing Specialization*

*36 credits*

TAD 231 Theatre History/Literature I

TAD 232 Theatre History/Literature II

TAD 206 Acting: Scene Study

TAD 227 Stage Management

TAD 303 Directing I

TAD 490 Special Topics

TAD 491 Advanced Acting/Directing Performance Process

Select **one** of the following design courses:

- TAD 361 Scenic Design
- TAD 362 Lighting Design
- TAD 363 Costume Design

#### *Design and Technical Theatre Specialization*

*36 credits*

TAD 231 Theatre History/Literature I

TAD 232 Theatre History/Literature II

TAD 223 Theatre Technology Workshop (repeatable)

TAD 224 Theatrical Design Studio (repeatable)

An additional **2 credits** in either Technology Workshop or Design Studio

- TAD 265 Rendering for the Theatre
- TAD 361 Scenic Design
- TAD 362 Lighting Design
- TAD 363 Costume Design
- TAD 397 Production Process (only 1 credit required)
- TAD 398 Performance Process (only 1 credit required)
- TAD 493 Design/Technical Portfolio

*Choreography and Performance Specialization**34 credits*

TAD 235 Dance History

TAD 318 Research in Choreography (May be repeated once for credit.)

TAD 398 Performance Process (2 credits)

TAD 495 Modern Dance Seminar (4 credits)

Select **20 credits** from the following:

- TAD 212 Modern Dance/Composition II (May be repeated once for credit.)
- TAD 217 Ballet/Experiential Anatomy
- TAD 311 Modern Dance/Composition III (May be repeated once for credit.)
- TAD 312 Modern Dance/Composition IV (May be repeated once for credit.)
- TAD 411 Modern Dance/Composition V (May be repeated once for credit.)
- TAD 412 Modern Dance/Composition VI (Senior majors or with permission of instructor.)

**ELECTIVES**

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

**DEGREE REQUIREMENTS***120 credits**Dance Education Specialization**34 credits*

This TAD major specialization is appropriate as a second major for students completing the Elementary Education or Early Childhood Development options in the Education major. However, an Education major is not required.

TAD 212 Modern Dance/Composition II (May be repeated once for credit.)

TAD 216 Jazz Dance

TAD 217 Ballet/Experiential Anatomy

TAD 235 Dance History

TAD 312 Modern Dance/Composition IV (May be repeated once for credit.)

TAD 318 Research in Choreography (May be repeated once for credit.)

TAD 398 Performance Process (2 credits)

TAD 412 Modern Dance/Composition VI (Senior majors or with permission of instructor.)

TAD 496 Dance Education Internship I (May be repeated for credit.)

TAD 497 Dance Education Internship II (May be repeated for credit.)

**ELECTIVES**

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

**DEGREE REQUIREMENTS**

(for a B.A.)

*120 credits***DEGREE REQUIREMENTS**

(for a B.S., in combination with an education major)

*139 credits**Dance Education Specialization/Dual Degree**36 credits*

This specialization, in conjunction with Elementary Education or Early Childhood Development, leads to two degrees, a B.A. in TAD and a B.S. in Education, totaling 144 credits. In addition to certification in Elementary Education or Early Childhood Development, it also leads to certification in K-12 Dance Education, but requires three internships and may require an additional term.

TAD 212 Modern Dance/Composition II (May be repeated once for credit.)  
 TAD 216 Jazz Dance  
 TAD 217 Ballet/Experiential Anatomy  
 TAD 235 Dance History  
 TAD 312 Modern Dance/Composition IV (May be repeated once for credit.)  
 TAD 318 Research in Choreography (May be repeated once for credit.)  
 TAD 398 Performance Process (2 credits)  
 TAD 412 Modern Dance/Composition VI (Senior majors or with permission of instructor.)

**Six credits** from:

- TAD 496 Dance Education Internship I (May be repeated for credit.)
- TAD 497 Dance Education Internship II (May be repeated for credit.)

## **ELECTIVES**

Select courses to reach a total of 144 credits for the degree.

## **DEGREE REQUIREMENTS**

*144 credits*

### Dance Option

The requirements and number of credits needed for each of the three specializations within this option are listed separately.

#### *Acting Specialization*

*36 credits*

TAD 231 Theatre History/Literature I  
 TAD 232 Theatre History/Literature II  
 TAD 205 Theatre Movement  
 TAD 206 Acting: Scene Study  
 TAD 282 Voice and Diction  
 TAD 301 Acting: Character Development  
 TAD 490 Special Topics  
 TAD 398 Performance Process (1-4 credits, depending on the depth of the students' responsibility in performance. It may be necessary for students to take this course more than once for a total of 4 credits.)  
 TAD 491 Advanced Acting/Directing Performance Process

#### *Directing Specialization*

*36 credits*

TAD 231 Theatre History/Literature I  
 TAD 232 Theatre History/Literature II  
 TAD 206 Acting: Scene Study  
 TAD 227 Stage Management  
 TAD 303 Directing I  
 TAD 490 Special Topics  
 TAD 491 Advanced Acting/Directing Performance Process

Select **one** of the following design courses:

- TAD 361 Scenic Design
- TAD 362 Lighting Design
- TAD 363 Costume Design

#### *Design and Technical Theatre Specialization*

*36 credits*

TAD 231 Theatre History/Literature I  
 TAD 232 Theatre History/Literature II

TAD 223 Theatre Technology Workshop (repeatable)

TAD 224 Theatrical Design Studio (repeatable)

An additional **2 credits** in either Technology Workshop or Design Studio

- TAD 265 Rendering for the Theatre
- TAD 361 Scenic Design
- TAD 362 Lighting Design
- TAD 363 Costume Design
- TAD 397 Production Process (only 1 credit required)
- TAD 398 Performance Process (only 1 credit required)
- TAD 493 Design/Technical Portfolio

### *Choreography and Performance Specialization*

*34 credits*

TAD 235 Dance History

TAD 318 Research in Choreography (May be repeated once for credit.)

TAD 398 Performance Process (2 credits)

TAD 495 Modern Dance Seminar (4 credits)

Select **20 credits** from the following:

- TAD 212 Modern Dance/Composition II (May be repeated once for credit.)
- TAD 217 Ballet/Experiential Anatomy
- TAD 311 Modern Dance/Composition III (May be repeated once for credit.)
- TAD 312 Modern Dance/Composition IV (May be repeated once for credit.)
- TAD 411 Modern Dance/Composition V (May be repeated once for credit.)
- TAD 412 Modern Dance/Composition VI (Senior majors or with permission of instructor.)

### **ELECTIVES**

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

### **DEGREE REQUIREMENTS**

*120 credits*

#### *Dance Education Specialization*

*34 credits*

This TAD major specialization is appropriate as a second major for students completing the Elementary Education or Early Childhood Development options in the Education major. However, an Education major is not required.

TAD 212 Modern Dance/Composition II (May be repeated once for credit.)

TAD 216 Jazz Dance

TAD 217 Ballet/Experiential Anatomy

TAD 235 Dance History

TAD 312 Modern Dance/Composition IV (May be repeated once for credit.)

TAD 318 Research in Choreography (May be repeated once for credit.)

TAD 398 Performance Process (2 credits)

TAD 412 Modern Dance/Composition VI (Senior majors or with permission of instructor.)

TAD 496 Dance Education Internship I (May be repeated for credit.)

TAD 497 Dance Education Internship II (May be repeated for credit.)

### **ELECTIVES**

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

### **DEGREE REQUIREMENTS**

(for a B.A.)

*120 credits*



**DEGREE REQUIREMENTS**

(for a B.S., in combination with an education major)

*139 credits*

*Dance Education Specialization/Dual Degree*

*36 credits*

This specialization, in conjunction with Elementary Education or Early Childhood Development, leads to two degrees, a B.A. in TAD and a B.S. in Education, totaling 144 credits. In addition to certification in Elementary Education or Early Childhood Development, it also leads to certification in K-12 Dance Education, but requires three internships and may require an additional term.

TAD 212 Modern Dance/Composition II (May be repeated once for credit.)

TAD 216 Jazz Dance

TAD 217 Ballet/Experiential Anatomy

TAD 235 Dance History

TAD 312 Modern Dance/Composition IV (May be repeated once for credit.)

TAD 318 Research in Choreography (May be repeated once for credit.)

TAD 398 Performance Process (2 credits)

TAD 412 Modern Dance/Composition VI (Senior majors or with permission of instructor.)

**Six credits** from:

- TAD 496 Dance Education Internship I (May be repeated for credit.)
- TAD 497 Dance Education Internship II (May be repeated for credit.)

**ELECTIVES**

Select courses to reach a total of 144 credits for the degree.

**DEGREE REQUIREMENTS**

*144 credits*

**Women's and Gender Studies**

Bachelor of Arts

School of Arts and Humanities

Women's and Gender Studies is an interdisciplinary field that examines feminist and queer theoretical perspectives on the intersections of race/ethnicity, class, gender, sexuality, nationality, religion, and other identities. This major teaches students to think critically about the social construction of identity and the politics of knowledge production. Students will use these critical-thinking skills to understand people's lives within a global context and analyze the systems of oppression that contribute to continuing economic, political, and cultural inequalities. Women's and Gender Studies majors will be encouraged to apply theoretical knowledge and work toward social justice by engaging in a number of experiential educational opportunities.

The Women's and Gender Studies Department offers students an interdisciplinary liberal arts education that prepares them for a variety of careers, including, but not limited to, education, health, media, public relations and human resources, social and governmental service, policy work, and political advocacy. A student with a bachelor's degree in Women's and Gender Studies will be well prepared for graduate studies as well as other post-graduate work, such as law or social work. Working closely with an advisor who is a core faculty member in Women's and Gender Studies, students design their course of study around three core courses, an individualized set of interdisciplinary topics and theory courses, and a set of disciplinary courses. The Women's and Gender Studies major allows students to engage with theoretical and experiential knowledge that ranges between and across the academic disciplines.

**LANGUAGE REQUIREMENT**

Each student must demonstrate proficiency in a language other than English as specified by the Language Requirement for students with Majors in the School of Arts and Humanities.

**INTEGRATIVE STUDIES REQUIREMENTS**

*40 credits minimum*

## MAJOR REQUIREMENTS

*36 credits*

### **Core Courses**

*12 credits*

IIWGS 101 Introduction to Women's and Gender Studies

WGS 201 Feminist Practices

WGS 495 Capstone in Women's and Gender Studies

### **WGS Interdisciplinary Topics (8 credits)**

Select **two** of the following:

- IIWGS 210 Abortion
- IIWGS 220 Starved or Stuffed
- IIWGS 230 Spirituality and Sexuality
- IIWGS 240 Gender and Media
- IIWGS 254/IIHGS 254 Women in the Holocaust
- IIWGS 290 Topics in Women's and Gender Studies
- IIWGS 300 Women of Color
- WGS 291 Topics in Women's and Gender Studies
- WGS 298 Independent Study

### **WGS Interdisciplinary Theory (8 credits)**

Select **two** of the following:

- WGS 301 Feminist Theories
- WGS 302 Queer Theory
- WGS 303 Borderlands: Latina Feminist Theories
- WGS 490 Advanced Topics in Women's and Gender Studies
- WGS 498 Advanced Independent Study

### **Other Disciplinary Electives (8 credits)**

Select **two** of the following:

- ANTH 315 Gender and Culture
- ENG 203 Women's Writing
- ENG 381 Women Writers
- FILM 495 Feminist Film Theories (specified in title)
- IAMU 115 Women in Music
- IHFILM 310 Women and Cinema
- II 310 Love and Existentialism
- IIECON 320 Gender and Economic Development in a Globalizing World
- IIEDUC 306 Women and Education
- IIHLSC 350 Women and Health: Witches, Harlots, and Healers
- PHIL 240 Skin, Sex, and Genes
- PHIL 260 Theories of the Body
- PSYC 425 Psychology of Women
- SOC 320 Women, Gender, and Society
- SOC 345 Sociology of Families
- SOC 455 The Body and Sexuality in Society

## ELECTIVES

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

## DEGREE REQUIREMENTS

*120 credits*

## Minors

A minor is a coherent set of courses (normally 20-24 credits) in a discipline or related disciplines other than the major. Courses used to complete major requirements may also be used to complete requirements for the minor, as determined by each program.

Courses used to satisfy requirements for the minor may also be used to satisfy Integrative Studies requirements when such courses meet the established criteria for Integrative Studies. 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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### Addictions

Minor

School of Professional and Graduate Studies

The Addictions Minor offers addiction courses in preparation for further studies in the field as well as preparation for licensure or certification in some states. The program provides students with a theoretical understanding of substance abuse, compulsive behaviors, and addictions and an introduction to counseling, treatment, or prevention. The curriculum emphasizes research, theory, and practice regarding the continuum of care in addictions. Students can specialize in the area of prevention or treatment.

#### MINOR REQUIREMENTS

*20 credits minimum*

HLSC 200 Alcohol and Other Drugs: The Fundamentals

HLSC 380 Addiction and Compulsive Behaviors

HLSC 382 Addiction Counseling and Case Management

HLSC 386 Chemical Dependency Diagnosis and Treatment

Select **one** of the following:

- HLSC 489 Drug Abuse Prevention
- HLSC 491 Advanced Drug Treatment Methods

Recommended but not required:

- HLSC 492 Internship in Addictions
- 

### American Studies

Minor

School of Arts and Humanities

*24 credits*

#### MINOR REQUIREMENTS

IAMST 210 Introduction to American Studies

AMST 350 Perspectives on American Culture

Select **one** of the following:

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

**Area Courses (three courses)**

Student selects **two** courses from one of the following areas and **one** course from another of the following areas:

- American History
- American Literature
- American Arts and Humanities/Social Sciences

Refer to list of [Area Courses](#) in the American Studies major.

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## Anthropology

Minor

School of Sciences and Social Sciences

*20 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 the 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.

### MINOR REQUIREMENTS

ISANTH 110 Cultural Anthropology

ISANTH 111 Archaeology and Physical Anthropology

Select **one** of the following:

- ANTH 314 World Prehistory
- ANTH 330 Cultural Investigations

ANTH 413 Anthropological Thought

**One** 200-level or above ANTH elective

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## Art, History

Minor

School of Arts and Humanities

*24 credits*

### MINOR REQUIREMENTS

IAART 110 Introduction to Art History

Select **four** of the following:

- ART 211 Ancient Art
- ART 212 Medieval Art
- ART 213 Italian Renaissance Art
- ART 214 Modern Art
- ART 290 Topics in Art History\*
- ART 315 Contemporary Art
- IAART 391 Global Perspectives\*
- ART 492 Art History Seminar\*

Select **one** of the following:

- ART 125 Drawing I or IAART 120 Drawing I
- ART 208 Ceramics I or IAART 207 Ceramics and Culture
- ART 224 Photography I
- ART 244 Sculpture I

\*ART 290, IAART 391 and/or ART 492 may be repeated for credit for a maximum of 8 credits as topics change.

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## Art, Studio

Minor

School of Arts and Humanities

*24 credits*

### MINOR REQUIREMENTS

IAART 110 Introduction to Art History

Select **one** of the following:

- ART 101 Foundations of Design
- IAART 100 Foundations of Design

Select **one** of the following:

- ART 125 Drawing I
- IAART 120 Drawing I

Select **two** of the following:

- ART 208 Ceramics I
- ART 224 Photography I
- ART 225 Drawing II
- ART 226 Painting I
- ART 244 Sculpture I
- ART 250 Graphic Design I
- ART 333 Printmaking I

Select **one** of the following:

- ART 211 Ancient Art
  - ART 212 Medieval Art
  - ART 213 Italian Renaissance Art
  - ART 214 Modern Art
  - ART 290 Topics in Art History
  - ART 492 Art History Seminar
- 

## Biology

Minor

School of Sciences and Social Sciences

*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.

### MINOR REQUIREMENTS

#### Core Courses

*20 credits*

BIO 110 Molecules and Cells <sup>1</sup>

BIO 111 Evolution <sup>1</sup>

BIO 210 Ecology

BIO 211 Genetics

BIO 212 Cells and Physiology

<sup>1</sup> Students must earn a grade C or higher in both BIO 110 and BIO 111 in order to take any 200-level or higher BIO course.

#### Upper-Level Elective Course

Select any 300- or 400-level BIO course to bring total credits in Biology to 24 credits.

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## Chemistry

Minor

School of Sciences and Social Sciences

*24-28 credit*

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.

### MINOR REQUIREMENTS

INCHEM 111 General Chemistry I

CHEM 112 General Chemistry II

Select **one** from the following:

- CHEM 220 Fundamental Organic Chemistry
- or –
- CHEM 221 Organic Chemistry I **and** CHEM 222 Organic Chemistry II

CHEM 251 Quantitative Analysis

CHEM Electives (**8 credits** at 300 level or above)

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## Communication

Minor

School of Arts and Humanities

*20 credits*

### MINOR REQUIREMENTS

IHCOMM 171 Public Speaking

COMM 175 Introduction to Communication Studies

COMM 378 Persuasion

Select **two** of the following:

- COMM 220 Ethics in Communication
- COMM 275 Interpersonal Communication

- COMM 278 Group Interaction
- COMM 290 Special Topics
- COMM 320 Ethics in Communication
- COMM 371 Speech Writing
- COMM 372 Intercultural Communication
- COMM 376 Theory of Communication and Rhetoric
- COMM 473 Rhetorical Criticism
- COMM 490 Advanced Special Topics
- COMM 495 Seminar

## Computer Science

Minor

School of Sciences and Social Sciences

*24 credits*

This minor allows non-computer science (non-CS) majors to gain useful CS-related skills that will make them more effective and useful in their chosen disciplines. This is particularly important in a modern world that is dominated by CS-related technologies.

### MINOR REQUIREMENTS

24 credits

MATH 135 Mathematical Foundations for CS

ISCS 140 Programming Foundations I

CS 185 Programming Foundations II

**One** of the following:

- ISCS 150 Website Design & Construction
- INCS 160 Microcomputer Systems

CS 280 Data Structures and Algorithms

**One** of the following:

- CS 215 Operating System Administration
- CS 265 Computer Architecture

## Criminal Justice Studies

Minor

School of Sciences and Social Sciences

*24 credits*

This minor develops knowledge of the criminal justice system, theories of criminal behavior, law, administration, and policy. Courses also involve the study of issues and conditions confronting and changing the criminal justice system.

### MINOR REQUIREMENTS

*24 credits*

**Required Courses** *12 credits*

CJS 101 Introduction to Criminal Justice Studies

CJS 240 Criminology

CJS 342 Advanced Criminology



## Elective Courses

*12 credits minimum*

Students must select **three (3)** additional courses (or courses totaling 12 credits) from the CJS Elective Courses list. **One (1)** of these courses must be at the 300 level or higher. Please note that special topics courses may be available. Please contact the Criminal Justice Studies coordinator for a list of qualified topics courses. Furthermore, the student should be aware that some of the courses listed below have prerequisites that must be met or waived by the instructor of record before they can be registered for the course.

### Topics in Criminal Justice Studies

- CJS 201 Corrections
- CJS 290 Topics in Criminal Justice
- CJS 310 Perspectives on U.S. Policing
- CJS 320 Case Studies in Violence
- CJS 365 Juvenile Delinquency
- CJS 390 Studies in Criminal Justice
- CJS 461 White-Collar Crime
- CJS 463 Law and Society
- CJS 467 Human Behavior and the Legal System
- CJS 469 The Sociology of Punishment
- CJS 471 Women and Crime
- CJS 473 Race and Crime in the Media
- CJS 490 Advanced Special Topics in Criminal Justice Studies
- IHPHIL 220 Ethics

### Courts Law and Politics

- CJS 330 Criminal Law and Procedure
- CJS 340/WGS 340 Gender and the Law
- HGS 313/PHIL 313 Philosophy and the Holocaust
- ISPOSC 211 State and Local Politics
- PHIL 360 Philosophy of Law
- POSC 316 Constitutional Law
- SAFE 304/ENST 304 Environmental Law and Regulation

### Topics in Sociology and Anthropology

- ANTH 323 Anthropology of Conflict and Violence
- ISSOC 310 Social Problems
- SOC 325 Ethnic Relations
- SOC 475 Social Stratification

### Topics in Psychology and the Human Services

- HLSC 200 Alcohol and Other Drugs: The Fundamentals
- IIPSYC 350 When Harm is Done
- PSYC 221 Social Psychology
- SOC 234 Introduction to Social Work

### Topics in Forensics

- ANTH 332/CJS 332 Forensic Anthropology
- INCHEM 201 Forensic Science

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## Dance

Minor

School of Arts and Humanities

*20 credits*

### MINOR REQUIREMENTS

TAD 235 Dance History

Select **one** of the following:

- TAD 318 Research in Choreography
- TAD 495 Modern Dance Seminar

Select **12 credits** from the following:

- TAD 112 Modern Dance/Composition I
- TAD 212 Modern Dance/Composition II <sup>1</sup>
- TAD 311 Modern Dance/Composition III <sup>1</sup>
- TAD 312 Modern Dance/Composition IV <sup>1</sup>
- TAD 411 Modern Dance/Composition V <sup>1</sup>
- TAD 412 Modern Dance/Composition VI <sup>1</sup>

<sup>1</sup> These courses may be repeated once for credit

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## Economics

Minor

School of Sciences and Social Sciences

*20 credits*

### MINOR REQUIREMENTS

All minors will complete a three-course sequence that consists of ISECON 104, ECON 103, and ECON 203 or ECON 204. The student will also complete two additional upper-level economics courses. If a student completes both ECON 203 and ECON 204 then only one additional upper-level economics course is required for the minor.

Mathematics competence at the level of MATH 141 Introductory Statistics is highly recommended.

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## English

Minor

School of Arts and Humanities

### MINOR REQUIREMENTS

*20 credits*

This minor consists of **five** courses in English. Students must complete ENG 215 Literary Analysis, **three** literature courses at the 300 level, and **one** literature course at the 400 level.

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## Environmental Studies

Minor

School of Sciences and Social Sciences

*24 credits*

A minor in Environmental Studies provides a complement to a wide range of majors such as Biology, Economics, Chemistry, Geography, Geology, and Sociology.

### MINOR REQUIREMENTS

Select **one** of these courses:

- IIENST 150 Global Environmental Change
- IIENST 151 The Environment of Central New England

ENST 250 Principles of Sustainability

ENST 253 Environmental Governance

Select **one** of the following:

- ENST 251 Matter and Energy in the Environment
- ENST 252 Ecology of a Changing Planet

Select **two** additional courses at the 300 level or above in ENST. The following courses may be substituted to meet this requirement (note that these courses have prerequisites that are not part of the ENST minor, but may be part of the ISP):

- ECON 340 Environmental Economics
- GEOG 330 Natural Resource Management
- GEOG 332 Global Water Resources
- GEOG 324 Fundamentals of GIS
- GEOG 327 Environmental Remote Sensing
- POSC 315 Environmental Policy
- SOC 380 Environmental Sociology
- Still other courses, for example, special topics courses, may also be substituted to meet this requirement with the approval of the Environmental Studies department chair.

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## Film Studies

Minor

School of Arts and Humanities

*24 credits*

### MINOR REQUIREMENTS

FILM 250 Film Production I

FILM 270 Introduction to Film Analysis

FILM 271 Introduction to Film History

FILM 352 Topics in Film Studies

FILM 355 Film Theory

FILM 495 Seminar

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## French

### Minor

#### School of Arts and Humanities

##### *20 credits*

This minor allows students to acquire an active command of written and spoken French, with a knowledge of historical and contemporary issues in the French-speaking world. It is designed to complement programs such as Education, English, Film Studies, History, Management, and Music. French minors may elect to study in Africa, France or Québec during their junior year through our exchange program with the University of Rennes (France), the Québec-New England Exchange Program, or through other approved programs. Students planning to study abroad must consult with the Global Education office and French faculty before departure to arrange for program approval and transfer of credit.

New students who have had no prior French should register for IHFR 101. Students with one or two years of successful high school study or one college semester should register for IHFR 102. Students with three or more high school years or two college semesters should register for IHFR 103. Students must consult French faculty to find the most appropriate level.

### MINOR REQUIREMENTS

##### *20 credits*

FR 201 Intermediate French

FR 315 Conversation & Composition I

FR 316 Conversation & Composition II

FR 325 Introduction to French Literature

FR 405 Contemporary French Usage

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## Geography

### Minor

#### School of Sciences and Social Sciences

##### *20 credits*

A minor in Geography strengthens a liberal arts education. A geographic perspective provides a complement to majors such as Environmental Studies, History, and Sociology. In this 20-credit minor, students will take a course in both of the major subfields of geography: physical and cultural. Students will also select from regional, systematic, and geographic skills courses.

### MINOR REQUIREMENTS

ISGEOG 203 The Human Cultural Mosaic

ISGEOG 204 Physical Geography

Select **one** of the following regional courses:

- GEOG 340 Topics in Regional Geography
- GEOG 341 Geography of the U.S. and Canada
- GEOG 371/571 Geography Field Studies

Select **one** of the following systematic fields of geography courses:

- GEOG 303 The Politics of Place
- GEOG 304 Population Geography
- GEOG 305 The Global Economy
- GEOG 307 Urban Geography and Planning
- GEOG 330 Natural Resource Management
- GEOG 332 Global Water Resources

Select **one** of the following geographic skills courses:

- GEOG 321 Geospatial Technology for K-12 <sup>1</sup>
- GEOG 323 Cartography and Surveying
- GEOG 324 Fundamentals of GIS
- GEOG 325 Cartographic Design and Analysis
- GEOG 327 Environmental Remote Sensing

<sup>1</sup> Recommended for Teacher Certification candidates only.

## Geology

Minor

School of Sciences and Social Sciences

*20 credits*

### MINOR REQUIREMENTS

The Geology minor consists of **five** courses in Geology.

#### Core Courses

INGEOL 151 Introductory Physical Geology

GEOL 252 Evolution of the Earth

Select **three** additional courses (12 credits) at the 200 level or above under the advisement of the Geology faculty and major advisor.

## German

Minor

School of Arts and Humanities

*20 credits*

This minor provides students with an active command of written and spoken German and with a knowledge of historical and contemporary Germany. It is designed to complement programs such as Film Studies, Management, English, History, Holocaust Studies, Music, and Education. German minors may elect to study in Germany or Austria during their junior year through the Marburg University, the University of Maine's Junior Year in Salzburg, the Collegium Palatinum in Heidelberg, or other approved programs. Students planning to study abroad must consult with the Global Education Office and German faculty before departure to arrange for program approval and transfer of credit.

New students who have had no prior German should register for IHGER 101. Students with one or two years of successful high school study or one college semester should register for IHGER 102. Students with three or more high school years or two college semesters should register for IHGER 201. Consult German faculty to find the most appropriate level.

### MINOR REQUIREMENTS

IHGER 201 Intermediate German I

IHGER 202 Intermediate German II

GER 315 Conversation and Composition

Select a **minimum of 8 credits** from the following:

- GER 290 Intermediate Special Topics
- GER 298 Independent Study
- GER 350 Study in Germany or Austria
- GER 498 Independent Study
- HIST 342 Europe, 1918-1945
- HIST 343 Europe Since 1945

- HIST 351 19th Century Germany
- HIST 353/HGS 353 Nazi Germany and the Holocaust
- IHHIST 253 Second World War
- HIST 390 Studies in History (when the topic is related to Germany and or the German-speaking world)
- HIST 490 Advanced Special Topics (when the topic is related to Germany and or the German-speaking world)

## History

Minor

School of Arts and Humanities

*20 credits*

The History minor consists of 20 credits in History.

### MINOR REQUIREMENTS

**At least 8 credits** must be at the 300 level or above.

**At least 8 credits** must be in non-U.S. and non-European History.

## Holocaust and Genocide Studies

Minor

School of Arts and Humanities

*20 credits*

The minor in Holocaust and Genocide Studies combines historical background with an interdisciplinary exploration of both the Holocaust and genocide through film, literature, philosophy, psychology, sociology, religious studies, and other offerings. The following curriculum will help 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.

### MINOR REQUIREMENTS

*8 credits*

IHHGS 252/IHHIST 252 The Holocaust

IHHGS 255 Genocide

### ELECTIVES

*12 credits*

Of the remaining three courses (12 credits), **one** must be a Holocaust elective (4 credits) and **one** must be a genocide elective (4 credits), as specified by course title. **Two** courses (8 credits) must be at the 300 level or higher.

### Holocaust-Specific Electives

*4 credits minimum*

- IHHGS 251/IHENG 251 Literature of the Holocaust
- IHHGS 254/IHWGS 254 Women in the Holocaust
- HGS 290 Special Topics<sup>1</sup>
- HGS 313/PHIL 313 Philosophy and the Holocaust
- HGS 326/SOC 326 Sociology of the Holocaust
- HGS 340 Film and the Holocaust
- HGS 353/HIST 353 Nazi Germany and the Holocaust
- IHHGS 356 The Holocaust and the Christian World
- HGS 490 Advanced Special Topics<sup>1</sup>
- HGS 494 Senior Honors<sup>1</sup>

- HGS 495 Seminar <sup>1</sup>
- HGS 497 Internship <sup>1</sup>
- HGS 498 Independent Study <sup>1</sup>

### Genocide-Specific Electives

*4 credits minimum*

- HGS 290 Special Topics <sup>2</sup>
- HGS 327/SOC 327 Sociology of Genocide
- HGS 374 Comparative Genocide
- HGS 427/SOC 427 Sociological Topics in Genocide
- HGS 490 Advanced Special Topics <sup>2</sup>
- HGS 494 Senior Honors<sup>2</sup>
- HGS 495 Seminar <sup>2</sup>
- HGS 497 Internship <sup>2</sup>
- HGS 498 Independent Study <sup>2</sup>

### Other Electives

- IHHGS 189 Judaism, Christianity, Islam
- IHPHIL 220 Ethics
- PHIL 231 Comparative Religion
- IHHGS 232 Introduction to Judaism
- IHHGS 233 A History of the Jews
- IHHIST 253 The Second World War
- IHHGS 355 Religion and Violence
- HIST 351 19th-Century Germany
- HGS 373/HIST 373 Race, Disability, and Eugenics

<sup>1</sup> *Holocaust must be specified by course title.*

<sup>2</sup> *Genocide must be specified by course title.*

## Information Studies

Minor

Mason Library

The minor in Information Studies focuses on understanding the complex information environment and the qualities of interactions between people, information, and information technology. Information Studies courses prepare students to understand how information is produced, shared, and preserved. Students are able to navigate the information environment, participate as producers of information, and utilize information technology while recognizing the ethical and legal impact that access to information has on their person and society. Information Studies students develop advanced research skills and information literacy which are in demand in all sectors of the job market as well as graduate and advanced professional programs. The minor complements any major field of study and provides a solid foundation for continuing to graduate, law, and medical school programs.

### MINOR REQUIREMENTS

#### Core Courses

*20 Credits*

- IIINFO 110 Information Environment
- INFO 210 History of Recorded Information
- INFO 310 Information Policy
- IIINFO 320 Participatory Cultures
- INFO 490 Advanced Special Topics in Information Studies

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## International Studies

### Minor

School of Sciences and Social Sciences

*24 credits*

The International Studies minor is an interdisciplinary program that combines core courses in political science (emphasizing global and comparative politics) with courses offered in other social science and humanities disciplines (anthropology, economics, geography, sociology, history, and holocaust and genocide studies). Its purpose is to develop a coherent understanding of power relationships in their spatial, social, and historical contexts throughout the world, and to encourage students to seek instruction in programs that complement their major courses of study. All students who minor in International Studies must complete courses in the three content areas enumerated below and demonstrate to the International Studies coordinator (in the Department of Political Science) that they have had a meaningful experience in a language other than English. The minor is most valuable when students select closely related courses from each content area, and when they undertake study abroad and/or an internship that applies the content of the minor.

Students should be aware that some of the courses listed below have prerequisites that must be met or waived by the instructor of record before they can be registered for the course.

### MINOR REQUIREMENTS

#### International and Comparative Politics

These courses provide a broad conceptual exposure to international systems, international political economy, and governance in foreign countries.

*8 credits*

Select **two** of the following:

- ISPOSC 220 Global Politics
- POSC 322 Global Political Economy
- POSC 323 Advanced Comparative Government

#### Socio-Cultural Studies

These courses will provide spatial and cultural awareness of area studies. It is the intent that academic advisors will strongly recommend that, wherever possible, students select socio-cultural courses and history courses that focus on the same regions.

*8 credits*

Select **two** of the following:

- ISANTH 110 Cultural Anthropology
- ANTH 315 Gender and Culture
- ANTH 316 Cultures of Southeast Asia
- IIECON 320 Gender & Economic Development in a Globalizing World
- IIECON 380 Modern Middle East
- ECON 460 Development Economics
- ECON 470 International Trade and Finance
- GEOG 303 The Politics of Place
- GEOG 305 The Global Economy
- GEOG 332 Global Water Resources
- GEOG 340 Topics in Regional Geography
- GEOG 371 Geography Field Studies [abroad]
- SOC 320 Women, Gender, and Society
- SOC 325 Ethnic Relations
- SOC 326 Sociology of the Holocaust
- SOC 327 Sociology of Genocide
- SOC 350 Sociology of Globalization



- IISOC 360 Nicaragua in Change
- SOC 380 Environmental Sociology
- SOC 427 Sociological Topics in Genocide
- SOC 480 Political Sociology

### Historical Studies

These courses provide important contextual background to the exercise of power in global relations during the current era, since they treat the late 19th and 20th century antecedents of our time.

*8 credits*

Select **two** of the following:

- HIST 122 Modern East Asia
- HIST 290 with appropriate regional foci (such as the Mideast or Africa)
- HIST 322 The Chinese Revolution
- HIST 324 Modern Japan
- HIST 342 Europe 1918-1945
- HIST 343 Europe Since 1945
- IIHGS 255 Genocide
- HGS 374 Comparative Genocide

### Experience in a Language Other than English

Students must provide evidence to the International Studies program coordinator that they have successful experience living, or studying, or working in an environment that requires the use of a language other than English. (The coordinator will verify in writing to the Registrar that this experience has been satisfied and documented.) This requirement may be met in a variety of ways. A student may:

- offer evidence of proficiency in a language other than English (such as a language that was spoken at home), where satisfactory evidence includes a score of 50-or-better on the CLEP examination, or a score of 3 or better on an AP examination, or a comparable score on another assessment offered by a recognized academic organization;
- successfully complete a two-course sequence of instruction in one language other than English (such as IHFR 101 and IHFR 102, or IHSP 101 and IHSP 102);
- successfully complete two semesters of a college-approved internship, in which the internship requires the continuous use of a language other than English; or
- successfully participate in a semester-long study away program in a host culture where either English is not the official language spoken (e.g., Poland, Chile, Japan, Italy, etc.) or other languages are spoken and instruction is offered (e.g., Ireland, South Africa, India, etc.) and either (a) successfully complete two academic courses in the language or (b) successfully complete one language course and one additional course or internship that demonstrates in-depth cross-cultural immersion that connects to the target language being studied. (For example, a student could study in Italy and take one class in Italian and a credit-bearing internship where Italian language is used in interactions.)

### Procedure for Course Substitutions

Other college-level courses (both here and abroad) may meet the objectives of this program. Interested students are encouraged to apply to the International Studies program coordinator for course substitution approval. Three criteria govern substitution decisions: approved courses focus on (a) power relationships and human behavior during (b) a period that is relatively recent in world history in (c) a place that is not the United States.

## Journalism - Broadcast Media

Minor

School of Arts and Humanities

*19-20-plus credits*

This minor serves the needs of students seeking an introduction to journalism in the broadcast media.

## MINOR REQUIREMENTS

### Core Courses

JRN 130 Writing for the Media

JRN 235 Broadcast Journalism

JRN 323 Journalism Law and Ethics

Select **two** of the following:

- JRN 335 Television Journalism
- JRN 380 Internship (3-credit minimum)
- JRN 435 Community Television News

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## Journalism - Print Media

Minor

School of Arts and Humanities

*22 credits*

This minor serves the needs of students seeking an introduction to journalism in the print media.

## MINOR REQUIREMENTS

JRN 130 Writing for Media

JRN 230 Print Journalism

JRN 280 Equinox Staff (2 credits)

JRN 330 Public Affairs Reporting

JRN 323 Journalism Law and Ethics

Select **one** of the following:

- JRN 430 Feature Writing
- JRN 450 News Editing and Management

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## Journalism - Public Relations

Minor

School of Arts and Humanities

The Public Relations minor provides an opportunity for students from various disciplines to develop skills and knowledge regarding the role and practice of public relations in a diverse global marketplace through learning the application of PR in varied venues like corporations, non-profits, PR agencies, campaigns and issued-based groups. The minor integrates both technique with a multimedia-based approach and emphasizes ethics, research and analysis skills necessary to produce credible PR.

## MINOR REQUIREMENTS

24 Credits

JRN 130 Writing for the Media

JRN 230 Print Journalism OR JRN 235 Broadcast Journalism

JRN 155 Digital Journalism

JRN 276 Introduction to Public Relations

JRN 355 Multimedia Journalism OR JRN 380 Internship (4 credits)

JRN 376 Public Relations Practice

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## Management

Minor

School of Sciences and Social Sciences

*24 credits*

This minor is available to help prepare non-Management majors for careers in business or for graduate study in law or business administration.

A grade of C or higher is required in MGT 101 and MGT 202.

### MINOR REQUIREMENTS

#### Core Courses

ISECON 104 Introduction to Macroeconomics

MGT 101 Introduction to Management

MGT 202 Quantitative Decision Making

MGT 215 Accounting for Sustainable Business

Select **two** from 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
- MGT 446 Competitive Manufacturing Management

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## Mathematics

Minor

School of Sciences and Social Sciences

*20 credits*

### MINOR REQUIREMENTS

#### Core Courses

Select **one** of the following:

- MATH 141 Introductory Statistics <sup>1</sup>
- MATH 241 Probability and Statistics I

MATH 151 Calculus I

MATH 152 Calculus II

Select **one** of the following:

- MATH 220 Mathematical Reasoning and Proof
- MATH 231 Linear Algebra and Differential Equations

MATH elective at the 200 level or above **excluding** MATH 275, MATH 375, and MATH 475

<sup>1</sup> This requirement can be fulfilled by completing PSYC 251.

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## Medieval and Early Modern Studies

Minor

School of Arts and Humanities

*20 credits*

The program in Medieval and Early Modern Studies focuses on the cultural and social interactions of various peoples of those eras. The program is international in scope and range, giving students a better understanding of the kinds of exchanges that take place when different cultures come into contact, and providing them with the tools and knowledge to understand the history and dynamics of a globalized world.

### MINOR REQUIREMENTS

HIST 225 Medieval World: European Culture and Society From 500-1400 (4 credits)

#### Electives

*16 credits*

Of the remaining four courses (16 credits), one must be a Medieval elective (4 credits) and one must be an Early Modern elective (4 credits). Two electives (8 credits) must be at the 300 level or higher.

#### Medieval Electives

*4 credits minimum*

Select **one** from the following:

- ART 212 Medieval Art
- ART 492 Art History Seminar (Medieval topic)
- IHENG 220 Readings in British Literature (Medieval topic)
- ENG 323 Medieval Literature
- ENG 324 Chaucer
- ENG 490 Advanced Studies (Medieval topic)

#### Early Modern Electives

*4 credits minimum*

Select **one** from the following:

- ART 213 Renaissance Art
- ART 492 Art History Seminar (Renaissance topic)
- IHENG 220 Readings in British Literature (Early Modern topic)
- ENG 326 English Renaissance Literature
- ENG 327 Shakespeare: Poetry and Plays
- ENG 490 Advanced Studies (Early Modern topic)
- HIST 337 Europe 1400-1600
- HIST 338 European Encounters in the New World

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## Multimedia Journalism

Minor

School of Arts and Humanities

This minor provides an opportunity for students majoring in fields other than journalism to develop production skills in print, broadcast, photography, and web platforms. The program emphasizes that, as we move in the direction of web publication, we ensure the preservation of the ethics and integrity essential to this type of media production as it is infused in our economic and social cultures.

## MINOR REQUIREMENTS

24 credits

JRN 130 Writing for the Media  
 JRN 230 Print Journalism  
 JRN 235 Broadcast Journalism  
 JRN 255 Digital Journalism  
 JRN 365 Photojournalism  
 JRN 355 Multimedia Journalism

## Music

Minor

School of Arts and Humanities

24 credits

The Music minor presupposes a high level of interest and aptitude in music. All students are auditioned before admission to the program. Students in this minor are advised to take one music-related Integrative Studies course with integrative outcomes addressing diversity or global issues.

### MINOR REQUIREMENTS

MUA 101, MUA 102, MUA 201, MUA 202, MUA 301, and MUA 302 Applied Music (1-2 credits, **total 6 credits**)<sup>1</sup>  
 MU 118 Functional Piano I (1 credits)  
 MU 151 Music Theory I (2 credits)<sup>2</sup>  
 MU 152 Music Theory II (2 credits)  
 MU 161 Aural Skills I (1 credit)  
 MU 162 Aural Skills II (1 credit)  
 MU 171 Chamber Ensemble (1 credit)  
 MU 172, MU 173, MU 174, MU 175, MU 177, or MU 178 Ensembles (1 credit each, total 4 credits)

Select at least **6 credits** from the following:

- IAMU 112 Latin American Music Survey
- IAMU 114 Music Cultures of the World
- IAMU 115 Women in Music
- IAMU 216 History of Rock & Roll
- IAMU 218 History of Jazz
- IAMU 242 Listening to America
- IAMU 312 Latin American Music, Society and Culture
- IAMU 330 Music of Africa & the Diaspora
- IAMU 407 Teaching Music to Children
- IAMU 417 Avant Rock
- IIMU 241 Listening to Brazil
- IIMU 243 Film Music History and Technique
- MU 105 Voice Class (1 credit)
- MU 110 Guitar Class (1 credit)
- MU 171 Chamber Ensemble (1 credit)
- MU 211 Intro to Music Technology
- MU 222 Musical Improvisation (1 credit)
- MU 290 Special Topics in Music (1-4 credits)
- MU 298 Independent Study (1-6 credits)
- MU 310 Western Music Before 1700 (2 credits)
- MU 312 Western Music After 1700
- MU 498 Independent Study (1-6 credits)

<sup>1</sup> 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.

<sup>2</sup> Students who do not pass the theory placement test given at the time of their audition are advised to seek a private tutor to eliminate this deficiency before starting the sequence of theory classes.

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## Philosophy

Minor

School of Arts and Humanities

*20 credits*

This minor normally comprises five courses. Distribution requirements may be partially waived by written permission of the Philosophy faculty.

### MINOR REQUIREMENTS

#### Core Courses

IHPHIL 100 Logical Argumentation

Select **two** of the following:

- IHPHIL 220 Ethics
- PHIL 240 Skin, Sex, and Genes
- PHIL 260 Theories of the Body
- PHIL 280 Knowledge and Reality
- PHIL 290 Special Topics

#### Electives

Select **two** of the following:

- II 310 Love and Existentialism
  - PHIL 313 Philosophy and the Holocaust
  - PHIL 350 Aesthetics
  - PHIL 360 Philosophy of Law
  - PHIL 370 Philosophy of Language
  - PHIL 406 Existentialism and Film
  - PHIL 490 Advanced Special Topics
  - PHIL 498 Independent Study
- 

## Physics

Minor

School of Sciences and Social Sciences

*20 credits*

### MINOR REQUIREMENTS

#### Core Courses

INPHYS 241 University Physics I

PHYS 242 University Physics II

PHYS 275 University Physics III

Select **two** of the following:

- PHYS 260 Electronics
- PHYS 330 Thermodynamics

- PHYS 339 Classical Mechanics
  - PHYS 420 Optics
  - PHYS 440 Electricity and Magnetism
  - MATH 361 Differential Equations
  - CHEM 341 Physical Chemistry I or CHEM 461 X-Ray Crystallography
- 

## Political Science

### Minor

School of Sciences and Social Sciences

*20 credits*

The Political Science minor provides students with an understanding of politics and government as practiced in the United States and throughout the world; a knowledge of global political relationships; opportunities to develop skills that are useful both in the course of participating first-hand in politics and in the rigorous analysis and communication of complex information; familiarity with methods used in the study of political science; and preparation for professional careers in law, government, international affairs, and the teaching of politics and the social sciences.

Students pursuing a minor in political science should receive a grade C or higher in each course that counts toward the minor.

### MINOR REQUIREMENTS

#### The distribution requirements are:

Three courses in Political Science at the 200 level or higher (12 credits), in two of the three content areas defined below

#### Content Area 1: U.S. Politics and Public Policy

- ISPOSC 210 U.S. Politics
- ISPOSC 211 State and Local Politics
- POSC 215 Public Administration
- POSC 310 Participation and Democracy in America
- POSC 312 Public Policy Analysis
- POSC 315 Environmental Policy
- POSC 316 Constitutional Law

#### Content Area 2: Global and Comparative Politics

- ISPOSC 220 Global Politics
- ISPOSC 223 Introductory Comparative Government
- ISPOSC 228 Understanding Global Politics through Literature and Film
- POSC 321 U.S. Foreign Policy and Globalization
- POSC 322 Global Political Economy
- POSC 323 Advanced Comparative Analysis of Government
- POSC 324 Conflict Management

#### Content Area 3: Political Thought and Analysis

- ISPOSC 230 Foundations of Political Thought
- POSC 250 Writing and Research
- POSC 334 Modern Political Thought

At least one additional course in political science at the 300 or 400 level (4 credits)

POSC 401 Keystone in Political Science

No more than 4 credits should be earned toward the minor from 496 (the practicum/internship) or 498 (the advanced independent study course).

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## Psychology

Minor

School of Sciences and Social Sciences

*20 credits*

### MINOR REQUIREMENTS

PSYC 101 General Psychology

Select **one** of the following course sequences (**8 credits**)

- PSYC 253 Brain and Behavior  
and PSYC 355 Psychology of Learning
- PSYC 242 Personality  
and PSYC 345 Abnormal Psychology
- PSYC 251 Psychological Statistics  
and PSYC 340 Psychological Testing
- PSYC 311 Child and Adolescent Psychology  
and PSYC 314 Adulthood and Aging

Select **two** electives at the 300 or 400 level.

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## Safety and Occupational Health Applied Sciences

Minor

School of Professional and Graduate Studies

*20 credits*

Credits earned in courses used to satisfy multiple requirements will count once toward the total number of credits required for graduation.

### MINOR REQUIREMENTS

#### Safety Minor Core

SAFE 202 Occupational Safety

SAFE 303 Safety and Health Standards

Select a minimum of **three** courses (12 credits) from the following:

- INSAFE 103 Safety Chemistry
- SAFE 203 Fire and HAZMAT Response
- SAFE 204 Human Factors in Safety
- SAFE 206 Construction Safety Standards
- SAFE 301 Loss Prevention
- SAFE 302 Law and Ethics in Safety
- SAFE 304 Environmental Regulation
- SAFE 306 Behavioral Based Safety
- SAFE 307 Safety Management Systems
- SAFE 401 Industrial Hygiene
- SAFE 402 Critical Incident Response



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## Sociology

Minor

School of Sciences and Social Sciences

*20 credits*

The Sociology minor is designed to give students a basic understanding of society and how individual behavior is influenced by the larger social world. It also provides insight into social relations and organizations, which is valuable in all fields. A minor in Sociology can be beneficial in a variety of careers such as social services, education, human rights, health and wellness, justice, advocacy, and research.

### MINOR REQUIREMENTS

#### Core Courses

SOC 201 Introduction to the Sociology Major

SOC 301 Sociological Research Methods

SOC 305 Sociological Theory

#### Sociology Electives

Select two additional Sociology electives (minimum total of 8 credits).

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## Spanish

Minor

School of Arts and Humanities

*20 credits*

This minor allows students to acquire an active command of written and spoken Spanish, with a knowledge of historical and contemporary issues in the Spanish-speaking world. It is designed to complement programs such as Education, English, Film Studies, History, Management, and Music. Spanish minors may elect to study in Spain or Latin America during their junior year through our exchange programs or through other approved programs. Students planning to study abroad must consult with the National and International Exchange Center and Spanish faculty before departure to arrange for program approval and transfer of credit.

New students who have had no prior Spanish should register for IHSP 101. Students with one or two years of successful high school study or one college semester should register for IHSP 102. Students with three or more high school years or two college semesters should register for IHSP 103. Students must consult Spanish faculty to find the most appropriate level.

### MINOR REQUIREMENTS

#### Core Courses

SP 201 Intermediate Spanish

SP 315 Conversation & Composition I

SP 316 Conversation & Composition II

SP 325 Introduction to Spanish Literature

SP 405 Contemporary Spanish Usage

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## Statistics

Minor

School of Sciences and Social Sciences

*20 credits*

## MINOR REQUIREMENTS

Select **one** of the following:

- MATH 141 Introductory Statistics
- PSYC 251 Psychological Statistics

MATH 151 Calculus I

MATH 242 Applied Statistics

Select **two** of the following:

- MATH 241 Probability and Statistics I
- MATH 362 Math Modeling and Computing
- One course from outside the Mathematics Department incorporating substantial use of statistics. Must be approved by the Mathematics Department.
- An experiential or service-learning experience that has a substantial statistical component. Must be approved by the Mathematics Department.

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## Sustainable Product Design and Innovation

Minor

School of Professional and Graduate Studies

*24 credits*

A minor in Sustainable Product Design and Innovation will provide a technical and design thinking background for students majoring in other disciplines. The following course outline will provide complementary studies to majors in Safety and Occupational Health Applied Sciences, Architecture, Management, Computer Science, Environmental Studies, Math/Physics, and Art.

### MINOR REQUIREMENTS

#### SPDI CORE COURSES

*12 credits*

SPDI 110 Electricity and Electronics Fundamentals

SPDI 152 Product Design I

SPDI 253 Materials: A Life-Cycle View

#### SPDI ELECTIVES FOR THE MINOR

*12 credits*

Select at least **one** of the following (4 credits):

- SPDI 170 Introduction to Woodworking Technology
- SPDI 180 Metal Processes and Prototyping

Select at least **one** of the following (4 credits):

- SPDI 121 Drafting, Sketching, and CAD
- SPDI 221 Three-Dimensional CAD

Select at least **one** of the following SPDI or Management courses at 300 or 400 level (4 credits):

- SPDI 400 Manufacturing Enterprise
- MGT 446 Competitive Manufacturing Management
- MGT 331 Principles of Marketing

## Theatre

Minor

School of Arts and Humanities

*20 credits*

### MINOR REQUIREMENTS

Courses taken must include **one** course from the 100 level or 4 credits as follows:

- TAD 121 Technical Theatre (2 credits)
- TAD 123 Laboratory I (1 credit required concurrent with TAD 121)
- TAD 397 Production Process (1 credit)

**Two** courses from the 200 level (8 credits)

**Two** courses from the 300 level or above (8 credits)

## Women's and Gender Studies

Minor

School of Arts and Humanities

*20 credits*

Women's and Gender Studies is an interdisciplinary field that examines feminist theoretical perspectives on the intersections of race/ethnicity, class, gender, sexuality, nationality, religion, and other identities. This minor teaches students to think critically about the social construction of identity and the politics of knowledge production. Students will use these critical-thinking skills to understand people's lives within a global context and analyze the systems of oppression that contribute to continuing economic, political, and cultural inequalities. Women's and Gender Studies minors will be encouraged to promote social justice throughout their course work.

### MINOR REQUIREMENTS

IWGS 101 Introduction to Women's and Gender Studies

WGS 301 Feminist Theories or WGS 302 Queer Theory

WGS 495 Capstone in Women's and Gender Studies

Select **two** courses from the following list of approved electives. Special topics may also be available each semester. A Women's and Gender Studies faculty member can advise you about current offerings from various disciplines that will fulfill this requirement.

- Arts and Humanities
  - ENG 203 Women's Writing
  - ENG 381 Women Writers
  - FILM 352 Contemporary Women Directors (specified in title)
  - IAMU 115 Women in Music
  - IIHGS 254/IWGS 254 Women in the Holocaust
  - PHIL 240 Skin, Sex, and Genes
  - PHIL 260 Theories of the Body
- Professional Studies
  - IIEDUC 306 Women and Education
  - IHLSC 350 Women and Health: Witches, Harlots, and Healers
- Sciences/Social Sciences
  - ANTH 315 Gender and Culture
  - IIECON 320 Gender and Economic Development in a Globalizing World
  - PSYC 425 Psychology of Women
  - SOC 320 Women, Gender, and Society
  - SOC 345 Sociology of Families
  - SOC 455 The Body and Sexuality in Society
- Women's and Gender Studies

- Any IIWGS or WGS course at or above the 200 level.
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## Writing

Minor

School of Arts and Humanities

*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.

### MINOR REQUIREMENTS

Select **one** of the following:

- IAENG 202 Creative Nonfiction Writing
- IAENG 204 Creative Writing
- ENG 208 Topics in Writing

Select **three** of the following (including at least two courses at the 300 level or above):

- ENG 201 Grammar and Style for Writers
- IAENG 202 Creative Nonfiction Writing (if not previously completed)
- ENG 203 Women's Writing
- IAENG 204 Creative Writing (if not previously completed)
- ENG 208 Topics in Writing
- ENG 301 Fiction Workshop
- ENG 302 Poetry Workshop
- ENG 303 Nonfiction Workshop
- ENG 306 Autobiography Workshop
- ENG 307 Writing in the World
- ENG 308 Advanced Topics in Writing
- ENG 402 Theory and Practice
- ENG 497 Writing/Publishing Internship

Required of all students

ENG 405 Writing Portfolio

## Educator Preparation/Certification Program

Keene State College has a long history of preparing teachers at the undergraduate, post-baccalaureate, and graduate level. Students seeking teacher certification may select from several options, which are described below and in other sections of this catalog. In addition to being accredited by the New England Association of Schools and Colleges, the Keene State College Educator Preparation programs have received accreditation from the National Council for Accreditation of Educator Preparation (NCATE) and the New Hampshire State Board of Education.

### **Undergraduate Teacher Preparation**

Undergraduate Teacher Preparation is designed for students seeking to become certified teachers. The undergraduate program requires three areas of study. Integrative Studies provides students with a background in liberal arts. Students need to adhere to the Integrative Studies requirements stipulated by the Education major and any other major/concentration they are pursuing. Educator Preparation 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 preprofessional experiences. The third area of study is a major in a discipline outside of education. 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 Educator Preparation during the second year.

Undergraduate students preparing for the teaching profession may choose from one of the following options:

#### **Option I: Education**

Requires second major.

See B.S. Education for more information.

- **Early Childhood**  
(birth through age 8)
- **Elementary Education**  
(kindergarten through grade 6-8)
- **Secondary Teacher Certification**  
– includes Middle School certification with options in:
  - Biology (grades 7-12)
  - Chemistry (grades 7-12)
  - Chemistry-Physics (grades 7-12)
  - Earth Sciences: Geology (grades 7-12)
  - General Science (Middle School certification, grades 5-9)
  - Social Studies (grades 5-12) – in addition to core Social Science and History courses, a teacher candidate must choose one of the following majors:
    - Geography
    - History
    - Social Science
    - English (grades 5-12)
    - Mathematics (Middle School, grades 5-8, and Secondary, grades 7-12)
    - French
    - Spanish
- **Special Education**  
(General special education certification K-12 with additional certification in Elementary or Secondary options are available.)

#### **Option II: K-12 Certification**

- Music  
See [B.M. in Music Education](#) for more information.
- Physical Education  
See [B.S. in Physical Education](#) for more information.

Admission to the College does not guarantee admission to a Educator Preparation Program. Students seeking admission to Educator Preparation must meet higher standards for academic performance, dispositions, and testing.

Educator Preparation and programmatic standards are updated annually based on professional state and national requirements.

Students interested in entering the teaching profession should take EDUC 100 during their first year and consult with a faculty member in their content area. Advising information will be made available each semester.

### **Post-Baccalaureate Teacher Certification Program**

Students who have earned a bachelor's degree from an appropriately accredited institution and are interested in obtaining teacher certification may apply for admission to the Post-Baccalaureate Teacher Certification Program. Additional information on the post-baccalaureate program, policies, and procedures may be found in the Advanced Study in Education – Post-Baccalaureate Certification Programs section of this catalog.

## Graduate Studies

### **Program Administration**

#### **Admission**

Candidates for admission to a program of Graduate Study in Education must submit the appropriate application, including required materials, to the Graduate Studies Office. Furthermore, the following requirements must be met: submission of transcripts for all undergraduate and graduate course work, three letters of recommendation, an admissions essay, 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 also required to complete the application process. Each program or option may specify additional admissions criteria. Refer to the specific admissions criteria for each program or option listed on the Application for Graduate Study in Education.

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).

Normally, application folders completed by April 1 (fall) and December 1 (spring) will be evaluated for matriculation for the following semester. Specific expectations are described on the Graduate Study application form and on the Graduate Studies website (<http://www.keene.edu/academics/graduate/>). Individual programs have target enrollments. 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 Support**

The Graduate Program is administered through the School of Professional and Graduate Studies (PGS) in collaboration with the Education faculty. The Registrar's Office maintains academic records. Upon admission to the Graduate Program, and after consultation with the student and Education faculty, each student is assigned an advisor. The Graduate Studies Office monitors matriculated student progress through the program.

The Education faculty offers courses in a cycle that meets the needs of the students in each program. The cycle includes fall, spring, and summer semesters. Courses are offered from 4 to 6:30 p.m. and 7 to 9:30 p.m. Monday through Thursday during the academic year. Courses are also offered on a Friday evening to Saturday schedule. Summer session classes include day and evening meetings as well as weeklong institutes.

#### **Expectations for Degree Completion**

- 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 a C is acceptable, and no more than two grades less than a B may be applied to the degree. The Course Retake 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 Graduate Studies Office during the first two weeks of the semester before the semester of graduation.
- Payment of the graduation fee is required.

#### **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.

**Course Load**

A matriculated graduate student is considered to be full-time when he or she registers for 9 or more credits in a given term. Registration for 4.5 credits but less than 9 credits results in half-time status. Course load is a significant determining factor regarding eligibility for financial aid. Contact the Student Financial Services Office for additional information.

**Leave of Absence**

Each semester students must either register for a course or request a leave of absence. Failure to do either may lead to administrative withdrawal from the college. To request a leave of absence, contact the Associate VP for Student Affairs office. Students must specify an intended date of return. No readmission procedure will be required when the College has granted an official leave.

**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 toward and aptitude for professed occupational goals, and other criteria established by the degree program.

**Transfer of Credit**

Matriculated students may submit a Transfer of Credit Request form to the Graduate Studies Office. Keene State College will only accept transfer credits that apply to a candidate's graduate program and are approved by the student's advisor and/or the Education faculty chair. Only credits are transferred, not grades. Transfer course grades are not included in 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.

**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 and contact the Keene State Office of Student Financial Services for more information. A limited number of graduate assistantships are available to matriculated graduate students. Benefits include a \$3,000 annual stipend, plus waiver of tuition and fees (at the in-state rate) for up to eight approved courses (normally 24 credit hours) for the academic year. Twenty hours of work per week are expected of recipients during each semester. Applications are available in the Financial Aid Office.

**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.

## Graduate Study in Education

*Enter to learn; go forth to serve ...*

Tomorrow's educational leaders emerge from Keene State as new teachers, advanced special educators, master teachers, school counselors, and principals. At Keene State, we successfully guide intelligent and enthusiastic individuals as they become confident, competent educators actively improving public and private school environments. Our graduates are noted for an active leadership style that stimulates positive systemic change within demanding school environments.

Keene State College has a long history of preparing teachers at the undergraduate, post-baccalaureate, and graduate level. The KSC programs of Graduate Study in Education are designed for the adult learner who aspires to enter the field of education, as well as for the experienced educator who seeks new knowledge, skills, and/or additional certification as his or her career develops.

Keene State College graduate programs are grounded in standards from national organizations and are accredited by one or more of the following agencies: the New England Association of Schools and Colleges, the National Council for Accreditation of Educator Preparation (NCATE), or the New Hampshire State Board of Education. In addition, each program is framed by

standards from specialty professional organizations, whose standards delineate the knowledge, skills, and dispositions professional educators should have, and in that way suggest desired outcomes of the various programs and options. Each specialty area uses the standards in planning courses and experiences and strives to meet as many standards as possible.

In keeping with our mission and vision, the Keene State College Education faculty has generated four themes that speak to what we see as fundamental to the process of teaching and learning. These themes weave through our curriculum for beginning teachers and advanced-level professionals at both the undergraduate and the graduate levels.

KSC education programs strive to prepare education professionals who:

**E**xplore the dynamic nature of the teaching and learning process,  
**D**emonstrate professional and ethical behaviors that meet high expectations and standards,  
**U**nderstand the world from multiple perspectives,  
**C**ontribute to a just and equitable world.

We are seeking students who are committed to excellence. The ideal candidate for admission into the Graduate Studies Program at Keene State College will demonstrate professional and personal dispositions, including:

- clear communication skills
- the ability to work collaboratively
- professional appearance and demeanor
- the commitment to lifelong learning and service to the community
- clear understanding of the ethical obligations of the profession
- a demonstrated commitment to honoring diverse perspectives
- respect, empathy, and caring for others
- the ability to accept responsibility for own actions
- the consistent ability to be present, punctual, and prepared
- a demonstration of integrity and honesty
- the willingness to work diligently to achieve success.



# Master's Degree Programs

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## Graduate Study in Education

Master of Education

School of Professional and Graduate Studies

### Curriculum and Instruction Option

The Curriculum and Instruction (C&I) Option in the master's program in education promotes the development and enhancement of teacher leadership for classroom teachers. The program strives to instill an understanding of self and others in conjunction with the development of skills, knowledge, critical thinking, and compassion required for creating an equitable and engaging learning environment for diverse learners. Students who are accepted to and enroll at Keene State College under an approved partnership program, such as with Granite State College, will complete the Demonstration of Professional Leadership Program (see below) upon approval of specific transfer credits.

#### **Curriculum and Instruction: Professional Development**

*36 credits*

The C&I Professional Development track is a part-time M.Ed. The C&I Professional Development program is designed for classroom teachers currently employed in an appropriate school setting. The goal is to provide a customized experience leading to the development of teacher leaders committed to school improvement based on the National Board of Professional Teachers 5 Core Propositions and the student's individual professional goals. The program combines core coursework with an individually designed specialization and culminates with the design and implementation of a school-based action research project that showcases the individual student's area of expertise and leadership capacity.

Action research is central to each student's plan of study. It is used as a tool for deep inquiry into the dynamics of teaching and learning in the school setting. At the end of the program, students present the results of their research and are encouraged to use their findings to support a leadership initiative, which may include leading workshops, seeking grant funding, publishing an article and/or presenting at a professional conference.

The C&I Professional Development program offers flexibility and individualization for highly motivated professional teachers who are looking for a leadership role in a specified area of focus of their choice. Students can expect their graduate work at KSC to be a time of reflection and renewal as they explore themselves and their relationship with colleagues, students, family, and the community. Throughout the program students are challenged to deepen their understanding of the world from multiple perspectives, explore the dynamic nature of the teaching and learning process, demonstrate professional and ethical behaviors by meeting high expectations and standards, and contribute to a just and equitable world.

#### **Admission Criteria – Curriculum and Instruction: Professional Development**

Candidates for admission to the Curriculum and Instruction: Professional Development program must submit an Application for Graduate Study in Education, including required materials, to the KSC Admissions Office.

For additional information refer to the Graduate Application.

#### **C&I Option – Professional Development Requirements**

*36 credits*

##### **Foundations**

*15 credits*

EDUC 611 Contemporary Issues and Effective Schools  
EDUC 621 Curriculum Theory and Development  
EDUC 631 Curriculum Management & Student Assessment  
EDUC 641 School Law  
EDUC 651 School Leadership

**Specialization: Curriculum & Instruction***12 credits*

EDUCCI 625 Technology-Integrated Teaching  
 EDUCCI 620 Specialization I  
 EDUCCI 630 Specialization II  
 Elective(s) on the graduate level for a total of 3 credits

**Applied Research***9 credits*

EDUC 670 Educational Research Foundations  
 EDUC 675 Educational Research Design  
 EDUC 699 Capstone

**Granite State College Partnership**

Individuals who become certified by the New Hampshire Department of Education (NH DOE) after completion of an approved Post-Baccalaureate program at Granite State College (GSC) may qualify to transfer a block of credits via EDUC 612: Demonstrated Certification Competence into the Master of Education degree at KSC. The list of approved certification areas is included in the current Memorandum of Understanding between KSC and GSC.

The successful applicant from GSC will have earned at least 18 post-baccalaureate credits with a GPA of 3.0 or higher for each course. Individuals who earned fewer than 24 qualified credits from GSC will be required to complete additional graduate coursework at KSC.

Transfer students from GSC must complete the following:

- EDUC 651 School Leadership
- EDUC 670 Educational Research Foundations
- EDUC 675 Educational Research Design
- EDUC 699 Capstone
- Additional electives if required

All KSC graduate courses must be completed with a cumulative GPA of 3.0 or higher before transfer credit for EDUC 612: Demonstrated Certification Competence will be awarded. Additional program requirements are outlined in the most recent Memorandum of Understanding between KSC and GSC.

Students who transfer from GSC are encouraged to participate in Institutes and offerings in other KSC graduate programs that serve to enhance their understanding of serving students with disabilities.

**School Counselor Option***48 credits*

(Meets New Hampshire Certification Competencies for Guidance Counselor: Grades K-12)

The Keene State College School Counselor Program is designed to encourage the development of school counselors who are, as described in the American School Counselor Association National Standards, actively involved in school transformation: "catalysts for educational change ... [playing] a leadership role in educational reform" (Campbell and Dahir, 1997, p. 3). The program prepares future school counselors to work as advocates for their students and to create developmental school counseling programs that are comprehensive in nature and focused on equity and success for all students. The program promotes an understanding of the roles and responsibilities of the school counselor in the 21st century and the enhancement and development of relevant school counseling skills and strategies.

Developmental, ecological/systemic, and multicultural perspectives provide the theoretical frameworks. The program is based on the American School Counselor Association (ASCA) National Standards (Campbell and Dahir, 1997), the ASCA National Model: A Framework for School Counseling Programs (American School Counselor Association, 2003), the Council for the Accreditation of Counseling and Related Educational Programs (CACREP) standards (CACREP, 2001), and the New Hampshire state standards for school counselors, which, together, provide the framework for the program.

The program's developmental perspective focuses on the needs, tasks, and challenges of children and adolescents as they grow and of the school counselor throughout her or his career. Therefore, we also emphasize the evolution of self-awareness

and the skills required to be a lifelong reflective practitioner. The program is designed to create the conditions for self-reflection and awareness within the context of the role of school counselor in order to foster this awareness and these skills.

An ecological/systemic perspective prepares counselors to work effectively with the systems that form the context of students' lives. These systems include the peer group, school, family, and community. An ecological perspective 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 woven throughout the program; we are committed to preparing counselors who can work sensitively and effectively with diverse populations, including the range of cultural, ethnic, gender related, class, and racial diversity that exists in schools and in society. This emphasis includes attention to the range of learning differences and styles of the student population.

The ASCA national standards are "the essential elements of a quality and effective school counseling program. The standards address program content and the knowledge, attitudes, and skill competencies that all students ... develop as a result of participating in a school counseling program....The content of school counseling programs focuses on three widely accepted and interrelated areas: academic development, career development, and personal/social development" (Campbell and Dahir, 1997, pp. 3-5).

The ASCA National Model: A Framework for School Counseling Programs (American School Counselor Association, 2003) focuses on "a comprehensive approach to four elements: program foundation; delivery; management; and accountability" (ASCA p. 10). According to the ASCA national model, the foundation is based on the beliefs and philosophy of the individual school, its mission statement, and the ASCA national standards. The delivery system includes the school guidance curriculum, planning for individual students, responsive services, and system support. The management system includes organizing advisory councils, gathering and using data to make decisions and plan programs and interventions, and the use of action plans and other organizational tools to document and assess the program and how it is making a difference for all students. "School counselors must be proficient in retrieving school data, analyzing it to improve student success and using it to ensure educational equity for all students" (ASCA p. 10). A commitment to advocacy, leadership, collaboration, and systemic change provides the overall framing of this approach.

The Council for the Accreditation of Counseling and Related Educational Programs (CACREP 2001) focuses on the development and enhancement of high-quality standards for graduate programs in counseling. The CACREP standards are the national standard for designing and assessing graduate programs in counseling, therefore, these are the standards we use in conjunction with the New Hampshire state standards to design and assess the Keene State program.

In order to work effectively with students, faculty, staff, families, and community stakeholders, school counselors need to have effective skills in communication, 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 inter-personal 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 the utmost importance. Legal and ethical considerations include understanding the parameters surrounding confidentiality and knowing one's own biases and limits, when it is necessary to consult with colleagues, and when to refer students 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. Two semester-long School Counseling 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 within the courses as students design and try out interventions based on interpretations of theory and research into identified best practices.

#### **Admission Criteria – School Counselor Option**

Candidates for admission to the Educational Leadership Option must submit an Application for Graduate Study in Education, including required materials, to the KSC Admissions Office.

For additional information, refer to the Graduate Application.

**School Counselor Option***36 credits*

EDUCSC 622 School Counseling: Roles, Responsibilities, and Interventions (3 credits)  
 EDUCSC 623 The Inclusive School Counselor: Diversity and Multiculturalism in Schools (3 credits)  
 EDUCSC 626 Professional Seminar in School Counseling (3 credits)  
 EDUC 630 Life Span Development (3 credits)  
 EDUCSC 631 Assessment and Evaluation for School Counselors (3 credits)  
 EDUC 641 School Law (3 credits)  
 EDUCSC 641 Career Development (3 credits)  
 EDUCSC 651 Methods and Skills of Counseling (3 credits)  
 EDUCSC 652 Group Counseling in Schools (3 credits)  
 EDUCSC 662 School Counseling: Theoretical Foundations (3 credits)  
 EDUCSC 696 Internship: Elementary (3 credits)  
 EDUCSC 697 Internship: Secondary (3 credits)

**Graduate-Level Electives***3 credits*

Course(s) to be determined in consultation with faculty advisor.

**Demonstration of Professional Leadership***9 credits*

EDUC 670 Educational Research Foundations (3 credits)  
 EDUC 675 Educational Research Design (3 credits)  
 EDUC 699 Capstone Experience (3 credits)

**Educational Leadership Option***36 credits*

(Meets New Hampshire Certification Competencies for Principal: Grades K-12)

The Educational Leadership Option will provide the candidate with the framework and expertise in the knowledge, skills, and dispositions for transformational school leadership for the 21st century. Through the perspectives of the conceptual framework of the Keene State College education program, candidates for the Educational Leadership Program will:

- **E**xplore the dynamic nature of the teaching and learning process
- **D**emonstrate professional and ethical behaviors that meet high expectations and standards
- **U**nderstand the world from multiple perspectives
- **C**ontribute to a just and equitable world

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.

**Admission Criteria – Educational Leadership Option**

Candidates for admission to the Educational Leadership Option must submit an [Application for Graduate Study in Education](#), including required materials, to the KSC Admissions Office.

For additional information, refer to the [Graduate Application](#).

**Educational Leadership Option Requirements***36 credits***Foundations***15 credits*

EDUC 611 Contemporary Issues and Effective Schools  
 EDUC 621 Curriculum Theory and Development

EDUC 631 Curriculum Management & Student Assessment  
 EDUC 641 School Law  
 EDUC 651 School Leadership

**Specialization: School Principal**

*12 credits*

EDUCEL 631 Staff Selection, Supervision, and Evaluation  
 EDUCEL 652 Budget, Facilities, and Safe Schools  
 EDUCEL 696 Internship I: School and Community Relations  
 EDUCEL 697 Internship II: Connections

**Applied Research**

*9 credits*

EDUC 670 Educational Research Foundations  
 EDUC 675 Educational Research Design  
 EDUC 699 Capstone

**Special Education Option**

*38 credits*

This option is designed for individuals who seek certification by the New Hampshire Department of Education in General Special Education (K-12) and a Master of Education degree. The M.Ed. Special Education Option is designed to support individuals to achieve special education certification at the initial level as well as enhance competence and extend learning beyond certification competencies in the area of special education. The option combines certification coursework with a professional leadership experience and culminates with the design and implementation of a school-based research project that showcases an individual student's area of expertise and leadership capacity in special education. The program begins in the summer and can be completed in one year (full-time) or two years (part-time). The certification aspects of this portfolio-based program blend special education content knowledge courses with a yearlong internship experience. The internship may be conducted on the job (for students employed as a teacher in an appropriate special education setting) or in a field experience approved by the faculty coordinator(s) of this program. The certification component follows standards set forth by the National Council for Accreditation of Educator Preparation (NCATE), the Council for Exceptional Children (CEC), and the New Hampshire Department of Education. The KSC Conceptual Framework for Educator Preparation Programs provides students with a frame of reference as they work through the program.

Faculty in the M.Ed. Special Education Option are dedicated to preparing special educators by partnering with local special education professionals in the larger KSC community. Guiding principles include assisting candidates to:

1. apply special education knowledge and skills so that the individuals with disabilities who they teach can develop academic, social, and transition skills to become meaningful and productive members of a community
2. design instruction, assessment, and individualized programs with the student and family at the center of the process
3. utilize expertise of special education stakeholders within and outside a school system in a collaborative framework
4. celebrate diversity in the context of supporting individuals with disabilities
5. act as advocates for individuals with disabilities
6. develop belief and value systems that provide a focus for acting as a special educator
7. reflect on practice to increase special education knowledge, skills, and beliefs.

Applicants to the M.Ed. Special Education Option must demonstrate an appropriate foundation in "regular" education. Individuals who possess a recognized form of teacher certification have demonstrated this required competency. Candidates who do not have the required educational foundation must complete a Post-Baccalaureate Teacher Certification program in order to demonstrate competency in "regular" education.

Graduates from the Keene State College early childhood, elementary or secondary education programs who seek certification in General Special Education (K-12) are encouraged to apply to the M.Ed. Special Education Option during their senior year. Graduates of the KSC early childhood, elementary or secondary education programs who have completed coursework in special education foundations have already addressed fundamental certification competencies. If accepted into the M.Ed. Special Education Option, these individuals will be required to complete fewer credits (see below).

Granite State College students who receive initial or advanced special education certification may transfer these credits into the M.Ed. option (see Granite State College Partnership below).

**Admission Criteria – Special Education Option**

Candidates for admission to the Special Education Option must submit an [Application for Graduate Study in Education](#), including required materials, to the KSC Admissions Office.

For additional information, refer to the [Graduate Application](#).

**Special Education Option Requirements**

*32-38 credits*

**Special Education Certification**

*23-29 credits*

EDUCSP 601 Foundations in Special Education <sup>3</sup> (3 credits)

EDUCSP 602 Curriculum and Instructional Design <sup>3</sup> (3 credits)

EDUCSP 603 Positive Behavior Supports (3 credits)

EDUCSP 604 Assessment and Evaluation in Special Education (3 credits)

EDUCSP 605 Transition Planning and Programming (3 credits)

EDUCSP 660 Internship in Special Education I (8 credits)

EDUCSP 665 Internship in Special Education II (6 credits)

<sup>3</sup> Candidates who completed both EDSP 250 and EDSP 350 (8 credits of foundational special education coursework) at KSC will not be required to complete EDUCSP 601/EDUCSP 602. The certification component of their M.Ed. will total 20 credits. Candidates who completed only EDSP 250 (4 credits) at KSC will be required to complete EDUCSP 602. The certification component of their M.Ed. will total 23 credits. Candidates must pass these courses with a minimum grade of B. These candidates will be required to document the special education competencies achieved during these courses in their Special Education M.Ed. portfolio.

**Demonstration of Professional Leadership**

*9 credits*

EDUC 670 Educational Research Foundations (3 credits)

EDUC 675 Educational Research Design (3 credits)

EDUC 699 Capstone (3 credits)

**Granite State College Partnership**

Individuals who become certified by the New Hampshire Department of Education (NH DOE) after completion of an approved Post-Baccalaureate program at Granite State College (GSC) may qualify to transfer a block of credits via EDUC 612: Demonstrated Certification Competence into the Master of Education degree at KSC. The following GSC certification areas have been approved for transfer into the Certification component of the M.Ed. Special Education option at KSC:

- Early Childhood Special Education
- General Special Education
- Emotionally and Behavioral Disabilities
- Specific Learning Disabilities
- Intellectual and Developmental Disabilities

The successful applicant from GSC will have earned at least 18 post-baccalaureate credits with a GPA of 3.0 or higher for each course. Individuals who earned fewer than 26 qualified credits from GSC will be required to complete additional graduate coursework at KSC.

Transfer students from GSC must complete the following:

- EDUC 651 School Leadership
- EDUC 670 Educational Research Foundations
- EDUC 675 Educational Research Design
- EDUC 699 Capstone

Additional electives if required

All KSC graduate courses must be completed with a cumulative GPA of 3.0 or higher before transfer credit for EDUC 612: Demonstrated Certification Competence will be awarded. Additional program requirements are outlined in the most recent Memorandum of Understanding between KSC and GSC.

Students who transfer from GSC are encouraged to participate in Institutes and offerings in other KSC graduate programs that serve to enhance their understanding of serving students with disabilities.

## Graduate Study in Education

### Post-Master's Certification

#### School of Professional and Graduate Studies

For individuals currently holding an appropriate 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 Post-Master's Certification Option

*27 credits*

*(Meets New Hampshire Certification Competencies for Principal: Grades K-12)*

The Educational Leadership Post-Master's Certification Option will provide the candidate with the framework and expertise in the knowledge, skills, and dispositions for transformational school leadership for the 21<sup>st</sup> century. Through the perspectives of the conceptual framework of the Keene State College education program, candidates for the Educational Leadership Program will:

- Explore the dynamic nature of the teaching and learning process.
- Demonstrate professional and ethical behaviors that meet high expectations and standards.
- Understand the world from multiple perspectives.
- Contribute to a just and equitable world.

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.

#### Admission Criteria

Candidates for admission to the Educational Leadership Certificate Option must submit an [Application for Graduate Study in Education](#), including required materials, to the KSC Admissions Office.

For additional information, refer to the [Graduate Application](#).

#### Educational Leadership Certification Requirements

*27 credits*

##### Foundations

*15 credits*

EDUC 611 Contemporary Issues and Effective Schools  
 EDUC 621 Curriculum Theory and Development  
 EDUC 631 Curriculum Management and Student Assessment  
 EDUC 641 School Law  
 EDUC 651 School Leadership

##### Specialization: School Principal

*12 credits*

EDUCEL 631 Staff Selection, Supervision, and Evaluation  
 EDUCEL 652 Budget, Facilities, and Safe Schools  
 EDUCEL 696 Internship I: School and Community Relations  
 EDUCEL 697 Internship II: Connections

## School Counselor Certification

*30 credits*

*(Meets New Hampshire Certification Competencies for Guidance Counselor: Grades K-12)*

Refer to the Master of Education: School Counselor Option section of this catalog for a description of this program.

### Admission Criteria

Candidates for admission to the School Counselor Certificate Option must submit an Application for Graduate Study in Education, including required materials, to the KSC Admissions Office.

For additional information, refer to the Graduate Application.

### School Counselor Certification Requirements

*30 credits*

EDUCSC 622 School Counseling: Roles, Responsibilities, and Interventions

EDUCSC 623 The Inclusive School Counselor: Multiculturalism and Diversity in Schools

EDUC 630 Lifespan Development

EDUCSC 631 Assessment and Evaluation for School Counselors

EDUCSC 641 Career Development

EDUC 641 School Law

EDUCSC 652 Group Counseling in Schools

EDUCSC 662 School Counseling: Theoretical Foundations

EDUCSC 696 Internship: Elementary

EDUCSC 697 Internship: Secondary

## Safety and Occupational Health Applied Sciences

Master of Science

School of Professional and Graduate Studies

Keene State College's M.S. in Safety and Occupational Health Applied Science is designed for motivated students who are ready to engage in a personalized plan of study that is meaningful, relevant and demonstrates that they possess the knowledge, skills and dispositions of seasoned professionals.

Completion of this program will help individuals improve their ability to anticipate, evaluate, and control hazards within the workplace to protect the health and safety of employees. Safety and occupational health professionals will find this program to be very accessible and full of content that will help them successfully face the philosophical, technological and managerial challenges emerging in the world today. Candidates for this Master of Science degree will enjoy the guidance and mentorship of KSC faculty, engaging coursework, seminar discussions, field work, readings, professional conferences, and opportunities to engage in meaningful and useful research.

As a result of this program, students will demonstrate competence in critical and creative thinking, quantitative and technological literacy, advanced management, and writing skills. These abilities are the essential tools used by confident and competent leaders who initiate innovative technical solutions that are balanced with moral and ethical considerations in public and private sectors.

### ADMISSIONS CRITERIA

Candidates for admission to the M.S. Safety and Occupational Health Applied Sciences must meet the requirements for graduate study at Keene State College and submit an Application for Graduate Study, including required materials to the KSC Admissions Office. For additional information, refer to the Graduate Application.

### MAJOR REQUIREMENTS

*36 credits*

SAFE 601 Current Issues in Safety

SAFE 602 Best Practices in Safety

SAFE 603 Applied Occupational Health



SAFE 604 Leading Safety Change  
 SAFE 605 Safety Management Systems  
 SAFE 610 Risk and Safety  
 SAFE 620 Legal and Ethical Issues  
 SAFE 655 Advanced Safety Research

### **CAPSTONE EXPERIENCE**

*4 credits*

Select **one** of the following:

- SAFE 695 Graduate Practicum
- SAFE 696 Applied Safety Research
- SAFE 699 Thesis

### **DEGREE REQUIREMENTS**

*36 credits*

Candidates who have graduated from the Safety Honors program by completing two SAFE 600 (totaling 8 credits) level courses with a minimum of B, as undergraduates, will not be required to repeat those courses in the Graduate program.

## **Graduate Educator Certification Program**

Graduate Educator Certification (Special Education)  
 School of Professional and Graduate Studies

This program is designed for individuals who seek certification in General Special Education by the New Hampshire Department of Education in General Special Education (K-12).

Through this program, students may pursue initial teacher certification in General Special Education alone or in conjunction with a master's degree. Those pursuing certification only (without a master's degree) will not need to complete the "Demonstration of Professional Leadership" component of the Master of Education degree.

The program begins in the summer and can be completed in one year. This portfolio-based program blends special education content knowledge courses with a yearlong internship experience. The internship may be conducted on the job (for students employed as a teacher in an appropriate special education setting) or in a field experience approved by the faculty coordinator(s) of this program. This program follows standards set forth by the National Council for Accreditation of Educator Preparation (NCATE), the Council for Exceptional Children (CEC), and the New Hampshire Department of Education.

### **MAJOR REQUIREMENTS**

Graduate Educator Certification

#### **Graduate Special Education (grades K-12)**

##### **Required Courses**

*23-29 credits*

EDUCSP 601 Foundations in Special Education<sup>1</sup> (3 credits)  
 EDUCSP 602 Curriculum and Instructional Design<sup>1</sup> (3 credits)  
 EDUCSP 603 Positive Behavior Supports (3 credits)  
 EDUCSP 604 Assessment and Evaluation in Special Education (3 credits)  
 EDUCSP 605 Transition Planning and Programming (3 credits)  
 EDUCSP 660 Internship in Special Education I (8 credits)  
 EDUCSP 665 Internship in Special Education II (6 credits)

<sup>1</sup> Candidates who completed both EDSP 250 and EDSP 350 (8 credits of foundational Special Education coursework) at KSC will not be required to complete EDUCSP 601/EDUCSP 602. Their Graduate Educator Certification Program will total 20 credits. Candidates who completed only EDSP 250 (4 credits) at KSC will be required to complete EDUCSP 602. Their Graduate Educator Certification Program will total 23 credits. Candidates must pass these courses with a minimum grade of B.

These candidates will be required to document the Special Education competencies achieved during these courses in their Special Education graduate portfolio.

## ADMISSION CRITERIA-GRADUATE EDUCATOR CERTIFICATION

Candidates for admission to the Graduate Educator Certification Program must submit an Application for Graduate Study in Education, including required materials, to the KSC Graduate Studies Office.

The preferred candidate must demonstrate an appropriate foundation in education. Individuals who possess a recognized form of teacher certification have demonstrated this required competency. Those who were previously certified or successfully completed an approved educator preparation program may also qualify for admission.

Candidates who do not have the required educational foundation may be encouraged to complete a Post-Baccalaureate Teacher Certification program in order to demonstrate competency in education.

Graduates from the Keene State College early childhood, elementary, or secondary education programs who seek certification in General Special Education (K-12) are encouraged to apply to the M.Ed. Special Education Option during their senior year.

## Graduate Study in Education

### Post-Baccalaureate Teacher Certification School of Professional and Graduate Studies

Post-Baccalaureate Teacher Certification Program (PBTCP) is specifically designed to address the needs of two distinct populations:

- Experienced educators who want to become certified in another discipline; these individuals will have completed a baccalaureate degree and typically possess current teacher certification.
- Individuals who hold a baccalaureate degree and whose life experiences have led them to seek initial teacher certification; this group may range from the novice student who has no background or experience in education to individuals who have a wealth of experience and/or are employed as teacher aides, tutors, paraprofessionals, or special education classroom teachers.

This program closely follows the undergraduate Educator Preparation model. It is composed almost exclusively of undergraduate courses. Through this program, students are able to meet New Hampshire competencies for certification in one or more of the following areas:

- Biology (grades 7-12)
- Chemistry (grades 7-12)
- Early Childhood Development (nursery-3)
- Earth Science (grades 7-12)
- Elementary Education (grades K-8)
- English (grades 5-12)
- French (grades K-12)
- General Science (grades 5-9)
- General Special Education (grades K-12)
- Middle/Junior High Mathematics (grades 5-8)
- Music Education (grades K-12)
- Physical Education (grades K-12)
- Physical Science (grades 7-12)
- Secondary Mathematics (grades 7-12)
- Spanish (grades K-12)
- Social Studies (grades 5-12)

Selection of a Content Area is required for admission. Prior to admission, it is strongly recommended that applicants have at least 100 hours of contact with children in a public school setting. This track requires an initial review of all post-secondary course work. The Office of Educator Preparation and Graduate Studies coordinates the examination of official transcripts, relevant standardized test results and other application materials to develop an individualized educational plan that will address the KSC Educator Preparation Themes while meeting New Hampshire state standards for Teacher Certification. The

educational plan will typically address certification competencies not met by the student's baccalaureate degree. Required courses will guide students toward the acquisition of the knowledge, skills and dispositions necessary to demonstrate competence in their selected area of certification and as a professional educator.

Extra academic preparation may be required for applicants whose baccalaureate degree is not closely related to the area of certification they are seeking. Prior to engagement in the Student Teaching experience, it is strongly recommended that a student have at least 500 hours of contact with children of various ages in different public school environments.

### **Admission Criteria**

Candidates for admission to the Post-Baccalaureate Teacher Certification Program must submit an [Application for Graduate Study in Education](#), including required materials, to the KSC Admissions Office.

For additional information, refer to the [Graduate Application](#).

Preference will be given to candidates who submit passing scores for the Praxis II content tests (typically: content knowledge and essay) as specified by the New Hampshire Department of Education. Praxis II tests are currently required for the following secondary certification areas:

- Biology (7 to 12)
- Chemistry (7 to 12)
- Earth/Space Science (7 to 12)
- English (5 to 12)
- French (K to 12)
- General Science (5 to 9)
- Middle/Junior High Math (5 to 8)
- Physics (7 to 12)
- Secondary Math (7 to 12)
- Spanish (K to 12)
- Social Studies (5 to 12)

## Courses of Instruction

Because 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 the students and the College.

### Course Numbering System

All courses carry four 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.
- 100/200-level courses are introductory and intermediate courses usually taken during the freshman and sophomore years.
- 300/400-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

### **IHAMST 140 What Is American Studies?**

Explores historical and contemporary issues from American culture(s). Topics may include nationhood, identity, and cultural production. Annually.

### **IIAMST 210 Introduction to American Studies**

An introduction to the cultural complexities of the American experience with an emphasis on formulating interdisciplinary questions. Usually focuses on a particular decade, region, or theme. Prerequisite: ITW 101 or its equivalent. Fall, Spring.

### **IHAMST 248 Cultures of Northern Plains Indians**

An introduction to American Indian studies through the perspectives of Northern Plains Indians, focusing on Plains Indians' literature, music, art, Indian law, history, and philosophy. Prerequisite: ITW 101. Annually.

### **IIAMST 250 Interpreting American Cultures**

An examination of a particular aspect of American cultures with an emphasis on developing a critical method appropriate to the interdisciplinary use of texts and other cultural artifacts. Prerequisite: ITW 101 or its equivalent. Annually.

### **IHAMST 291 Special Topics**

Course examines topics through perspectives and approaches drawn from the field of American Studies. May be repeated as topics change. Fall, 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. Repeatable to a total of 8 credits. Prerequisite: Consent of the instructor who will supervise the independent study.

**AMST 350 Perspectives On American Culture**

Interdisciplinary writing and research methods workshop, emphasizing revision and multiple drafts of student projects. Research explores American Studies theory and history, emphasizes role of ideology in forming national identity. Prepares students for the program's 400 level seminar. Prerequisites: IIAMST 210 and IIAMST 250. Spring.

**AMST 363 Writing in An Endangered World**

This course traces environmentalism as a social movement in relation to the development of environmental writing. Students will consider the relationship between literature and social change, the development of literary strategies in environmental writing, and commentaries on the environmental movement by cultural critics and environmental historians in developing countries. Prerequisites: IIAMST 250 or ENST 250 or permission of instructor. Cross-listed with ENST 363. Fall, odd years.

**IIAMST 370 American Biography**

Interdisciplinary course examines selected biographies of Americans and American-identified figures from historical and literary perspectives. Readings contextualize developments in American culture and society (writ large) from 1492 to the present. Intended for nonmajors. Includes autobiographies. Prerequisite: 24 ISP credits, including ITW 101 and IQL 101. Annually.

**IHAMST 372 Readings in American Studies**

Examines primary, theoretical, and critical materials related to American Studies. May engage historical, philosophical, artistic, and literary issues in American culture(s). Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Annually.

**IIAMST 375 American Cultural Studies**

Interdisciplinary exploration of a specific aspect or area of American culture employing methods drawn from the field of American Studies. Course moves toward the question: "What is American?" Readings consider phenomena defining American culture(s) and social structure(s), engaging theoretical, historical, and aesthetic materials. Intended for nonmajors. Prerequisite: 24 ISP credits, including ITW and IQL. Annually.

**IIAMST 380 The New England Experience**

Interdisciplinary course examines selected readings and discussions of New England culture and society from 17th century to the present. Examination draws upon literary, historical, and theoretical materials. Questions of region, image, imagination, and identity are addressed. Prerequisite: 24 ISP credits, including ITW and IQL. Annually.

**AMST 390 Critical Approaches**

Interdisciplinary exploration of selected topics or critical approaches relating to American experience. May be repeated as topics change. Annually.

**IIAMST 391 Interdisciplinary Topics in American Studies**

Course employs perspectives from the interdisciplinary field of American Studies to examine particular social, cultural, political, phenomena related to United States and/or American identity. Topical inquiries made using methods/approaches from academic disciplines such as history, ethnic studies, geography, musicology or literary studies. Prerequisite: 24 credits in ISP including ITW-101 and IQL-101. Spring.

**AMST 490 Advanced Special Topics**

An interdisciplinary exploration of selected and advanced topics relating to American experience. May be repeated as topics change. Annually.

**AMST 495 Seminar**

An interdisciplinary examination of a selected period, theme, or issue related to the American experience. AMST students will propose seminar paper topics that integrate learning from previous courses in American Studies and related disciplines. May be repeated for credit as topics change. Prerequisites: ITW 101, IIA MST 210, AMST 350, junior standing. Spring.

**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 total of 8 credits. Prerequisites: Permission of American Studies coordinator, and 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. May be repeated to a total of 8 credits.

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## Anthropology

**ISANTH 110 Cultural Anthropology**

Introduction to anthropological knowledge and understanding of human cultures and societies. Cross-cultural comparison and review of tribal and industrialized societies. Application of anthropological concepts to provide understanding of other cultures and one's own culture. Fall, Spring.

**ISANTH 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. Fall, Spring.

**ANTH 290 Topics in Anthropology**

Selected topics in anthropology. May be repeated as topics change to a total of 8 credits. Prerequisite: ISANTH 110. Occasionally.

**ANTH 314 World Prehistory**

An in-depth, comparative examination of cultural change and culture process in prehistoric societies from various places around the world. The course begins with the appearance of anatomically modern humans and ends with the demise of the first civilizations and includes multiple theoretical perspectives on prehistoric behavior. Prerequisite: ISANTH 111. Fall, odd years.

**ANTH 315 Gender and Culture**

An examination of the ideology and social reality of gender cross-culturally. The course covers various theoretical approaches and explores the ethnographic literature. Prerequisite: ISANTH 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: ISANTH 110 or permission of instructor. Occasionally.

**ANTH 318 The Ancient Maya**

A comprehensive investigation of the archeology of ancient Maya culture. The course begins with an examination of some of the earliest occupations in Mesoamerica and then documents the complex social, political, economic, and ideological developments of the Maya until the arrival of Spanish Europeans. Prerequisite: ISANTH 111. Spring, even years.

**ANTH 320 Magic, Witchcraft, and Religion**

This course will provide a holistic and comparative approach to the study of religious beliefs and practices. Students will explore magical and religious behavior, ritual, myth, shamanism, curing, spirit possession, ancestor worship, witchcraft, and millennial and countercultural movements in a variety of tribal and state societies. Prerequisite: ISANTH 110 or permission of instructor. Spring, odd years.

**ANTH 321 Lithic Technology**

This course focuses on stone tool technology from both a cultural evolutionary perspective and as a technological process. Students will examine stone tool classification and analysis with emphasis on raw material types, artifact typologies, reduction sequences, refitting studies, use-wear analysis, and sourcing and dating methods. Prerequisite: ISANTH 111. Fall, even years.

**ANTH 323 Anthropology of Conflict and Violence**

This course focuses on the nature of conflict in human societies around the world and examines the roles of violence from a cross-cultural perspective. Conflict and violence are studied in societies ranging from food-foragers and complex states to explore the consequences of what is labeled "violence." Prerequisite: ISANTH 110. Spring, even years.

**ANTH 330 Cultural Investigations**

Introduction to methodology for contemporary ethnographic field research in anthropology, including research design, participant-observation, interviewing, field notes, indexing, report writing, and visual documentation. Students complete assigned and independent research projects relying on a variety of ethnographic methods. Prerequisite: ISANTH 110 or permission of instructor. Fall, even years.

**ANTH 332 Forensic Anthropology**

This course is designed to provide an introduction to the discipline of forensic anthropology. It will cover the basic information and methods necessary to recognize, collect, identify, and process skeletonized human remains. Crosslisted with CJS 332. Prerequisite: ISANTH 111 or CJS 240. Fall.

**ANTH 335 Practicum in Anthropology**

*2-8 credits*

This course provides an opportunity for students to use anthropological learning in a cultural setting for 8 to 10 hours each week. Students may select from among applied research, human services, or other social/cultural change settings. Prerequisite: Permission of instructor. Fall, Spring.

**ANTH 390 Studies in Anthropology**

Intensive study of selected topics in anthropology. May be repeated as topics change to a total of 8 credits. Prerequisite: ISANTH 110. Occasionally.

**ANTH 413 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: ISANTH 110 and one other ANTH course or permission of instructor. Spring, odd years.

**ANTH 494 Cooperative Education**

*2-8 credits*

Work-learning experience for Anthropology minors. Placement arranged by the student and approved, supervised, and evaluated by a faculty member. Student spends 3 to 4 hours each week in a work setting for each credit earned. Compensation possible. May be repeated to a total of 8 credits (4 credit maximum toward Anthropology minor). Prerequisite: Permission of instructor. Graded Pass/Fail. Occasionally.

**ANTH 498 Independent Study**

*1-4 credits*

Advanced independent study of an Anthropology area not normally available in the curriculum. Requires a written report. May be repeated to a total of 4 credits. Prerequisite: Permission of instructor. Occasionally.

**ANTH 499 Senior Honors Thesis**

Planning, executing and completing a senior thesis in Anthropology is goal of this sequence. With guidance from a faculty sponsor and a committee of readers, student will identify and pursue a topic of interest in the field. Written and oral presentation of the project is required for credit. Prerequisites: Senior standing; ANTH 330 and two additional 300-level ANTH electives; overall and major GPA of 3.50 or above; and application to and approval by the Department Faculty. Must be repeated (8 credits total) to qualify for Anthropology/Sociology honors. Fall, Spring.

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## Architecture

**ARCH 120 Architectural CAD I**

This course introduces architectural computer-aided drafting (CAD) with state-of-the-art applications. Students, through a combination of lectures, hands-on exercises, and drawing problems, build a solid foundation of two-dimensional CAD skills and apply these skills creating architectural plans, sections, and elevations according to professional drafting standards, techniques, and practices. Fall, Spring.

**ARCH 180 Introduction to Architectural Design**

Introduction to the principles of architectural design through lectures and short design exercises. Emphasis is placed on developing visual communication skills necessary and related to architectural presentation including drawing, drafting, and model making techniques. A final design project provides the framework for investigating and understanding the fundamental elements, design principles, and processes necessary to explore the creation of architectural spaces. Fall, Spring.

**ARCH 220 Architectural CAD II**

An intermediate course in computer-aided drafting using state-of-the art architectural drafting software. Students, through a combination of lectures, hands-on exercises, and drawing problems, learn three-dimensional CAD skills to generate architectural design and detail drawings according to professional drafting standards, techniques, and practices. Prerequisite: ARCH 120 or permission of instructor. Fall, Spring.

**ARCH 230 Architectural Design I**

Studio investigations of fundamental design concepts, principles, and elements. Projects and exercises focus on the creation of abstract architectural forms and spaces through an exploration of shape, hierarchy, organization, scale, proportion, materials, and light. Studio Design courses should be taken in sequence. Prerequisite: ARCH 180 or permission of instructor. Fall.

**ARCH 235 Architectural Design II**

Studio investigations of fundamental design concepts, principles, and processes. Projects focus on the creation of both abstract and programmed architectural forms and spaces with an emphasis on formal and aesthetic values and the development of a visual vocabulary. The exercises are oriented toward the achievement of creative individual expression. Prerequisite: ARCH 230 and permission of instructor. Fall only.

**ARCH 260 Sustainable Design and Building Science**

Study of energy issues, sustainable building design, and introduction to building science. Focus is on energy-efficient buildings, solar energy systems, related environmental issues, and basics of building science. Projects involve energy analysis of buildings, evaluation of renewable energy options, world energy issues, critical design decisions for building, and building forensics. Prerequisite: MATH 120 or permission of the instructor. Fall.

**ARCH 270 Commercial Construction**

Introduction of the processes of commercial building, including environmental and regulatory factors and analysis of foundation components and structural and enclosure building systems. Lectures, site visits, and projects present students with an array of technical challenges in building design. Focus is on analyzing and designing architectural details for a variety of building materials. Prerequisite: ARCH 260. Spring.



**ARCH 275 Residential Construction**

A study of residential construction technology systems, including the planning, materials and processes used by building contractors to build residential structures. The interrelationship of societal needs, the environment, and quality of life as they affect building design and construction practices are examined. Two-hour lecture, three-hour lab. Fall, Spring.

**ARCH 280 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 site planning, programming, schematic design, and project management. Prerequisite: ARCH 230 or permission of instructor. Spring.

**ARCH 290 Special Topics**

*2-8 credits*

Study of a selected topic in Architecture. May be repeated as topics change. Prerequisites vary with topics. Fall, Spring.

**ARCH 294 Cooperative Education**

*2-8 credits*

Work-learning experience for which compensation may be received. Placements arranged and approved, supervised and evaluated by full-time Architecture faculty. Elective credit only (cannot be applied to credits in the major) to a total of 12 credits per program. Prerequisites: Declaration of Architecture major and permission of instructor. May be repeated for credit, normally 40 hours per credit. Graded Pass/Fail. Fall, Spring.

**ARCH 320 Architectural CAD III**

An advanced course in state-of-the-art architectural rendering, graphic, and CAD applications. Students through a combination of lectures, hands-on exercises, and drawing problems, learn advanced visual representation skills to generate architectural renderings, presentation, and portfolio quality images. Prerequisite: ARCH 220 or permission of instructor. Fall.

**ARCH 330 Architectural Design III**

Intermediate-level design investigations based upon the generation of architectural solutions with particular emphasis on formal, functional, and materialization concerns. Projects and exercises focus on the analysis and synthesis of built form with investigations into historical precedents; human factors; site, environmental, and contextual influences; and identification of materials. Prerequisite: ARCH 235 or permission of instructor. Spring.

**ARCH 350 Architectural History I**

An introduction to the history of architecture and the design concepts that are the building blocks of architectural history from prehistory to the Gothic period. The course surveys the traditional or "canonical" architectural works of Western Europe, the United States, Asia, and the Middle East. Fall.

**ARCH 355 Architectural History II**

Survey of architectural history, including built form, design theories, construction technologies, and social, political, religious influences from the Gothic period through 1960s. Examines the architecture of Western and non-Western civilizations. Lectures, exams, written reports and oral presentations serve as methods for learning about evolution of design in architectural history. Prerequisite: ARCH 350. Spring.

**ARCH 360 Solar Design and Building Science II**

Designing Passive and Active Solar Systems for buildings, performance modeling, and advanced building science. Includes basic principles, performance calculations, design optimization, architectural integration of solar energy systems, air quality, and moisture control. Students design combined solar systems applying principles of advanced building science. Prerequisite: ARCH 260. Spring.

**ARCH 370 Architectural Systems**

Designing mechanical and electrical systems in the context of high-performance buildings. Course applies scientific principles in designing water-supply systems, heating, cooling, electrical services, lighting, and sound control, extending the understanding of healthy buildings design. Emphasizes the principles and concepts to help students design a variety of systems while creating healthy buildings. Prerequisite: ARCH 260 or permission of instructor. Fall.

**ARCH 375 Statics and Structural Analysis**

Analysis of structural systems in static equilibrium. Begins with fundamental physical laws and progresses to equations of forces and moments on rigid bodies, the analysis of frames, trusses, and internal forces and moments in beams, and loading diagrams and geometrical analysis of building loads. Fall.

**ARCH 430 Architectural Design IV**

Advanced architectural design of complex building programs. Emphasis on analysis and synthesis of design solutions, including aesthetic principles, satisfaction of programmatic and human concerns, integrating forms in urban or natural context, and identification of appropriate building tectonics. Research is performed on building type and relevant architectural references. Prerequisite: ARCH 330 or permission of instructor. Fall.

**ARCH 435 Portfolio Design**

Preparation of an architectural portfolio for employment, fellowships, grants, and postgraduate academic opportunities. Course focuses on visual and written representation of individual studio work. Students engage in the representational process to provide a critical forum for written and visual communication in the field of architecture and their own work. Prerequisite: ARCH 430 or permission of instructor. Fall.

**ARCH 480 Senior Design Project**

Culminating course in the architecture program where each senior defines and develops a complete design and set of drawings for a real client and site. The course emphasizes group interaction, peer review, and evaluation by independent architects. Prerequisite: ARCH 280 or permission of instructor. Spring.

**ARCH 490 Advanced Special Topics**

*2-8 credits*

Study of a selected topic in Architecture at an advanced level. May be repeated as topics change. Prerequisites vary with topics. Fall, Spring.

**ARCH 494 Advanced Cooperative Education**

*2-8 credits*

Sequential work-learning experience for which compensation may be received. Placements arranged and approved, supervised, and evaluated by full-time Architecture faculty. Elective credit only (normally 40 hours per credit) to a total of 12 credits per program. Prerequisites: Declaration of Architecture major and permission of instructor. May be repeated for credit. Graded Pass/Fail. Fall, Spring.

**ARCH 498 Independent Study**

*2-8 credits*

Advanced independent study of various fields of Architecture through independent reading, writing, laboratory work, or field investigation. Requires a written report. May be repeated to a total of 8 credits. Prerequisite: Permission of instructor. Fall, Spring.

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## Art

**IAART 100 Foundations of Design**

Study of primary visual design concepts through series of lectures and projects that explore two- and three-dimensional design, and the language of color. Emphasis is on the interaction of these elements in relation to composition and the development of visual literacy. Not open to students who have completed ART 101. Fall and Spring.

**ART 101 Foundations of Design**

Study of primary visual design concepts through series of lectures and projects that explore two- and three-dimensional design, and the language of color. Emphasis is on the interaction of these elements in relation to composition and the development of visual literacy. Not open to students who have completed IAART 100. Fall, Spring.

**IAART 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. Fall and Spring.

**IAART 105 Graphic Design Process**

This course is an investigation of the role of graphic design in the visual environment. Students explore a variety of conceptual and production methodologies to create effective visual communication. Annually.

**IAART 110 Introduction to Art History**

General survey of the history of art and architecture from the ancient to modern periods. The course will explore the roles of the artist, art patron, and viewer in society, and feature in-depth analysis and contextual interpretation of works from a select number of world cultures, regions, and stylistic traditions. Fall, Spring.

**IAART 120 Drawing I**

The practice of representational drawing emphasizing linear and form description with drawing media. Develops skills for all students, including Art majors. Not open to students who have completed ART 125. May be repeated for credit with permission of instructor. 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 permission of instructor. For Art majors only. Fall, Spring.

**ART 151 Technology Workshop**

*2 credits*

This course introduces the Macintosh computer and its role in the design and production of digital art and graphic design. Emphasis is on efficient digital workflow procedures, networking principles, file management, and font organization. Students will become acquainted with software packages, including Adobe Photoshop, Illustrator, and InDesign. Prerequisites: IAART 100, ART 101, IAART 120, or ART 125. Fall, Spring.

**IAART 207 Ceramics and Culture**

Through projects, demonstrations, and visual media (slides, videos, etc.), students will investigate differing methods of working with clay such as hand-building, wheel-throwing, and surface techniques. Students will research ceramic art in its global socio-historical contexts. For non-Art majors only. Annually.

**ART 208 Ceramics I**

Design and construction of wheel and hand-built pottery, including the preparation of glazes and the process of firing. May be repeated for credit with permission of instructor. Fall, Spring.

**ART 211 Ancient Art**

The history of art and architecture from the early civilizations of the Near East, Egypt, Greece and Rome. Prerequisite: IAART 110. Fall. Even years.

**ART 212 Medieval Art**

The history of Western art from early Christian catacomb paintings through Gothic cathedral architecture. Prerequisite: IAART 110. Fall.

**ART 213 Italian Renaissance Art**

The history of art and architecture in Italy from the late Middle Ages through the mid-16th century (1250-1550 CE). Prerequisite: IAART 110 or permission of instructor. Fall. Odd years.

**ART 214 Modern Art**

The history of modern art in Europe and North America from the mid-19th century through the postmodern turn and contemporary practices. An emphasis will be placed on formal innovations and artistic responses to changes taking place in the greater socio-historic context. Prerequisite: IAART 110 or permission of instructor. Fall.

**ART 224 Photography I**

A studio investigation of photography and the application of the medium to individual expression. Includes a working knowledge of camera controls, digital manipulation, and inkjet and analog printing. A digital camera with manual controls is required. May be repeated for credit with approval of instructor. Prerequisite: ART 125 or 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 permission of instructor. Prerequisite: ART 125 or IAART 120. 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 101 or IAART 100 and ART 125 or IAART 120 or permission of instructor. Fall, Spring.

**IAART 227 Painting Materials and Culture**

Through projects, demonstrations, and visual media, students will investigate differing historical methods of working with paint such as encaustic, egg tempera, fresco and oil. This course will explore the pigments, binders and supports for these methods and how they have changed due to economic and technological advancements. Annually.

**ART 244 Sculpture I**

A comprehensive exploration in the fundamentals of sculpture using processes such as carving, casting, modeling, assemblage, and welding. Emphasis is on developing standards in sculptural technique and personal expression. Fall, Spring.

**ART 250 Graphic Design I**

Introduction to graphic design as a problem-solving activity that communicates visually. Creative brainstorming techniques, design principles, time-based media, and semiotic theory are introduced. Group and individual critiques help students identify focus and aptitude for graphic design. Prerequisites: ART 151 and two of following: ART 101 or IAART 100, ART 111 or IAART 110, or ART 125 or IAART 120. Fall, Spring.

**ART 253 Digital Imaging**

A studio investigation of critical theory and visual literacy as it relates to photography and new media in the twenty-first century. Topics include a working knowledge of Adobe Photoshop, image manipulation, and preparing digital images for print, web, and other digital media. A digital camera is required. Prerequisite: ART 250 or permission of instructor. Fall, Spring.

**ART 258 Typography I**

Students study type as graphic form and means of communication. Through related projects, students analyze the history, design, and use of letterforms. Includes study of typographic grids. Prerequisite: ART 250. Fall, Spring.

**ART 290 Topics in Art History**

Subjects vary according to current scholarship and events in Art. Emphasis is on topics not usually offered in regular courses of instruction. Prerequisite: ART 111 or IAART 110. May be repeated for credit as topics change.

**ART 295 Sophomore Studio/Exhibit Practice**

*2 credits*

Introduction to concepts, theories, and schools of contemporary visual art over the last 50 years through field trips, guest speakers, readings, discussions, and research paper. Introduction to studio processes, practice, and careers available for

contemporary artists. Introductory experience documenting work and participation in curatorial methods. Prerequisites: Art major and sophomore status or permission of instructor. Spring.

### **IAART 300 Color Design and Site-Specific Painting**

Explores the language of color and two-dimensional design, and surveys the history of painted murals and other wall ornamentation. Students complete a site-specific mural on campus. For non-Art majors only. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Annually.

### **ART 308 Ceramics II**

The design and construction of both wheel and hand-built pottery problems in conjunction with the history of pottery. May be repeated for credit with approval of instructor. Prerequisite: ART 208 or permission of instructor. Spring.

### **ART 315 Contemporary Art**

This seminar examines both the prevalent, often contested, issues of contemporary art practice and the broader category of "the contemporary". Emphasis will be placed on the examination of specific works, theoretical texts, and in-class discussion of concepts and contemporary debates. Prerequisites: IAART 110 or permission of the instructor. Spring.

### **ART 324 Photography II**

An in-depth studio investigation of digital photography and contemporary practice. Emphasis will be placed on building a professional portfolio of 15 to 20 prints through the use of darkroom printing, negative scanning, digital manipulation, and inkjet printing. May be repeated for credit with permission of instructor. Prerequisite: ART 224. Fall, 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 or IAART 120 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 are 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.

### **IAART 332 Printmaking - Nature and Color**

Through projects, demonstrations, and visual media, students will investigate the color linocut printmaking process. Emphasis will be placed on developing microscopic biological imagery in relation to natural design and color. Color theory will be explored through contemporary print practice and the history of printmaking, including 19th century Japanese prints. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Annually.

### **ART 333 Printmaking I**

A survey of techniques and history of printmaking. Investigation of relief, lithography, and intaglio processes. Covers both black-and-white and color printing processes. Further brainstorming, drawing and design skills, and professional printmaking practice will be emphasized. Prerequisites: ART 225 or ART 253 or permission of instructor. Fall, Spring.

### **ART 334 Printmaking II**

An in-depth investigation on the technical and conceptual aspects of selected printmaking processes. Emphasis will be placed on the development of one or more printmaking mediums: intaglio, lithography, relief, mixed-media, and photo printmaking. May be repeated for credit with approval of instructor. Prerequisite: ART 333. 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. May be repeated for credit with approval of instructor. Prerequisite: ART 244. Spring.

**ART 350 Graphic Design II**

This course emphasizes the relationship between text and image in creating effective designs and powerful graphic messages. Assignments focus on type hierarchy, composition, computer production skills, client projects, and graphic design history. Prerequisites: ART 250, ART 253, and ART 258. Fall, Spring.

**ART 351 History of Graphic Design**

Study of cultural prevalence and social significance of graphic design throughout history. Readings, lectures, and projects explore history of the visual message from prehistory through the digital era and the origins of European typography. Discussion of the role of design in printing and the impact of industrial technology upon visual communications. Prerequisite: ART 350. Fall.

**ART 352 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. Prerequisite: ART 250. Fall, Spring.

**ART 354 Web-Based Media I**

Web design blends technical skills, creativity, visual communication, and information science. Course emphasizes fundamental web design skills as well as the design principles that characterize exceptional websites. Students will plan, design, and launch a complete website with creative interfaces, strong graphic images, functional site organization, and logical navigation. Prerequisite: ART 253. Fall, Spring.

**ART 355 Web-Based Media II**

Intermediate study in web design. Emphasis is placed on web page-style formatting, typography, and interactivity. Covers methods in digital communication and visual problem solving through project-based learning processes. The integration of creativity, visual communication, and technical skills will be stressed. Prerequisite: ART 354. Fall, Spring.

**ART 356 Time-Based Media I**

This project-based course introduces fundamental vocabulary, principles, tools, and techniques of time-based multimedia design. Students learn to design effective interfaces, create motion graphics, work with video and audio, study logical navigation methodologies, and produce interactive multimedia projects. Emphasis is on visual design strategies as well as some programming language. Prerequisite: ART 350. Fall, Spring.

**ART 358 Typography II**

Advanced investigations into meaning of style and its historic examples in typography. Students develop original typographic styles as a foundation for development of individual design identity. Course projects explore logo and typeface development. Prerequisites: ART 258 and ART 350.

**IAART 391 Global Perspectives**

Art history topics vary and could include the exploration of non-Western visual cultures, non-traditional artistic media, or critical themes (postcolonialism, gender, institutional critique, political theory, etc.) as they relate to globalization and the visual arts. May be repeated as topics change. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Spring.

**ART 408 Ceramics III**

Advanced study of wheel and hand built pottery problems, including theory and principles of clay bodies, glazes, kiln construction, and firing. Prerequisite: ART 308 or permission of instructor. May be repeated for credit with permission of instructor. Fall.

**ART 424 Photography III**

Advanced and individualized study in photography. Students must be sufficiently proficient in the understanding of art principles and photography techniques to carry their research project to a successful conclusion with the assistance of the instructor and invited critics. Prerequisite: ART 324. Spring.

**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. May be repeated for credit with the permission of instructor. Prerequisite: ART 326 or permission of instructor. Spring.

**ART 434 Printmaking III**

Advanced and individualized study in a specific printmaking media. Students must be proficient in the concepts and techniques of printmaking to carry their research project to a successful conclusion with the assistance of the instructor and invited critics. May be repeated for credit with the approval of instructor. Prerequisite: ART 334. Spring.

**ART 444 Sculpture III**

Advanced and independent study of sculptural materials, concepts, and techniques. Students must be sufficiently advanced in the understanding of conceptual development and sculptural techniques and processes to carry their own research projects to a successful conclusion with the assistance of the instructor and invited critics. Prerequisite: ART 344.

**ART 450 Graphic Design III**

Advanced study of visual communication through investigating modern graphic design, visual languages, visual problem-solving techniques, and researching conceptual-thinking skills. Concentration is on the integration of expressive forms and their communicative functions. Constructive and deconstructive approaches of design and concepts of sequential graphics are studied. Prerequisite: ART 350. Fall, Spring.

**ART 455 Topics in Graphic Design**

Topics rotate each semester and include the following: Advanced Topics Time-Based Media, Three-Dimensional Animation, Advertising Design, Pre-Press, Book Design, Magazine Design, Package Design, and Illustration. May be repeated for credit as topics change. Prerequisites: ART 354 and ART 356. Fall, Spring.

**ART 459 Graphic Design Portfolio**

Required capstone course in Graphic Design Options with focus on producing a professional-quality portfolio of design work. Readings, discussions, critiques, and studio work are aimed at preparing students for their move from college to the professional world and/or advanced design studies. Prerequisite: ART 450. 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. Prerequisite: ART 111 or IAART 110, or permission of instructor. Spring.

**ART 495 Senior Studio/Exhibit Practice**

*2 credits*

Topics will include the discussion and criticism of contemporary visual art through gallery visits, guest speakers, readings, and research paper. The course will also focus on the planning and execution of the senior exhibition as well as the development of portfolios and slide and digital disc preparation for graduate school and career opportunities. Prerequisites: Art major and senior status. Spring.

**ART 496 B.F.A. Senior Studio**

Independent advanced studio work in preparation for the B.F.A. Senior Exhibition. Individuals will work directly with their B.F.A. advisors to develop a body of work consistent with their B.F.A. option. May be repeated to a total of 8 credits. Prerequisite: Senior B.F.A. standing. Fall, Spring.

**ART 497 Graphic Design/Studio Internship**

A seminar and experiential learning opportunity to integrate graphic design and studio theory with practice through on-the-job experience. Seminar meetings provide discussion topics and the sharing of workplace experiences. May be repeated once. Prerequisite: ART 350 or ART 333 or permission of departmental advisor.

**ART 498 Independent Study**

*1-8 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. May be repeated to a total of 8 credits. Prerequisites: Art major, senior status, and permission of both the instructor and the Art Department chair. Fall, Spring.

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## Astronomy

**INASTR 101 Introduction to Astronomy**

Quantitative and descriptive view of current knowledge/developments in the field and methods used to acquire/analyze data and draw conclusions. Emphasis is on historical and cultural perspective, modeling, tools of the astronomer, underlying physical principles. Some lab exercises. Topics include stellar astronomy, origin, structure, and evolution of the universe, Earth-Sun system, and planetary origins. Fall, Spring.

**ASTR 298 Independent Study**

*1-4 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. Prerequisite: Permission of instructor who will supervise the independent study.

**INASTR 315 Visions of the Universe**

An in-depth study of the solar system, stellar evolution, exoplanets, binary and variable stars, black holes, and the effects of dark matter and dark energy on the evolution of the universe. Emphasis will be given to historical and cultural influences leading to present-day understanding. Prerequisites: 24 credits in ISP, including IQL 101 and ITW 101. Fall, Spring.

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## Biology

**INBIO 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 elective credit but not ISP credit as topics change. Fall, Spring.

**INBIO 104 Lab Biology Topics**

An integrated lecture-lab course for nonmajors that explores biological topics through hands-on investigative activities. Will focus on a theme, such as marine biology or ecology. Can be repeated for elective credit but not ISP credit as topics change. Will satisfy the lab science requirement for education majors. Fall, Spring.

**BIO 110 Molecules and Cells**

Introduction to the life processes from the molecular to the physiological level using an integrated lecture and lab experience. Topics include the chemistry of macromolecules, cell structure and function, cellular respiration, photosynthesis, and gene expression. Use of experimental inquiry to integrate course content into a physiological context. Fall.

**BIO 111 Evolution**

An integrated lecture-lab experience that introduces the basic principles of heredity, evolution, and systematics. Students will investigate variation within and among species, evolutionary patterns, processes, and innovations, evidences of evolutionary



change, and social controversies surrounding this concept. Lab and field projects include experience with scientific method and communication. Spring.

### **BIO 210 Ecology**

This integrated lecture-lab course explores the basic concepts and mechanisms that explain the abundance and distribution of organisms at the individual, population, community, and ecosystem levels. Field and lab exercise emphasize the basics of sampling and experimental design, hypothesis formation, spreadsheet use, statistics, data presentation, and scientific proposal writing. Prerequisite: BIO 111. Fall.

### **BIO 211 Genetics**

An integrated lecture-lab treatment of transmission, chromosomal, and population genetics; gene mapping, genetic interactions, and mutations; and historical and social aspects of genetics. Assignments emphasize quantitative analysis and the use of experimental and statistical hypotheses. Lab activities promote familiarity with model organisms and the execution and presentation of genetic experiments. Prerequisites: MATH 141, BIO 110, and BIO 111. Spring.

### **BIO 212 Cells and Physiology**

An integrated lecture-lab experience using animal, microbial, and plant models to introduce fundamentals of physiology and cell biology. Topics include the cell cycle, apoptosis, motility and locomotion, the endocrine system and cell signaling, the nervous system and neuronal function, and animal metamorphoses. Prerequisite: BIO 110 and BIO 111. Spring.

### **BIO 230 Human Anatomy and Physiology I**

A lecture-lab experience covering the 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: INCHEM 100, INCHEM 103, or INCHEM 111, depending on the requirements of a student's major. Spring.

### **BIO 232 Human Anatomy and Physiology II**

Continuation of BIO 230. A lecture-lab experience covering the 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 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. Positions arranged by students with sponsorship, approval, and evaluation by full-time faculty. Elective credit only (normally 20 hours per 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. May be repeated to a total of 6 credits. Fall, Spring.

### **INBIO 300 Advanced Topics in Biology**

Topics in the biological sciences such as genetics, health, ecology, and others will be explored at an in-depth level. Socially relevant and ethical issues such as AIDS, genetic engineering, embryo research, environmental crises and other issues will be emphasized. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. Fall, Spring.

**BIO 333 Invertebrate Zoology**

An integrated lecture-lab course focusing on invertebrate anatomy, physiology, behavior, development, ecology, natural history, evolution, and systematics. Field trips may be required. Prerequisites: BIO 210, BIO 211, and BIO 212. Occasionally.

**BIO 334 Vertebrate Zoology**

Integrated lecture, laboratory, and field course focusing on vertebrate anatomy, physiology, behavior, ecology, natural history, evolution, systematics, and conservation. Students will become acquainted with local vertebrate communities and with primary research literature and research methods. Field trips may be required. Prerequisites: BIO 210, BIO 211, and BIO 212. Occasionally.

**BIO 335 Ornithology**

Integrated lecture, lab and field activities introduce important features of avian anatomy, physiology, behavior, life histories, breeding, ecology, conservation, evolution, and systematics. Students will gain experience in ornithological research and will practice species identification and field observation and reporting. Field trips may be required. Prerequisites: BIO 210, BIO 211, and BIO 212. Occasionally.

**BIO 345 Animal Behavior**

An integrated lecture-lab course that examines how interactions between genes, physiology, development, and the environment determine animal behavior; the adaptive value of behavior; and how behavior has changed over evolutionary time. This course will also involve exercises designed to instruct students in the process of conducting independent research in animal behavior. Prerequisites: BIO 210, BIO 211, and BIO 212. Occasionally.

**BIO 363 Plant Biology**

A lecture and laboratory course emphasizing the fundamental principles in plant biology, including systematics and evolution, anatomy and morphology, physiology, biotechnology, ecology, conservation biology, and ethnobotany. Lab and field projects will provide first-hand experience with organisms, the process of scientific inquiry, and scientific writing skills. Prerequisites: BIO 210, BIO 211, and BIO 212. Occasionally.

**BIO 365 Plant Evolution**

A research course emphasizing the evolution, molecular and morphological phylogenetics, and taxonomy of green plants. The course is project-based and requires students to work independently or in pairs on three projects (two of which are long term projects). Occasional field trips. Prerequisites: BIO 210, BIO 211, and BIO 212. Occasionally.

**BIO 367 Microbial Diversity**

An introduction to the microbial world emphasizing biological diversity. Topics include fundamentals of microbial cell biology, physiology, metabolism, genetics, evolution, classification and ecology. Laboratory experience emphasizes a research perspective and includes isolation, culture, enumeration, characterization and classification of microbes found in the environment. Prerequisites: BIO 210, BIO 211, and BIO 212. Occasionally.

**BIO 375 Biochemistry**

An integrated lecture-lab experience exploring the relationship between structure and function of macromolecules and other biologically active compounds to metabolism and energy utilization of the cell. Practical experiences will introduce students to methodologies, analytical techniques, and data analyses associated with biochemical research. Prerequisites: BIO 210, BIO 211, BIO 212, CHEM 221, and CHEM 222. Fall.

**BIO 376 Molecular Biology**

An integrated lecture-lab experience covering the structure and organization of DNA; DNA replication, repair, and modification; transcription and RNA processing; protein biosynthesis; transcriptional and posttranscriptional control mechanisms, using examples from prokaryotes, eukaryotes, and viruses; and genomics and bioinformatics. Experimentation in modern recombinant DNA techniques. Prerequisites: BIO 210, BIO 211, and BIO 212. Occasionally.

**BIO 377 Immunology**

Integrated lecture-lab experience covering the cellular and molecular basis of vertebrate adaptive immune response. Topics include structures and cells of the immune system, antibody formation and diversity, role of immune system in health and

disease, and evolution of adaptive immunity. Applied immunology and disorders of immunity will also be covered. Prerequisites: BIO 210, BIO 211, and BIO 212. Occasionally.

### **BIO 378 Developmental Biology**

An integrated lecture-lab course examining fundamental developmental phenomena, such as the differentiation and patterning of tissues and organs. Classic experiments in the field using a variety of model organisms will be discussed, and students will complete original laboratory research projects investigating the genetic basis of animal development. Prerequisites: BIO 210, BIO 211, and BIO 212. Occasionally.

### **BIO 379 Comparative Animal Physiology**

An integrated lecture-lab experience that investigates how animals function in their environment through the comparison of different strategies for solving fundamental physiological problems, including those of gas exchange, food acquisition and digestion, maintenance of water and ion balance, and reproduction. Prerequisites: BIO 210, BIO 211, and BIO 212. Occasionally.

### **BIO 380 Endocrinology and Endocrine Disruption**

An exploration of endocrine systems and the hormonal regulation of physiological function in vertebrates and invertebrates. This integrated lecture-lab course will also investigate the phenomenon of endocrine disruption or how man-made chemicals are interfering with hormone function in animals, including humans. Students will read, analyze, and present primary scientific literature. Prerequisites: BIO 210, BIO 211, and BIO 212. Occasionally.

### **BIO 381 Tropical Marine Biology**

This course investigates tropical marine ecology, biodiversity, coral reef biology, conservation and environmental issues. Students will mentor non-biology majors in lab activities, class discussion, and field observations in the Turks and Caicos Islands. Prerequisites: BIO 210 and permission of instructor. Spring.

### **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. Positions arranged by students with sponsorship, approval, and evaluation by full-time faculty. Elective credit (normally 120 hours per credit) to a 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 Senior Seminar**

Within the context of an overarching biological theme, students integrate and advance their experience and knowledge. Students will recognize their important roles as scientists in their communities and further enhance their research, critical thinking, and oral and written communication skills. This course prepares students for professional careers or postgraduate opportunities. Prerequisite: Permission of instructor. Fall.

### **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 scholarly project and to submit a written progress report. One-hour conference. Prerequisites: Two advanced courses in biology. May be repeated as desired.

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## Chemistry

### **INCHEM 100 Introduction to Chemistry**

An introductory course providing a survey of general chemical principles and their application to current environmental and social issues. Topics include atomic and molecular structure, chemical bonding, energy, reaction chemistry, solutions, and nuclear power. (Not open toward a major program in biology, chemistry, geology, or chemistry/physics.) Fall, Spring.

### **INCHEM 103 Fundamentals of Chemistry**

Lecture-lab course providing a survey of general chemical principles. Topics include matter, energy, atomic and molecular structure, bonding, reaction chemistry, and radioactivity. Knowledge of algebra, exponentials, and logarithms is expected. Three-hour lecture, two-hour laboratory. (Not open toward a major program in biology, chemistry, geology, or chemistry/physics.) Fall, Spring.

### **INCHEM 111 General Chemistry I**

The first course in a one-year sequence covering fundamental chemical principles and concepts, including stoichiometry, atomic and molecular structure, bonding, periodicity, gases, and thermochemistry. Previous chemistry recommended. For students who plan to take further chemistry courses. Knowledge of algebra, exponentials and logarithms is expected. Math assessment exam required. Includes two-hour laboratory. Fall.

### **CHEM 112 General Chemistry II**

The second course in a one-year sequence covering solids and liquids, solutions, kinetics, chemical equilibria, acid-base equilibria, electrochemistry, nuclear chemistry, and qualitative and quantitative analysis. For students who plan to take further chemistry courses. Three-hour lecture, two-hour laboratory. Prerequisite: INCHEM 111 or permission of instructor. Spring.

### **INCHEM 201 Forensic Science**

Forensic science is the interdisciplinary application of science to law. The course will explore the forensic aspects of famous trials, scientific advances, and media coverage. Using a case study approach, students will learn forensic techniques, which will ultimately be applied to the production or analysis of mystery fiction. Prerequisites: ITW 101 and IQL 101. Fall, Spring.

### **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. Three-hour lecture, three-hour laboratory. Prerequisite: INCHEM 103 or CHEM 112 or permission of instructor. Spring.

### **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 support its use in the laboratory course. Three-hour lecture, three-hour laboratory. Prerequisite: Grades C or higher in INCHEM 111 and CHEM 112 or permission of instructor. Fall.

### **CHEM 222 Organic Chemistry II**

The second of a two-course sequence in organic chemistry, emphasizing modern concepts and problem-solving in structure and synthesis and mechanism, based on a functional group approach. Theoretical and practical aspects of modern spectroscopy support its use in the laboratory course. Three-hour lecture, three-hour laboratory. Prerequisite: Grade C or higher in CHEM 221 or permission of instructor. Spring.

### **CHEM 251 Quantitative Analysis**

Basic principles of quantitative chemical analysis, including solution stoichiometry, statistics, acid-base equilibrium, and calibration methods. Topics include chemical equilibrium, titrations, electrochemistry, and spectroscopy. Three-hour lecture, four-hour laboratory. Prerequisite: Grade C or higher in CHEM 112 or permission of instructor. Fall.

**CHEM 294 Cooperative Education**

1-4 credits

Introductory work-learning experience related to career interests for which compensation may be received. Positions arranged by students with sponsorship, approval and evaluation by full-time faculty. Elective credit only (normally 40 hours per credit) for a total of 8 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**

1-4 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. May be repeated for a total of 4 credits.

**CHEM 321 Organic Chemistry III**

A continuation of modern methods of organic synthesis with a focus on reaction mechanisms, carbon-carbon bond-forming reactions, and approaches to the synthesis of complex organic molecules. Prerequisite: CHEM 222 or permission of instructor. Spring, alternate years.

**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 222 or permission of instructor. Spring, odd years.

**CHEM 341 Physical Chemistry I**

Introduction to quantum chemistry and its applications to atomic and molecular electronic structure and spectroscopy. Three-hour lecture, four-hour laboratory. Prerequisites: MATH 141, MATH 151, and MATH 152, INPHYS 141 and PHYS 142, and CHEM 112, or permission of instructor. CHEM 251 and MATH 251 are desirable, but not required. Fall.

**CHEM 342 Physical Chemistry II**

Properties of gases, liquids, solids, and solutions. Thermodynamics, chemical and phase equilibria, conductance, electrical potentials, and kinetics. Three-hour lecture, four-hour laboratory. Prerequisites: MATH 141, MATH 151, and MATH 152, INPHYS 141 and PHYS 142, CHEM 251 or permission of instructor. MATH 251 is desirable, but not required. Spring.

**CHEM 363 Inorganic Chemistry**

An introduction to modern inorganic chemistry including: atomic structure and bonding; a description of transition metal complexes and their role as catalysts, and a survey of the reactivity of selected elements of the main group. Three-hour lecture, three-hour laboratory. Prerequisites: CHEM 222, and either CHEM 341 or CHEM 342, or permission of instructor. Spring.

**CHEM 365 Organometallics**

This course introduces the organometallic chemistry of the transition metals and main group elements with emphasis on common structural features and basic reaction types. The role of organometallic complexes in catalysis is also explored. Prerequisite: CHEM 222 or permission of instructor. Spring, odd years.

**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 or permission of instructor. Spring, even years.

**CHEM 375 Biochemistry**

Integrated lecture-lab experiences exploring the relationship between structure and function of macromolecules and other biologically active compounds to metabolism and energy utilization of the cell. Practical experiences will introduce students to methodologies, analytical techniques, and data analyses associated with biochemical research. Prerequisites: CHEM 221, CHEM 222, and BIO 110 or permission of instructor. Course also listed as BIO 375. Fall.

**CHEM 421 Advanced Synthetic Chemistry**

An advanced, project-oriented laboratory focusing on multistep inorganic and organic synthesis. Prerequisites: Grade C or higher in CHEM 222 and CHEM 363 or permission of the instructor. Spring.

**CHEM 454 Instrumental Analysis**

Theory and practice of current methods of analysis. Methods include spectroscopy (UV-Visible, IR, and atomic absorption), chromatography (gas, liquid, and ion), NMR, and coupled instrumentation such as the GC-Mass spectrometer. Three-hour lecture, four-hour laboratory. Prerequisites: CHEM 221, CHEM 222, CHEM 341, and CHEM 342 or permission of instructor. Spring.

**CHEM 461 X-Ray Crystallography**

Principles of X-ray crystallography as applied to molecular structure determination. Introductory and advanced methods for X-ray structure analysis, including computational chemistry modeling and database retrieval practice. Three-hour lecture, two-hour laboratory. Prerequisites: CHEM 112, and CHEM 220 or CHEM 221, or permission of instructor. Spring, occasionally.

**CHEM 481 Laboratory Teaching Practicum**

*2 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. Prerequisite: Permission of instructor. Fall, Spring.

**CHEM 490 Advanced Special Topics**

*2-4 credits*

Advanced topics in chemistry such as environmental chemistry, forensic chemistry, radiological health physics, solid-state chemistry, bio-organic chemistry, or others. May be repeated for credit as topics change. Prerequisites: CHEM 222, one chemistry at the 300 level or higher, and permission of instructor. Occasionally.

**CHEM 494 Advanced Cooperative Education**

*1-4 credits*

Sequential work-learning experience for which compensation may be received. Positions arranged by students with sponsorship, approval, and evaluation by full-time faculty. Elective credit (normally 40 hours per credit) for a total of 8 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 498 Independent Study**

*1-4 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. One-hour conference. May be repeated as desired.

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## Communication

**IHCOMM 171 Public Speaking**

Through experience in a variety of speaking situations, students gain self-confidence in the organization of thought and self-expression. Fall, Spring.

**COMM 175 Introduction to Communication Studies**

A survey of the basic principles and theories of communication applied to the following contexts: interpersonal, group, organizational, public, mass media, and online communication. Prerequisite: Not open to juniors and seniors except by permission. Fall, Spring.

**COMM 220 Ethics in Communication**

Examines ethical values and arguments as they apply to interpersonal, small group, public, organizational, and intercultural contexts. Students develop methods of ethical analysis through discussion, lecture, experiential activities, observation, case studies, and research papers. Prerequisites: COMM 175 or permission of instructor. Fall.

**COMM 235 Sports Broadcasting**

An introductory course in sports broadcasting. Students will learn the fundamentals of directing, producing, and on-air performance for both a weekly sports magazine program and sports programs covering live sports events, including, but not limited to, KSC soccer, basketball, and lacrosse. Occasionally.

**COMM 240 Visual Communication**

This course explores the evolving theoretical concepts and analysis of visual communication along with their implications for society. Various forms of visual communication (e.g. art, graphic design, advertising, photography, television, film, digital media) and their interaction with each other will be studied. Occasionally.

**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 IHJRN 267 requirement for the journalism major and the elective requirement for the communication major. Prerequisite: IHJRN 101. Occasionally.

**COMM 275 Interpersonal Communication**

The study and application of the principles of interpersonal communication: communication ethics, family relationships, problem-solving, nonverbal communication, and small-group communication. Occasionally.

**COMM 278 Group Interaction**

Group dynamics, interaction, problem solving, and leadership. Case study, analysis, and research are required. Occasionally.

**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**

*2-8 credits*

Introductory work-learning experience related to career interests for which compensation may be received. Positions arranged by students with sponsorship, approval, and evaluation by full-time faculty. Elective credit only (normally 80 hours for 2 credits). Prerequisites: 24 total credits earned, 2.0 cumulative GPA, and permission of instructor. Graded Pass/Fail.

**COMM 298 Independent Study**

*2-8 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. May be repeated for a total of 8 credits.

**COMM 371 Speech Writing**

Advanced study of the theory and practice of public speaking, with a focus on the crafting of persuasive messages. Prerequisites: IHCOMM 171 and junior standing or permission of instructor. Occasionally.

**COMM 372 Intercultural Communication**

This course applies interpersonal and intercultural theories to the understanding of intercultural communication and the fostering of intercultural communication competence. Prerequisite: COMM 175 or COMM 275. Occasionally.

**COMM 375 Business and Professional Communication**

A study of effective principles and techniques of writing and speaking in organizational settings. Through research, writing, and oral presentations students will learn techniques for successful communication with internal and external audiences. Topics include business research for report generation, correspondence, resume preparation, employment application, and performance interviews. Prerequisites: IHCOMM 171 and COMM 175. Occasionally.

**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: IHPHIL 100 and COMM 175. Fall, Spring.

**COMM 378 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. Fall, Spring.

**COMM 379 Internship**

*2-8 credits*

A supervised, contracted experience applying communication theory and skills in a professional setting. Internships are arranged by the student with approval from the communication faculty. On-site and faculty supervision are required. Prerequisites: 12 credits in communication and permission of instructor.

**COMM 472 Quantitative and Qualitative Methods**

This methods course is designed to increase students' awareness of interpersonal and cultural processes that govern development, maintenance, and deterioration of close relationships, and teach them methods ranging from ethnography, interviews and surveys to experimental research in investigating the role of communication in these processes. Prerequisite: IHCOMM 171 and COMM 175 or permission of instructor. Fall, Spring.

**COMM 473 Rhetorical Criticism**

Traditional, dramatic, fantasy theme, narrative, and cultural approaches to rhetorical criticism are examined. Research, writing, and speaking are required. Prerequisite: IHCOMM 171 and COMM 175 or permission of instructor. Annually.

**COMM 478 Rhetorical Theory**

Classical, medieval, Renaissance, Enlightenment, 19th-century, modern, and postmodern approaches to rhetorical theory are examined. Research, writing, and speaking are required. Prerequisites: COMM 175, COMM 376, or permission of instructor. Fall, alternate years.

**COMM 479 Senior Project**

An individual research or application project for communication majors. Students will design and implement a project that will complete their study of communication. Prerequisites: COMM 376 and permission of instructor for Communication Studies Option students; PHIL 350 or PHIL 360 and permission of instructor for Philosophy Option students. 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. Prerequisites: COMM 175 and at least 44 credits, or permission of instructor.

**COMM 495 Seminar**

An intensive study of a particular communication theme or topic. May be repeated for credit as topics change. Prerequisites: COMM 175 and at least 44 credits, or permission of instructor. Occasionally.

**COMM 498 Independent Study**

*2-8 credits*

An intensive study of an issue, a problem, or a topic related to communication. May be repeated for a total of 8 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. Fall, Spring, Summer.

### **CS 110 Computer Workshop**

*1 credit*

Computer software applications. May be retaken with permission of instructor.

### **ISCS 140 Programming Foundations I**

Introduces students to fundamental computer science (CS) principles that help prepare students for successful careers in their chosen disciplines. Topics include: hardware & software fundamentals; algorithm development fundamentals; introduction to Java programming; control structures; construction of classes and methods; array processing; introduction to inheritance; interfaces. Not open to students who have completed CS 140. Fall, Spring, Summer.

### **ISCS 150 Website Design & Construction**

Introduces website construction as a pervasive means of problem solving and communication. Through the various methodologies covered, the course helps to prepare students for successful careers in their chosen disciplines. Topics include: fundamentals of website design; Hypertext Markup Language (HTML); introduction to Extensible Markup Language (XML); other supporting methodologies. Not open to students who have completed CS 150. Fall, Spring, Summer.

### **INCS 160 Microcomputer Systems**

This introductory course in microcomputer systems includes discussion of the underlying physics of the computer system, hardware/software installation, configuration, trouble-shooting problems, networking essentials, and other related topics. The course is designed to prepare students to develop an understanding of the internal workings of a microcomputer system. Not open to students who have completed CS 160. Fall, Spring.

### **CS 185 Programming Foundations II**

This course extends the ISCS 140 concepts to include more advanced programming concepts and principles such as: Arrays of Objects; Inheritance, Polymorphism, and Amalgamation; Exception Handling; External File Processing; Basic GUI Programming; Creating User Interfaces; Introduction to Data Structures. Prerequisite: Grade of C or higher in ISCS 140. Fall, Spring.

### **CS 205 Visual Programming**

An introduction to various principles, theories, and approaches to user interface design and implementation. Includes a study of the factors that affect user interface design, and mastery of at least one development tool and a visually based programming language. Prerequisite: Grade C or higher in CS 185. Spring.

### **CS 215 Operating System Administration**

Discusses fundamental system administration issues using the Unix operating system and/or any other operating system chosen by the instructor. It covers installation and configuration, file and directory management, message management, management of system security, multimedia management, basic network configuration, and command-language programming. Prerequisite: Grade of C or higher in CS 185. Spring.

### **CS 225 C++ Programming**

This course introduces the student to fundamental programming concepts with the C++ programming language. It includes concepts such as sequence, iteration, conditional branching, functions, recursion, function overloading, object-oriented programming, operator overloading, and file processing. It also includes a cursory treatment of fundamental data structures. Prerequisite: Grade C or higher in CS 185. Fall.

**CS 230 Procedural Programming**

Students learn procedural programming using a language such as COBOL, RPG, or C, thus equipping them to work on legacy or embedded systems. Topics covered include basic input/output processing, control structures, sub-programs, recursion (where applicable), record manipulation, file processing, and other related issues. Prerequisite: Grade of C or higher in CS 185. Occasionally as needed.

**CS 265 Computer Architecture**

Introduces the student to the computer as an electronic device. It includes digital logic as well as design of critical internal components of the computer system. May also include topics such as hardware compilation, microcode, content-addressable memories, and parallel architectures. Prerequisites: Grade C or higher in CS 140 and MATH 135. Fall, Spring.

**CS 280 Data Structures and Algorithms**

This course guides the student through a study of data structures and algorithms. It includes algorithm development and analysis, array-lists, linked lists, stacks, queues, trees, hashing, graphs, and sorting algorithms. Although Java will be the primary programming language, the material is covered in a manner that facilitates implementation in any language. Prerequisite: Grade C or higher in CS 185 and MATH 135. Fall, Spring.

**CS 290 Special Topics**

*1-4 credits*

Elementary topics as determined by changes taking place in the discipline. Repeatable as topics change. Prerequisite: Minimum of 8 credits in CS. Fall, Spring, Summer.

**CS 293 Supervised Field Experience**

*1-2 credits*

Allows students to participate in field experience, combining theory with practice. Prerequisites: 16 credits in CS and permission of instructor. Graded Pass/Fail. Fall, Spring.

**CS 294 Cooperative Education**

*1-4 credits*

Introductory work-learning experience related to career interests for which compensation may be received. Positions arranged by students with sponsorship, approval, and evaluation by full-time faculty. Prerequisites: 8 credits in CS and permission of instructor. Graded Pass/Fail. Fall, Spring

**CS 310 System Programming: C and Assembler**

Introduction to fundamentals of assembly and C language programming concepts and techniques with an in-depth understanding of x86 architecture computers by programming at the machine level. Proper use of assembler, registers, instructions and stack, and developing well-structured programs in assembly and C language are emphasized. Prerequisites: CS 185. Fall.

**CS 320 Operating Systems Design**

Discusses the intricacies of operating systems design and implementation. Areas of concentration include OS services, file management, CPU scheduling, memory management, input/output management, resource allocation, security, and process management. Prerequisite: CS 280. Spring.

**CS 340 Internet Programming**

The art and science of programming internet applications from a client-side perspective. Topics cover designing interactive web applications, PHP, using content managers, reading, writing database files, and usability and design considerations using real world projects. Current web programming languages and content managers will be utilized. Prerequisites: ISCS 150 and CS 185. Spring.

**ISCS 350 Systems Analysis and Project Management**

Introduction to fundamentals of systems analysis and design using project management. Discusses the role of the systems analyst with emphasis on oral and written communication with business users and the project team. Emphasizes structured

design techniques. Requires detailed systems development case study using project management techniques. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101, 20 credits in CS and/or Management. Spring.

### **CS 355 Computer Networks**

Introduction to fundamental concepts in the design and implementation of computer networks, their protocols and applications, examining the application layer and working down toward the link layer. Emphasis on networking concepts and issues involved in creating network applications and application-level protocols using network programming. Prerequisite: CS 185. Spring.

### **CS 360 Database Systems**

This course covers the theoretical foundation of modern database systems, concentrating on practical use of relational database management systems to model, design and implement business and commercial systems. It includes Structured Query Language (SQL), normalization, and rational algebra. It does not use any specific language. Prerequisite: Grade C or higher in CS 280. Fall.

### **CS 375 Software Engineering**

This course introduces the fundamental concepts and principles of software planning, construction, implementation and management. It covers the software development life cycle, the various activities that occur. It also covers methodologies for specifying, designing, developing, and managing top quality software systems. Prerequisite: CS 280. Fall.

### **CS 395 Mobile Computing**

This is an introductory course in creating applications for mobile devices, including Android, iPhones, iPads, and the iPad Touch. It teaches how to conceive, design, construct, and deploy applications for these devices. It employs Xcode (Apple's native IDE), the Objective-C programming language, and the Cocoa Touch framework. Prerequisite: CS 185. Fall.

### **CS 410 Advanced Software Development**

The study of advanced programming techniques of timely interest. Topics may include object-oriented techniques, special purpose languages, graphical programming, or advanced design techniques. Emphasizes continued development of problem-solving and programming skills. Prerequisites: CS 185. Fall.

### **CS 420 E-Commerce Development**

Covers e-business development, with emphasis on the server side. It includes: server side-web programming using Java Servlets; Java Server Pages; open source Java web server (Apache Tomcat); server customization to support their projects; utilization of Model-View-Controller architecture; security implementation; interface and connectivity with backend database(s). Prerequisites: CS 185. Fall.

### **CS 430 Principles of Programming Languages**

This course guides the student through a comparative study of programming languages, guided by a well-defined set of criteria. It includes an introduction to the fundamentals of programming language design, review of different types of programming languages, formal language theory, theory of computation, and principles/concepts of programming language construction. Prerequisite: CS 265 and CS 280. Spring.

### **CS 440 Software Engineering Project**

Provides the opportunity to apply the principles and skills acquired in earlier courses, and to investigate and design the blueprints for a software engineering project. Software will then be constructed in accordance with its design specifications. Emphasis will be placed on the various activities in the SDLC. Prerequisites: 32 credits in CS preferably including CS 375. Spring.

### **CS 455 Cryptography & Network Security**

Introduction to fundamental concepts and techniques underlying the science and art of cryptography and network security including: symmetric encryption, message digests, public key cryptography, authentication, security protocols on both application and network layers of the Internet, and network operational security techniques. Prerequisite: CS 355. Fall.

**CS 460 Data Warehousing and Advanced SQL**

Introduces the principles, techniques, and approaches to the construction and management of data warehouses and data marts. Includes warehousing topologies and methodologies, as well as advanced SQL features. Prerequisite: CS 360. Spring.

**CS 490 Advanced Special Topics**

*1-4 credits*

Advanced topics as determined by changes taking place in the discipline. May be repeated as topics change. Prerequisite: Minimum of 32 credits in CS. Occasionally as needed.

**CS 493 Advanced Supervised Field Experience**

*1-2 credits*

Allows students to participate in field experience, combining theory with practice. Prerequisites: 16 credits in CS and permission of instructor. Graded Pass/Fail. Fall, Spring, Summer.

**CS 494 Advanced Cooperative Education**

*1-4 credits*

Sequential work-learning experience for which compensation may be received. Placements are arranged, supervised, and evaluated by full-time faculty. May be repeated for a total of 4 credits. Prerequisites: 16 credits in CS, and permission of instructor. Graded Pass/Fail. Fall, Spring.

**CS 495 Artificial Intelligence & Robotics**

Introduces the fundamental issues in artificial intelligence (AI). Includes fundamental concepts, problem-solving techniques (including breath-first search, depth-first search, heuristic search, greedy best-first search, hill-climbing search, A star search), and a project-oriented coverage of robotics that requires each student to design and program a robot. Prerequisite: CS 280. Spring.

**CS 496 Games Programming**

Guides students through fundamental topics in the design and construction of computer games. Course includes game architecture, game design issues, requisite data structures and algorithms, and programming issues. Programming will be done in Java and C++/C#. Prior knowledge of C++ and successful completion of MATH 151 are highly recommended. Prerequisites: CS 280, MATH 151 highly recommended. Spring.

**CS 498 Independent Study**

*1-4 credits*

Individual research into selected topics in computer studies under the direction of a faculty member. Prerequisites: 16 credits in CS and consent of the instructor who will supervise the independent study. May be repeated to a total of 4 credits. A maximum of 4 credits may be applied to the upper-level (300- and 400-level) CS elective requirement. Occasionally as needed.

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## Criminal Justice Studies

**CJS 101 Introduction to Criminal Justice Studies**

An overview of the criminal justice system as it currently operates in its three major components: police, courts, and corrections. A broad-based interdisciplinary perspective is employed to introduce students to the process of criminal justice in the United States. Fall, Spring.

**CJS 201 Corrections**

An overview of the correctional process with an emphasis on the social, political, and economic influences upon this process. Topics to be examined include the impact of race, class, and gender on the correctional system; the uses and effectiveness of institutional placements; and intermediate sanctions and community-based programming. Fall.

**CJS 240 Criminology**

An overview of the field of criminology. The areas considered range from the definitions, origins, and extent of crime and law, to causal theories of criminal behavior, to types of crimes and victims. Particularly stressed is an analysis of the relationship between law and society and social structure to crime. Prerequisite: CJS 101 or permission of instructor. Fall, Spring.

**CJS 290 Topics in Criminal Justice**

*1-4 credits*

Selected topics in Criminal Justice Studies. May be repeated as topics change; however, only a maximum of 4 credits can be used to satisfy the depth requirements of the CJS minor. Prerequisites: Prerequisites vary as topics change. See course listings for details. Occasionally.

**CJS 300 Research Methods for Criminal Justice Studies**

The course will examine quantitative and qualitative research methods in criminology and criminal justice (experimental design, quasi-experimental design, surveys, field research, secondary data analysis), types of data and measurement, probability and sampling techniques. Prerequisite: MATH 141 and CJS 240 or permission of instructor. Fall, Spring.

**CJS 310 Perspectives on U.S. Policing**

Introduces students to the evolution and state of police work as practiced in the U.S. It will include an examination and discussion of the role of the police in a changing society; police socialization, behavior and discretion; institutional organization, routine and specialized operations. Prerequisite: CJS 240. Fall/Spring.

**CJS 320 Case Studies in Violence**

This course focuses on the various types of violence in our society including family violence, sexual violence, workplace violence, and so called "random actor" violence. Through readings and discussion, participants will examine the causes, key identifiers, consequences, and costs of violence. Prerequisite: CJS 240. Fall.

**CJS 330 Criminal Law and Procedure**

This course is a study of the fundamentals of criminal law and criminal procedure. The principles that regulate the balance between the power of our government and the rights of individual citizens will be discussed. Prerequisite: CJS 240. Fall, Spring.

**CJS 332 Forensic Anthropology**

This course is designed to provide an introduction to the discipline of forensic anthropology. It will cover the basic information and methods necessary to recognize, collect, identify, and process skeletonized human remains. Crosslisted with ANTH 332. Prerequisite: ISANTH 111 or CJS 240. Fall.

**CJS 340 Gender and the Law**

Examines the myriad ways law and policy affects our lives, from hiring practices to the creation and dissolution of family, from crime to sports and education through the lenses of legal theories that promise the most fair creation and application of law. This course is crosslisted with WGS 340. Prerequisite: CJS 240. Spring.

**CJS 342 Advanced Criminology**

This course examines the intersection of criminological theory, public policies on crime, and political ideology. A number of important crime control policies are analyzed. Students will examine the political philosophy and theoretical ideas which underlie these policies, the research evidence on their effectiveness, and their political implications. Prerequisite: CJS 300. Fall, Spring.

**CJS 365 Juvenile Delinquency**

This seminar focuses on the 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: CJS 240 or permission of instructor. Spring.

**CJS 390 Studies in Criminal Justice**

Studies in Criminal Justice. See course listings for details. Prerequisite: CJS 240. Occasionally.

**CJS 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. Prerequisite: CJS 342 or SOC 305 or permission of instructor. Occasionally.

**CJS 463 Law and Society**

This seminar examines the justice system with reference to substantive and procedural laws, criminal and civil laws, and regulatory laws. We will also discuss the interrelationship among law and other social institutions and practices, including culture, politics, social inequality, and public policy issues concerning law enforcement and justice. Prerequisite: CJS 342 or SOC 305 or permission of instructor. Occasionally.

**CJS 467 Human Behavior and the Legal System**

Human behavior is shaped and limited by the laws that human society develops. An understanding of the effects of individual behavior on the legal system and the consequence of the existence of a legal system for individual behavior is central to the understanding of human behavior. This course is crosslisted with PSYC 467. Prerequisite: CJS 342 or PSYC 221 or permission of instructor. Occasionally.

**CJS 469 The Sociology of Punishment**

This seminar discusses sociological perspectives on crime control and punishment. We will look at the historical development of the institutions and practices of punishment, as well as contemporary reforms and changes in the criminal justice system. Prerequisite: CJS 342 or SOC 305 or permission of instructor. Occasionally.

**CJS 471 Women and Crime**

Specifically concerns women and crime, a subfield within criminology. In addition to evaluating traditionally androcentric approaches to explaining criminality, we will also explore other intersections of women with criminal justice, including women as offenders, victims, and workers in criminal justice fields. Prerequisites: CJS 342 or SOC 305 or permission of instructor. Occasionally.

**CJS 473 Race and Crime in the Media**

This course examines the relationship between crime, race, and the media, with a focus on media representations of race in the criminal justice system. We will explore current issues, highly publicized cases, and depictions of victims, offenders, and police as they are presented in film, television, news media, and print. Prerequisites: CJS 342 or SOC 305 or permission of instructor. Occasionally.

**CJS 490 Advanced Topics in Criminal Justice Studies**

Advanced studies in criminal justice. See course listings for details. Prerequisite: CJS 342 or permission of instructor. Occasionally.

**CJS 494 Cooperative Education**

Introductory work-learning experience related to career interests. Students must apply to the CJS program before placement can occur; see your advisor for details. This experience is supervised, approved, and evaluated by full-time faculty. Elective CJS credit only (normally 120 hours for 4 credits) to maximum of 4 credits per degree program. Prerequisite: Permission of instructor and junior/senior status. Graded Pass/Fail. Fall/Spring.

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## Economics

**ECON 103 Introduction to Microeconomics**

An introductory course on how individual consumers and firms make decisions in line with their economic objectives. We analyze the workings of supply and demand in the determination of price, resource allocation, income distribution, and economic efficiency. Fall, Spring.

**ISECON 104 Introduction to Macroeconomics**

An introduction to macroeconomic terminology, concepts, and theories using historical context, quantitative tools, graphical analysis, and macroeconomic models. Course concepts are examined in a social and/or political context as appropriate. Fall, Spring.

**ECON 203 Intermediate Microeconomics**

This course focuses on a rational choice model as the underlying framework for behavior of consumers and firms and their interactions in various market structures. Examination of models requires extensive use of mathematical and graphical analysis. The effects of government policies, market power, and externalities on market efficiency are among the topics. Prerequisites: ECON 103. Fall, Spring.

**ECON 204 Intermediate Macroeconomics**

Examines macroeconomic concepts and theories using historical context, quantitative tools, graphical analysis, and macroeconomic models. Critically explores competing schools of macroeconomic thought and their relative effectiveness at explaining macroeconomic phenomena. Culminates in construction and manipulation of the Mundell-Fleming open-economy model. Prerequisites: ISECON 104. Fall, Spring.

**ECON 290 Special Topics**

Economics survey course for nonmajors. Includes topics not covered in other listed courses, including 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**

*1-8 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 is required of the instructor who will supervise the independent study. May be repeated for a total of 8 credits.

**IIECON 310 Game Theory**

An introduction to game theory and strategic interactions with cases drawn from economics, business, politics, sociology, psychology, international studies, and sports. Topics include prisoner's dilemma, Nash equilibrium, backward induction, signaling, mixed strategies, cooperative and noncooperative games, bargaining, conventions, "the tragedy of commons," evolutionary game theory, and behavioral critiques of rationality. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. Fall.

**IIECON 320 Gender & Economic Development in a Globalizing World**

This interdisciplinary course aims to provide an overview of the processes, politics and policies of economic development through a gender lens. The course examines the impacts of economic development policy on men and women and on gender relations in Africa, Asia and Latin America, in the context of a globalizing world economy. The course draws from the fields of economics, international relations and women's studies. Prerequisites: 24 credits in ISP including ITW 101 and IQL 101. Fall or Spring, Alternate Years.

**ECON 325 Economics of Discrimination**

Uses economic models to explore topics such as growing wage inequality, changing demand for children, occupational segregation by gender, economic assumptions behind affirmative action, and demand and supply of immigrant labor. Prerequisite: ECON 103 or ISECON 104. Fall.

**ECON 340 Environmental Economics**

Detailed evaluation of policy alternatives for environmental protection with regard to other economic goals. Prerequisite: ECON 103 or ISECON 104. Fall.

**ECON 355 American Property Rights Traditions**

Contrasts property rights of New England with those in the Spanish Borderlands and the pre-civil war South. Spanish corporate law probed to explain why Native American communities retained land in the Spanish Borderlands, while tending to lose land in New England. Prerequisites: ECON 103 or ISECON 104. Spring, odd years.

**ISECON 360 History of Economic Thought**

Examines the philosophical debates that underlie modern economic models through texts by Adam Smith, Karl Marx, and John Maynard Keynes. Topics such as the relationship between competition and justice, prices and ethics, and free markets vs. government regulation will be explored. Prerequisite: One Integrative Studies course from ISECON, ISPOSC, IHIST, or IHPHIL. Spring.

**ECON 361 Economics of Public Policy**

Topics include the 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 103 or ISECON 104. Spring.

**IIECON 380 Modern Middle East**

This interdisciplinary course provides a broad but detailed overview of the Middle East region with a focus on patterns of economic and social transformation during the last century. The course material draws from the fields of Political Science, Sociology, History, Economics, and Women's and Gender Studies. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Spring.

**ECON 410 Money and Banking**

A survey of direct and indirect finance, the determination of interest rates, asymmetric information, financial crises, and monetary policy. The course integrates economic theory and historical context into an exploration of the economics of money and banking. Competing schools of thought are considered as appropriate. Prerequisites: ECON 203 or ECON 204. Fall.

**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 203 or ECON 204, and MATH 175 or MGT 202 or MATH 141 or PSYC 251. Fall.

**ECON 440 Industrial Organization**

Addresses questions of imperfect competition, the effect of market structure on behavior of firms, concentration and monopoly power, cartel formation, anti-competitive practices, and anti-trust issues. The course utilizes 'structure-conduct-performance' method in combination with institutional and historical approaches, focusing on case studies from various industries. Prerequisite: ECON 203. Spring, odd years.

**ECON 455 Topics in Economic History**

An introduction to the subject matter and methodology of economic history. Topics may include the development of the U.S. economy, the British Industrial Revolution, or Latin American economic history. Prerequisites: ECON 103, ISECON 104, and either ECON 203 or ECON 204. Occasionally.

**ECON 460 Development Economics**

Addresses the complex nature of economic development, critically evaluates available theories of development and underdevelopment, and considers the scope and limits of economic policies to aid development. Development ethics, import substitution, export orientation, impact of trade liberalization, demographics and gender are among the topics covered. Prerequisites: ECON 203 or ECON 204. Occasionally.

**ECON 470 International Trade and Finance**

Applies advanced economic theory to global trade and finance through theories of comparative advantage, balance of payments accounts, fixed and flexible exchange rates, and currency crises. Prerequisite: ECON 203 or ECON 204. Spring, even years.



**ECON 490 Advanced Special Topics**

Topics not covered in other listed courses; for example, current and historical economic issues, student group research projects, and student and faculty initiated topics. Prerequisite: ECON 103, ISECON 104, and either ECON 203 or ECON 204.

**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. Prerequisites: ECON 203 and ECON 204. Fall.

**ECON 498 Independent Study**

*1-8 credits*

Individual research on selected topics in economics under direction of a faculty member. Prerequisite: ECON 103, ISECON 104 and either ECON 203 or ECON 204, and permission of instructor. May be repeated for a total of 8 credits.

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## Education

**EDUC 100 Issues in Education**

*2 credits*

Contemporary and historical analysis of public education. Orientation to the teaching profession as a career choice through personal reflection, professional readings, and field experience. Introduction to professional standards through electronic portfolio development. Fall, Spring, Summer.

**EDUC 131 Issues in Secondary Education**

*2 credits*

What does it mean to be a middle or high school teacher? Students will answer that question and explore the qualities and skills needed to be successful in this profession. Historic milestones in the US Educational system will be examined. Students will also reflect on the development of the adolescent. Fall, Spring.

**EDUC 200 Social Contexts of Education**

Critical analysis of educational systems within cultural, social, political, and economic contexts. Major issues in education are addressed through a variety of perspectives, including practices for democratizing classrooms and schools, teaching for social justice and equity in a diverse society, multicultural education, and school reform. Prerequisite: C or higher in EDUC 100, 2.5 overall GPA. Fall, Spring, Summer.

**EDSP 202 Development, Exceptionality, and Learning**

Study of typical and atypical cognitive, language, physical, and social/emotional development; roles of general and special educators in educating all students; the special education process; collaborative approaches to team planning for inclusive school environments. Prerequisite: C or higher in EDUC 100, 2.5 overall GPA. Fall, Spring, Summer.

**EDUC 203 Introduction to Meditation**

*1 credit*

Students will experience the basic forms of mindfulness meditation - awareness of breath, body, sounds, thoughts, and feelings - mindfulness while doing yoga, and loving-kindness meditation. Students will experience various informal practices: mindfulness while eating, walking, and conversing, and doing routine activities. A focus on reducing stress is interwoven into the course. Pass/Fail. Cross-listed as HLSC 203.

**EDUC 204 The Psychology of Mindfulness Meditation**

*1 credit*

Students will explore the psychological underpinnings of mindfulness meditation and research support for meditation. Each student will do a major project. Pass/No Pass. Prerequisite: EDUC 203 or HLSC 203. Cross listed as HLSC 204.

**EDUC 231 Curriculum for A Diverse World**

An introduction to the scope and sequence of secondary education curricula. Development of an interdisciplinary unit based on state and national standards. Course will focus on theories of learning, differentiated instruction, and assessment strategies to meet the needs of diverse learners. Prerequisite: EDUC 131, 2.75 overall grade point average. Fall, Spring.

**EDSP 250 Context for Special Education**

Historical perspectives, trends, impact of legislation, and school contexts on the evolving and changing field of special education; learning theory, styles, and differences - including language psychological processing; and underlying principles of curriculum accommodations and modifications. Prerequisite: EDSP 202 or EDUC 231.

**EDUC 290 Special Topics in Education**

*1-4 credits*

Study of a selected topic in education. May be repeated as topics change. Prerequisite: Permission of instructor. Occasionally.

**EDSP 290 Topics in Special Education**

*1-4 credits*

Study of a selected topic in special education. May be repeated as topics change. Prerequisite: Permission of instructor. Occasionally.

**EDUC 298 Independent Study**

*1-4 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. May be repeated for a total of 8 credits.

**EDSP 298 Independent Study**

*1-4 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. May be repeated for a total of 8 credits.

**IIEDUC 306 Women and Education**

An exploration of schooling and its relationship to culture and society, focusing on women's role in education as both students and educators. Uses a historical, sociological, and feminist lens in examination of women's struggle for equality in education, with parallels drawn to struggles of other subjects of marginalization. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Spring.

**IIEDUC 307 Adolescent Literature and Identity**

Young adult novels often describe teenage characters as they explore their own changing identities. These novels also provide prospective teachers with insight into adolescents. In this interdisciplinary exploration of literature and education, students will analyze how these novels relate to adolescent development and can help teachers understand their future students. Prerequisites: 24 credits in ISP including ITW 101 and IQL 101. Annually.

**IIEDUC 310 Student Empowerment and Activism**

This interdisciplinary course traces roots and growth of student activism on local and national levels. It examines youth empowerment within the United States since 1960 using the disciplines of History and Political Science. Emphasis given to addressing how student activism in previous decades compares to 21st-century American student activism. Prerequisites: 24 credits in ISP, including ITW and IQL. Fall, Spring.

**EDUC 311 Early Childhood Methods I: Infant/Toddler/Preschool**

*8 credits*

Study of developmentally appropriate practices using NAEYC standards. Emphasizes curriculum development, diversity, antibias approaches, environmental design, child guidance, observation, assessment, family centered practice, health, safety, and the development of a professional role in childcare settings. Field experience in an infant, a toddler, or preschool classroom at KSC Child Development Center. Prerequisites: Admission to Educator Preparation, EDUC 200 and EDSP 202, and MATH 171, Junior standing. Fall, Spring.

**EDUC 312 Early Childhood Methods II: Primary Grades (K-3)**

*8 credits*

Study of developmentally appropriate practices using NAEYC standards. Emphasizes curriculum development in math, science, language arts, and social studies; classroom design; child guidance; assessment; family involvement; health and safety; and the development of a professional role in the public school-early childhood classroom. Field experience in a public school, primary grades classroom. Prerequisites: EDUC 311, Junior standing. Fall, Spring.

**EDUC 321 Elementary Methods I: Integrating Literacy, Social Studies, and the Arts**

*8 credits*

Practical approaches to creating literacy-rich environments in which children can grow and develop as listeners, speakers, readers, and writers. Lesson-planning techniques are introduced, including writing objectives and designing assessments. Curriculum integration is examined through literacy, social studies, and the arts. Supervised field experience included. Prerequisites: Admission to Educator Preparation, EDUC 200 and EDSP 202, and MATH 171, Junior standing. Fall, Spring.

**EDUC 322 Elementary Methods II: Integrating Math, Science, and Literacy**

*8 credits*

Practical approaches to creating literacy-rich learning environments in which children can develop mathematical and scientific knowledge. Application of lesson and unit planning through extended supervised field experience with emphasis on assessment and impact on student learning. Classroom management skills, including behavioral considerations and techniques, are applied in the elementary classroom. Prerequisite: EDUC 321 and MATH 172, Junior standing. Fall, Spring.

**EDUC 331 Secondary Methods I**

An introduction to secondary methods of instruction, including designing lesson plans, understanding middle and high school philosophies, and writing standards-based objectives or outcomes. Includes a minimum of 20 hours of fieldwork. Prerequisites: EDUC 231 and admission to Educator Preparation. Fall.

**EDUC 332 Secondary Classroom Management**

*2 credits*

An examination of techniques for positive classroom management, tools for intervention, and strategies for creating a positive classroom environment. Legal issues and responsibilities will be discussed. Includes classroom observation. Prerequisite: EDUC 231 and admission to Educator Preparation. Fall, Spring.

**EDSP 333 Secondary Special Education Issues**

*2 credits*

An examination of the roles and responsibilities of the secondary content teacher in the context of the special education process. Focus on inclusive teaching practices, social and academic supports, collaborative challenges, and current issues for teachers of individuals with disabilities. Prerequisite: EDUC 231 and Admission to Educator Preparation. Fall, Spring.

**EDSP 350 Curriculum Design for Students With Special Needs**

Curriculum design, instructional approaches and practices, and informal assessment and progress monitoring for addressing individual needs in the areas of reading, writing, and mathematics, plus strategies that support direct and differentiated instruction, adaptations and modifications, response to intervention, and access to general education. Prerequisite: EDSP 250. Fall, Spring.

**EDSP 352 Behavior and Social Supports**

2 credits

Systematic assessment of student social, emotional, and behavioral competence; challenges; and needs as the basis for designing positive supports and interventions. Prerequisite: EDSP 202; EDUC 311 or EDUC 321. Fall, Spring.

**EDSP 354 Assessment in Special Education**

2 credits

Examination of the role of formal testing in a collaborative special education process; planning, interpreting, and applying assessment results for prereferral teaming, eligibility decisions, and IEP development. Prerequisite: EDSP 350 or permission of instructor. Fall, Spring.

**EDSP 356 Practicum and Methods in Special Education**

8 credits

A course and field experience, where students engage in the range of assessment, planning, instruction, and teaming activities inherent in the role of the special educator. Prerequisite: EDSP 350, EDSP 352. Corequisite: EDSP 354, Junior standing, or permission of instructor. Fall, Spring.

**EDUC 400 Student Teaching**

12 credits

Full-time placement in educational setting(s) appropriate to intended certification. Supervision provided by college supervisor and field-based professional toward mastery of principles, attitudes, and techniques for successful teaching. Graded Pass/Fail. Prerequisite: Permission of Educator Preparation Office. Fall, Spring.

**EDUC 405 Student Teaching**

6 credits

Full-time placement in educational setting(s) appropriate to intended certification. Supervision provided by college supervisor and field-based professional toward mastery of principles, attitudes, and techniques for successful teaching. Prerequisite: Permission of Educator Preparation Office. Graded Pass/Fail. Fall, Spring.

**EDSP 405 Student Teaching**

6 credits

Full-time placement in educational setting(s) appropriate to special education certification. Supervised intensive field-based experience provides an opportunity for the preservice professional to enhance competence of principles, attitudes, and techniques for effective assessment of student needs, planning differentiated instruction, teaching to accommodate the range of learners, and collaborating with colleagues and families. Graded Pass/Fail. Prerequisite: Permission of Educator Preparation. Fall, Spring.

**EDUC 410 Early Childhood Student Teaching Seminar**

2 credits

Seminar taken during student teaching focuses on current social, legal, and ethical issues affecting early childhood education. Includes reflection on professional identity and culminating portfolio development. Corequisite: Student teaching. Fall, Spring.

**EDUC 420 ELED Student Teaching Seminar**

2 credits

Seminar taken during student teaching focuses on current social, legal, and ethical issues affecting education. Includes reflection on professional identity and culminating portfolio development. Corequisite: Student teaching. Fall, Spring.

**EDUC 431 Secondary Methods II**

4 credits

Advanced secondary methods of instruction including standards-based unit plans, current issues, and reflective professional practice. Includes a minimum of 30 hours of fieldwork. Prerequisite: EDUC 331. Fall.

**EDUC 432 Educational Theories/Trends**

Capstone course for secondary education majors in which they will engage in a professional discourse community and develop critical thinking skills through analysis of historic and contemporary theories and trends in education. Prerequisite: EDUC 331. Fall, Spring.

**EDSP 450 SPED Student Teaching Seminar**

*2 credits*

Group study of the realities and challenges of serving in the role of the special educator, working with students who struggle academically, socially, and emotionally. Exploration of collaborative problem-solving and practices to support colleagues as they work to meet the needs of students, families, and other educators. Development of professional portfolios to showcase competence. Corequisite: Student teaching. Fall, Spring.

**EDUC 490 Advanced Special Topics in Education**

*1-4 credits*

Study of a selected topic in education at an advanced level. May be repeated as topics change. Prerequisite: Permission of instructor. Occasionally.

**EDSP 490 Advanced Special Topics**

*1-4 credits*

Study of a selected topic in special education at an advanced level. May be repeated as topics change. Prerequisite: Permission of instructor. Occasionally.

**EDUC 495 Seminar**

*1-4 credits*

Group study of topics in selected area of education. Elective credit only. Prerequisites: Senior status and permission of instructor. Fall, Spring.

**EDSP 495 Seminar**

*1-4 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.

**EDUC 498 Independent Study**

*1-4 credits*

Intensive study of an educational problem encountered in a school or community. May be repeated to a total of 8 credits. Prerequisite: Permission of instructor. Fall, Spring.

**EDSP 498 Independent Study**

*1-4 credits*

Intensive study of an educational problem encountered in a school or community. May be repeated for a total of 8 credits. Fall, Spring, Summer.

**EDUC 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 Educator Preparation Office. Fall, Spring.

**EDUC 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 Educator Preparation Office. Fall, Spring.

**EDUC 595 Seminar**

1-4 credits

Group study of topics in selected area of education. Elective credit only. Prerequisite: Graduate students or seniors with permission of divisional dean. Fall, Spring.

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## English

**IHENG 191 Readings in Literature**

An introduction to topics in literary studies for non-majors. Fall.

**IHENG 195 The World, the Text, and the Reader**

An introduction to the literary arts of reading and writing, with an emphasis on discussing particular themes, topics, or texts. Fall, Spring.

**ENG 201 Writing with Style**

Intensive practice in using grammar, punctuation, voice, and syntax for rhetorical and aesthetic effect. Students will learn how to identify and correct errors and to apply new techniques to their own writing. Prerequisite: ITW 101. Spring.

**IAENG 202 Creative Nonfiction Writing**

Introduction to the basic strategies and techniques of writing creative nonfiction. Extensive writing and reading of creative nonfiction will be discussed in class. Opportunity to develop creative and critical writing skills through assignments and independent work. Prerequisite: ITW 101. Fall, Spring.

**ENG 203 Women's Writing**

Writing about current political and feminist issues and how they impact all women; reading, writing, and research will explore the connections between the political and the personal. Prerequisite: ITW 101. Fall.

**IAENG 204 Creative Writing**

Introduction to the basic strategies and techniques of writing fiction and verse. Assigned exercises, accompanied by readings, are discussed in class. Opportunity to develop creative and critical skills through assignments and independent work. Prerequisite: ITW 101. Fall, Spring.

**ENG 208 Topics in Writing**

Selected topics in specific areas of creative, nonfiction, professional, or other modes of writing. May be repeated once as topics change. Prerequisite: ITW 101. Annually.

**ENG 215 Literary Analysis**

An introduction to the major in English, the course concentrates on refining critical reading abilities through intensive writing. Students will learn to ask questions about literary texts - their authorship, historical contexts, genres, construction, and the reasons for their complexity. Prerequisite: ITW 101. All English majors must take ENG 215 before completing 9 credits in English. Fall, Spring.

**IHENG 220 Readings in British Literature**

Examines a particular period or literary movement, works of a particular author or group of authors from the British Isles, or a recurring theme in fiction or other literary forms. Prerequisite: ITW 101. Fall, Spring.

**IHENG 240 Readings in American Literature**

An introduction to significant writers of the United States and their work, which may include fiction, drama, poetry, and nonfiction prose. May explore a particular theme, period, genre, or group of writers. Prerequisite: ITW 101. Fall, Spring.

**IIENG 245 Readings in African American Literature and Culture**

An interdisciplinary introduction to African American literature and culture, which considers oral, written, and performed texts by African American cultural practitioners. Literary texts from 18th-, 19th-, and 20th-centuries. African American writers will be read in conversation with critical musical, political, and theoretical works. Prerequisite: ITW 101. Fall.

**IHENG 250 Readings in Continental Literature**

Examines 18th- to 21st-century European literature in historical and cultural contexts. Prerequisite: ITW 101. Annually.

**IHENG 251 Literature of the Holocaust**

Examines the culture of European Jews before the Holocaust and literature that reflects the destruction of that culture in World War II. Includes texts by such authors as Ida Fink, Elie Wiesel, Primo Levi, Nelly Sachs, Imre Kertesz, and Jurek Becker. Prerequisite: ITW 101. Cross-listed as IHHGS 251. Spring.

**IHENG 260 Readings in World Literature**

Reading and discussion of selected literary texts from the ancient to the modern world. Course will investigate literary production and reception in relation to historical, social, religious, economic, biographical, or textual contexts. May be repeated once as topics change. Prerequisite: ITW 101.

**IIENG 270 Literature and the Environment**

This interdisciplinary course introduces students to the traditions of environmental literature. Students will learn to think across the humanities, arts, and sciences. May explore a particular group of writers, genre, historical period, or bioregion. May be repeated once as topics change. Prerequisite: ITW 101. Annually.

**ENG 280 Cultural Studies**

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: ITW 101. Annually.

**IHENG 286 Children's Literature**

Reading and discussion of representative texts and illustrations from the genres of children's literature, such as folklore, fantasy, contemporary realistic fiction, historical fiction, biography, poetry, and information books. Prerequisite: ITW 101. Fall, Spring.

**ENG 290 Topics**

Selected topics in literature. May be repeated as topics change. Prerequisite: ITW 101. Annually.

**ENG 298 Independent Study**

*1-4 credits*

Reading/writing in a selected area of English with a faculty member. Must be 4 credits to count as one of the two 200-level courses required for the English major. Prerequisite: ITW 101 and permission of instructor.

**ENG 301 Fiction Workshop**

Discussion and evaluation of original manuscripts combined with reading and discussion of the theory of fiction. Prerequisites: ITW 101 and one 200-level English course. Spring.

**ENG 302 Poetry Workshop**

Class discussion of original student work combined with extensive reading in poetry and poetics. Analysis of major theories, technical innovations, and innovators. Prerequisites: ITW 101 and one 200-level English course. Fall.

**ENG 303 Nonfiction Workshop**

Nonfiction essay writing, focusing on style, rhetorical theory and strategies, and publication. Workshop format. Prerequisites: ITW 101 and one 200-level English course. Fall.

**ENG 306 Autobiography Workshop**

Writing and revising several chapters of an autobiographical manuscript combined with extensive reading of published autobiographies. Prerequisites: ITW 101 and one 200-level English course. Spring.

**ENG 307 Writing in the World**

Drawing on the field of professional writing, this course focuses on analyzing and generating writing in workplace and local community contexts. Through discussion, collaborative writing, and a service-learning project, students will explore the importance of communicating clearly and ethically and will design, develop, and present professional documents for specific audiences. Prerequisites: ITW 101 and one 200-level English course. Spring, odd years.

**ENG 308 Advanced Topics in Writing**

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: ITW 101 and one 200-level English course. Annually.

**ENG 312 Descriptive Grammar**

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: ITW 101 and one 200-level English course. Fall.

**ENG 315 Literary Form and History**

A study of literary form and history through readings and theoretical investigations of a single genre, such as poetry, fiction, drama, or the essay. Prerequisites: ITW 101 and ENG 215. Fall, Spring.

**ENG 321 English Literature: Beginnings to 18th Century**

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, and prose. Prerequisites: ITW 101 and one 200-level English course. Fall.

**ENG 323 Medieval Literature**

Advanced survey of medieval literature focusing particularly, but not exclusively, on the development of literary genres and themes in the British Isles. All texts will be read in translation. Prerequisites: ITW 101 and one 200-level English course. Fall.

**ENG 324 Chaucer**

A close study of Geoffrey Chaucer's *The Canterbury Tales*, with special attention to the connection between pilgrims and tales. We will read all tales in the original Middle English. Prerequisites: ITW 101 and one 200-level English course. Spring.

**ENG 326 English Renaissance Literature**

Intensive study of the drama, poetry, and prose of the English Renaissance. Special attention will be paid to a particular social or aesthetic dimension of these literary texts. Prerequisites: ITW 101 and one 200-level English course. Fall.

**ENG 327 Shakespeare: Poetry and Plays**

A close study of Shakespeare's poems and drama with special attention to the development of Shakespearean comedy, history, and tragedy. Prerequisites: ITW 101 and one 200-level English course. Spring.

**ENG 329 19th-Century English Literature**

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: ITW 101 and one 200-level English course. Every third year.



**ENG 330 Studies in British Literature**

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: ITW 101 and one 200-level English course. Fall.

**ENG 341 Early American Literature**

Major developments of American literature, culture, and thought from the pre-Columbian period to the 19th century. Emphasis is on American Indian oral literature, European visions, the formation of an Anglo-American literary tradition, the Enlightenment, and the American Revolution. Prerequisites: ITW 101 and one 200-level English course. Fall, alternate years, beginning 2000.

**ENG 344 Studies in American Literature**

Focuses on a particular theme, period, movement, or genre. Emphasis may be aesthetic, historical, or cultural. May be repeated as topics change. Prerequisites: ITW 101 and one 200-level English course. Every third semester.

**ENG 345 Studies in African American Literature**

Examines literary traditions of African American cultural practitioners, including relations between oral and literary works, performance and reading, tradition and innovation. Texts by Black writers from the 18th, 19th, and 20th centuries are read in conversation with those from the contemporary moment. Prerequisites: ITW 101 and one 200-level English course. Annually.

**ENG 346 Transcendentalism**

Explores American Transcendentalism. Intensive reading and discussion of such writers as Emerson, Thoreau, Margaret Fuller, and Whitman. Prerequisites: ITW 101 and one 200-level English course. Alternate years.

**ENG 347 American Indian Writers and their Cultures**

An interdisciplinary examination of the major novels, essays, and poems of American Indian writers since 1969 in relation to their cultural backgrounds: history, politics, and American Indian film. Students will explore topics such as resistance to colonization, preservation of history in oral traditions, stereotyping, and cultural genocide. Prerequisites: ITW 101 and one 200-level English course. Spring.

**ENG 350 Studies in Continental Literature**

Intensive study of 18th- to 21st-century European literature with a focus on the social, intellectual, and literary significance of the works considered. May be repeated as topics change. Prerequisites: ITW 101 and one 200-level English course. Alternate years.

**ENG 360 Studies in World Literature**

Examines texts from the Ancient World: Asia, Africa, and the Pacific. May be repeated as topics change. Prerequisites: ITW 101 and one 200-level English course. Every third spring.

**ENG 370 Studies in Literatures of the Americas**

Compares literatures such as those of Canada, the United States, and 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: ITW 101 and one 200-level English course. Alternate years.

**ENG 381 Women Writers**

Emphasis is on the images, forms, contexts that shape women's literary expression and that identify women's lives in cultural, social, political spheres. Prerequisites: ITW 101 and one 200-level English course. Annually.

**ENG 390 Studies**

Intensive study of selected topics in literature, language, and culture. May be repeated as topics change. Prerequisites: ITW 101 and one 200-level English course. Occasionally.

**IHENG 391 Studies in Literature**

A course in literary genre and theme for nonmajors. This course will explore the distinctive features of one or more literary genres and themes. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. (Not open for credit toward the English major.) Annually.

**IHENG 392 The Writer and the World**

An in-depth study of a particular author's work. Emphasis is placed on the importance of context (social, historical, economic, cultural). Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. (Not open for credit toward the English major.) Annually.

**ENG 395 Advanced Sequence I**

Acquaints students with a particular aspect of the field of English studies and exposes them to primary and secondary texts, as well as historical and cultural contexts. Prepares students for the advanced seminar, ENG 495 Sequence II, which completes the yearlong sequence. Prerequisites: ITW 101, ENG 215, ENG 315, and 60 credits. English majors only. Fall, Spring.

**ENG 402 Theory and Practice**

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: ITW 101, one 200-level English course, and one 300-level English course. Annually.

**ENG 405 Writing Portfolio**

Independent selection and intensive revision of writing completed for the writing option in the English major or the writing minor. Students will compile a portfolio under the direction of an English faculty member. May be taken concurrently with another writing option or writing minor course. Prerequisites: ITW 101, one 200-level and one 300-level English course, 12 credits completed toward the writing option or writing minor. Fall, Spring.

**ENG 490 Advanced Studies**

Advanced study of selected topics in literature, language, and culture. May be repeated as topics change. Prerequisites: ITW 101, ENG 215, ENG 315, and one additional 300-level English course. Fall, Spring.

**ENG 495 Advanced Sequence II**

Builds upon the student's knowledge of the primary texts in ENG 395 Sequence I and involves students in theoretical and critical discussions in the field. Requires writing that incorporates advanced theory. Prerequisites: ITW 101, ENG 215, ENG 315, and ENG 395. Fall, Spring.

**ENG 497 Writing/Publishing Internship**

This seminar and experiential learning opportunity allows students to gain practical writing/publishing experience in a professional site. Seminar meetings involve discussion of readings on writing/publishing theory/practice, investigations of graduate and professional writing opportunities, and sharing of internship experiences. Students will develop a portfolio showcasing work developed for the internship site. Prerequisites: ITW 101, one 200-level English course, one 300-level English course, and permission of instructor. Annually.

**ENG 498 Independent Study**

*1-8 credits*

Advanced reading or writing in a selected area of English with a faculty member. Must be 4 credits to count as one of the three 400-level courses required for the English major. Repeatable for up to 8 credits. Prerequisites: ITW 101, one 200-level and one 300-level English course, and permission of instructor.

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## English as a Second Language

### ESL 101 English as a Second Language

A course for non-native speakers of English focusing on self-assessment and needs analysis. Curriculum is developed according to student needs in writing, reading, vocabulary, grammar, listening, speaking, and pronunciation. May be repeated once for credit. Fall, Spring.

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## Environmental Studies

### IENST 110 Food, Health, and the Environment

This interdisciplinary course explores the connection between food choices and food production systems and their impact on public health and the environment. Considering social, political, economic, and ethical factors, students will compare different agricultural systems and assess the ecological footprint and sustainability of our daily decisions of what to eat. Fall, Spring.

### IENST 150 Global Environmental Change

Students will gain a basic scientific understanding of the Earth's major physical and biological systems within the context of global environmental issues, and will also explore global environmental change and potential solutions from interdisciplinary economic, ethical, political, and social perspectives. Fall, Spring.

### IENST 151 The Environment of Central New England

Introduces the geology and ecology, the natural and human history, and the social systems and governance structures that shape our regional environment. Explores the concept of place using interdisciplinary approaches, including hands-on field work, to prepare students to become responsible environmental stewards of the places where they live. Fall.

### ENST 250 Principles of Sustainability

Students evaluate worldviews and assumptions that brought us to the current crisis in worldwide environmental degradation and social injustice, and examine the more harmonious and sustainable relationship between humans and nature using systems-thinking, critical reflection, writing and contemplative practices. Prerequisites: ITW 101 and either IENST 150 or IENST 151. Spring. Fall.

### ENST 251 Matter and Energy in the Environment

Introduces fundamental concepts governing the distribution of matter and energy in the Earth systems that determine our environment. Field and laboratory exercises emphasize the basics of sampling and experimental design, hypothesis formation, data analysis, and interpretation. Prerequisites: IENST 150 or IENST 151, and IQL 101 or MATH 141. Spring. Fall.

### ENST 252 Ecology of A Changing Planet

This integrated lecture-lab course will provide an understanding of biological and ecological principles and relate them to different environmental issues, such as global climate change, conservation of habitats and biodiversity, land use change, and pollution. Field and lab exercises emphasize sampling and experimental design, hypothesis formation, data analysis, and interpretation. Prerequisites: IENST 150 or IENST 151 and IQL 101 or MATH 141. Fall.

### ENST 253 Environmental Governance

Making environmental decisions is extremely challenging due to the complex interaction of science, politics, associated uncertainties, conflicting individual/social values, and decision urgency. This course provides an overview of the current and emerging processes by which communities, businesses, and governments make decisions relating to environmental governance. Prerequisites: IENST 150 or IENST 151 and ITW 101. Spring. Fall.

### ENST 290 Special Topics

*1-4 credits*

Study of selected topics related to Environmental Studies. May be repeated as topics change. Occasionally.

**ENST 304 Environmental Law and Regulation**

Develops an understanding of the system of laws and regulations that protect the environment, human health, and natural resources. The role of science in the legal/regulatory process will be emphasized, as will federal/state regulatory processes and requirements. Cross-listed as SAFE 304. Prerequisite: ENST 253 or SAFE 302 or permission of instructor. Fall.

**ENST 308 Environmental Issue Management**

Environmental professionals frequently confront issues involving high levels of uncertainty in contentious political environments. This course covers the methods for informing the public and engaging stakeholders in addressing environmental problems. Students create and critique environmental messages, public participation strategies, and information dissemination styles for multiple audiences and purposes. Prerequisite: ENST 253. Spring.

**ENST 311 Environmental Health**

This course will examine the impact of environmental factors on human health. Basic principles of toxicology will be reviewed. Conceptual understanding of chemical, biological, and physical hazards and their associated health effects will be emphasized. Contemporary challenges of environmental health policy-making will be discussed. Prerequisite: ENST 251 or INCHEM 103 or CHEM 112. Spring, alternate years.

**ENST 312 Energy and Sustainability**

Many significant world problems can be attributed to our use of energy. To ensure a livable future, we need to understand energy and be able to effectively evaluate different options, including new energy technologies as well as changes in the way we live our lives. Prerequisites: ENST 250 and ENST 251. Spring, alternate years.

**ENST 315 Environmental Geology**

Examines the 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. Three-hour lecture, three-hour lab. Required field trips. Cross-listed as GEOL 315. Prerequisite: INGEOL 151. Fall.

**ENST 352 Conservation of Ecological Systems**

This course focuses on the practical and theoretical aspects of conservation and restoration biology through lectures, discussions, and student projects. It examines the degradation and loss of biodiversity and ecosystems due to human activity and considers alternatives for avoiding and/or mitigating these impacts. Prerequisite: ENST 252. Spring.

**ENST 363 Writing in An Endangered World**

This course traces environmentalism as a social movement in relation to the development of environmental writing. Students will consider the relationship between literature and social change, the development of literary strategies in environmental writing, and commentaries on the environmental movement by cultural critics and environmental historians in developing countries. Cross-listed with AMST 363. Prerequisites: IIAMST 250 or ENST 250 or permission of instructor. Fall, odd years.

**ENST 395 Junior Seminar**

In-depth analysis of environmental research literature and methodologies. Emphasis on proposal writing and oral presentation. Development of a project proposal to be completed in ENST 495. Exploration of postgraduate opportunities. Field trips and field work required. Prerequisite: 76 credits and grade C or higher in ENST 250, ENST 251, ENST 252, and ENST 253. Spring. Fall.

**ENST 404 Risk and the Environment**

Risk decision-making regarding the environment involves multiple stakeholders and is often controversial. This course examines the theory and practice of environmental risk assessment and management, with an emphasis on the social, political, and technical dimensions of risk decision-making. Prerequisite: ENST 253. Spring, alternate years.

**ENST 411 Pollution Chemistry**

This course examines the chemistry of pollution in the environment. Conceptual understanding of significant natural and manmade chemical processes in air, water, and soil will be emphasized. Pollution fate and transport, monitoring, control

technologies, and remediation strategies are explored. Lab component. Prerequisite: ENST 251 or INCHEM 103 or CHEM 112. Spring, alternate years.

#### **ENST 412 Environmental Geochemistry**

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. Three-hour lecture, three-hour lab. Prerequisites: ENST 251 or INGEOL 151, and INCHEM 103 or CHEM 112. Spring, alternate years.

#### **ENST 431 Environmental Policy Analysis**

This course provides a framework for navigating the complex dimensions of environmental policy and reconciling scientific information with the often divergent social values and perspectives associated with environmental issues. Students examine environmental problems at multiple scales and propose common interest solutions based on an in-depth interdisciplinary case study analysis. Prerequisite: ENST 253. Fall.

#### **ENST 452 Ecosystems and the Environment**

This course focuses on the controls and dynamics of ecosystem function and community structure. A central theme in this course is to apply the concepts learned to human-caused environmental problems such as global climate change, industrial farming, loss of biodiversity, invasion by nonnative species, and acid rain. Prerequisite: ENST 252. Fall.

#### **ENST 460 Groundwater in the Environment**

Examines the occurrence and movement of groundwater as it relates to the hydrologic cycle, the environment and ecosystems, water resources, and the transport and fate of contaminants. Theoretical and practical aspects. Three-hour lecture, three-hour lab. Field trips may be required. Prerequisite: ENST 251 or INGEOL 151. MATH 151 and INPHYS 141 are desirable but not required. Fall, alternate years.

#### **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. Occasionally.

#### **ENST 494 Advanced Cooperative Education**

*1-6 credits*

Sequential work-learning experience for which compensation may be received. Positions arranged by students, with sponsorship, approval, and evaluation by full-time faculty. Elective credit (normally 120 hours per credit) for a total of 12 credits per degree program. Prerequisites: 2.0 cumulative GPA, declaration of major, and permission of instructor. May be repeated for credit. Graded Pass/Fail.

#### **ENST 495 Senior Seminar**

In this capstone course, students explore in-depth environmental issues, integrating science and policy aspects. Completing the research project developed in ENST 395, students further enhance their research, critical thinking, and oral and written communication skills. The seminar prepares students for professional careers or postgraduate opportunities. Field trips or field work required. Prerequisites: ENST 395. Fall. Spring.

#### **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 for a total of 6 credits.

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## Film Studies

### **IAFILM 150 Introduction to Digital Video Production**

This course provides an introduction to basic filmmaking technique, aesthetics, and skills in digital media management through production of digital video projects. Students gain an understanding of the art of narrative filmmaking through emphasis on story development, cinematography, editing, directing, and sound design. Course participation demands outside-class production time.

### **IHFILM 190 Myths and Archetypes in Film and Literature**

Examines the phenomena of storytelling through film, literature and our own lives by studying the mythical structure and archetypes that have set the template for the stories we read, watch, and tell in our everyday lives. The investigations lead to a final project where students can generate creative work incorporating specific myths and archetypes.

### **FILM 240 Introduction to Digital Media Management**

*2 credits*

The students will be introduced to the basic terms, concepts, and techniques involved in the postproduction of film and video projects. The class is comprised of lecture, demonstration, and in-class exercises. All editing is performed on the Avid Xpress DV platform. Prerequisite: For Film majors only or permission of instructor.

### **FILM 250 Film Production I**

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: FILM 240 (may be taken concurrently). For Film majors only. 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.

### **IHFILM 260 Introduction to Film Analysis**

This course is designed to equip students with the tools necessary to become critically aware and capable film viewers by introducing elements of film form, processes of textual analysis, a variety of cinematic techniques used in narrative and non-narrative cinema, and other models of critical analysis used in film criticism. Not open to students who have completed FILM 270. Fall, Spring.

### **IHFILM 261 Introduction to Film History**

This course examines the history of narrative film's technical, aesthetic, industrial, and social development within an international context, particularly in relation to wider cultural and political movements. Film screenings and frequent writing assignments are employed to encourage critical skills in terms of cinema aesthetics and cultural criticism. Not open to students who have completed FILM 271. Fall, Spring.

### **FILM 270 Introduction to Film Analysis**

This course is designed to equip students with the tools necessary to become critically aware and capable film viewers by introducing elements of film form, processes of textual analysis, a variety of cinematic techniques used in narrative and nonnarrative cinema, and other models of critical analysis used in film criticism. For Film majors only. Not open to students who have completed IHFILM 260. Fall, Spring.

### **FILM 271 Introduction to Film History**

This course examines the history of narrative film's technical, aesthetic, industrial, and social development within an international context, particularly in relation to wider cultural and political movements. Film screenings and frequent writing

assignments are employed to encourage critical skills in terms of cinema aesthetics and cultural criticism. For Film majors only. Not open to students who have completed IHFILM 261. Fall, Spring.

**FILM 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.

**FILM 294 Cooperative Education**

*1-8 credits*

Introductory work-learning experience in film and/or video production, distribution, exhibition, or preservation, for which compensation may be received. Positions arranged by students, with sponsorship, approval, and evaluation by full-time faculty. Elective credit only (normally 120 hours per credit) for a total 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**

*1-8 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. May be repeated for a total of 8 credits.

**IHFILM 310 Women and Cinema**

Presenting the works of women film and video makers in the social, economic, and historical contexts of their production and reception, this course develops a critical understanding of women's concerns in a transnational world. Prerequisites: 24 credits in ISP courses, including ITW 101 and IQL 101. Spring.

**IHFILM 320 Movements in World Cinema**

Addresses major issues in thinking about both national and international cinema in the context of globalization. By examining "global Hollywood" movies and international art cinema as well as transnational film genres, the course explores critical approaches to the intensifying flows of ideas and influences in world film culture. Prerequisites: 24 credits in ISP courses, including ITW 101 and IQL 101. Fall.

**IAFILM 330 Screenwriting**

This course introduces students to the fundamentals of writing a feature-length film narrative in a proper screenplay form. Class is conducted as a series of workshops in which students study several different types of screenplays, and then do a series of projects that prepares students to write original scripts. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Fall, Spring.

**IAFILM 331 Storytelling in Video**

This course teaches techniques of video production in relation to developing and creating stories. Students will focus on concepts, aesthetics, and techniques as they produce visual narratives. Course participation demands outside class production time. Prerequisites: 24 credits in ISP including ITW 101 and IQL 101.

**IAFILM 332 Creative Digital Non-Fiction**

This course provides perspective on techniques of video production in relation to investigating and creating a documentary. Students will focus on research, techniques, and sequencing as they produce documentaries. Some familiarity with video production is mandatory. Course participation demands outside class production time. Prerequisites: 24 credits in ISP including ITW 101 and IQL 101.

**IHFILM 342 Topics and Genres**

Examines a body of narrative and/or non-narrative films related by virtue of style, director(s), country or region of origin, or period from historical and theoretical perspectives. Prerequisites: 24 credits in ISP including ITW 101 and IQL 101.

**FILM 350 Film Production II**

This course introduces students to 16mm film production while investigating preproduction methods, camera and lighting, and developing ideas for films. Participation demands significant outside-class production time and substantial student financial output. Prerequisites: Grade B or higher in FILM 250 or permission of instructor. Fall.

**FILM 351 Intermediate Film Production**

This course further expands 16mm filmmaking as students produce films they have developed in FILM 350. The primary focus is directing, shooting, and post-production practices. Participation demands significant outside class production time and substantial student financial output. Prerequisites: FILM 350 and permission of instructor. Spring.

**FILM 352 Topics in Film Studies**

Examines a body of narrative and/or non-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 353 Cinema and Diversity**

This course invites students to consider films in their social, economic, and historical contexts of production and reception. By surveying key critical ideas, students will recognize political issues in filmic representations and gain an understanding of how power functions in the reproduction of social boundaries and cultural differences through cinema. Prerequisite: FILM 270 and FILM 271. Fall.

**FILM 355 Film Theory**

The study of major film theories and their application to specific films. Formalist, structural, and ideological theories are covered. Prerequisites: FILM 271 and FILM 353, or permission of instructor. Fall, Spring.

**IIFILM 362 Interdisciplinary Approaches to Film**

This course explores cinema through interdisciplinary approaches that cross multiple fields of study, drawing upon academic disciplines that include literary studies, women's studies, media studies, cultural studies, and history. May be repeated as topics change. Prerequisite: 24 credits in ISP including ITW-101 and IQL-101.

**IIFILM 380 Filming War, Writing War**

This interdisciplinary course will focus on cinematic and literary works about war's noncombatants, women, children, losers instead of winners, and international populations. Drawing on material from the fields of film, literature and history, we will explore how war is defined and represented around the world. Prerequisites: 24 credits in ISP including ITW 101 and IQL 101.

**FILM 440 Advanced Production Techniques**

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**

First semester of yearlong course emphasizing preproduction 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 10; prearranged crews are encouraged. May be retaken once for a total of 8 credits with instructor's permission. Prerequisites: Grade B or higher in FILM 350 or FILM 351 (or equivalent) and permission of instructor. Fall.

**FILM 451 Film Production IV**

Second semester of yearlong course emphasizing preproduction for all crew positions toward production of 30-minute sync-sound, dialogue 16mm color project. Participation demands substantial student financial output. Films are designed to be produced in crews of seven to 10; prearranged crews are encouraged. May be retaken once for a total of eight (8) credits with instructor's permission. Prerequisites: FILM 450 and permission of instructor. Spring.

**FILM 460 Directing the Advanced Film Project I**

This course is designed to give an advanced production student experience directing the annual yearlong advanced project. Students will select their crew and fully reproduce the film, guiding the project and crew through the first (preproduction)



semester of the course. Students will work closely with the instructor outside of class to fully prepare the project and facilitate communication between crewmembers. Prerequisites: Film Production Option students only, FILM 451, and permission of instructor.

### **FILM 461 Directing the Advanced Film Project II**

This course is designed to give an advanced production student experience directing the annual yearlong advanced project. Students will continue the process initiated in FILM 460 by producing and postproducing an advanced film or video project, guiding the project and crew through the second semester of the course. Students will work closely with the instructor outside of class to fully prepare the project and facilitate communication. Prerequisites: Film Production Option students only, FILM 460, and permission of instructor.

### **FILM 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.

### **FILM 495 Seminar**

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, FILM 271, and FILM 353, or permission of instructor. Fall, Spring.

### **FILM 498 Independent Study**

*1-8 credits*

Intensive study of an issue, problem, or topic related to film or film production. May be repeated for a total of 8 credits. Prerequisites: Junior standing and permission of instructor.

### **FILM 499 Senior Research Project**

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 353 and FILM 495 or permission of instructor.

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## **French**

### **IHFR 100 Basic French Language and Culture**

Introduction to basic skills to communicate about personal and everyday topics and exploration of cultural diversity within the contemporary French-speaking world. For students with no prior knowledge of French. Does satisfy the Arts and Humanities language requirement. Fall, Spring, Summer.

### **IHFR 101 Elementary French I**

Introduction to basic skills to communicate about personal and everyday topics, including informal conversations with native speakers, finding information in newspapers and on Internet sites, and exploring the contemporary French-speaking world. For students with little or no prior knowledge of French.

### **IHFR 102 Elementary French II**

Development of skills to communicate about personal and everyday topics, including informal conversations with native speakers, finding and reading information in newspapers and on Internet sites, and exploring contemporary issues in the French-speaking world. Students should have prior knowledge of basic French.

### **IHFR 103 Elementary French III**

Development of skills to converse with native speakers, explore contemporary issues in the French-speaking world, narrate events in present and past tenses, and read newspapers, websites, and short fiction with a dictionary. Students should have prior knowledge of elementary French. Fall, Spring.

**IHFR 200 Intermediate Readings in French**

Selected readings in French from literary texts, scholarly journals, magazines, newspapers, and websites. Class discussions are mainly in English. This course meets the Arts and Humanities language requirement and does not count for the French major. Students should have an elementary knowledge of French. Fall, Spring.

**FR 201 Intermediate French**

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**

*1-4 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. May be repeated for a total of 8 credits.

**FR 315 Conversation & Composition I**

To maintain and perfect written and spoken French through intensive classroom work, as well as individual and group work. Discussions and frequent papers in French based on cultural and literary readings and videos given in French. Emphasis on oral communication. Prerequisite: FR 201 or permission of instructor. Fall.

**FR 316 Conversation & Composition II**

To maintain and perfect written and spoken French through intensive classroom work, as well as individual and group work. Discussion and frequent papers in French based on cultural and literary readings and videos. Given in French. Writing intensive. Prerequisite: FR 315 or permission of instructor. Spring.

**FR 325 Introduction to French Literature**

A study of various critical approaches to French literature conducted in French. Prerequisite: FR 315 or permission of instructor. Fall, alternate years.

**FR 350 Study in Africa, France or Quebec**

*Minimum of 12 credits per semester*

Study away, for a full semester, in a Modern Language department-approved program that meets Global Education Office guidelines. Students will take a minimum of 12 credits per semester. Students must meet with Modern Language faculty for preapproval and additional proficiency requirements. May be used to meet the Arts and Humanities language requirement. All majors must take the ACTFL Oral Proficiency Interview, and complete a reflective essay in the target language, within 30 days after their study abroad experience. Permission of instructor. 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 permission of instructor. Fall alternating years.

**FR 410 Advanced French Grammar**

A study of contemporary French grammar and a treatment of the typical pitfalls for nonnative users of French. Prerequisite: FR 405 or permission of instructor. Fall alternating years.

**FR 490 Advanced Special Topics**

Study of a selected topic in French at an advanced level. May be repeated as topics change.

**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**

*1-4 credits*

Intensive study of some aspect of French language, literature, or culture adapted to the student's needs. May be repeated for a total of 8 credits. Prerequisite: Permission of instructor.

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**General Science****GS 301 The Web of Science**

This course provides extensive hands-on experience in a laboratory setting for elementary education majors. Students plan and teach science lessons to elementary children. Lessons include discovery-based and inquiry-based learning. It's an integrated natural science, content-oriented curriculum, based on the Natural Science Standards and New Hampshire Science Curriculum Frameworks. Prerequisites: BIO 110, BIO 111, INGEOL 151, INCHEM 103, MATH 171, MATH 172, or permission of the instructor.

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**Geography****ISGEOG 100 Introduction to Geography**

A systematic introduction to the discipline, designed to give the beginning student exposure to major topics associated with the subfields of geography. Geographic concepts and theories using real world examples will be presented in order to examine spatial information and patterns that exist on the earth. Fall, Spring.

**ISGEOG 101 World Regional Geography**

Introduction to the geography of the world's peoples and places. Adopting a regional perspective, the course examines the homogenizing and diversifying forces inherent among the world's countries, peoples, and physical environments. Includes resource materials for teaching geography. Students may not receive credit for both ISGEOG 101 and ISGEOG 201. Fall, Spring.

**ISGEOG 201 Geography for Teachers**

A combination of world regional geography and its application in the K-12 classroom. Course is based on the six elements of geography and the national geography standards. Appropriate for both elementary and secondary preservice teachers. Not open to students who have completed ISGEOG 101. Fall.

**ISGEOG 203 The Human Cultural Mosaic**

Focuses on a global analysis of cultural systems, spatial patterns, and processes underlying cultural evolution, resource systems, and the impact of humans on the environment. Fall, Spring.

**ISGEOG 204 Physical Geography**

This course examines the dynamic processes that shape the Earth's landscapes. Special attention is given to weather, climate, maps, and landforms. Fall, Spring.

**ISGEOG 205 Environmental Geography**

Explores the complex relationships between nature, culture, and place. Emphasis is placed on spatial aspects of human interactions with the environment resulting in serious issues, including pollution, global climate change, and resource depletion. Environmentally sustainable actions will be examined and assessed. Prerequisite: IQL 101 or ITW 101. Fall, even years.

**GEOG 221 Maps Interpretation**

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. Emphasis is on interpreting and analyzing map information and data. Spring.

**GEOG 290 Special Topics**

*1-4 credits*

Study of a selected topic in Geography. May be repeated as topics change. Occasionally.

**GEOG 298 Independent Study**

*1-4 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. Prerequisite: Permission of the instructor who will supervise the independent study. May be repeated for a total of 4 credits. Occasionally.

**GEOG 303 The Politics of Place**

Provides a systematic introduction to the geographical dimensions of political systems, with emphasis on the physical environment, economic and cultural systems, location, resources, and political patterns. Spring, odd 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: ISGEOG 203 or ISGEOG 204. Spring, odd years.

**GEOG 305 The Global Economy**

Analysis of the world economy from the spatial perspective, emphasizing resources, location, trade, and development. Attention is focused on population issues; the primary, secondary, and tertiary sectors; development and underdevelopment issues, environmental relationships, and the global economy. Prerequisite: 4 credits in Geography. Fall, even years.

**GEOG 307 Urban Geography & Planning**

Combines attention to urbanism, growth of cities, morphological theories of urbanization, and modern urban problems with theory and methods of land use planning. Emphasis is placed on concepts, principles, and practices of land analysis and evaluation of planning and design. Prerequisite: ISGEOG 100 or ISGEOG 203 or permission of instructor. Spring, odd years.

**GEOG 321 Geospatial Technology for K-12**

Exploration of geospatial technologies such as Geographic Information Systems (GIS), Global Positioning Systems (GPS), and Remote Sensing and their applications in the K-12 classroom. Emphasis is on geospatial technology skills and its associated K-12 pedagogy. This course is only recommended as one of the required skills courses for teacher certification candidates. Prerequisite: One course in Geography. Spring.

**GEOG 323 Cartography and Surveying**

Fundamental and modern techniques of surveying and map making. Three-hour lecture, three-hour lab. Fall, alternate years.

**GEOG 324 Fundamentals of GIS**

This Geographic Information Systems (GIS) course provides an introduction to the fundamental components of GIS. Lecture and lab-based instruction emphasize data input, manipulation, analysis, and map production. Prerequisite: ISGEOG 204 or GEOG 221. Fall.

**GEOG 325 Cartographic Design and Analysis**

Analysis of statistical geographical data is used to design and produce publishable maps with computer programs. Three-hour lecture, two-hour lab. Prerequisite: ISGEOG 204 or GEOG 221. Fall, even years.

**GEOG 327 Environmental 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, odd years.

**GEOG 330 Natural Resource Management**

Examination of the use and management of renewable and nonrenewable 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: IENST 152 and 4 credits in Geography. Fall, even years.

**GEOG 332 Global Water Resources**

Spatial investigation of the social, political, and environmental consequences of water resources development and use. Case studies used to compare hydrologic conditions, social institutions, and hydrogeology in watersheds around the world. Emphasis is on emerging global change (e.g., population and climate). Prerequisite: IENST 152 or ISGEOG 204 or permission of instructor. Spring, even years.

**GEOG 334 Geography of Outdoor Recreation**

Examines geographic aspects of outdoor recreation including trends and resources. Emphasis will be placed on the supply and demand for recreation as well as the impacts of recreational use upon supporting environments. Recreation agencies' missions and programs will also be explored. Prerequisites: ISGEOG 204 or ISGEOG 205. Fall.

**GEOG 340 Topics in Regional Geography**

A systematic analysis of the physical, social, and economic resources of the region under study. Focuses on historical development, physical and cultural diversity, natural resources, demographic trends, spatial interaction, the environment, and prospects for growth. May be repeated as topics change. Fall, Spring.

**GEOG 341 Geography of the U.S. and Canada**

Examines the complex mosaic of peoples and places that make up the United States and Canada. A systematic analysis of the physical, environmental, cultural, political, and economic aspects of the North American region using a geographic perspective. Spring.

**GEOG 371 Geography Field Studies**

*1-8 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 16 credits, only 8 of which are applicable toward the major in Geography. Prerequisite: Permission of instructor. Fall, Spring.

**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: IQL 101 and 12 credits of Geography at the 200-level or above. GEOG 324 or GEOG 325 is recommended. Spring.

**GEOG 424 Advanced GIS**

Builds on existing Geographic Information System skills to explore a range of topics using current software. Students learn tools for representing and analyzing vector, raster, network, and 3-D data, while examining the theoretical contributions of GIScience. Emphasis on spatial data creation, editing, modeling, and programming. Prerequisite: GEOG 324. Spring.

**GEOG 490 Advanced Special Topics**

*1-4 credits*

Individual study and discussion of selected topics in Geography under direction of a faculty member. Prerequisites: ISGEOG 203 or ISGEOG 204 and permission of instructor. 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: Grade C or higher in GEOG 395. Fall.

**GEOG 497 Geography Internship**

*1 - 8 credits*

Supervised applied geography work experience with a local public agency or private organization. The internship will be designed around student's interests, academic background, career goals and position availability. Student must submit an application and gain approval of a supervising faculty member. Prerequisites: 16 credits in Geography, 2.5 cumulative GPA and 3.0 GPA in major, junior standing, and department permission. May be repeated for a total of 8 credits. Graded Pass/Fail. Fall, Spring or Summer.

**GEOG 498 Advanced Independent Study**

*1-4 credits*

Exploration of a major area of Geography under direction of a Geography faculty member. Topics contingent on student interest and available staff. Prerequisite: ISGEOG 100, ISGEOG 203, ISGEOG 204, and permission of instructor. May be repeated for a total of 4 credits. Fall, Spring.

**GEOG 571 Geography Field Studies**

*1-8 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. Fall, Spring.

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## Geology

**GEOL 100 Perspectives of the Earth**

An overview of earth's systems (geosphere, atmosphere, hydrosphere, and biosphere) and their interactions. Includes a survey of earth materials, internal and external processes, global cycles (carbon, water), and feedback loops between humans' and earth's systems. Environmental and resource issues are addressed. Fall, Spring.

**INGEOL 110 Earth Systems Science**

An overview of earth's systems (geosphere, atmosphere, hydrosphere, and biosphere) and their interactions. Includes a survey of earth materials, internal and external processes, global cycles (carbon, water), and feedback loops between humans and earth's systems. Environmental and resource issues are addressed. Includes an integrated laboratory component. Fall, Spring, Summer.

**INGEOL 151 Physical Geology**

An overview of the earth. Includes description and origin of minerals and rocks, internal and external processes and recognition of the landforms they produce, global cycles (carbon, water), and feedback loops between humans' and earth's systems. Environmental and resource issues are addressed. Three-hour lecture, two-hour lab. Required field trips. Fall, Spring.

**GEOL 206 Oceanography**

Introduction to ocean science emphasizing waves, tides, coastal marginal processes, marine sediments and resources, the importance of technology in ocean studies, and the origin of the ocean basins through plate tectonics. Some coverage of ocean chemistry and biota. Spring.

**GEOL 252 Evolution of the Earth**

Introduction to Earth history and the processes that have shaped the Earth since its formation. Topics include absolute and relative correlations, plate tectonics, and the origin and evolution of the lithosphere, biosphere, and atmosphere. Three-hour lecture, two-hour lab. Required weekend field trip(s). Prerequisite: INGEOL 151. Spring.

**GEOL 290 Topics**

*1-4 credits*

Exploration and analysis of topics of geology, such as plate tectonics, environmental geology, and geologic history of particular terrains. Prerequisite: Permission of instructor. Occasionally.

**GEOL 298 Independent Study**

*1-4 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. May be repeated for a total of 8 credits.

**INGEOL 300 Geoscience Issues and Society**

A course focusing on the cause and effect of geologic processes that impact society. Content may vary, but includes earthquakes, tsunamis, floods, volcanic activity, resource issues, and the geologic record of climate change. Students are expected to closely monitor popular media to document current geologic events and their effects. Prerequisites: 24 credits in ISP, including ITW 101, IQL 101, and one course from the IS category. Occasionally.

**GEOL 301 Mineralogy**

Introduction to crystallography, physical and chemical nature of minerals, and description and hand-specimen recognition of important economic and rock-forming minerals and mineral associations. Introduction to the petrographic microscope. Three-hour lecture, three-hour lab. Required weekend field trips. Prerequisite: INGEOL 151 or permission of instructor. Fall, odd years.

**GEOL 302 Igneous and Metamorphic Petrology**

The origin, occurrence, and classification of igneous and metamorphic rocks. Hand-specimen and thin section techniques are emphasized. Three-hour lecture, three-hour lab. Required weekend field trips. Prerequisite: GEOL 301 and INCHEM 111. Spring, even years.

**GEOL 305 Paleontology**

The description, classification, and uses of invertebrate fossils, including their spatial and stratigraphic distribution, evolution, and paleoecology. Three-hour lecture, three-hour lab. Prerequisite: GEOL 252 or permission of instructor. Spring, even years.

**GEOL 306 Sedimentation and Stratigraphy**

Principles of sedimentation and stratigraphy, properties and classification of modern sediments and sedimentary rocks, sedimentary processes and environmental analysis, stratigraphic procedures and correlations, and stratigraphic relationships of North America. Three-hour lecture, three-hour lab. Required weekend field trips. Prerequisite: GEOL 252 or permission of instructor. Fall, odd years.

**GEOL 309 Geomorphology**

Nonglacial surface processes. The evolution of landforms and the influence of lithology, tectonics, and climate on landforms. Surface processes related to land use and environmental planning. Labs involve interpreting topographic and geologic maps, field projects. Three-hour lecture, three-hour lab. Prerequisite: INGEOL 151 or permission of instructor. 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. Three-hour lecture, three-hour lab. Required weekend field trips. Prerequisite: GEOL 309 or permission of instructor. Spring, odd years.

**GEOL 315 Environmental Geology**

Examines the 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. Three-hour lecture, two-hour lab. Required field trips. Prerequisites: INGEOL 151. Cross-listed as ENST 315. Fall, alternate years.

**INGEOL 320 Earth's Climate: Past and Future**

The tools of climatic science are used to investigate the evidence and mechanisms for earth's climatic change throughout geologic time. Includes climate classification and reasons for climate, climate forcing mechanisms, anthropogenic forcing, the global-warming crisis, and potential remedies. Combined lecture/lab. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Occasionally

**GEOL 403 Structural Geology**

Study of the structural features of rock bodies and the 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, and preparation of field reports. Three-hour lecture, three-hour lab. Required weekend field trips. Prerequisites: GEOL 252 and 4 credits in Geology at the 300-level or higher, or permission of instructor. Spring, odd years.

**GEOL 412 Environmental Geochemistry**

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. Three-hour lecture, three-hour lab. Required field trips. Prerequisites: INGEOL 151, CHEM 112, and PHYS 142 or PHYS 242, or permission of instructor. Spring, even years.

**GEOL 460 Hydrogeology**

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: INGEOL 151, MATH 151, and INPHYS 141 or INPHYS 241, 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 for a total of 8 credits as topics change. Prerequisite: Permission of instructor. Frequently.

**GEOL 498 Independent Study**

*1-4 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. May be repeated for a total of 8 credits. Fall, Spring.

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## German

**IHGER 101 Elementary German I**

Introduction to basic skills to communicate about personal and everyday topics, including informal conversations with native speakers, finding information in newspapers and on Internet sites, and exploring contemporary German-speaking Europe. For students with no prior knowledge of German.

**IHGER 102 Elementary German II**

Development of skills to communicate about personal and everyday topics, including informal conversations with native speakers, finding and reading information in newspapers and on Internet sites, and exploring contemporary issues in German-speaking Europe. Students should have prior knowledge of basic German.

**IHGER 201 Intermediate German I**

Development of skills to converse with native speakers, explore contemporary issues in German-speaking Europe, narrate events in present and past tenses, and to read newspapers, websites, and short fiction with a dictionary. Students should have prior knowledge of elementary German.



**IHGER 202 Intermediate German II**

Advanced development of writing and speaking skills to discuss contemporary issues in German-speaking Europe; read newspapers, websites, and short fiction; and understand German films. Students should have intermediate-level knowledge of German. Spring only.

**GER 290 Intermediate Special Topics**

Study of a selected topic in German. May be repeated as topics change. Occasionally.

**GER 298 Independent Study**

*1-4 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. May be repeated for a total of 8 credits.

**GER 315 Conversation and Composition**

Review and practice aimed at increasing listening and speaking proficiency. Practice in writing German: essays, narratives, and creative pieces. Prerequisite: IHGER 202 or equivalent. Fall only.

**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 preapproval of their program of study and an exit interview upon their return.

**GER 498 Independent Study**

*1-4 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 8 credits. Prerequisite: permission of instructor.

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## Graduate Study in Education

**EDUCSP 601 Foundations in Special Education**

*3 credits*

Historical perspectives, trends, impacts of legislation, and school contexts on the evolving field of special education, K-12; learning theory, styles, and differences - including language and psychological processing; characteristics of students with exceptional learning needs; and implications for assessment, instruction, curriculum accommodations, and modifications within a continuum of services. Corequisite: EDUCSP 602. Summer.

**EDUCSP 602 Curriculum and Instructional Design**

*3 credits*

Designing curriculum, instructional strategies, and selecting educational strategies to create learning environments and address transition for individuals with exceptional learning needs (ELN). Adaptations to the general curriculum and alternative teaching approaches in K-12 settings in order to integrate and facilitate independence for individuals with ELN will be addressed. Corequisite: EDUCSP 601. Summer.

**EDUCSP 603 Positive Behavior Supports**

*3 credits*

Definition of problem behaviors, collection and analysis of data, and development of interventions to support a variety of behavior change strategies in educational settings. Emphasis is on the development of positive, problem-solving approaches, and strategies for classroom management. Provides theoretical foundations and practical applications for preventing behavior problems. Prerequisite: EDUCSP 601 and EDUCSP 602. Summer.

**EDUCSP 604 Assessment and Evaluation in Special Education**

*3 credits*

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. Prerequisites: EDUCSP 601 and EDUCSP 602, or permission of instructor. Fall.

**EDUCSP 605 Transition Planning and Programming**

*3 credits*

Examination of the transition from secondary school environments to post-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. Prerequisites: EDUCSP 601 and EDUCSP 602, or permission of instructor. Spring.

**EDUCSP 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.

**EDUC 611 Contemporary Issues & Effective Schools**

*3 credits*

Examines current issues affecting public education from multiple perspectives, including historical knowledge of American education and current research on effective schools. Consideration given to technology, testing, political and social efforts for school improvement, diversity, equity, ethical responsibility, collaboration, and professional standards. Prerequisite: Admission to Graduate Program or permission of instructor.

**EDUC 612 Demonstrated Certification Competence**

*12-26 credits*

Students who earn certification as an education professional, after completing a program at an approved collaborating institution, may be awarded credits for documented field-based learning experiences. The amount and award of credit is contingent upon matriculation at KSC, current certification, and completion of requirements specified in a current memorandum of understanding.

**EDUCSP 612 Demonstrated Certification Competence**

*18 credits*

Students with advanced certification in learning disabilities and emotional and behavior disorders obtained in conjunction with Granite State College are awarded 18 credits for documented field-based learning experiences. Graduate credit is contingent on completion of required modules and evidence of certification.

**EDUCCI 620 Specialization I**

*3 credits*

First of a two-semester sequence of specialized research conducted on a topic of the graduate student's choice, under guidance of a faculty mentor. Prerequisite EDUC 611 Contemporary Issues and Effective Schools or permission of instructor.

**EDUC 621 Curriculum Theory and Development**

*3 credits*

Examination of theoretical frameworks for the development of curriculum for specific professional applications in the P-12 schools. Focus on critical exploration of identities, values, and beliefs in relation to the professional role of curriculum designer. Professional mentoring for individualized curriculum design that addresses developmentally appropriate content, state and national standards. Prerequisite: EDUC 611 Contemporary Issues and Effective Schools or permission of instructor.

**EDUCSP 621 Context for Special Education**

*3 credits*

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.

**EDUCSC 622 School Counseling: Roles, Responsibilities, and Interventions**

*3 credits*

Examines the role of the school counselor in relation to the philosophy and curriculum of school. Emphasis is on defining professional responsibilities and relationships among counselors, teachers, administrators, students, and family in the delivery of school counseling services. Fall.

**EDUCSC 623 The Inclusive School Counselor: Diversity and Multiculturalism in Schools**

*3 credits*

Investigates approaches to school counseling focused on working in a culturally sensitive and responsive way with the diverse range of students, families, faculty, and staff. Explores critical issues related to race, culture, class, social status, gender, and affectional orientation, as well as cognitive diversity and psychological and physical challenges. Spring.

**EDUCCI 625 Technology-Integrated Teaching**

*3 credits*

This course addresses the use of technology in the P-12 classroom in areas of curriculum development, instructional design, and assessment. The students will explore the theoretical and practical issues of educational technology in teaching and learning and will be exposed to the diversity of educational technology through practical use. Summer.

**EDUCSC 626 Professional Seminar in School Counseling**

*3 credits*

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 School Counseling graduate program. Fall.

**EDUC 630 Lifespan Development**

*3 credits*

Examination of human development, with particular emphasis on school-aged children. Focus is on understanding the physical, cognitive, language, social, emotional, and spiritual domains, as well as ecological and cultural context. Contemporary theories of development are explored and applied to educational settings to define developmentally appropriate practice. Prerequisite: Admission to graduate program or permission of instructor. Fall.

**EDUCCI 630 Specialization II**

*3 credits*

Continuation of specialized research begun in EDUCCI 620 Specialization I. Culminates with preparation for demonstration of professional leadership project. Prerequisite: EDUCCI 620.

**EDUCEL 631 Staff Selection, Supervision, and Evaluation**

*3 credits*

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.

**EDUC 631 Curriculum Management & Student Assessment**

*3 credits*

Current theories and practices that inform approaches to individual, classroom, and program assessment and the issues that impact policies and practices. Examination of factors that affect curriculum delivery, data collection and analysis, and use of

data and results to improve student learning and school climate. Prerequisite: EDUC 621 Curriculum Theory and Development or permission of instructor.

### **EDUCSC 631 Assessment and Evaluation for School Counselors**

*3 credits*

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. Prerequisite: Admission to School Counseling graduate program or permission of instructor. Spring.

### **EDUC 641 School Law**

*3 credits*

Legal rights, duties, and responsibilities of school personnel, including the ethical and legal considerations related specifically to the practice of school counseling, special education, and educational leadership. Current issues, policies, laws, and legislation will be emphasized in accordance with professional standards. Prerequisite: Admission to graduate program or permission of instructor.

### **EDUCSC 641 Career Development**

*3 credits*

Explores career development theories. Examines and evaluates career materials as they relate to school philosophy and curriculum. Summer.

### **EDUCSC 651 Methods and Skills of Counseling**

*3 credits*

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 School Counseling graduate program or permission of instructor. Fall.

### **EDUC 651 School Leadership**

*3 credits*

Organizational theories, models of leadership development, and the change process as applied to educational settings. Special emphasis on school organization, culture, vision and mission, curriculum, formal/informal leadership. Exploration of personal and professional theoretical frameworks of leadership, communication, group process, conflict management, transformative and ethical leadership. Prerequisite: EDUC 631 Curriculum Management and Student Assessment or permission of instructor.

### **EDUCEL 652 Budget, Facilities, and Safe Schools**

*3 credits*

Participation in the school budget process, building consensus, and aligning resources with the organizational vision. Collaboration with school personnel, families, business, community, and government groups by framing partnerships. Application of fiscal and legal principles to provide safe and effective facilities. Prerequisites: Admission to Educational Leadership option or permission of instructor. Fall.

### **EDUCSC 652 Group Counseling in Schools**

*3 credits*

Introduces skills, knowledge base, and practice of group counseling in schools. Focuses on ethical issues, developmental perspectives, working with diverse populations, and current research. Includes experiential components, including cofacilitation of a group in a school. Prerequisite: Admission to School Counselor graduate program.

**EDUCSP 660 Internship in Special Education I**

*8 credits*

This internship is the first half of a yearlong field experience and seminar that focuses on the application of special education knowledge and skills including assistive technology in a K-12 school setting. Interns receive support from a college supervisor and mentor/cooperating teacher to meet identified special education program competencies. Prerequisites: EDUCSP 601 and EDUCSP 602. Fall.

**EDUC 661 Integrating Reading and Language Arts**

*3 credits*

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.

**EDUCCI 661 Collaboration and Service Delivery Options**

*3 credits*

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, prereferral, IEP development, co-teaching, and supervision of paraprofessionals. Prerequisites: Admission to graduate program or permission of instructor. Fall.

**EDUCSP 661 Collaboration and Service Delivery Options**

*3 credits*

Examination of the cooperative nature of the roles of classroom teachers and special educators and implications for delivering instruction and related support services. Emphasis is on developing working relationships. Course addresses collaboration skills for participating in change efforts, working with families, prereferral, IEP development, co-teaching, and supervision of paraprofessionals. Prerequisites: Admission to graduate program or permission of instructor, EDUCSP 610, and EDUCSP 621. Cross-listed with EDUCCI 661. Spring.

**EDUCSC 662 School Counseling: Theoretical Foundations**

*3 credits*

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: EDUCSC 622, EDUCSC 626, and EDUCSC 651. Spring.

**EDUCSP 665 Internship in Special Education II**

*6 credits*

This post-baccalaureate 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 or cooperating teacher to meet identified special education program competencies. Prerequisite: EDUCSP 660. Spring.

**EDUC 670 Educational Research Foundations**

*3 credits*

Strategies for identifying, analyzing, and evaluating educational research. Introduction to research concepts and instrumentation in qualitative and quantitative research. Part I of a yearlong action research project designed by students and implemented in an educational setting. Prerequisite: EDUC 651 School Leadership or permission of instructor.

**EDUC 675 Educational Research Design**

*3 credits*

Practical application of educational research methods to school reform initiatives. Focus is on creating a research design for systematic inquiry of a problem or issue in school. Part II of a yearlong research project designed by students to be implemented in an educational setting. Prerequisite: EDUC 670.

**EDUC 680 Educational Research Capstone**

*6 credits*

Implementation of research-based school reform initiatives designed in EDUC 675; includes data analysis, research report writing, and professional presentation skills. Part II of a yearlong research project designed by students to be implemented in an educational setting. Prerequisite: EDUC 675. Spring.

**EDUC 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.

**EDUCEL 696 Internship I: School and Community Relations**

*3 credits*

A supervised practical experience in educational leadership with seminar sessions addressing national and state standards for educational leaders. The focus of this internship will be working with staff, parents, and the community. Prerequisites: Admission to Educational Leadership option or permission of instructor. Fall.

**EDUCSC 696 Internship: Elementary School**

*3 credits*

Weekly seminar in conjunction with site-supervised practice in required, semester-long, minimum 300-hour elementary/middle school counseling internship. In addition to required field experiences totaling a minimum of 300 hours, students meet weekly with student interns and instructor to integrate internship experience. Cannot be taken in conjunction with EDUCSC 697. Prerequisite: Permission of instructor. Fall, Spring.

**EDUCEL 697 Internship II: Connections**

*3 credits*

A supervised practical experience in educational leadership with seminar sessions addressing national and state standards for educational leaders. The focus of this internship will be integrating leadership, curriculum, school improvement and data-driven decision-making. Prerequisites: Admission to Educational Leadership option or permission of instructor. Spring.

**EDUCSC 697 Internship: Secondary School**

*3 credits*

Weekly seminar in conjunction with site-supervised practice in required, semester-long, minimum 300-hour secondary/middle school counseling internship. In addition to required field experiences totaling a minimum of 300 hours, students meet weekly with student interns and instructor to integrate internship experience. Cannot be taken in conjunction with EDUCSC 696. Prerequisite: Permission of instructor. Fall, Spring.

**EDUC 698 Independent 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.

**EDUCCI 698 Independent Study**

*1-3 credits*

Intensive study of an educational curriculum topic encountered in a school or community. Topics are usually initiated by the graduate student. Prerequisite: Permission of instructor. Fall, Spring.

**EDUCEL 698 Independent Study**

*1-3 credits*

Intensive study of an educational leadership topic encountered in a school or community. Topics are usually initiated by the graduate student. Prerequisite: Permission of instructor.

**EDUCSC 698 Independent Study**

*1-3 credits*

Intensive study of an educational counseling topic encountered in a school or community. Topics are usually initiated by the graduate student. Prerequisite: Permission of instructor.

**EDUCSP 698 Independent Study**

*1-3 credits*

Intensive study of a special education topic encountered in a school or community. Topics are usually initiated by the graduate student. Prerequisite: Permission of instructor.

**EDUC 699 Capstone**

*3 credits*

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. Spring.

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## Health Science

**HLSC 101 Health and Wellness**

An overview using a balanced, integrated, holistic model of health and an exploration of the dimensions of wellness. Focus on self-assessment, development of critical thinking, and behavior change skills to facilitate personal awareness and well-being. Fall, Spring.

**INHLSC 175 Essentials of Nutrition Science**

An introduction to basic nutrition science concepts including nutrition guidelines, micro and macronutrients, anatomy and physiology of digestion and absorption of nutrients, energy balance, and health and wellness. The course will integrate course content, technology and quantitative reasoning using hands-on investigative activities to interpret and evaluate nutritional needs. Fall, Spring.

**HLSC 200 Alcohol and Other Drugs: The Fundamentals**

An introduction to alcohol and other drugs and their biophysical effects across the lifespan. Topics include the history and classification of drugs; the physical, cognitive, emotional, and societal impact of psychoactive substances; levels of use; poly substance abuse; and addiction liability. Prerequisites: Health Science majors, Substance Abuse/Addictions minors, or Criminal Justice minors, or by permission only. Fall, Spring.

**HLSC 203 Introduction to Meditation**

*1 credit*

Students will experience the basic forms of mindfulness meditation - awareness of breath, body, sounds, thoughts, and feelings - mindfulness while doing yoga, and loving-kindness meditation. Students will experience various informal practices: mindfulness while eating, walking, and conversing, and doing routine activities. A focus on reducing stress is interwoven into the course. Pass/Fail. Cross-listed as EDUC 203.

**HLSC 204 The Psychology of Mindfulness Meditation**

*1 credit*

Students will explore the psychological underpinnings of mindfulness meditation and research support for meditation. Each student will do a major project. Pass/No Pass. Prerequisite: EDUC 203 or HLSC 203. Cross listed as EDUC 204.

**HLSC 215 Nutrition Science and Application**

Principles of nutrition, including macro- and micronutrients and their functions, DRIs, and assessment of nutritional status and dietary patterns are explored. In-depth review of digestion, absorption, utilization, and function of nutrients, with emphasis on using food for disease prevention and wellness. Concepts and skills are developed through an integrated lab. Prerequisites: INHLSC 175, BIO 230, and Nutrition option only. Fall, Spring.

**HLSC 216 Current Topics in Food Culture**

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: INHLSC 175 and Health Science majors only. Fall, Spring.

**HLSC 225 The Nutrition Profession**

*2 credits*

An introduction to the educational, professional, and career expectations in the nutrition profession. Students will explore career options, including national registration, community service, and lifelong learning. Other topics include ethics, research, and current issues in health. Professional portfolios will be introduced. Prerequisites: INHLSC 175 and Nutrition Option only. Fall, Spring.

**HLSC 240 Microbiology for Health Professionals**

An introduction to microbiology for health professionals. Topics include basic microscopy, microbial cell structure and function, microbial physiology and genetics, basic virology, control of microbial growth, epidemiology, immunology, and food microbiology. Lecture material will be integrated with laboratory-based experiences such as microscopy, staining, culturing and basic molecular techniques. Prerequisite: INHLSC 175, BIO 230. Fall, Spring.

**HLSC 285 Health in Society**

An introduction to the social, cultural, economic, environmental, and political factors that affect health. Topics of social justice and ethics will be explored. Prerequisites: HLSC 101; sophomore or junior standing only; and Health Science major, Nursing major, or PE major/Exercise Science Option only. Fall, Spring.

**HLSC 290 Topics in Health Science**

Study of a selected topic in Health Science. May be repeated as topics change. Prerequisites vary as topics change. Occasionally.

**HLSC 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. May be repeated for a total of 8 credits. Fall, Spring.

**HLSC 305 Epidemiology in Health Science**

An introduction to the basic principles and methods of epidemiology and their applicability in the field of Health Science. Students will examine factors governing health and disease in populations. Skills will be introduced to critically interpret the epidemiologic literature relevant to health professionals. Prerequisites: HLSC 285 and IQL 101 or permission of instructor. Spring.

**HLSC 310 Food Science**

Introduction to physical and chemical changes in ingredients and nutrients during food preparation and storage. Experimentation through manipulation of food variables. Development of professional skills: menu design, food preparation, recipe modification, nutrient analysis, culinary techniques, and economics of nutrition management. Prerequisites: HLSC 215, HLSC 216, and INCHEM 103. Fall, Spring.

**HLSC 313 Food Service Management**

Theory and integrated practice in management of planning, directing, and coordinating food service systems. Topics: menu design, purchasing, inventory, food production and service, finances, personnel management, space or equipment layout and use, and food safety or sanitation certification. Application of principles through service-learning field experiences. Prerequisite: INHLSC 175 and HLSC 225. Fall, Spring.



**HLSC 318 Nutrition Throughout the Lifespan**

Comprehensive examination of nutritional requirements, physiological demands, and health concerns from preconception through late adulthood. Challenges posed by physical and psychological growth, development, and lifelong wellness are discussed. Nutrition assessment, intervention, and evaluation of individuals, groups, and communities are addressed. Integrated application of skills through community-based observations. Prerequisites: HLSC 215. Fall, Spring.

**HLSC 325 Community Health**

Utilize community based models and theories to identify strengths and problems to mobilize resources and achieve health goals. Public health, health communication, field work tools, coalition building, cross-cultural competency skills, and evaluation of community organizing processes are explored using an interdisciplinary approach. Prerequisite: HLSC 285. Fall.

**HLSC 330 Health Psychology**

A biopsychosocial examination of the factors underlying health and disease. Students explore these factors in relation to health promotion, health compromising and enhancing behaviors, stress management, coping strategies, use of health services, addictive behaviors, pain management, and coping with disease. Prerequisites: HLSC 285, HLSC major, or PE major/Exercise Science Option, or permission of instructor. Fall, Spring.

**IIHLSC 350 Women and Health: Witches, Harlots, and Healers**

A survey of women's health from the biological, social, economic, and political perspectives, drawing from the interdisciplinary field of health science. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101.

**HLSC 360 Physical Activity and Health**

Essential role of physical activity in promoting and maintaining health based on current exercise physiology research. Create and apply physical activity programs for apparently healthy populations and those with common chronic conditions. Students will design, implement, and evaluate a physical activity program. Prerequisites: INHLSC 175, BIO 230 and BIO 232. Fall, Spring.

**HLSC 380 Addiction and Compulsive Behaviors**

The analysis of drug use, abuse, dependence, and other compulsive behaviors through theoretical perspectives and models, including the Public Health model, family systems, and sociocultural and psychological perspectives. Drug research and evidence-based practices are examined. Prerequisites: Health Science majors or Substance Abuse/Addictions minors only, junior standing or above, or permission of instructor. Fall, Spring.

**HLSC 382 Addiction Counseling and Case Management**

Overview of addiction counseling and case-management service coordination. Students integrate knowledge from both research and practice to develop professional helping relationships with individuals, groups, and families dealing with chemical abuse and dependency. Prerequisites: HLSC 200 and HLSC 380. Annually.

**HLSC 385 Behavior Change**

Expands on knowledge and skills of the behavioral change process. Students analyze and apply behavior or education theories appropriate for diverse population groups. Interviewing, assessment, and motivation skills are enhanced. Students develop and implement a behavioral change-based project for a community audience. Prerequisites: IHCOMM 171, HLSC 285, HLSC 380. Fall, Spring.

**HLSC 386 Chemical Dependency Diagnosis and Treatment**

An introduction to the application and practice of drug-abuse and addiction screening, assessment, diagnosis, and an overview of treatment. Topics include treatment modalities, treatment planning, interviewing strategies, and referral techniques. Prerequisite: HLSC 382 or permission of instructor. Fall, Spring.

**HLSC 410 Applied Research in Food Systems**

*2 credits*

Experimental application of food science, foodservice management, and cultural considerations in food product development. Utilize sensory and objective testing to assess product formulation and acceptability. Prerequisite: HLSC 310. Fall, Spring.

**HLSC 414 Medical Nutrition Therapy I**

*2 credits*

An in-depth examination of nutritional assessment concepts such as anthropometry, dietary intake data collection methods, biochemical measurements, and food/nutrient-medication interactions and their application within the nutrition care process. Prerequisite: HLSC 318. Fall.

**HLSC 415 Nutritional Biochemistry**

In-depth analysis of digestion, absorption, transport, and intermediary nutrient metabolism. Review and analysis of research methodologies. Integrated lab to develop skills in critiquing current literature while researching, designing, and delivering a professional seminar on a micronutrient. Prerequisites: HLSC 215, HLSC 240, and CHEM 220. Fall.

**HLSC 416 Medical Nutrition Therapy II**

Comprehensive coverage around pathophysiology of disease and nutrition care for prevention and treatment of disease. Application of the nutrition care process to various diseases and the metabolic response to critical illness as well as the use of parenteral and enteral nutrition. Integrated application of skills through 1:1 service-learning field experience. Prerequisites: HLSC 240, HLSC 414, BIO 230, BIO 232. Spring.

**HLSC 431 Stress Management**

Examination of the nature of stress from biopsychosocial perspectives. A variety of stress-management practices are explored, including coping strategies and relaxation techniques. Prerequisite: Health Science majors or PE major/Exercise Science Option or permission of instructor. Spring.

**IIHLSC 445 Human Sexuality**

An interdisciplinary examination of human sexual development and behavior, including reproduction, sexual anatomy, psychosexual development, sexual socialization, values, and various forms of sexual expression. This course will explore human sexuality from biological, cultural, legal, and political perspectives. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. Fall, Spring.

**HLSC 473 Practicum: Nutrition**

Supervised field experience in community, clinical, or food-service management environments providing nutrition, health, and/or wellness practice opportunities for the advanced student. Hands-on experience aimed at developing critical professional skills in the application of theory to practice. Prerequisites: HLSC 313, HLSC 318, and HLSC 385. Fall, Spring.

**HLSC 474 Practicum: Health Promotion**

*2-8 credits*

Supervised field experience in health promotion for the advanced student. Hands-on experience aimed at developing professional skills in the application of theory to practice. Prerequisites: HLSC 325 and application completion with permission of instructor. Spring.

**HLSC 485 Health Promotion Practice**

Development of planning, implementation, evaluation, and management skills to effectively deliver health promotion programming. Application of theory to practice, including community-based assessment, risk management, financial planning, quality assurance, marketing, and personnel management. Prerequisites: HLSC 385. Fall, Spring.

**HLSC 489 Drug Abuse Prevention**

Current topics in chemical dependency prevention, including the examination of theories and methods in alcohol and other drug prevention. Application and evaluation of contemporary techniques, models, and methods. Prerequisite: HLSC 380. Alternate years.

**HLSC 490 Advanced Special Topics**

*1-4 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 491 Advanced Drug Treatment Methods**

Examination of new or developing theories, methods, models, techniques, and/or concepts in alcohol and other drug treatment. Prerequisite: HLSC 386. Alternate years.

**HLSC 492 Internship in Addictions**

*4-8 credits*

Field-based internship opportunity for students to apply theory, strategies, interventions, and knowledge learned in the classroom. Prerequisites: HLSC 386, HLSC 489, or HLSC 491, and application completion with permission of instructor. Spring.

**HLSC 494 Health Science Capstone**

This senior-level class is designed to integrate, examine, and enhance the knowledge, skills, and attitudes learned throughout the Health Science major. It provides academic and professional development activities including the completion of a senior portfolio. Prerequisites: HLSC 385, Health Science major with senior standing, or permission of instructor. Fall, Spring.

**HLSC 495 Seminar: Health Science Research**

This senior-level course is designed to integrate, examine, and enhance the knowledge, skills, and attitudes learned throughout the Health Science major. Students engage in an extensive Health Science research project and present results in a public forum. This course is recommended for students who intend to pursue graduate education. Prerequisites: HLSC 385, health science major with senior standing, or permission of instructor. Fall.

**HLSC 498 Independent Study**

*1-8 credits*

Independent study under faculty supervision of a problem in an area of Health Science. Initiative and self-direction required. May be repeated for a total of 8 credits. Prerequisite: Permission of instructor. Fall, Spring.

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## History

**IHHIST 111 The Ancient and Medieval World**

Examines the development of first civilizations of the Near East, South Asia, East Asia, and the Americas; ancient Greece and Rome; the growth of the Byzantine, Islamic, and Western civilizations; European imperialism in Africa, the Americas, and Asia; and religious, political, and cultural change in Europe in the early-modern era. Annually.

**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.

**IHHIST 112 The Modern World**

Examines the evolution of the major civilizations of the world (Western, Middle Eastern, South Asian, East Asian, sub-Saharan African, and Latin American) from the early-modern era to the present. It focuses upon the revolutionary intellectual, political, and economic changes that occurred during this period and their effects upon the world. Annually.

**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.

**IHHIST 141 The West in the World**

This course will follow the rise and spread of early civilizations from Mesopotamia, Egypt, India, and China to the political, economic, and cultural foundations of the West in ancient Greece and Rome. Course concludes with an examination of the classical age of Muslim culture during the European Middle Ages. Fall.

**HIST 141 Western Civilization I: Origins to 1500**

An introduction to the crucial ideas, institutions, and events of the formative centuries of Western civilization, from Moses and Machiavelli to the Parthenon and St. Peter's. Fall.

**HIST 142 Western Civilization II: 1500 to Present**

The revolutionary modern era is examined, from Luther's dissent to contemporary student protest. 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.

**IHHIST 161 American Perspectives to 1877**

In this course, students will be exposed to a variety of American perspectives through time. Emphasis will be placed on the voices of the traditionally unheard such as the poor, women, African Americans, and American Indians. Issues of class, race, and gender will be explored from a comparative approach.

**HIST 161 Topics in United States History I**

A systematic introduction to U.S. 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.

**IHHIST 162 American Perspectives From 1877**

In this course, students will be exposed to a variety of American perspectives through time. Emphasis will be placed on the voices of the traditionally unheard such as the working poor, women, African Americans, and Native Americans. Issues of class, race, and gender will be explored from a comparative approach. 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. HIST 200 must be taken prior to completing 13 credits in History. Fall, Spring.

**IHHIST 211 The Worlds of Early America**

The years between 1500 and 1750 witnessed numerous encounters and conflicts as American Indians, Africans, and Europeans came into contact with one another for the first time. This course examines the new worlds in early America that resulted from these exchanges. The use of primary sources is emphasized.

**IHHIST 212 Becoming Helen Keller**

An examination of the life and career of Helen Keller as a path to understanding the meanings of disability in American life. We will read Keller's autobiography as a starting point for an exploration of what her life has meant in various historical contexts.

**IHHIST 220 The Crusades: Identity and Religious War in the Middle Ages**

Course examines the Crusades with the aim of understanding how markers of identity and religious differentiation were used to support and perpetuate the ideology of crusade and holy war, and how cross-cultural contact eventually altered the European Christian constructs of identity that had motivated the initial 11th-century call for Crusade. Fall.

**IHHIST 221 The Axial Age**

This course will follow the emergence of world, historical, philosophical, and religious systems in India, China, Greece, and the Near East between 800 to 300 BCE. Through primary and secondary sources, students will explore the origins and development of classical Hinduism, Buddhism, Confucianism, Taoism, Platonic thought, and messianic Judaism. Occasionally.

**IHHIST 222 Marriage and Family in Western Civilization: The Ancient West**

The class examines the institutions of marriage and family in the ancient civilizations of Mesopotamia, Egypt, the Israelites, Greece, and Rome. By studying the development of the family, this course offers an examination of the roles of both men and women in the development of the western culture and civilization. Fall.

**HIST 225 Medieval World: European Culture and Society from 500-1400**

This class is intended as an introductory survey of medieval Europe. During this period Europe developed a civilization that was a synthesis of its classical heritage, Christianity, and the tribal cultures that replaced the Roman Empire. This course examines the formation and flowering of medieval European society and culture. Spring.

**IHHIST 252 The Holocaust**

Examines the genocide and mass murder committed by the Nazi regime during 1939 to 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 as IHHGS 252. Spring.

**IHHIST 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. Fall, even years.

**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 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 290 Special Topics**

*1-4 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.

**IHHIST 310 Who Was Ben Franklin?**

Explores identity and power in the British Empire and American Revolution through an examination of Benjamin Franklin's presentation of self in his autobiography. Additionally, through various biographies, we will consider Franklin as a "self-made man," embodiment of empire, literary artist, scientist, early modern patriarch, runaway servant, and slave owner. Prerequisite: 24 credits in ISP including ITW-101 and IQL-101. Spring.

**HIST 321 Late Imperial China**

The relationship between the Chinese polity and society in the late imperial period (Ming and Qing dynasties, from the 14th century to 1911). Topics include the 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, and the creation of the People's Republic and its principal domestic and foreign policies to the present.

**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 postwar 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 kingdoms 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, the growth of cities, the revival of the economy, and the development of technology. Spring.

**HIST 337 Europe: 1400-1600**

The events of the 15th and 16th centuries laid the foundations of the modern western world, from the Renaissance and the print revolution to war with the Turks in the East and the conquest of American natives in the West and the Reformation and religious war.

**HIST 338 European Encounters in the New World**

This course will examine the interactions of Europeans with the climate, cultures, and peoples of the Americas from 1492 to 1800. Special attention will be given to questions about how discovery and conquest shaped Europeans' images of themselves and their own cultures. Occasionally.

**HIST 339 The Age of Enlightenment**

This course will explore central themes of the period in European history known as the Enlightenment (1650-1800), such as race, gender, religious tolerance, materialism, and political engagement. Students will explore these themes in writing assignments and class presentations based on close readings of primary and secondary sources. Occasionally.

**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 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. Fall.

**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. Cross-listed as HGS 353. Spring.

**HIST 356 Readings in the History and Philosophy of Science**

Examines selected topics in the development of scientific thought and philosophy of science. Fall.

**HIST 358 Popular Culture in Early Modern Europe**

This course will explore the history of the popular culture of early modern Europe (c. 1400-1700). Course readings will explore the differences between "popular" and "elite" culture, political and economic changes resulting from the emergence of the market economy, and shifts in attitudes about gender and sexuality.

**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, the U.S. role in World War II and home front repercussions for women and Japanese Americans, and postwar traumas of bomb, cold war, and domestic readjustment. Prerequisite: HIST 162 or permission of instructor. Fall.

**HIST 367 Modern America: 1950-Present**

Describes United States in the 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 permission of the instructor. Spring.

**HIST 373 Race, Disability, and Eugenics**

An examination of the history of the 19th- and 20th-century eugenics movement in the United States and Europe. Efforts to "improve" humanity by selectively controlling or eliminating individuals deemed socially undesirable because of race or disability will be investigated by exploring science, legislation, and popular culture. Cross-listed as HGS 373. Fall, odd years.

**HIST 390 Studies in History**

*1-4 credits*

Examines a selected subject or theme in history at an intermediate level. May be repeated as subjects or themes change. Fall, Spring.

**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. 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. Fall, Spring.

**HIST 497 History Internship**

*1-4 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 for Arts and Humanities, determines the credit value. Prerequisite: Permission of instructor. Fall, Spring.

**HIST 498 Independent Study**

*1-8 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 for a total of 8 credits. Prerequisite: Permission of instructor. Fall, Spring.



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## Holocaust and Genocide Studies

### **IHHGS 189 Judaism, Christianity, Islam**

An introduction to the core beliefs, traditions, and world views of the three Abrahamic religions: Judaism, Christianity, Islam.

### **IHHGS 232 Introduction to Judaism**

An exploration of Jewish rituals and traditions, including in-depth examination of holidays and life-cycle events utilizing historical and contemporary religious and descriptive texts. Examined will be basic theological principles of Judaism, historical and contemporary diversity within Jewish religious practice, and belief and culture. Fall.

### **IHHGS 233 A History of the Jews**

Survey of the social, political, and cultural experience of the Jewish people throughout the world, beginning with the Roman expulsion from their homeland in 70 C.E. and working forward to the events that led to the Holocaust and the formation of the State of Israel in the 20th century. Spring.

### **IHHGS 251 Literature of the Holocaust**

Examines the culture of European Jews before the Holocaust and literature that reflects the destruction of that culture in World War II. Includes texts by such authors as Ida Fink, Elie Wiesel, Primo Levi, Nelly Sachs, Imre Kertesz, and Jurek Becker. Prerequisite: ITW 101. Cross-listed as IHENG 251. Spring.

### **IHHGS 252 The Holocaust**

Examines the genocide and mass murder committed by the Nazi regime during 1939-45. Also surveys long- and short-term factors, including World War I and Germany's failed post-war democratic experiment, which help explain the consolidation of a racially based totalitarian regime. Cross-listed as IHHIST 252. Spring.

### **IHHGS 254 Women in the Holocaust**

How did women's Holocaust experiences differ from those of men? An interdisciplinary exploration of gender in Central European families, ghettos, camps, and resistance, this course examines connections between the Holocaust and present-day manifestations of anti-Semitism, sexism, homophobia, and nationalism. Readings are drawn from history, women's studies, and Holocaust memoirs. Cross-listed as IIWGS 254. Occasionally.

### **IHHGS 255 Genocide**

This course identifies and studies deliberate measures aimed at the annihilation of an economic, ethnic, political, religious, or cultural group before and after the term "genocide" was coined in 1944 by Raphael Lemkin. Students will undertake an interdisciplinary examination of the historical and political development of the concept of genocide. Fall.

### **HGS 290 Special Topics**

Exploration of a specific issue or theme applying interdisciplinary methods to readings and analysis related to Holocaust and/or genocide studies. Builds on foundations acquired in IHHGS 252/IHHIST 252 or IHHGS 255, the two introductory courses. May be repeated once for credit as topics change. Prerequisite: IHHGS 252/IHHIST 252 or IHHGS 255, and permission of instructor. Occasionally.

### **IHHGS 305 History of Jewish Music**

Jewish Music from biblical times to the present. Includes liturgical, cantorial, holiday, folk, and concert music; Israeli, Yiddish, Klezmer, and contemporary synagogue music; choral tradition and music of the Holocaust. Fall, Spring.

### **HGS 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. Cross-listed as PHIL 313. Fall.

**HGS 326 Sociology of the Holocaust**

Analyzes the Holocaust from a comparative, sociological perspective, applying relevant theories and concepts. Emphasis is on social and cultural forces that led to the Holocaust, including stereotyping, discrimination, anti-Semitism, institutional changes, and social-political indifference. Prerequisite: IHHGS 252/IHHIST 252 or SOC 201. Cross-listed as SOC 326. Fall, odd years.

**HGS 327 Sociology of Genocide**

Focusing on genocide after the Holocaust, this course evaluates theoretical debates on what constitutes genocide and why genocide takes place. It also comparatively analyzes genocide that has occurred in different nation-states from a sociological perspective. Prerequisite: IHHGS 255 or SOC 201. Cross-listed as SOC 327. Spring, even years.

**HGS 340 Film and the Holocaust**

Examines various filmic approaches taken to represent the attempt to destroy European Jewry in the first half of the 20th century. Documentary and narrative film are examined, together with the cultures and time periods within which the films were produced. Ethical issues will be considered alongside cultural and formal concerns. Prerequisites: IHHGS 252/IHHIST 252 or permission of instructor. Spring, even years.

**HGS 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. Cross-listed as HIST 353. Spring.

**IHHGS 355 Religion and Violence**

An in-depth study of the links between religion and violence, examining the Holocaust as a paradigmatic case while exploring other representative cases of religious violence. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. Spring, even years.

**IHHGS 356 The Holocaust and the Christian World**

Explores relationship between Christianity and Judaism with special attention to historic antipathies, their role in preparing European culture for the Holocaust, and mixed legacies of contempt and good will that distinguished Christian persecution, resistance, and rescue during the Third Reich. Analyzes responses to this difficult history and its ongoing impact. Prerequisite: 24 credits in ISP including ITW-101 and IQL- 101. Spring, odd years.

**HGS 373 Race, Disability, and Eugenics**

An examination of the history of the 19th- and 20th-century eugenics movement in the United States and Europe. Efforts to "improve" humanity by selectively controlling or eliminating individuals deemed socially undesirable because of race or disability will be investigated by exploring science, legislation, and popular culture. Cross-listed as HIST 373. Fall, odd years.

**HGS 374 Comparative Genocide**

An investigation of two or more genocides by comparative method. Focus is on the situation and actions of the perpetrators, victims, resistance fighters, bystanders, and rescuers - all examined in order to find essential similarities as well as differences, and to derive explanations for specific cases of genocide. Prerequisite: IHHGS 255, or permission of instructor. Spring.

**HGS 390 Studies**

Examines a selected subject or theme in Holocaust and/or genocide at an intermediate level. May be repeated as subjects or themes change. Occasionally.

**HGS 427 Sociological Topics in Genocide**

This course involves intensive sociological study of a particular genocide. The genocide to be studied can change in any given semester. Topics include application of the term genocide; historical, social, and cultural background; theoretical explanations for the genocide; and the extent of intervention to stop it. Prerequisite: IHHGS 255 or SOC 305, or permission of instructor. Cross-listed as SOC 427. Occasionally.

**HGS 490 Advanced Special Topics**

Advanced interdisciplinary exploration of a specific issue or theme not covered in depth by the regular curriculum. Content will vary, but builds on foundations acquired in prior study. Prerequisite: Either IHHGS 252/IHHIST 252 or IHHGS 255, and permission of instructor. Occasionally.

**HGS 494 Senior Honors**

Aimed at an original research or creative project in Holocaust and/or Genocide Studies. Under the guidance of a faculty sponsor and committee, student will develop, research, and publicly present an individualized project on a topic jointly selected with the sponsor. Prerequisites: Senior standing; IHHGS 252/IHHIST 252, IHHGS 255, HGS 495; both overall and subject area GPA of 3.5 or above; approval by faculty in HGS Department.

**HGS 495 Seminar**

Students will investigate both secondary and primary source material to provide an in-depth analysis of one or more key issues related to the Holocaust and select cases of genocide. They will demonstrate the ability to think critically, and write and speak effectively. May be repeated for credit as topics change. Prerequisites: Junior or senior status as HGS major or minor. 12 or more credits in HGS, IHHGS, or IHHGS that must include IHHGS 252 and IHHGS 255, or permission of instructor. Fall.

**HGS 497 Internship**

*1-8 credits*

Focus is on a student researching, organizing, and writing about a Holocaust or genocide-based topic in cooperation with the Cohen Center for Holocaust and Genocide Studies or some other society, resource center, museum, or foundation dedicated to Holocaust and/or genocide studies. May be repeated for a total of 8 credits. Prerequisites: IHHGS 252/IHHIST 252 or IHHGS 255, and permission of instructor. Occasionally.

**HGS 498 Independent Study**

*1-8 credits*

In-depth study of a topic or problem selected and pursued in consultation with a faculty member. Design will be at the faculty member's discretion. May be repeated for a total of 8 credits. Prerequisites: IHHGS 252/IHHIST 252 or IHHGS 255 and one 300-level or higher HGS course, and permission of instructor. Occasionally.

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## Honors Program

**HNRSTW 101 Honors Thinking and Writing**

This Honors course introduces students to skills and ways of thinking essential to intellectual inquiry. Students will pose a creative and complex question; investigate it with critical analyses of reading, research, and data; and use appropriate research techniques and documentation to produce a substantial writing project. Prerequisite: Admission to the College Honors Program.

**HNRSA 290 Honors Arts**

Honors courses in the arts will present content-specific titles and descriptions when they are approved by the Honors Program Advisory Council. They will meet Integrative Studies Program outcomes and Honors Program outcomes appropriate to the course. Prerequisite: Admission to the College Honors Program and ITW or HNRSTW.

**HNRSH 290 Honors Humanities**

Honors courses in the humanities will present content-specific titles and descriptions when they are approved by the Honors Program Advisory Council. They will meet Integrative Studies Program outcomes and Honors Program outcomes appropriate to the course. Prerequisite: Admission to the College Honors Program and ITW or HNRSTW.

**HNRSN 290 Honors Natural Sciences**

Honors courses in the natural sciences will present content-specific titles and descriptions when they are approved by the Honors Program Advisory Council. They will meet Integrative Studies Program outcomes and Honors Program outcomes appropriate to the course. Prerequisite: Admission to the College Honors Program and ITW or HNRSTW.

**HNRSS 290 Honors Social Sciences**

Honors courses in the social sciences will present content-specific titles and descriptions when they are approved by the Honors Program Advisory Council. They will meet Integrative Studies Program outcomes and Honors Program outcomes appropriate to the course. Prerequisite: Admission to the College Honors Program and ITW or HNRSTW.

**HNRS 301 Global Engagement**

Intensive interdisciplinary immersion in a cultural experience outside the United States. Through cohort-based research and learning, students reflect on their roles and responsibilities as global citizens. Readings, discussions, and on-site projects analyze artistic, social, political, and/or environmental issues facing their host country. Must be completed before fall of senior year. Enrollment limited to 12. Prerequisite: Admission to College Honors Program or permission of instructor.

**HNRSI 401 Interdisciplinary Senior Seminar**

This course selects a specific cultural, aesthetic, scientific, historic, social, or political problem, issue, or question. Students bring together the resources of multiple disciplines, augmented by appropriate materials, methods, or theories, to address the course topic. Discussion-based seminar or small-group format; requires significant scholarly research project or other appropriate artifact. Prerequisites: 24 credits in ISP, including ITW 101 or HNRSTW 101, IQL 101, and admission to College Honors Program. Fall.

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**Information Studies****IIINFO 110 Information Environment**

An exploration of the interdisciplinary field of information science, including information seeking behavior, information as a commodity, digital divide, information overload, information privacy and accessibility. Students engage in critical dialogue about the complexities of the current and evolving information environment to become effective and ethical consumers and users of information. Fall.

**INFO 210 History of Recorded Information**

An introduction to the creation, maintenance and preservation of information for personal, historical, and social purposes. Students will explore the evolution of writing and recordkeeping by organizations, government, and individuals; and the impact of different technologies on the development of print and digital recorded information. Spring.

**INFO 310 Information Policy**

This course explores conceptual, historical, institutional, and legal foundations of contemporary information policy. Students focus on five key information policy domains: telecommunications and network development; competition, concentration, and freedom of expression; intellectual property in the information industries; privacy, security, and freedom of information; and collaboration and innovation policy. Prerequisite: 24 credits earned. Spring.

**IIINFO 320 Participatory Cultures**

How do we engage in information creation in ethical ways? How do online groups help produce information? This interdisciplinary course draws from information science, communication, and education, allowing students to produce digital content as a means of self-discovery, self-expression, and community engagement while considering the ethics of knowledge creation. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. Spring.

**INFO 490 Advanced Special Topics in Information Studies**

Intensive study of selected topics in Information Studies. May be repeated as topics change. Prerequisite: IIINFO 110 and 24 credits earned. Fall, even years.

## **Integrative Studies**

### **FOUNDATION COURSES**

#### **IQL 101 Quantitative Literacy**

Students will develop the skills and habits of mind needed to work with quantitative information in daily life: numbers in the news, taxes, debt, inflation, probability. Emphasizes real-world, open-ended situations. Topics include estimation, algebraic reasoning, linear and exponential models, descriptive statistics, and spreadsheets. Fall, Spring.

#### **ITW 101 Thinking and Writing**

Introduces students to skills and ways of thinking essential to intellectual inquiry. Students will pose a creative and complex question; investigate it with critical analyses of reading, research, and data; and use appropriate research techniques and documentation to produce a substantial writing project.

### **PERSPECTIVE COURSES**

#### **IAART 100 Foundations of Design**

Study of primary visual design concepts through series of lectures and projects that explore two- and three-dimensional design, and the language of color. Emphasis is on the interaction of these elements in relation to composition and the development of visual literacy. Not open to students who have completed ART 101. Fall and Spring.

#### **IAART 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. Fall and Spring.

#### **IAART 110 Introduction to Art History**

General survey of the history of art and architecture from the ancient to modern periods. The course will explore the roles of the artist, art patron, and viewer in society, and feature in-depth analysis and contextual interpretation of works from a select number of world cultures, regions, and stylistic traditions. Fall, Spring.

#### **IAART 120 Drawing I**

The practice of representational drawing emphasizing linear and form description with drawing media. Develops skills for all students, including Art majors. Not open to students who have completed ART 125. May be repeated for credit with permission of instructor. Fall, Spring.

#### **IAART 207 Ceramics and Culture**

Through projects, demonstrations, and visual media (slides, videos, etc.), students will investigate differing methods of working with clay such as hand-building, wheel-throwing, and surface techniques. Students will research ceramic art in its global socio-historical contexts. For non-Art majors only. Annually.

#### **IAART 227 Painting Materials and Culture**

Through projects, demonstrations, and visual media, students will investigate differing historical methods of working with paint such as encaustic, egg tempera, fresco and oil. This course will explore the pigments, binders and supports for these methods and how they have changed due to economic and technological advancements. Annually.

#### **IAART 300 Color Design and Site-Specific Painting**

Explores the language of color and two-dimensional design, and surveys the history of painted murals and other wall ornamentation. Students complete a site-specific mural on campus. For non-Art majors only. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Annually.

**IAENG 202 Creative Nonfiction Writing**

Introduction to the basic strategies and techniques of writing creative nonfiction. Extensive writing and reading of creative nonfiction will be discussed in class. Opportunity to develop creative and critical writing skills through assignments and independent work. Prerequisite: ITW 101. Fall, Spring.

**IAENG 204 Creative Writing**

Introduction to the basic strategies and techniques of writing fiction and verse. Assigned exercises, accompanied by readings, are discussed in class. Opportunity to develop creative and critical skills through assignments and independent work. Prerequisite: ITW 101. Fall, Spring.

**IAFILM 150 Introduction to Digital Video Production**

This course provides an introduction to basic filmmaking technique, aesthetics, and skills in digital media management through production of digital video projects. Students gain an understanding of the art of narrative filmmaking through emphasis on story development, cinematography, editing, directing, and sound design. Course participation demands outside-class production time.

**IAFILM 330 Screenwriting**

This course introduces students to the fundamentals of writing a feature-length film narrative in a proper screenplay form. Class is conducted as a series of workshops in which students study several different types of screenplays, and then do a series of projects that prepares students to write original scripts. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Fall, Spring.

**IAMU 103 Fundamental Music Skills**

Study of concepts, skills, and techniques necessary to read and understand music. An introduction to intervals, scales, key signatures, triads, and solfège. Not available for credit toward a Music major or minor.

**IAMU 104 Listening to Music**

Analytical and critical listening to music of various historical periods. Primary attention is given to music of the European-American classical tradition as well as popular music styles. Not available for credit toward a Music major or minor. Fall, Spring.

**IAMU 112 Latin American Music Survey**

A cultural, social, and historical survey of Latin American folk and art music that emphasizes African, European, and Amerindian roots of representative regional and national styles. Students learn through readings, lectures, films, listening, and performance on indigenous instruments. Fall.

**IAMU 114 Music Cultures of the World**

A study of selected folkloric, popular, and non-Western art music traditions and their historical, social, and cultural contexts. Fall, Spring.

**IAMU 115 Women in Music**

The study of recurring issues concerning women composers, teachers, performers, and patrons, in both historical and contemporary cultures. Spring.

**IAMU 216 History of Rock and 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.

**IAMU 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.

**IAMU 242 Listening to America**

This course examines the history of music in the United States, with an emphasis on 20th-century music. Students will study traditional, popular, and classical music from historical and social perspectives. Prerequisite: ITW 101. Fall, even years.

**IAMU 312 Latin American Music, Society, and Culture**

Students will explore cultural origins, diversity, and the role of music by using examples from various representative regions of Latin America. Prerequisite: 24 ISP credits, including ITW 101 and IQL 101. Spring.

**IAMU 417 Avant Rock**

Presented in a seminar format, this course involves a study of how experimentalism and avant-garde developed in the context of rock music. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101.

**IATAD 100 Theatre: The Art of Imagination**

We humans have an elemental need for make-believe. This course explores the use of imagination in the creation of theatrical events using hands-on creative projects and traditional lecture/discussion. Topics include historical and global perspectives, acting, designing, directing, and playwriting. Attendance at specific Redfern Arts Center productions is mandatory. Fall, Spring.

**IATAD 102 Acting: Identity and the Creative Process**

This experiential course explores the fundamentals of the art and craft of acting. Our work will include play and performance analysis, class exercises, and collaborative projects. Fall, Spring.

**IATAD 113 Dance As A Way of Knowing**

This experiential dance course addresses issues of identity, culture, and ethics through personal movement exploration and analysis of master works from turning points in modern dance history. Includes dance technique, composition, and research methods from the field of performance studies. Fall, Spring.

**IATAD 370 Playwriting**

The art and craft of the playwright. Students will be involved in the creation of a dialogue text using Dramatic Imagination. Students will study structure and techniques of writing for dramatic forms, primarily theatrical forms. Students will complete writing exercises as well as preliminary drafts and a completed script. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. Spring.

**HUMANITIES COURSES****IHAMST 140 What Is American Studies?**

Explores historical and contemporary issues from American culture(s). Topics may include nationhood, identity, and cultural production. Annually.

**IHAMST 248 Cultures of Northern Plains Indians**

An introduction to American Indian studies through the perspectives of Northern Plains Indians, focusing on Plains Indians' literature, music, art, Indian law, history, and philosophy. Prerequisite: ITW 101. Annually.

**IHAMST 291 Special Topics**

Course examines topics through perspectives and approaches drawn from the field of American Studies. May be repeated as topics change. Fall, Spring.

**IHAMST 372 Readings in American Studies**

Examines primary, theoretical, and critical materials related to American Studies. May engage historical, philosophical, artistic, and literary issues in American culture(s). Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Annually.

**IHCOMM 171 Public Speaking**

Through experience in a variety of speaking situations, students gain self-confidence in the organization of thought and self-expression. Fall, Spring.

**IHENG 191 Readings in Literature**

An introduction to topics in literary studies for non-majors. Fall.

**IHENG 195 The World, the Text, and the Reader**

An introduction to the literary arts of reading and writing, with an emphasis on discussing particular themes, topics, or texts. Fall, Spring.

**IHENG 220 Readings in British Literature**

Examines a particular period or literary movement, works of a particular author or group of authors from the British Isles, or a recurring theme in fiction or other literary forms. Prerequisite: ITW 101. Fall, Spring.

**IHENG 240 Readings in American Literature**

An introduction to significant writers of the United States and their work, which may include fiction, drama, poetry, and nonfiction prose. May explore a particular theme, period, genre, or group of writers. Prerequisite: ITW 101. Fall, Spring.

**IHENG 250 Readings in Continental Literature**

Examines 18th- to 21st-century European literature in historical and cultural contexts. Prerequisite: ITW 101. Annually.

**IHENG 251 Literature of the Holocaust**

Examines the culture of European Jews before the Holocaust and literature that reflects the destruction of that culture in World War II. Includes texts by such authors as Ida Fink, Elie Wiesel, Primo Levi, Nelly Sachs, Imre Kertesz, and Jurek Becker. Prerequisite: ITW 101. Cross-listed as IHHGS 251. Spring.

**IHENG 260 Readings in World Literature**

Reading and discussion of selected literary texts from the ancient to the modern world. Course will investigate literary production and reception in relation to historical, social, religious, economic, biographical, or textual contexts. May be repeated once as topics change. Prerequisite: ITW 101.

**IHENG 286 Children's Literature**

Reading and discussion of representative texts and illustrations from the genres of children's literature, such as folklore, fantasy, contemporary realistic fiction, historical fiction, biography, poetry, and information books. Prerequisite: ITW 101. Fall, Spring.

**IHENG 391 Studies in Literature**

A course in literary genre and theme for nonmajors. This course will explore the distinctive features of one or more literary genres and themes. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. (Not open for credit toward the English major.) Annually.

**IHENG 392 The Writer and the World**

An in-depth study of a particular author's work. Emphasis is placed on the importance of context (social, historical, economic, cultural). Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. (Not open for credit toward the English major.) Annually.

**IHFILM 260 Introduction to Film Analysis**

This course is designed to equip students with the tools necessary to become critically aware and capable film viewers by introducing elements of film form, processes of textual analysis, a variety of cinematic techniques used in narrative and non-narrative cinema, and other models of critical analysis used in film criticism. Not open to students who have completed FILM 270. Fall, Spring.

**IHFILM 261 Introduction to Film History**

This course examines the history of narrative film's technical, aesthetic, industrial, and social development within an international context, particularly in relation to wider cultural and political movements. Film screenings and frequent writing assignments are employed to encourage critical skills in terms of cinema aesthetics and cultural criticism. Not open to students who have completed FILM 271. Fall, Spring.



**IHFILM 310 Women and Cinema**

Presenting the works of women film and video makers in the social, economic, and historical contexts of their production and reception, this course develops a critical understanding of women's concerns in a transnational world. Prerequisites: 24 credits in ISP courses, including ITW 101 and IQL 101. Spring.

**IHFILM 320 Movements in World Cinema**

Addresses major issues in thinking about both national and international cinema in the context of globalization. By examining "global Hollywood" movies and international art cinema as well as transnational film genres, the course explores critical approaches to the intensifying flows of ideas and influences in world film culture. Prerequisites: 24 credits in ISP courses, including ITW 101 and IQL 101. Fall.

**IHFR 100 Basic French Language and Culture**

Introduction to basic skills to communicate about personal and everyday topics and exploration of cultural diversity within the contemporary French-speaking world. For students with no prior knowledge of French. Does satisfy the Arts and Humanities language requirement. Fall, Spring, Summer.

**IHFR 101 Elementary French I**

Introduction to basic skills to communicate about personal and everyday topics, including informal conversations with native speakers, finding information in newspapers and on Internet sites, and exploring the contemporary French-speaking world. For students with little or no prior knowledge of French.

**IHFR 102 Elementary French II**

Development of skills to communicate about personal and everyday topics, including informal conversations with native speakers, finding and reading information in newspapers and on Internet sites, and exploring contemporary issues in the French-speaking world. Students should have prior knowledge of basic French.

**IHFR 103 Elementary French III**

Development of skills to converse with native speakers, explore contemporary issues in the French-speaking world, narrate events in present and past tenses, and read newspapers, websites, and short fiction with a dictionary. Students should have prior knowledge of elementary French. Fall, Spring.

**IHFR 200 Intermediate Readings in French**

Selected readings in French from literary texts, scholarly journals, magazines, newspapers, and websites. Class discussions are mainly in English. This course meets the Arts and Humanities language requirement and does not count for the French major. Students should have an elementary knowledge of French. Fall, Spring.

**IHGER 101 Elementary German I**

Introduction to basic skills to communicate about personal and everyday topics, including informal conversations with native speakers, finding information in newspapers and on Internet sites, and exploring contemporary German-speaking Europe. For students with no prior knowledge of German.

**IHGER 102 Elementary German II**

Development of skills to communicate about personal and everyday topics, including informal conversations with native speakers, finding and reading information in newspapers and on Internet sites, and exploring contemporary issues in German-speaking Europe. Students should have prior knowledge of basic German.

**IHGER 201 Intermediate German I**

Development of skills to converse with native speakers, explore contemporary issues in German-speaking Europe, narrate events in present and past tenses, and to read newspapers, websites, and short fiction with a dictionary. Students should have prior knowledge of elementary German.

**IHGER 202 Intermediate German II**

Advanced development of writing and speaking skills to discuss contemporary issues in German-speaking Europe; read newspapers, websites, and short fiction; and understand German films. Students should have intermediate-level knowledge of German. Spring only.

**IHHGS 232 Introduction to Judaism**

An exploration of Jewish rituals and traditions, including in-depth examination of holidays and life-cycle events utilizing historical and contemporary religious and descriptive texts. Examined will be basic theological principles of Judaism, historical and contemporary diversity within Jewish religious practice, and belief and culture. Fall.

**IHHGS 233 A History of the Jews**

Survey of the social, political, and cultural experience of the Jewish people throughout the world, beginning with the Roman expulsion from their homeland in 70 C.E. and working forward to the events that led to the Holocaust and the formation of the State of Israel in the 20th century. Spring.

**IHHGS 251 Literature of the Holocaust**

Examines the culture of European Jews before the Holocaust and literature that reflects the destruction of that culture in World War II. Includes texts by such authors as Ida Fink, Elie Wiesel, Primo Levi, Nelly Sachs, Imre Kertesz, and Jurek Becker. Prerequisite: ITW 101. Cross-listed as IHENG 251. Spring.

**IHHGS 252 The Holocaust**

Examines the genocide and mass murder committed by the Nazi regime during 1939-45. Also surveys long- and short-term factors, including World War I and Germany's failed post-war democratic experiment, which help explain the consolidation of a racially based totalitarian regime. Cross-listed as IHHIST 252. Spring.

**IHHGS 305 History of Jewish Music**

Jewish Music from biblical times to the present. Includes liturgical, cantorial, holiday, folk, and concert music; Israeli, Yiddish, Klezmer, and contemporary synagogue music; choral tradition and music of the Holocaust. Fall, Spring.

**IHHGS 355 Religion and Violence**

An in-depth study of the links between religion and violence, examining the Holocaust as a paradigmatic case while exploring other representative cases of religious violence. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. Spring, even years.

**IHHIST 111 The Ancient and Medieval World**

Examines the development of first civilizations of the Near East, South Asia, East Asia, and the Americas; ancient Greece and Rome; the growth of the Byzantine, Islamic, and Western civilizations; European imperialism in Africa, the Americas, and Asia; and religious, political, and cultural change in Europe in the early-modern era. Annually.

**IHHIST 112 The Modern World**

Examines the evolution of the major civilizations of the world (Western, Middle Eastern, South Asian, East Asian, sub-Saharan African, and Latin American) from the early-modern era to the present. It focuses upon the revolutionary intellectual, political, and economic changes that occurred during this period and their effects upon the world. Annually.

**IHHIST 141 The West in the World**

This course will follow the rise and spread of early civilizations from Mesopotamia, Egypt, India, and China to the political, economic, and cultural foundations of the West in ancient Greece and Rome. Course concludes with an examination of the classical age of Muslim culture during the European Middle Ages. Fall.

**IHHIST 161 American Perspectives to 1877**

In this course, students will be exposed to a variety of American perspectives through time. Emphasis will be placed on the voices of the traditionally unheard such as the poor, women, African Americans, and American Indians. Issues of class, race, and gender will be explored from a comparative approach.

**IHHIST 162 American Perspectives From 1877**

In this course, students will be exposed to a variety of American perspectives through time. Emphasis will be placed on the voices of the traditionally unheard such as the working poor, women, African Americans, and Native Americans. Issues of class, race, and gender will be explored from a comparative approach. Fall, Spring.

**IHHIST 211 The Worlds of Early America**

The years between 1500 and 1750 witnessed numerous encounters and conflicts as American Indians, Africans, and Europeans came into contact with one another for the first time. This course examines the new worlds in early America that resulted from these exchanges. The use of primary sources is emphasized.

**IHHIST 212 Becoming Helen Keller**

An examination of the life and career of Helen Keller as a path to understanding the meanings of disability in American life. We will read Keller's autobiography as a starting point for an exploration of what her life has meant in various historical contexts.

**IHHIST 220 The Crusades: Identity and Religious War in the Middle Ages**

Course examines the Crusades with the aim of understanding how markers of identity and religious differentiation were used to support and perpetuate the ideology of crusade and holy war, and how cross-cultural contact eventually altered the European Christian constructs of identity that had motivated the initial 11th-century call for Crusade. Fall.

**IHHIST 221 The Axial Age**

This course will follow the emergence of world, historical, philosophical, and religious systems in India, China, Greece, and the Near East between 800 to 300 BCE. Through primary and secondary sources, students will explore the origins and development of classical Hinduism, Buddhism, Confucianism, Taoism, Platonic thought, and messianic Judaism. Occasionally.

**IHHIST 222 Marriage and Family in Western Civilization: The Ancient West**

The class examines the institutions of marriage and family in the ancient civilizations of Mesopotamia, Egypt, the Israelites, Greece, and Rome. By studying the development of the family, this course offers an examination of the roles of both men and women in the development of the western culture and civilization. Fall.

**IHHIST 252 The Holocaust**

Examines the genocide and mass murder committed by the Nazi regime during 1939 to 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 as IHHGS 252. Spring.

**IHHIST 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. Fall, even years.

**IHHIST 310 Who Was Ben Franklin?**

Explores identity and power in the British Empire and American Revolution through an examination of Benjamin Franklin's presentation of self in his autobiography. Additionally, through various biographies, we will consider Franklin as a "self-made man," embodiment of empire, literary artist, scientist, early modern patriarch, runaway servant, and slave owner. Prerequisite: 24 credits in ISP including ITW-101 and IQL-101. Spring.

**IHJRN 101 Media and Society**

This course will examine the ways that the media participates in shaping social reality. Students will analyze and interpret the roles of the media, especially the news media, in a democratic society in regard to a variety of cultural, political, and economic problems. Fall, Spring.

**IHJRN 267 Issues in the Media**

This course will examine the way the mass media shapes public perception of a contemporary societal issue. Students will analyze and interpret the roles of the media in a democratic society and how media can sometimes change human understanding and behavior in regard to this issue. May be repeated for credit as "issues" change. Prerequisite: ITW. Spring.

**IHMU 305 History of Jewish Music**

Jewish Music from biblical times to the present. Includes liturgical, cantorial, holiday, folk, and concert music; Israeli, Yiddish, Klezmer, and contemporary synagogue music; choral tradition and music of the Holocaust. Fall, Spring.

**IHPHIL 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.

**IHPHIL 220 Ethics**

Are abortion, euthanasia, and capital punishment morally acceptable? This course will examine the most influential philosophical approaches to resolving ethical questions such as these. We will apply philosophical theories and principles to a variety of moral dilemmas, with the aim of developing the skills necessary to successfully analyze ethical arguments. Fall, Spring.

**IHSP 100 Basic Spanish Language and Culture**

Introduction to basic skills to communicate about personal and everyday topics and exploration of cultural diversity within the contemporary Spanish-speaking world. For students with no prior knowledge of Spanish. Does satisfy the Arts and Humanities language requirement. Fall, Spring, Summer.

**IHSP 101 Elementary Spanish I**

Introduction to basic skills to communicate about personal and everyday topics, including informal conversations with native speakers, finding and reading information in newspapers and Internet sites, and exploring the contemporary Spanish-speaking world. For students with little or no prior knowledge of Spanish. Fall, Spring.

**IHSP 200 Intermediate Readings in Spanish**

Selected readings in Spanish from literary texts, scholarly journals, magazines, newspapers, and websites. Class discussions are mainly in English. This course meets the Arts and Humanities language requirement and does not count for the Spanish major. Students should have an elementary knowledge of Spanish. Fall, Spring.

**IHSP 201 Intermediate Spanish I**

Development of skills to converse with native speakers, explore contemporary issues in the Spanish-speaking world, narrate events in present and past tenses, and to read newspapers, websites, and short fiction with a dictionary. Students should have prior knowledge of elementary Spanish. Fall, Spring.

**NATURAL SCIENCES****INASTR 101 Introduction to Astronomy**

Quantitative and descriptive view of current knowledge/developments in the field and methods used to acquire/analyze data and draw conclusions. Emphasis is on historical and cultural perspective, modeling, tools of the astronomer, underlying physical principles. Some lab exercises. Topics include stellar astronomy, origin, structure, and evolution of the universe, Earth-Sun system, and planetary origins. Fall, Spring.

**INASTR 315 Visions of the Universe**

An in-depth study of the solar system, stellar evolution, exoplanets, binary and variable stars, black holes, and the effects of dark matter and dark energy on the evolution of the universe. Emphasis will be given to historical and cultural influences leading to present-day understanding. Prerequisites: 24 credits in ISP, including IQL 101 and ITW 101. Fall, Spring.

**INBIO 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 elective credit but not ISP credit as topics change. Fall, Spring.

**INBIO 104 Lab Biology Topics**

An integrated lecture-lab course for nonmajors that explores biological topics through hands-on investigative activities. Will focus on a theme, such as marine biology or ecology. Can be repeated for elective credit but not ISP credit as topics change. Will satisfy the lab science requirement for education majors. Fall, Spring.

**INBIO 300 Advanced Topics in Biology**

Topics in the biological sciences such as genetics, health, ecology, and others will be explored at an in-depth level. Socially relevant and ethical issues such as AIDS, genetic engineering, embryo research, environmental crises and other issues will be emphasized. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. Fall, Spring.

**INCHEM 100 Introduction to Chemistry**

An introductory course providing a survey of general chemical principles and their application to current environmental and social issues. Topics include atomic and molecular structure, chemical bonding, energy, reaction chemistry, solutions, and nuclear power. (Not open toward a major program in biology, chemistry, geology, or chemistry/physics.) Fall, Spring.

**INCHEM 103 Fundamentals of Chemistry**

Lecture-lab course providing a survey of general chemical principles. Topics include matter, energy, atomic and molecular structure, bonding, reaction chemistry, and radioactivity. Knowledge of algebra, exponentials, and logarithms is expected. Three-hour lecture, two-hour laboratory. (Not open toward a major program in biology, chemistry, geology, or chemistry/physics.) Fall, Spring.

**INCHEM 111 General Chemistry I**

The first course in a one-year sequence covering fundamental chemical principles and concepts, including stoichiometry, atomic and molecular structure, bonding, periodicity, gases, and thermochemistry. Previous chemistry recommended. For students who plan to take further chemistry courses. Knowledge of algebra, exponentials and logarithms is expected. Math assessment exam required. Includes two-hour laboratory. Fall.

**INCHEM 201 Forensic Science**

Forensic science is the interdisciplinary application of science to law. The course will explore the forensic aspects of famous trials, scientific advances, and media coverage. Using a case study approach, students will learn forensic techniques, which will ultimately be applied to the production or analysis of mystery fiction. Prerequisites: ITW 101 and IQL 101. Fall, Spring.

**INCS 160 Microcomputer Systems**

This introductory course in microcomputer systems includes discussion of the underlying physics of the computer system, hardware/software installation, configuration, trouble-shooting problems, networking essentials, and other related topics. The course is designed to prepare students to develop an understanding of the internal workings of a microcomputer system. Not open to students who have completed CS 160. Fall, Spring.

**INGEOL 110 Earth Systems Science**

An overview of earth's systems (geosphere, atmosphere, hydrosphere, and biosphere) and their interactions. Includes a survey of earth materials, internal and external processes, global cycles (carbon, water), and feedback loops between humans and earth's systems. Environmental and resource issues are addressed. Includes an integrated laboratory component. Fall, Spring, Summer.

**INGEOL 151 Physical Geology**

An overview of the earth. Includes description and origin of minerals and rocks, internal and external processes and recognition of the landforms they produce, global cycles (carbon, water), and feedback loops between humans' and earth's systems. Environmental and resource issues are addressed. Three-hour lecture, two-hour lab. Required field trips. Fall, Spring.

**INGEOL 300 Geoscience Issues and Society**

A course focusing on the cause and effect of geologic processes that impact society. Content may vary, but includes earthquakes, tsunamis, floods, volcanic activity, resource issues, and the geologic record of climate change. Students are

expected to closely monitor popular media to document current geologic events and their effects. Prerequisites: 24 credits in ISP, including ITW 101, IQL 101, and one course from the IS category. Occasionally.

### **INGEOL 320 Earth's Climate: Past and Future**

The tools of climatic science are used to investigate the evidence and mechanisms for earth's climatic change throughout geologic time. Includes climate classification and reasons for climate, climate forcing mechanisms, anthropogenic forcing, the global-warming crisis, and potential remedies. Combined lecture/lab. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Occasionally

### **INMET 225 Meteorology**

A survey of the atmosphere followed by discussion of solar influence, temperature, humidity, pressure, wind and forces. Weather patterns, severe weather and hurricanes are emphasized. World climates and classifications are treated, ending with past and future climates. Exercises such as map reading are conducted throughout the course. Fall, Spring.

### **INPHYS 141 College Physics I**

Algebra-based introduction to Newtonian mechanics. Emphasis on conceptual understanding and problem-solving: motion, forces, Newton's laws applied to both linear and rotational situations, momentum, energy, and conservation laws. Knowledge of algebra and trigonometry are expected. A math competency assessment is administered. Includes two-hour laboratory. Fall, Spring.

### **INPHYS 201 Phenomenal Science**

A hands-on, minds-on inquiry-based exploration of the basic physical principles that underlie our observations and experiences in the everyday world. Topics include motion, forces, energy, fluids, sound, heat, light, electricity, magnetism, and the atom. Ideal for preservice teachers. Prerequisite: IQL 101 or by permission of the instructor. Fall, Spring.

### **INPHYS 241 University Physics I**

The first semester of a three-semester calculus-based sequence for science and technology majors. Emphasized are kinematics, forces, both static and dynamic, energy and momentum, gravitation, thermal physics, and thermodynamics. Includes a two-hour laboratory. Spring.

### **INSAFE 103 Safety Chemistry**

Lecture-lab survey course of introductory chemistry principles applied for professionals in, but not limited to, the safety field. Topics covered span from a basic understanding of matter to the properties of gases and chemical effects on biological and environmental processes. Knowledge of basic algebra is mandatory. 3.5 hour lecture, 1.5 hour laboratory. Fall, Spring.

## **SOCIAL SCIENCES**

### **ISANTH 110 Cultural Anthropology**

Introduction to anthropological knowledge and understanding of human cultures and societies. Cross-cultural comparison and review of tribal and industrialized societies. Application of anthropological concepts to provide understanding of other cultures and one's own culture. Fall, Spring.

### **ISANTH 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. Fall, Spring.

### **ISCS 140 Programming Foundations I**

Introduces students to fundamental computer science (CS) principles that help prepare students for successful careers in their chosen disciplines. Topics include: hardware & software fundamentals; algorithm development fundamentals; introduction to Java programming; control structures; construction of classes and methods; array processing; introduction to inheritance; interfaces. Not open to students who have completed CS 140. Fall, Spring, Summer.

**ISCS 150 Website Design & Construction**

Introduces website construction as a pervasive means of problem solving and communication. Through the various methodologies covered, the course helps to prepare students for successful careers in their chosen disciplines. Topics include: fundamentals of website design; Hypertext Markup Language (HTML); introduction to Extensible Markup Language (XML); other supporting methodologies. Not open to students who have completed CS 150. Fall, Spring, Summer.

**ISCS 350 Systems Analysis and Project Management**

Introduction to fundamentals of systems analysis and design using project management. Discusses the role of the systems analyst with emphasis on oral and written communication with business users and the project team. Emphasizes structured design techniques. Requires detailed systems development case study using project management techniques. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101, 20 credits in CS and/or Management. Spring.

**ISECON 104 Introduction to Macroeconomics**

An introduction to macroeconomic terminology, concepts, and theories using historical context, quantitative tools, graphical analysis, and macroeconomic models. Course concepts are examined in a social and/or political context as appropriate. Fall, Spring.

**ISECON 360 History of Economic Thought**

Examines the philosophical debates that underlie modern economic models through texts by Adam Smith, Karl Marx, and John Maynard Keynes. Topics such as the relationship between competition and justice, prices and ethics, and free markets vs. government regulation will be explored. Prerequisite: One Integrative Studies course from ISECON, ISPOSC, IHIST, or IHPHIL. Spring.

**ISGEOG 100 Introduction to Geography**

A systematic introduction to the discipline, designed to give the beginning student exposure to major topics associated with the subfields of geography. Geographic concepts and theories using real world examples will be presented in order to examine spatial information and patterns that exist on the earth. Fall, Spring.

**ISGEOG 101 World Regional Geography**

Introduction to the geography of the world's peoples and places. Adopting a regional perspective, the course examines the homogenizing and diversifying forces inherent among the world's countries, peoples, and physical environments. Includes resource materials for teaching geography. Students may not receive credit for both ISGEOG 101 and ISGEOG 201. Fall, Spring.

**ISGEOG 201 Geography for Teachers**

A combination of world regional geography and its application in the K-12 classroom. Course is based on the six elements of geography and the national geography standards. Appropriate for both elementary and secondary preservice teachers. Not open to students who have completed ISGEOG 101. Fall.

**ISGEOG 203 The Human Cultural Mosaic**

Focuses on a global analysis of cultural systems, spatial patterns, and processes underlying cultural evolution, resource systems, and the impact of humans on the environment. Fall, Spring.

**ISGEOG 204 Physical Geography**

This course examines the dynamic processes that shape the Earth's landscapes. Special attention is given to weather, climate, maps, and landforms. Fall, Spring.

**ISGEOG 205 Environmental Geography**

Explores the complex relationships between nature, culture, and place. Emphasis is placed on spatial aspects of human interactions with the environment resulting in serious issues, including pollution, global climate change, and resource depletion. Environmentally sustainable actions will be examined and assessed. Prerequisite: IQL 101 or ITW 101. Fall, even years.

**ISPOSC 110 Governing America**

An analysis of governance and political citizenship in the United States. Includes examination of national institutions (Congress, Courts and the Presidency), other public offices, election cycles, and subnational politics. Compares democracy with other governing models, and examines types of political information and practice in deliberative political discussion. Fall.

**ISPOSC 210 United States Politics**

Survey of U.S. politics at the federal level. Emphasis is on the context and development of the Constitution and the evolution of political institutions, such as Congress, the presidency, and the courts. Other topics include political economy, media, public opinion, parties, elections, interest groups, and social movements. Fall, Spring.

**ISPOSC 211 State and Local Politics**

The role of power and institutions in the states and their government subdivisions. Comparative state and local cultures, federalism, revenues and expenditures, and contemporary problems. Spring.

**ISPOSC 220 Global Politics**

International politics in the era of globalization. International security frameworks, the global political economy, and critical agendas. Fall, Spring.

**ISPOSC 223 Introductory Comparative Government**

Introduction to comparative analysis, usually focusing on a pair of cases (such as Canada and the United States) that have similar histories and societies, but different governments and policy outcomes. Primary emphasis: the context and evolution of political traditions, institutions, and behavior. Secondary emphasis: the methods of comparative analysis. Spring.

**ISPOSC 228 Understanding Global Politics Through Literature and Film**

Survey of important concepts in global politics that can be studied through such media as documentaries, films, and novels. The course treats important political questions and provocative theories about the international environment, hegemony, the international monetary regime, and the use of war. Occasionally.

**ISPOSC 230 Foundations of Political Thought**

Introduction to the political philosophies that framed political action and governance in the West between the Classical Era and the end of the 17th century. Students learn the political contributions of Greek, Roman, Church, Reformation, and Enlightenment thinkers. Students also learn how to ask, answer, and assess philosophical questions about political power. Fall, Spring.

**ISPSYC 100 Topics in Psychology**

An exploration of topical psychological issues for nonmajors. Topics vary in sub-areas of psychology such as biological, social, cognitive, developmental, and clinical psychology. May be repeated for credit as topics change. Fall, Spring.

**ISPSYC 312 Lifespan Psychology**

This course investigates the major psychological theories of lifespan development and provides a multifaceted introduction to the dynamics of intrapsychic development that occurs across the human lifespan. Major developmental milestones, effects of diversity and multiculturalism, socioeconomic status, family constellation, and socio-cultural variables are essential components of this analysis. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Fall, Spring

**ISSOC 125 Sociology Now**

Course covers current events, applying a sociological perspective. Intended for students completing the ISP or those interested in a major in Sociology or social sciences. Students will learn how sociologists apply the scientific method to study current events. Course does not count for elective credit in the Sociology Major. Fall, Spring.

**ISSOC 260 Popular Culture**

This course focuses on dominant ideas or ideologies of inequality and how they are perpetuated (or not) in mass media and popular culture products such as TV shows, movies, songs, websites, games, and the like. Spring.



**ISSOC 310 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. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101, and one course from the IS category. Fall, Spring

**CONNECTIONS COURSES****II 185 Perspectives and Paths: An Interdisciplinary Look at Poverty**

This course explores poverty from multiple perspectives. Drawing from disciplines like Biology, Sociology, Art, Film, and Literature, students will discover how different perspectives bring interdisciplinary meaning to the issue of poverty. At the end of the course, students will demonstrate an ability to discuss poverty from an interdisciplinary perspective. Fall, Spring.

**II 302 Mercury: Power, Poison, and Privilege**

This course will explore the complex topic of mercury in our environment and its impact on society. Students will engage with faculty to understand the health and environmental consequences of emissions of this toxin and will be challenged to develop recommendations that limit adverse societal impacts working in multidisciplinary teams. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. Spring.

**II 310 Love and Existentialism**

In this interdisciplinary study of the writings of Beauvoir and Sartre, we will consider feminist, philosophical, literary, historical, and ethical analyses that examine whether genuine love is possible in existentialist thought. This course will be team-taught by Philosophy and Women's Studies faculty members. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. Spring.

**II 320 Water, Water, Everywhere?**

What water issues are facing our world? In this interdisciplinary course, students will critically examine current water issues that impact humankind using both quantitative and qualitative research methods. Students will incorporate two or more academic disciplines to evaluate and educate others about their findings in a technical report. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Spring.

**II 321 Opening to Other Ways of Knowing**

Learn what it means that knowledge is constructed, not received; explore non-Western ways of knowing and being. Using psychology, philosophy, history, and anthropology to understand different concepts of reality, our examination of knowledge construction will include readings, movies, songs, poetry, meditation, guest speakers, and personal experiences in different ways of knowing. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. Fall, Spring.

**II 322 Neuropsychology of Meditation**

This interdisciplinary course draws from neuroscience (which includes biochemistry and physiology) and Buddhist Psychology (which also involves philosophy) to understand the practice of meditation and its benefits. Students will learn a variety of meditative practices and explore research on the neural bases and Buddhist psychological theory underlying this practice. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Spring.

**II 330 Toward A Just and Equitable World**

We live in an unjust world. What can citizens do? What is the role of the media and formal/nonformal education? Is change possible? This interdisciplinary course uses tools from sociology and education in analyzing the systemic nature of social justice and equity issues. Includes involvement in a social change project. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101.

**II 333 Complementary Health Practices**

This transdisciplinary course will explore health practices that emphasize the mind-body-spirit connection and complement conventional medicine. Students will examine western and complementary medical and psychological research analyzing health benefits, therapy risks, access issues, social factors and cultural factors. Selected complementary health practices will be demonstrated. Prerequisites: 24 credits in ISP including ITW-101 and IQL-101. Spring.

**II 375 Globalization: Dissenting Voices**

An interdisciplinary examination of globalization, drawing from the fields of sociology, history, economics, and politics. Students will critically examine the current forms of globalization by studying underlying theories and practices found in international organizations and corporate entities and assess how cultural activities may solidify or resist the directions of globalization. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. Fall, Spring.

**IAMST 210 Introduction to American Studies**

An introduction to the cultural complexities of the American experience with an emphasis on formulating interdisciplinary questions. Usually focuses on a particular decade, region, or theme. Prerequisite: ITW 101 or its equivalent. Fall, Spring.

**IAMST 250 Interpreting American Cultures**

An examination of a particular aspect of American cultures with an emphasis on developing a critical method appropriate to the interdisciplinary use of texts and other cultural artifacts. Prerequisite: ITW 101 or its equivalent. Annually.

**IAMST 370 American Biography**

Interdisciplinary course examines selected biographies of Americans and American-identified figures from historical and literary perspectives. Readings contextualize developments in American culture and society (writ large) from 1492 to the present. Intended for nonmajors. Includes autobiographies. Prerequisite: 24 ISP credits, including ITW 101 and IQL 101. Annually.

**IAMST 375 American Cultural Studies**

Interdisciplinary exploration of a specific aspect or area of American culture employing methods drawn from the field of American Studies. Course moves toward the question: "What is American?" Readings consider phenomena defining American culture(s) and social structure(s), engaging theoretical, historical, and aesthetic materials. Intended for nonmajors. Prerequisite: 24 ISP credits, including ITW and IQL. Annually.

**IAMST 380 The New England Experience**

Interdisciplinary course examines selected readings and discussions of New England culture and society from 17th century to the present. Examination draws upon literary, historical, and theoretical materials. Questions of region, image, imagination, and identity are addressed. Prerequisite: 24 ISP credits, including ITW and IQL. Annually.

**IIECON 310 Game Theory**

An introduction to game theory and strategic interactions with cases drawn from economics, business, politics, sociology, psychology, international studies, and sports. Topics include prisoner's dilemma, Nash equilibrium, backward induction, signaling, mixed strategies, cooperative and noncooperative games, bargaining, conventions, "the tragedy of commons," evolutionary game theory, and behavioral critiques of rationality. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. Fall.

**IIECON 380 Modern Middle East**

This interdisciplinary course provides a broad but detailed overview of the Middle East region with a focus on patterns of economic and social transformation during the last century. The course material draws from the fields of Political Science, Sociology, History, Economics, and Women's and Gender Studies. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Spring.

**IIEDUC 306 Women and Education**

An exploration of schooling and its relationship to culture and society, focusing on women's role in education as both students and educators. Uses a historical, sociological, and feminist lens in examination of women's struggle for equality in education, with parallels drawn to struggles of other subjects of marginalization. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Spring.

**IIEDUC 310 Student Empowerment and Activism**

This interdisciplinary course traces roots and growth of student activism on local and national levels. It examines youth empowerment within the United States since 1960 using the disciplines of History and Political Science. Emphasis given to

addressing how student activism in previous decades compares to 21st-century American student activism. Prerequisites: 24 credits in ISP, including ITW and IQL. Fall, Spring.

### **IIENG 245 Readings in African American Literature and Culture**

An interdisciplinary introduction to African American literature and culture, which considers oral, written, and performed texts by African American cultural practitioners. Literary texts from 18th-, 19th-, and 20th-centuries. African American writers will be read in conversation with critical musical, political, and theoretical works. Prerequisite: ITW 101. Fall.

### **IIENG 270 Literature and the Environment**

This interdisciplinary course introduces students to the traditions of environmental literature. Students will learn to think across the humanities, arts, and sciences. May explore a particular group of writers, genre, historical period, or bioregion. May be repeated once as topics change. Prerequisite: ITW 101. Annually.

### **IIENST 110 Food, Health, and the Environment**

This interdisciplinary course explores the connection between food choices and food production systems and their impact on public health and the environment. Considering social, political, economic, and ethical factors, students will compare different agricultural systems and assess the ecological footprint and sustainability of our daily decisions of what to eat. Fall, Spring.

### **IIENST 151 The Environment of Central New England**

Introduces the geology and ecology, the natural and human history, and the social systems and governance structures that shape our regional environment. Explores the concept of place using interdisciplinary approaches, including hands-on field work, to prepare students to become responsible environmental stewards of the places where they live. Fall.

### **IIHGS 254 Women in the Holocaust**

How did women's Holocaust experiences differ from those of men? An interdisciplinary exploration of gender in Central European families, ghettos, camps, and resistance, this course examines connections between the Holocaust and present-day manifestations of anti-Semitism, sexism, homophobia, and nationalism. Readings are drawn from history, women's studies, and Holocaust memoirs. Cross-listed as IIWGS 254. Occasionally.

### **IIHGS 255 Genocide**

This course identifies and studies deliberate measures aimed at the annihilation of an economic, ethnic, political, religious, or cultural group before and after the term "genocide" was coined in 1944 by Raphael Lemkin. Students will undertake an interdisciplinary examination of the historical and political development of the concept of genocide. Fall.

### **IIHLSC 350 Women and Health: Witches, Harlots, and Healers**

A survey of women's health from the biological, social, economic, and political perspectives, drawing from the interdisciplinary field of health science. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101.

### **IIHLSC 445 Human Sexuality**

An interdisciplinary examination of human sexual development and behavior, including reproduction, sexual anatomy, psychosexual development, sexual socialization, values, and various forms of sexual expression. This course will explore human sexuality from biological, cultural, legal, and political perspectives. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. Fall, Spring.

### **IIJRN 268 Environmental Issues and the Media**

Media coverage of environmental issues is analyzed from scientific, economic, political and legal perspectives. For both science and non-science majors, a clearer understanding of how the media covers the environment and the various institutional interests involved in that coverage results through critical analysis and research projects. Spring, even years.

### **IIMATH 310 The Evolution of Mathematics**

How have cultural, historical, and scientific factors influenced the development of mathematics? This question is addressed via an interdisciplinary study of selected mathematical ideas from different historical time periods and cultures both Western and non-Western. Includes research, writing, and oral presentation requirements. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. Fall.

**IIMU 241 Listening to Brazil**

This course offers an interdisciplinary examination of Brazilian arts and culture, with an emphasis on music, literature, and film. Prerequisite: ITW 101. Spring.

**IIMU 243 Film Music History and Technique**

The course will enrich anyone's appreciation for this art form and provide an introduction to the music of the film industry. The development of film music will be traced from the early Silent Film era through the advent of the "Talkies" and on to the grand Romantic scores of modern times. Fall, Spring.

**IIFE 310 The Psycho-Social Aspects of Sport**

The purpose of this course is to present an interdisciplinary approach to sport that will challenge students to critically reflect and discuss sport from psychological and sociological perspectives. The central focus of the course is to understand how these perspectives and experiences interconnect our personal and societal viewpoints of sport today. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101.

**IIFE 311 Outdoor Recreational Leadership**

This interdisciplinary course will explore outdoor recreational leadership qualities, styles, and group dynamics from multiple perspectives (physical education/communication). Additional focus is placed on experiential learning and examinations of selected program activities. Students develop, lead, and evaluate activities based on varying participant requirements, and earn a Leave No Trace certification. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Summer.

**IIPHYS 210 History of Science**

The history and philosophy of science (astronomy, chemistry, geology, physics, and evolution) from its origins in Ancient Greece through Rome, the Middle Ages, the Islamic period, and the Renaissance to the Scientific Revolution of the 17th century to modern times, including plate tectonics, relativity, quantum physics and cosmology. Prerequisites: ITW 101 and IQL 101 or equivalent. Fall.

**IIPHYS 305 The Physics of Music**

An interdisciplinary exploration of how analyses of the physics of sound aid our understanding of music. Students will learn how sound is created, sustained, amplified; how limits in human physiology shape approaches to music; and how physical properties of instruments relate to tone quality and give insight into different genres of music. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Fall.

**IIPSYC 350 When Harm Is Done**

An interdisciplinary exploration of restorative justice, difficult dialogue, nonviolent resistance, and other models that differ from revenge and punishment as responses to crime and injustice. We will examine applications at the national and international level, in community criminal justice systems, in schools, in groups, and in personal relationships. Prerequisites: 24 credits in the ISP, including ITW and IQL. Fall.

**IISOC 360 Nicaragua in Change**

Experiential service-learning course examines the effects of revolution and social change in Nicaraguan society. Faculty and students travel during spring break to the city of Managua and a rural farming cooperative in Nicaragua. Students conduct interdisciplinary research on public health and social conditions and share results in a public forum. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. Occasionally.

**IISOSC 305 Travel: Critical Perspectives**

This is an interdisciplinary course examining travel as a dynamic blend of the social sciences. How can travelers apply social science principles to develop global understanding? Travel critically engages the multiple perspectives of political science, economics, geography, archeology, anthropology, history, and sociology. The course will utilize lectures, discussions, and projects. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. Spring, Summer.

**IISOSC 310 War: Why We Fight**

Interdisciplinary examination of war as a social phenomenon. Central to the course are questions regarding the nature and necessity of war. Emphasis is placed on class discussion and readings from the fields of Geography, Psychology, Economics, Political Science, History, and Sociology. Prerequisites: 24 credits in the ISP, including ITW and IQL. Occasionally.

**IITDS 140 Media Literacy: Seeing and Selling**

Explore the promotion of world views through the power of visual communications. Apply the tools of many different academic fields to "see more" and become more visually and media literate. Develop interdisciplinary creative problem-solving skills, build your academic portfolio, and contribute to a collaborative service-learning project. Four-hour seminar. Fall.

**IITDS 150 Technology and Civilization**

This course is a multidisciplinary exploration of technology that encourages students to assess the intended and unintended consequences of technical solutions through cultural, scientific, technological, economic, social, and political lenses. Students will research self-selected topics to understand current issues and to select socially responsible solutions. Four-hour seminar. Spring.

**IITDS 160 Peak Oil and Sustainable Solutions**

Apply tools of many different disciplines to explore national and international issues surrounding "Peak Oil" - impacts of dwindling supplies of fossil fuels, environmental and social costs of energy conversion processes, national energy policies, and grassroots activism. Develop interdisciplinary problem-solving skills by promoting sustainable solutions in a service-learning project. Four-hour seminar. Spring.

**IIWGS 101 Introduction to Women's and Gender Studies**

This course is designed to introduce students to the key issues, questions, and debates in the interdisciplinary field of Women's and Gender Studies. Central to the course will be a focus on the social construction of identity and the myriad ways in which gender, race, class, sexuality, and nationality work to constitute people's experiences. Fall, Spring.

**IIWGS 210 Abortion**

An interdisciplinary examination of the issue of abortion in the United States. Can one be a feminist and oppose legal access to abortion? Students will explore the legal, theological, and social history informing the abortion debate, with an aim to appreciate why resistance to reproductive choice exists and persists. Prerequisites: ITW 101. Spring, alternate years.

**IIWGS 220 Starved or Stuffed**

When the body is read as text, eating disorders are manifestations of cultural ideas that communicate to the self and the masses. This interdisciplinary course examines eating disorders through the optic of feminism, taking into consideration feminist discourse, theories of consumption and subjectivity formation, psychology, sociology, and literary analyses. Prerequisites: ITW 101. Fall.

**IIWGS 230 Spirituality and Sexuality**

An interdisciplinary exploration of spirituality and sexuality, drawing from history, religion, as well as women's and gender studies. Key questions: How are institutions of religion socially constructed? How do they affect women's ways of knowing, women's spirituality, and women's sexuality? What are new ways of representing spirituality as social inquiry? Prerequisites: ITW 101. Spring, alternate years.

**IIWGS 240 Gender and Media**

We take an interdisciplinary approach to studying representations of gender (as well as class, race, and sexuality) in the mass media and popular culture. Using literature from cultural studies, communication, sociology, and other disciplines, we explore dominant ideologies and how they are perpetuated (or not) in media products. Prerequisites: ITW 101. Fall.

**IIWGS 254 Women in the Holocaust**

How did women's Holocaust experiences differ from those of men? An interdisciplinary exploration of gender in Central European families, in ghettos, camps, and resistance, this course examines connections between the Holocaust and present day manifestations of anti-Semitism, sexism, homophobia, and nationalism. Readings are drawn from history, women's studies, and Holocaust memoirs. Cross-listed as IIHGS 254. Occasionally.

**IWGS 290 Topics in Women's and Gender Studies**

Interdisciplinary study of a specific issue or topic within the field of Women's and Gender Studies. Students will develop skills in critical reading and critical thinking. May be repeated for credit as topics change. Prerequisites: ITW 101. Offered occasionally.

**IWGS 300 Women of Color**

This interdisciplinary course explores the experiences of women of color using feminist scholarship from literature, sociology, history, and women's studies. Analyzes the history of social movements that have influenced the construction of the category "women of color" and articulates a critique of the category of "whiteness." Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Occasionally.

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## Journalism

**IHJRN 101 Media and Society**

This course will examine the ways that the media participates in shaping social reality. Students will analyze and interpret the roles of the media, especially the news media, in a democratic society in regard to a variety of cultural, political, and economic problems. Fall, Spring.

**JRN 130 Writing for the Media**

Introduction to copy writing for print and electronic media, with special emphasis on the development of news judgment, writing leads, and adapting messages to specific audiences. Prerequisite: ITW 101. Fall, Spring.

**JRN 155 Digital Journalism**

Introduction to the vocabulary, principles, tools, and techniques of visual communication for print and electronic media. Assignments focus on multimedia message communication using visual design and layout, images, sound, and video. Fall, Spring.

**JRN 230 Print Journalism**

Introduction to reporting techniques, including interviewing, fact checking, obtaining documents, and reporting on speeches, public meetings, and events. Prerequisite: JRN 130. Fall, Spring.

**JRN 235 Broadcast Journalism**

Basic principles of journalism for radio and television news. Introduction to interview techniques, electronic news gathering, researching, writing, producing, and reporting news for radio and television. Lecture, practice, and fieldwork. Prerequisite: JRN 130 or permission of instructor. Fall, Spring.

**IHJRN 267 Issues in the Media**

This course will examine the way the mass media shapes public perception of a contemporary societal issue. Students will analyze and interpret the roles of the media in a democratic society and how media can sometimes change human understanding and behavior in regard to this issue. May be repeated for credit as "issues" change. Prerequisite: ITW. Spring.

**IJRN 268 Environmental Issues and the Media**

Media coverage of environmental issues is analyzed from scientific, economic, political and legal perspectives. For both science and non-science majors, a clearer understanding of how the media covers the environment and the various institutional interests involved in that coverage results through critical analysis and research projects. Spring, even years.

**JRN 276 Introduction to Public Relations**

An exploration of the theoretical and ethical applications in public relations. PR is production and distribution of information to produce a perception, in both corporate and non-profit arenas. PR work involves research and analysis to produce written, visual and video transmitted by print and broadcast media, online and social media. Prerequisite: JRN 130. Fall.

**JRN 280 Media Production**

*2 credits*

Training in news writing, photojournalism, social media, multimedia and visual design and layout with the Equinox, the Kronicle, or WKNH Radio. May be repeated for credit. Only 4 credits may be counted toward the journalism major.

Prerequisite: ITW 101. Fall, Spring.

**JRN 281 Television Production**

*2 credits*

Training in television production including KSC-TV newscast. Theory and practice for television studio management, lighting, equipment and techniques. May be repeated for credit. Only 4 credits may be counted toward the journalism major.

Prerequisite: ITW-101. Fall, Spring.

**JRN 294 Cooperative Education**

*1-6 credits*

Introductory work-learning experience related to career interests for which compensation may be received. Positions arranged by students with sponsorship, approval, and evaluation by full-time faculty. Elective credit only (normally 120 hours for 3 credits) for a total of 12 credits per degree program. Prerequisites: 24 total credits earned, 2.0 cumulative GPA, and permission of instructor. Graded Pass/Fail.

**JRN 311 Mass Media History and Theory**

Readings on the history of mass communication and mass communication theory. Students will examine survey, interview, and historical research methods. This course is writing intensive. Prerequisite: IHJRN 101 or permission of instructor. Fall, odd years.

**JRN 323 Journalism Law and Ethics**

Teaching and practice in journalism law and ethics by use of case studies and legal precedents. Students will examine the role of journalism in a democratic society and the laws and ethical considerations that affect this role. Prerequisite: JRN 235 or JRN 230 or permission of instructor. Spring.

**JRN 330 Public Affairs Reporting**

Instruction in the process of gathering information from public meetings and public officials. Students will write about school board meetings, city council meetings, court cases, public hearings, and other kinds of public events. Prerequisite: JRN 230 and JRN 255.

**JRN 335 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 fieldwork. Prerequisites: JRN 235 and JRN 255, or permission of instructor. Spring, odd years.

**JRN 345 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 fieldwork. Prerequisite: JRN 235 or permission of instructor. Fall, alternate years.

**JRN 355 Multimedia Journalism**

Advanced instruction in the production of online multimedia content, including photography, audio, and video. Students will conduct research and interviews and produce media content relevant to a newsworthy topic. Requirements: Web-based camcorder, digital camera, and digital audio recorder. Prerequisite: JRN 235 or JRN 230, and JRN 255 or permission of instructor. Spring.

**JRN 356 Media Practicum**

Production and operational work in a variety of journalistic media, including print, radio, and online, under the supervision of a faculty member. The production work, readings, discussions, and goals will be determined by the instructor, the individual

student, and the group for which work is being performed. May be repeated for a total of 12 credits. Prerequisite: ITW 101. Fall, Spring.

### **JRN 365 Photojournalism**

An introduction to the theories and practices of photojournalism, digital photo editing, and visual storytelling. The medium will be explored from historical, ethical, social, and legal perspectives. Skills will be developed through weekly and in-class assignments as well as through critique. Requirement: Students must provide and keep in good working order, a 35mm digital camera, 6-megapixel, or higher. Prerequisite: JRN 255 or permission of instructor. Fall.

### **JRN 376 Public Relations Practice**

Hands-on practice in PR strategies and tactics, including communication goal-setting, audience research, and message and campaign creation. Some lecture/discussion, with individual student participation as an important component. Prerequisite: JRN 276. Spring.

### **JRN 380 Internship**

*2-12 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. Only four credits may be counted toward elective credit for the major.

### **JRN 430 Feature Writing**

Instruction and practice in feature writing for newspapers and magazines. Advanced practice in research and writing techniques as well as the creation of story ideas. Freelance feature writing will also be discussed. Prerequisite: JRN 330. Fall, occasionally.

### **JRN 435 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 fieldwork. Prerequisites: JRN 235 and JRN 255. Spring, even years.

### **JRN 450 News Editing and Management**

Practice in copy editing, page design, photo editing, headline writing, story assignments, law, ethics and management of a newspaper. Prerequisites: JRN 255 and JRN 330.

### **JRN 467 Specialized Journalism**

Advanced study and practice in specialized news gathering or reporting. Topics include column writing, editorial writing, reviewing, or environmental reporting, among others. Prerequisite: JRN 330 or JRN 335 or JRN 435. Occasionally.

### **JRN 498 Independent Study**

*1-8 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 for a total of 8 credits. Only 4 credits may be counted toward elective credit for the major. Prerequisite: Written permission of instructor.

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## **KSC**

### **KSC 270 Learning Assistant**

*1-4 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 for a total of 8 credits. Fall, Spring.



**KSC 280 Study Away**

12 credits

Semester study away placeholder to designate that a KSC student is enrolled in a fulltime (12 credit equivalent) KSC - approved study away experience (domestic or international). This placeholder is designed to facilitate registration, enrollment verification, billing, financial aid, etc. It will be replaced in the student's academic record by the relevant transfer courses and credits, and as such will not appear in the student's official academic record (e.g., academic transcript). Prerequisite: Permission required. Study Away Fee.

**KSC 690 Graduate Special Topics**

1-4 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. May be repeated for credit. Prerequisite: Permission of instructor. Fall, Spring, Summer.

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## Management

**MGT 101 Introduction to Management**

An examination of the principles underlying the management of organizational activities. Management theory and practice including: planning, organizing, leading, and controlling; decision making, motivation, leadership, and communication will be covered. Topics also include: globalization, technology, corporate social responsibility, ethics, conflict management, and organizational change. Fall, Spring.

**MGT 202 Quantitative Decision-Making**

An 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: MATH 102 or passing grade on the Math Assessment Exam. Fall, Spring.

**MGT 213 Financial Accounting**

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. Course is intended for Management majors. Prerequisites: Grade of C or higher in MGT 202 and sophomore standing, or permission of instructor. Fall, Spring.

**MGT 214 Managerial Accounting**

This 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: Management majors and minors only, grade C or higher in MGT 213, or permission of instructor. Fall, Spring.

**MGT 215 Accounting for Sustainable Business**

This course introduces the analysis and reporting of accounting information, primarily for internal use by managers for decision-making. Topics include financial statements, the accounting cycle, cost behavior, cost allocation, and financial planning and control. Sustainability concepts and emerging measurement systems are introduced. Course is not intended for Management majors. Prerequisites: MGT 101 and MGT 202 or permission of instructor. Fall, Spring.

**MGT 260 Introduction to Sports Management**

The course will include, but is not limited to, the following topics in sport management: organizational theory, facility management, current issues, human resource management, labor relations, legal and ethical issues, marketing, communications, and financing. 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. May be repeated for a total of 8 credits. Fall, Spring.

**MGT 301 Organizational Theory and Behavior**

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: Management majors and minors only, grade C or higher in MGT 101 and junior standing, or permission of instructor. Fall, Spring.

**IIMGT 305 Organizational Diversity**

Explores contemporary organizational diversity and multiculturalism from an interdisciplinary perspective, drawing from management, psychology, sociology, disability studies, feminist studies, and history. Specific topics will include understanding differences such as gender, race, ethnicity, age, religion, disability, appearance, and sexual orientation. Emphasis will be on addressing how organizations can become more inclusive. Prerequisites: 24 credits in ISP including ITW 101 and IQL 101. Annually.

**MGT 306 Personal Financial Planning**

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 319 Financial Management**

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**

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**

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, and either MGT 213 or MGT 251, and junior standing, or permission of instructor. Fall, Spring.

**MGT 333 Advertising and Promotion**

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, Spring.

**MGT 345 Operations Management**

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 MGT 213 and junior standing, or permission of the instructor. Fall, Spring.

**MGT 350 Business Law**

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**

This course is a highly interactive course designed to introduce the student to the fundamental concepts of negotiation and the negotiation styles, tactics, and strategies used by corporate and public service negotiators, collective bargainers and mediators. The course examines the practical application of negotiation theory and conflict management in both basic and increasingly complex settings. Prerequisites: MGT 101 and MGT 301, or permission of instructor. Occasionally.

**MGT 381 Management Information Systems**

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. MIS themes may include: managing environmental systems, managing supply chains, managing human resource information systems, and managing globally dispersed teams. Prerequisites: MGT 202 and MGT 213 or MGT 215, and junior standing, or permission of instructor. Fall, Spring.

**MGT 408 Honors Small Business Institute**

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**

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 434 Marketing Research**

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.

**MGT 446 Competitive Manufacturing Management**

Processes utilized in today's agile and lean manufacturing organizations that create tangible products optimizing value to the end consumer. Emphasis is focused in design, implementation, and control of manufacturing processes that are efficient, safe, and environmentally sustainable in the new era of fierce global competition and increasingly scarce natural resources.

Prerequisites: MGT 101 and MGT 202. Spring.

**MGT 451 Social, Legal, and Political Environment of Business**

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 Capstone Seminar: Strategic Management**

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: Completion of MGT 214, MGT 301, MGT 319, and MGT 331, a grade C or higher in MGT 301 and senior standing, or permission of instructor. Fall, Spring.

#### **MGT 493 Management Internship**

*1-4 credits*

An 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 total of 8 credits. Cannot be used to fulfill required mgt elective. 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. Cannot be used to fulfill required MGT elective. 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 the direction of Management faculty. Subject matter depends on student interest. Prereq: Management Major only and Junior standing, or permission of instructor. Repeatable to a maximum of 4 credits.

#### **MGT 498 Independent Study**

*1-8 credits*

Advanced individualized study in an area of management not normally available in the curriculum. May be repeated for a total of 8 credits. Cannot be used to fulfill required MGT elective. Prerequisites: Junior standing and permission of instructor. Fall, Spring.

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## **Mathematics**

#### **MATH 71 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/Fail. 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. Graded Pass/Fail. Fall, Spring.

**MATH 120 Applied Algebra and Trigonometry**

Algebra and trigonometry taught in context, using technology to enhance understanding of algebraic concepts. Topics include numeracy; data analysis; linear, quadratic, and exponential growth; formula use; laws of exponents; logarithms; and systems of equations. Not open to students who have completed MATH 130 or MATH 151. Fall, Spring.

**MATH 130 Precalculus**

Functions explored from numerical, graphical, and analytic perspectives. Function notation, operations, and inverses. Includes study of polynomial, rational, exponential, logarithmic, and trigonometric functions. Intended as a preparation for calculus and not open to students who have taken calculus in college. Presumes competency in the content of MATH 120. Fall, Spring.

**MATH 135 Discrete Mathematics for Computer Science**

This course introduces the foundations of discrete mathematics as they apply to computer science. The topics covered include binary and hexadecimal number systems, sets, logic and truth tables, functions and relations, combinations and permutations, recurrence relations, Boolean algebra, graph theory, matrix operations, and induction. Fall, Summer.

**MATH 141 Introductory Statistics**

Basic tools of descriptive statistics, discrete probability, binomial distribution, normal distribution, t-distribution, estimates and sample sizes, hypothesis testing, elementary correlation and regression, contingency tables. Use of graphing calculator and spreadsheet software. Fall, Spring.

**MATH 151 Calculus I**

Topics include limits, continuity and derivatives of functions of one and two variables, integrals of a function of one variable and the Fundamental Theorem of Calculus. Applications of differentiation and development of mathematical modeling skills will be emphasized. Presumes competency in content of MATH 130. Computer algebra system introduced. Fall, Spring.

**MATH 152 Calculus II**

Techniques of integration for functions of one and several variables; first and second order differential equations; applications such as area, volume, and arc length; apply Taylor series to find power series representations of functions. Continued use of a computer algebra system. Prerequisite: Grade C or higher in 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, integers, fractions, decimals, and number theory. Intended for prospective elementary school teachers. Utilizes appropriate grade-level technology. Prerequisite: Passing grade on the proficiency examination. Fall, Spring.

**MATH 172 Application of Number Systems**

Considers applications of rational numbers, percent, probability and statistics, counting techniques, geometry, and measurement. Intended for prospective elementary school teachers. Utilizes appropriate grade-level technology. Prerequisite: Grade C or higher in MATH 171. Fall, Spring.

**MATH 175 Data Analysis for Teachers**

Techniques and applications of data analysis in school settings, including interpretation of standardized test scores. Addresses the use of technology to interpret data, sampling, descriptive, and inferential statistics. Use of SPSS. Fall.

**MATH 218 Computer Tools for Problem Solving**

An introduction to mathematical modeling and programming using software such as MATLAB and Excel, with emphasis on problem solving in mathematics and science. Some of the mathematical applications include optimization, numerical simulations, elementary probability, and differential equations. Fields of applications involve Biology, economics, and other science disciplines. Prerequisite: Grade of C or higher in MATH 151. Spring.

**MATH 220 Mathematical Reasoning and Proof**

Introduction to mathematical language, reasoning, and proof techniques. Designed to deepen students' mathematical problem-solving and reasoning skills. Topics include logic, set theory, proof techniques, mathematical induction, relations,

functions, elementary number theory. Includes reading, writing, and development of proofs. Prerequisite: Grade of C or higher in MATH 151. Fall, Spring.

### **MATH 231 Linear Algebra and Differential Equations**

Develops the mathematical structures, algebraic properties, and applications of matrices, determinants, vectors, vector spaces, and linear transformations. Development and solution of mathematical models involving systems of linear algebraic equations and systems of linear differential equations. Incorporates graphing calculator and computer algebra system. Prerequisite: Grade C or higher in MATH 152. Spring.

### **MATH 241 Probability and Statistics I**

A calculus-based course introducing elementary probability theory; discrete and continuous distributions and random variables; and sampling distributions. Data analysis via descriptive and inferential statistics. Includes point and interval estimation; regression and correlation; and hypothesis testing. Prerequisite: Grade C or higher in MATH 152 or permission of instructor. 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 MATH 175 or PSYC 251 or MATH 241. Spring, odd years.

### **MATH 251 Vector Calculus**

Extends multivariable calculus to vector fields and functions. Topics include vector algebra and geometry; line and surface integrals; gradient, divergence, and curl; Lagrange multipliers; and Green's, Stokes's, and Divergence theorems. Applications to physics, engineering, and other sciences. Computer algebra system used extensively. Prerequisite: Grade C or higher in MATH 152. Spring.

### **MATH 275 Geometry for K-8 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, MATH 225, or MATH 270. Spring.

### **IIMATH 310 The Evolution of Mathematics**

How have cultural, historical, and scientific factors influenced the development of mathematics? This question is addressed via an interdisciplinary study of selected mathematical ideas from different historical time periods and cultures both Western and non-Western. Includes research, writing, and oral presentation requirements. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. Fall.

### **IIMATH 315 Voting, Power, and Apportionment**

An interdisciplinary introduction to the mathematical tools used in Political Science. Topics include positional voting methods, desirable properties of positional voting methods, Arrow's Impossibility Theorem, weighted voting systems, mathematical measurements of power, apportionment methods from mathematical and historical points of view, and the Balinski-Young Impossibility Theorem. Prerequisites: 24 credits in ISP including ITW 101 and IQL 101. Spring.

### **MATH 320 Geometry**

Rigorous treatment of Euclidean and non-Euclidean geometries. Synthetic, analytic, and transformational approaches. Axiomatic systems, parallel postulates, congruence, similarity. Incorporates the historical development of geometry and the use of geometry software. Prerequisite: Grade C or higher in MATH 225 or MATH 270. Fall.

### **MATH 330 Abstract Algebra**

An introduction to the basic concepts of abstract algebra. Topics include groups, rings, fields, and their homomorphisms. Prerequisite: Grade C or higher in MATH 225 or MATH 270. Fall.

### **MATH 337 Number Theory**

Theory and applications of properties of the integers. Mathematical induction, divisibility, division algorithm, congruencies, greatest common divisor, least common multiple, primes, Fundamental Theorem of Arithmetic, and Pythagorean triples. Also

considers historical background and famous number-theoretic conjectures. Prerequisite: Grade C or higher in MATH 225 or MATH 270. Fall.

### **MATH 341 Probability and Statistics II**

A second course in probability and mathematical statistics addressing in depth such topics as the Central Limit Theorem, Chebyshev's theorem, covariance, multiple regression, ANOVA, nonparametric methods, and applications of probability distributions. Prerequisite: Grade C or higher in MATH 241. Spring, even years.

### **MATH 350 Real Analysis**

A rigorous presentation of functions of one variable. Topics include limits, continuous functions, derivatives, Riemann integrals, the Fundamental Theorem of Calculus, and infinite series. Prerequisite: Grade C or higher in MATH 152 and MATH 225 or MATH 270. Spring.

### **MATH 361 Differential Equations**

A study of analytical and numerical solution methods for ordinary and partial differential equations. Includes series solutions and special functions for the solution of ODEs and the use of Fourier series to solve PDEs. Transform and numerical methods for solving ODEs and PDEs are introduced. Prerequisite: MATH 231. Fall.

### **MATH 362 Math Modeling and Computing**

Introduction to the modeling process and numerical analysis. Explores the development and solution of discrete and continuous mathematical models. Computing topics include error analysis, computational efficiency, and programming of algorithms. Methods include numerical integration, numerical solution of differential equations, interpolation, and curve fitting. Mathematical software is used throughout the course. Prerequisite: Grade C or higher in MATH 151. Spring.

### **MATH 375 Algebraic Concepts for K-8 Teachers**

The focus is on building algebraic thinking with an emphasis on modeling real-world phenomena and the meanings represented by algebraic expressions. Topics include linear relationships; slope; linear, quadratic, and exponential functions. Connections will be drawn between algebra and geometry through patterns and other areas of overlap. Prerequisite: MATH 275. Spring.

### **MATH 378 Technology for Teachers**

Students will examine and interpret the effective and appropriate use of instructional technologies available to K-12 mathematics teachers and learn to apply such technologies in conjunction with existing school mathematics curricula. Prerequisite: Either MATH 275 or MATH 320. Spring.

### **MATH 400 Capstone in Mathematics**

A senior-level course in mathematical reasoning, problem solving, and communication. Topics vary at instructor's discretion. Students will make connections and integrate previous learning, develop mathematical literacy through reading and interpreting mathematical literature, and prepare and present written and oral reports on mathematical topics. Prerequisite: MATH 330 or MATH 350. Fall.

### **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. Prerequisite: MATH 337 or permission of instructor. Fall.

### **MATH 490 Topics in Pure Mathematics**

Topics from fields of pure mathematics. May be repeated with department's permission. Prerequisite: Permission of instructor.

### **MATH 494 Cooperative Education**

*1-8 credits*

Sequential work-learning experience for which compensation may be received. Placements arranged, supervised, and evaluated by full-time faculty. Elective credit to maximum of 8 credits. Prerequisites: 2.5 cumulative GPA, declaration of Mathematics major, and permission of instructor. May be repeated for credit. Graded Pass/Fail.

**MATH 498 Independent Study**

*1-8 credits*

Individual investigation of selected topics. May be repeated for a total of 8 credits. Prerequisite: permission of instructor.

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## Meteorology

**INMET 225 Meteorology**

A survey of the atmosphere followed by discussion of solar influence, temperature, humidity, pressure, wind and forces. Weather patterns, severe weather and hurricanes are emphasized. World climates and classifications are treated, ending with past and future climates. Exercises such as map reading are conducted throughout the course. Fall, Spring.

**MET 298 Independent Study**

*1-4 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. May be repeated for a total of 8 credits.

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## Modern Languages

**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). May be repeated as topics change. Occasionally.

**ML 498 Independent Study**

*1-4 credits*

Independent study under faculty supervision of a problem in an area of individual interest. Initiative and self-direction are required. May be repeated for a total of 8 credits. Prerequisite: Permission of instructor.

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## Music

**MU 100 Music Workshop**

*No credit*

Includes such musical activities as meetings, recitals, concerts, small ensemble performances, master classes, and guest lectures. Fall, Spring.

**MUA 101 Applied Music**

*1-2 credits each*

Individual instruction consisting of twelve 50-minute lessons (for 2 credits) or twelve 25-minute lessons (for 1 credit) on an instrument or in voice. For Music Education or B.A. in Music majors only. Fall, Spring.



**MUAP 101 Applied Music**

*4 credits*

Individual instruction consisting of twelve 50-minute lessons on an instrument or voice. For Music Performance majors only. Fall, Spring.

**MUAS 101 Applied Music: Secondary**

*1-2 credits each*

Individual instruction consisting of twelve 50-minute lessons (for 2 credits) or twelve 25-minute lessons (for 1 credit) on an instrument or in voice. For Music majors or minors only. Fall, Spring.

**IAMU 103 Fundamental Music Skills**

Study of concepts, skills, and techniques necessary to read and understand music. An introduction to intervals, scales, key signatures, triads, and solfège. Not available for credit toward a Music major or minor.

**IAMU 104 Listening to Music**

Analytical and critical listening to music of various historical periods. Primary attention is given to music of the European-American classical tradition as well as popular music styles. 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 or 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 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. Fall, Spring.

**IAMU 112 Latin American Music Survey**

A cultural, social, and historical survey of Latin American folk and art music that emphasizes African, European, and Amerindian roots of representative regional and national styles. Students learn through readings, lectures, films, listening, and performance on indigenous instruments. Fall.

**IAMU 114 Music Cultures of the World**

A study of selected folkloric, popular, and non-Western art music traditions and their historical, social, and cultural contexts. Fall, Spring.

**IAMU 115 Women in Music**

The study of recurring issues concerning women composers, teachers, performers, and patrons, in both historical and contemporary cultures. Spring.

**MU 118 Functional Piano I**

*1 credit*

Introduction to keyboard fundamentals, keyboard harmony, improvisation at the piano, and reading the grand staff with two hands. Prepares students for the first half of the department piano proficiency exam. Meets two hours a week. Prerequisites: Music major or minor status and MU 151. Fall, Spring.

**MU 119 Functional Piano II**

*1 credit*

Continuation of MU 118. More advanced study and development of keyboard technique and performance skills. Introduction to sight-reading and transposition at the keyboard, ensemble playing, and the accumulation of repertoire and skills necessary for successful completion of MU 283. Meets two hours a week. May be repeated once for credit. Prerequisite: MU 118. Fall, Spring.

**MU 140 Vocal Diction I**

*1 credit*

A study of the International Phonetic Alphabet (IPA) and its application to languages for singing. This course will primarily cover English, French, and Italian. Fall.

**MU 141 Vocal Diction II**

*1 credit*

A study of the International Phonetic Alphabet (IPA) and its application to languages for singing. This course will primarily cover German, Latin, and Spanish. Prerequisite: MU 140. Spring.

**MU 151 Music Theory I**

*2 credits*

Fundamentals, including key signatures, scales, intervals, triads, and seventh chords. Roman numerals, basic part-writing using root-position chords, cadences, nonharmonic tones, basic figured bass analysis, and basic keyboard harmony. Prerequisite: Music major or minor. Fall, Spring.

**MU 152 Music Theory II**

*2 credits*

Counterpoint, part-writing using root position and first inversion chords, uses of six-four chords, harmonic tendencies, analysis and realization of figured bass, modes, secondary dominants and tonicization, and keyboard harmony. Prerequisite: MU 151, with a grade C or higher. Spring.

**MU 161 Aural Skills I**

*1 credit*

Sight-singing and aural dictation skills, including major and minor scales; major, minor, and perfect intervals; diminished, minor, major, and augmented triads; basic rhythms in simple meter; major and minor diatonic melodies; and basic root position harmonic progressions. Meets two hours a week. Prerequisite: Music major or minor. Fall, Spring.

**MU 162 Aural Skills II**

*1 credit*

Sight-singing and aural dictation skills, including major and minor scales; modes; consonant and dissonant intervals; triads in inversion; seventh chords in root position; rhythms in simple meter, with introduction to compound meter; and major, minor, and modal melodies. Harmonic dictation to include secondary dominants. Meets two hours a week. Prerequisite: MU 161, with a grade C or higher. Spring.

**MU 171 Chamber Ensemble**

*0-1 credits*

Open by audition to a limited number of students. Performance of traditional and/or contemporary chamber works in various ensembles. May be repeated. Fall, Spring.

**MU 172 KSC Concert Choir**

*0-1 credit*

Open by audition to any student with adequate singing ability, within limits of balance of voices. May be repeated. Fall, Spring.

**MU 173 KSC Chamber Singers**

*0-1 credits*

Open to a limited number of singers selected by audition. May be repeated. Fall, Spring.

**MU 174 Orchestra**

*0-1 credits*

Open to any student with adequate playing ability, within limits of balanced instrumentation. May be repeated. Fall, Spring.

**MU 175 Jazz Ensemble**

*0-1 credits*

Open by audition to a limited number of players. A select group specializing in jazz of various periods. May be repeated. Fall, Spring.

**MU 177 Concert Band**

*0-1 credits*

Open by audition to any student with adequate playing ability, within limits of balanced instrumentation. May be repeated. Fall, Spring.

**MU 178 Guitar Orchestra**

*0-1 credits*

A performing group composed of various sizes of classical guitars, specializing in the performance of works for multiple guitars. Audition required. May be repeated. 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.

**MUA 201 Applied Music**

*1-2 credits each*

Individual instruction consisting of twelve 50-minute lessons (for 2 credits) or twelve 25-minute lessons (for 1 credit) on an instrument or in voice. For Music Education or B.A. in Music majors only. Fall, Spring.

**MUAP 201 Applied Music: Performance**

*4 credits*

Individual instruction consisting of twelve 50-minute lessons on an instrument or voice. For Music Performance majors only. Fall, Spring.

**MUAS 201 Applied Music: Secondary**

*1-2 credits each*

Individual instruction consisting of twelve 50-minute lessons (for 2 credits) or twelve 25-minute lessons (for 1 credit) on an instrument or in voice. For Music majors or minors only. Fall, Spring.

**MU 211 Intro to Music Technology**

*4 credits*

An overview of the essential elements of music technology. Included topics will be sound, audio, MIDI, synthesis, and sampling. Also includes a review of the history of music technology and electronic music. Fall.

**MU 212 Audio Recording Techniques**

*2 credits*

An introduction to the basics of recording technology. Topics will include analog and digital recording systems, microphone design, microphone placement, and basic mixing techniques. This course will be primarily classroom-based with some hands-on projects. Spring.

**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.

**IAMU 216 History of Rock and 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.

**IAMU 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 218 Functional Piano III**

*1 credit*

Students will improve sight-reading and transposition skills through the study of choral, band, and orchestral scores. Figured bass, easy keyboard literature, and an introduction to vocal accompanying strategies. Meets two hours a week. Prerequisite: MU 119. Fall.

**MU 219 Functional Piano IV**

*1 credit*

Students will lead the class, run a choir rehearsal, and practice teaching from the keyboard. Repertoire and ensemble playing will continue to reinforce sight-reading and performance skills. Meets two hours a week. Prerequisite: MU 218. 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 and competency in music arranging. Prerequisites: Music Education major, sophomore standing. Fall.

**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. Students are expected to have completed one year of music theory prior to taking this course. 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. Fall.

**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. Fall.

**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. Spring.

**MU 230 Percussion Methods II**

*1 credit*

Continuation of MU 229. Prerequisite: MU 229. Meets second half of semester only. Spring.

**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. Fall, Spring.

**IIMU 241 Listening to Brazil**

This course offers an interdisciplinary examination of Brazilian arts and culture, with an emphasis on music, literature, and film. Prerequisite: ITW 101. Spring.

**IAMU 242 Listening to America**

This course examines the history of music in the United States, with an emphasis on 20th-century music. Students will study traditional, popular, and classical music from historical and social perspectives. Prerequisite: ITW 101. Fall, even years.

**IIMU 243 Film Music History and Technique**

The course will enrich anyone's appreciation for this art form and provide an introduction to the music of the film industry. The development of film music will be traced from the early Silent Film era through the advent of the "Talkies" and on to the grand Romantic scores of modern times. Fall, Spring.

**MU 251 Music Theory III**

*2 credits*

Part-writing using all inversions, modulation to closely related keys, chromatic harmonies. Keyboard harmony. Major forms, including binary, ternary, rondo, and sonata-allegro. Analysis of Bach chorales, mid- to late-classical and early-Romantic music. Prerequisite: MU 152, with a grade C or higher. Fall.

**MU 252 Music Theory IV**

*2 credits*

Modulation to distant keys, chromatic modulation, and chromatic mediant relationships. Continued part-writing and analysis of late-classical and Romantic music. Twentieth-century rhythmic, tonal, and post-tonal concepts, and analysis of contemporary repertoire. Keyboard harmony and score reading. Prerequisite: MU 251, with a grade C or higher. Spring.

**MU 261 Aural Skills III**

*1 credit*

Sight-singing and aural dictation skills, including scales, modes, consonant and dissonant intervals, all triads and dominant seventh chords in root position and inversions, Neapolitan and augmented sixth chords, and compound rhythm. Advanced diatonic melodies and harmonies, including secondary dominants, chromatic chords, and modulation to closely related keys. Meets two hours a week. Prerequisite: MU 162, with a grade C or higher. Fall.

**MU 262 Aural Skills IV**

*1 credit*

Sight-singing and aural dictation skills, including major, minor, modal, and contemporary scales; compound intervals; triads and seventh chords in root position and inversions; and chromatic chords. Rhythms in simple, compound, and changing meters. Melodies and harmonies to include secondary dominants, chromatic chords, and modulation to close and distant keys. Meets two hours a week. Prerequisite: MU 261, with a grade C or higher. Spring.

**MU 270 Opera Workshop**

*1 credit*

Opera excerpts are studied and performed. Complete operas are also studied: composers, plots, and characters. May be repeated for credit. Spring.

**MU 281 Aural Skills Proficiency Assessment Exam**

*0 credits*

Required of all music majors. One of three mid-level assessment exams required by the Department of Music necessary for continuation in the program. Taken concurrently with MU 261. May be repeated once. Graded Pass/Fail. Fall, Spring.

**MU 282 Mid-Level Review Assessment Exam**

*0 credits*

Required of all music majors. One of three mid-level assessment exams required by the Department of Music necessary for continuation in the program. May be repeated once. Graded Pass/Fail. Spring.

**MU 283 Piano Proficiency Assessment Exam**

*0 credits*

Required of all music majors. One of three mid-level assessment exams required by the Department of Music necessary for continuation in the program. May be repeated once prior to junior-level coursework (Music Education majors and BA candidates), or junior recital jury (Music Performance majors). Graded Pass/Fail. Fall, Spring.

**MU 290 Special Topics in Music**

*1-4 credits*

Study of selected topics in music. May be repeated as topics change. Prerequisite: ITW 101 or permission of instructor.

**MU 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 is required from the instructor who will supervise the independent study. May be repeated for a total of 8 credits.

**MUA 301 Applied Music**

*1-2 credits each*

Individual instruction consisting of twelve 50-minute lessons (for 2 credits) or twelve 25-minute lessons (for 1 credit) on an instrument or in voice. For Music Education or B.A. in Music majors only. Fall, Spring.

**MUAP 301 Applied Music: Performance**

*4 credits*

Individual instruction consisting of twelve 50-minute lessons on an instrument or voice. For Music Performance majors only. Fall, Spring.

**MUAS 301 Applied Music: Secondary**

*1-2 credits each*

Individual instruction consisting of twelve 50-minute lessons (for 2 credits) or twelve 25-minute lessons (for 1 credit) on an instrument or in voice. For Music majors or minors only. Fall, Spring.

**MUC 301 Applied Composition**

*2 credits*

Individual instruction consisting of twelve 50 minute lessons and a semi-weekly Composers Forum. Prerequisite: MU 214 with a grade of "C" or higher. Fall, Spring

**MUAP 302 Applied Music: Performance**

*4 credits*

Individual instruction consisting of twelve 50-minute lessons on an instrument or voice. Successful completion of junior recital requirements is necessary for passing grade in this course. For Music Performance majors only. Fall, Spring.

**MUC 302 Applied Composition**

*2 credits*

Individual instruction consisting of twelve 50 minute lessons and a semi-weekly Composers Forum. Prerequisite: MUC 301 with a grade of "C" or higher. Fall, Spring

**IHMU 305 History of Jewish Music**

Jewish Music from biblical times to the present. Includes liturgical, cantorial, holiday, folk, and concert music; Israeli, Yiddish, Klezmer, and contemporary synagogue music; choral tradition and music of the Holocaust. Fall, Spring.

**MU 310 Western Music Before 1700**

*2 credits*

A survey of Western art music traditions from the Medieval era up to the 18th century. Emphasis on the development of musical style. Prerequisite: MU 251. Fall.

**MU 311 Sound Design**

*4 credits*

This course continues the study of physical acoustics and psychoacoustics, with an emphasis on music and audio applications. Topics will include software synthesis, acoustic modeling, wave mechanics, acoustic measurements, tuning and temperament, and the perceptual properties of sound. Prerequisite: MU 211 with a grade of C or higher. Fall.

**IAMU 312 Latin American Music, Society, and Culture**

Students will explore cultural origins, diversity, and the role of music by using examples from various representative regions of Latin America. Prerequisite: 24 ISP credits, including ITW 101 and IQL 101. Spring.

**MU 312 Western Music After 1700**

A chronological survey of music from the 18th century to the present day. Emphasis on the development of musical style. Prerequisite: MU 251. Spring.

**MU 315 Conducting I**

*2 credits*

Basic conducting techniques, experience in score reading, baton technique, and interpretation. Prerequisites: Successful completion of the departmental assessment exams (MU 281, MU 282, MU 283). Additionally, Music Education majors must have gained admission to Educator Preparation. 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 C or higher. Spring.

**MU 326 Applied Pedagogy**

*2 credits*

Directed study of materials and approaches to studio teaching of one's primary applied instrument or voice to students of all ages and levels. Prerequisite: MUA 102 or MUAP 102, and permission of instructor. Vocal: Fall, Piano: Fall, odd years. Guitar: Spring, even years. Other instruments: As needed.

**IAMU 330 Music of Africa & the Diaspora**

Connecting the music of Africa and the Americans, this course looks at traditional African music; contemporary African popular styles such as soukous, highlife, afrobeat, and mbaqanga; music from Cuba, Haiti, Brazil, Martinique; and African American styles from early folk music to gospel, blues, R&B and funk. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101.

**MU 335 Performance Literature**

Sections offered in literature for voice, piano, guitar, and other instruments as needed. Classes include performance of examples with coaching in stylistic interpretation of literature from all periods. Voice: Spring. Piano: Fall, even years. Guitar: Spring, odd years. Other instruments: As needed.



**MU 356 General Music K-12 Practicum**

*1 credit*

Supervised field experience in K-12 General Music classroom(s). Prerequisite: Admission to Educator Preparation program and successful completion of departmental exams (MU 281, MU 282, MU 283). Corequisite: MU 357 Fall.

**MU 357 General Music K-12**

Planning, teaching, and assessing general music lessons (K-12) in accordance with the National Music Standards. Implementation of Orff, Kodaly, and Dalcroze pedagogies including keyboard skills, singing, playing classroom instruments, solfège, and Curwin hand signs. Classroom observations and field teaching are required. Prerequisite: Admission to Educator Preparation program, successful completion of Piano Proficiency Exam and Aural Skills Proficiency Exams. Corequisite: MU 356. Fall.

**MU 358 Choral Music Education**

*2 credits*

Principles, techniques, and materials for developing and administering a complete school choral program. Includes sources and criteria for selection of repertoire. Prerequisites: Admission to Educator Preparation program and successful completion of the departmental assessment exams (MU 281, MU 282, MU 283) and MU 315. Corequisites: MU 359 and MU 360. Spring.

**MU 359 Ensemble Music Practicum**

*1 credit*

This is a course designed to create supervised field experiences in public school instrumental and/or choral music programs for music education majors. Prerequisite: Admission to Educator Preparation program and successful completion of the departmental assessment exams (piano, aural skills, mid-level review). Corequisites: MU 358 and MU 360. 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. Prerequisites: Admission to Educator Preparation program and successful completion of the departmental assessment exams (MU 281, MU 282, MU 283). Corequisites: MU 358 and MU 359. Spring.

**MUA 401 Applied Music**

*1-2 credits*

Individual instruction consisting of twelve 50-minute lessons (for 2 credits) or twelve 25-minute lessons (for 1 credit) on an instrument or in voice. Successful completion of senior recital requirements is necessary for a passing grade in this course for Music Education majors. For Music Education or B.A. in Music majors only. This course is repeatable. Fall, Spring.

**MUAP 401 Applied Music: Performance**

*4 credits*

Individual instruction consisting of twelve 50-minute lessons on an instrument or voice. For Music Performance majors only. Fall, Spring.

**MUC 401 Applied Composition**

*2 credits*

Individual instruction consisting of twelve 50 minute lessons and a semi-weekly Composers Forum. Prerequisite: MUC 302 with a grade of "C" or higher. Fall, Spring.

**MUAP 402 Applied Music: Performance**

*4 credits*

Individual instruction consisting of twelve 50-minute lessons on an instrument or voice. Successful completion of senior recital requirements is necessary for passing grade in this course. This course is repeatable. For Music Performance majors only. Fall, Spring.

**MUC 402 Applied Composition**

*2 credits*

Individual instruction consisting of twelve 50-minute lessons and a semi-weekly Composers Forum. Successful completion of senior recital requirements is necessary for a passing grade in this course. Prerequisite: MUC 401 with a grade of C or higher. Fall, Spring.

**IAMU 407 Teaching Music to Children**

This course will address the influence of music on children from a variety of perspectives in both music and education. Students will develop skills in singing, listening, creating, playing classroom instruments, and leading music activities. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. Fall, Spring.

**MU 411 Advanced Sound Design**

*4 credit*

An advanced course in the sound design oriented toward independent projects. Projects will require the development of sounds for video and audio. Prerequisite: MU 311 with grade of C or higher. Fall.

**MU 412 Recording Studio**

*2 credits*

An advanced lecture and project-oriented course centered on the audio production processes of recording, mixing, and mastering. Topics will include aesthetics of a mix and various processes and techniques relevant to music production. Students will engage in extensive critical listening throughout the course. Spring.

**IAMU 417 Avant Rock**

Presented in a seminar format, this course involves a study of how experimentalism and avant-garde developed in the context of rock music. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101.

**MU 419 Practicum in Ensemble Directing**

*1-4 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. May be repeated for a maximum of 4 credits. Prerequisites: MU 315 and MU 316, an audition, and permission of instructor. Fall, Spring.

**MU 426 Intermediate Piano Pedagogy**

*2 credits*

Techniques, methods, materials, and repertoire for teaching intermediate and early advanced levels of piano instruction. Also, the history of piano pedagogy, the development of modern piano technique, and current approaches to piano technique. A practicum in teaching both individual and group lessons is an essential component of the course. Prerequisite: MU 326. Spring, even years.

**MU 475 Student Teaching - Elementary**

*6 credits*

Full-time seven-week placement in elementary-level music classroom setting(s) appropriate to intended certification. Supervision provided by college supervisor and field-based professional toward mastery of principles, attitudes, and techniques for successful teaching. Graded Pass/Fail. Prerequisite: Permission of Educator Preparation Office. Fall, Spring.

**MU 476 Student Teaching - Secondary**

*6 credits*

Full-time seven-week placement in secondary-level music classroom setting(s) appropriate to intended certification. Supervision provided by college supervisor and field-based professional toward mastery of principles, attitudes, and techniques for successful teaching. Graded Pass/Fail. Prerequisite: Permission of Educator Preparation Office. Fall, Spring.

**MU 477 Music Student Teaching Seminar**

*2 credits*

Seminar taken during student teaching focuses on current social, legal, and ethical issues affecting music education. Includes reflection on professional identity and culminating portfolio development. Corequisites: MU 475 and MU 476. Fall, Spring.

**MU 495 Seminar**

Integrates a student's knowledge and skills in music and applies them in an upper-level seminar setting. Presents one topic per semester: Counterpoint, Analytical Techniques in Music, 20th-century music, or other topics. Final projects relate to a student's degree specialization or interests. May be repeated as topics change. Prerequisite: MU 252. Fall, Spring.

**MU 496 Senior Project**

*4 credits*

A capstone project in Music Technology demonstrating competence as an audio engineer and sound designer. The project, in consultation with the instructor, may take the form of a lecture recital or significant development project with lecture presentation. Spring.

**MU 497 Internship in Music Technology**

*2 credits*

80-hour supervised, contracted internship arranged by the student with an approved music technology company, 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 212, MU 311, MU 411 and MU 412. Fall, Spring.

**MU 498 Independent Study**

*1-8 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 8 credits.

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## Nursing

**NURS 298 Independent Study**

*1-4 credits*

Reading/writing or in-depth exploration of a selected area of nursing with a faculty member. May be repeated. Prerequisite: Permission of instructor.

**NURS 301 Introduction to Professional Nursing**

*2 credits*

The purpose of this course is to explicate the values and philosophy of the Nursing Program and helps students to develop an understanding of issues confronting professional nurses. Emphasis is on history, trends, policy issues and the inter-relatedness of these factors with socio-cultural forces affecting the quality, nature and delivery of basic nursing care. Prerequisite: Admission to the Nursing major. Spring

**NURS 302 Introduction to Patient-Centered Care**

This course introduces students to the theoretical foundations of practice and begins to establish the knowledge, attitudes, and skills required in the field. The course will emphasize the need for nurses to recognize and respond to patient values and needs with respect and compassion in a coordinated health care environment. Prerequisite: NURS 301. Pre-Licensure option candidates are also required to enroll in NURS 303 and NURS 304 concurrently. Spring.

**NURS 303 Pharmacology and Pathophysiology**

An understanding of developmentally relevant pharmacodynamic and pharmacokinetic processes following drug therapy is essential to prevent adverse drug interactions and patient harm. This course will explore these processes, basic physiological

mechanisms underlying illness and disease, and the positive outcomes associated with health promotion and disease prevention actions in populations. Prerequisite: NURS 301. Concurrent with NURS 302 and NURS 304. Spring.

#### **NURS 304 Clinical: Patient-Centered Care**

Pre-licensure nursing students are introduced to the holistic care of clients, beginning clinical decision-making, and therapeutic nursing interventions as the foundation of nursing practice. Nursing process, assessment, documentation, therapeutic communication skills, aseptic technique, and medication administration are included as well as other fundamental nursing skills. Graded Pass/Fail. Prerequisite: NURS 301. Concurrent with NURS 302 and NURS 303.

#### **NURS 305 Evidence-Based Practice**

Students develop the knowledge necessary to identify, apply, and evaluate current evidence to support clinical expertise. Decision-making skills that demonstrate compassionate awareness of patient and family preferences, experience, and values will be developed. Therapeutic interventions for acute, chronic, and mental health alterations are presented. Prerequisite: NURS 302. Concurrent with NURS 306 \*. \*Pre-Licensure option candidates are also expected to enroll in NURS 307. Summer.

#### **NURS 306 Legal and Ethical Foundations**

Laws and ethical principles guiding practice are emphasized. Areas of legal exploration will include: malpractice, negligence, and standards of care. Students will apply critical thinking and analysis as they consider ethical decision-making as care providers in this complex and rapidly advancing profession. Prerequisite: NURS 302. Concurrent with NURS 305 \*. \*Pre-Licensure option candidates are also expected to enroll in NURS 307. Summer.

#### **NURS 307 Clinical: Evidence-Based Practice**

This clinical course provides the experience of applying evidence and skills in caring for adult clients, including the elderly. These clinical experiences promote disciplined decision-making, support effective communication, facilitate positive patient care outcomes, and strive for error reduction, using nursing informatics to document nursing care and outcomes of patient care, and communicate with others. Graded Pass/Fail. Prerequisites: NURS 302, NURS 303, NURS 304. Concurrent with NURS 305 and NURS 306.

#### **NURS 309 Holistic Healthcare**

Examines holistic health care and alternative healing practices that emphasize the mind-body connection and complement traditional medicine practices. It introduces students to eastern practices (e.g. yoga), homeopathy, and other approaches including meditation, hypnosis, nutritional and herbal-based therapies. Legal, ethical, and policy issues raised by the delivery of these therapies are considered. Fall.

#### **NURS 310 Healthcare Informatics**

Integrates nursing science with computer technology and information science. Provides focus on the role of information systems in health care organizations. Emphasis is on technology-based health applications which support clinical, administrative, research, and educational decision making enhancing the efficacy of nursing endeavors. Summer.

#### **NURS 311 Clinical Calculations**

This course prepares students to calculate dosage and solutions for beginning nursing practice. Students will learn how to make conversions between measurement systems, calculate drug and fluid dosages, and understand drug calculations for specialty areas. Prerequisite: Nursing majors who have passed Nursing Basic Math Exam according to program standards or by permission of the Director of Nursing. Fall.

#### **NURS 401 Collaborative Care of Populations**

Students learn to function as members of interdisciplinary teams to provide care. This course will support skillful integration of patient-centered care and evidence-based practice theories in decision-making. Students will also develop skills to foster open communication, ensure mutual respect, and engage in shared decision-making within teams. Prerequisite: NURS 307 or permission of instructor. Concurrent with NURS 402 and NURS 403. Fall.

**NURS 402 Specialty Nursing Practice**

Critical thinking and the nursing process are used to provide therapeutic nursing interventions to manipulate complex environmental factors while maintaining health and promoting wellness. Focus is on advanced assessment techniques and nursing skills, caring for the childbearing family, clients in schools, and the workplace. Prerequisite: NURS 307 or permission of instructor. Concurrent with NURS 401 and NURS 403. Fall.

**NURS 403 Clinical: Specialty Settings**

*2-4 credits*

Note: 4 credits Pre-Licensure and 2 credits RN. Students apply nursing knowledge and skills in community health, occupational health, child-bearing and child rearing agencies, and function as a member of a health care team to ensure positive outcomes. Clinical sites will include community clinics, rural hospitals, long-term care centers, senior centers, day care centers, schools, OB clinics and acute care including ante-partum labor/delivery sites, post-partum sites and newborn nursery sites. Graded Pass/Fail. Prerequisite: NURS 307 or permission of instructor. Concurrent with NURS 401 and NURS 402.

**NURS 404 Nursing Leadership**

Students gain understanding of how nursing leadership influences patient care and team functioning using outcomes data to evaluate and improve nursing care delivery systems. The concept of nurse as a leader and manager is examined using theories of organization, management, leadership, change, decision-making, and group process. Prerequisite: NURS 403. Concurrent with NURS 405 \*. \*Pre-Licensure option candidates are also required to enroll in NURS 406 concurrently. Spring.

**NURS 405 Nursing Research**

This course prepares students to identify problems within a variety of practice settings, evaluate relevant research literature and evidence, and apply research evidence to support change processes in the clinical setting. Prerequisite: NURS 403. Concurrent with NURS 404 \*. \*Pre-Licensure option candidates are also required to enroll in NURS 406 concurrently. Spring.

**NURS 406 Clinical: Advanced Care**

*6 credits*

This clinical capstone course provides experience as a nursing leader to direct the provision of quality health care by interdisciplinary teams. These clinical experiences promote skills of decision-making for groups, of management within health care organizations, to institute and test quality control methods, and to promote the application of research in nursing practice. Students select individual nursing care settings for providing nursing care experiences that support their goals for practice. Contracts are completed with preceptors as mentors. Graded Pass/Fail. Prerequisite: NURS 403. Concurrent with NURS 404 and NURS 405.

**NURS 498 Independent Study**

*1-4 credits*

Reading/writing or research in a selected area of nursing with a faculty member. May be repeated. Prerequisite: Permission of instructor.

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## Philosophy

**IHPHIL 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.

**IHPHIL 220 Ethics**

Are abortion, euthanasia, and capital punishment morally acceptable? This course will examine the most influential philosophical approaches to resolving ethical questions such as these. We will apply philosophical theories and principles to a variety of moral dilemmas, with the aim of developing the skills necessary to successfully analyze ethical arguments. Fall, Spring.

**PHIL 231 Comparative Religion**

A philosophical introduction to many of the world's religions, including Buddhism, Christianity, Confucianism, Hinduism, Islam, Judaism, and Taoism. Investigates the differing aspects of human religious experience and examines the similarities and differences both between religions and among the denominations within them.

**PHIL 240 Skin, Sex, and Genes**

This course reviews some of the ways in which modern biology has been a site of conflict about race, gender, and sexuality. We will consider scientific studies, as well as feminist, queer, and anti-racist critiques of those studies, in an effort to understand how science marks certain bodies as different. Occasionally.

**PHIL 260 Theories of the Body**

This course examines the argument that bodies are only produced once they have been given meaning within a society, focusing on scholarship from disability studies, queer theory, antiracist theory, and feminist theory. What does embodiment reveal about structures of inequality and the operations of power in our society? Occasionally.

**PHIL 280 Knowledge and Reality**

How do you know you're not dreaming? What is knowledge, and what kinds of knowledge can we have? What makes you the same person you were yesterday? Do people have free will? We will examine philosophical answers to these questions as we explore central issues in metaphysics and epistemology. Occasionally.

**PHIL 290 Special Topics**

Examines a selected topic, or the works of one or two major thinkers, at an intermediate level. May be repeated as topics change. Occasionally.

**PHIL 298 Independent Study**

*2-8 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. May be repeated for a total of 8 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 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. Occasionally.

**PHIL 306 Existentialism and Literature**

An examination of philosophic writings, novels, and plays from writers such as Nietzsche, Kierkegaard, Kafka, Camus, Beckett, Ionesco, and Sartre. Attempts are made to isolate and evaluate typical existentialist themes and contrast them with nonexistentialist themes.

**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. Cross-listed as HGS 313. Fall.

**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.

**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. Occasionally.

**PHIL 370 Philosophy of Language**

What gives words meaning? How do pointing and other contextual factors influence interpretation? What role do intentions play? How do Superman and Santa Claus differ from the names of real people? We will explore questions such as these from a philosophical perspective, through readings by Russell, Kripke, Putnam, and others. Prerequisite: IHPHIL 100. Occasionally.

**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. Occasionally.

**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**

*2-8 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 8 credits. Occasionally.

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## Physical Education

**PE 100 Foundations of Physical Education**

*2 credits*

An introduction to the foundations of sport, fitness, and physical education professions. Examines the historical, sociological, and psychological concepts, issues, and current trends. This course is designed for students who intend to major in Physical Education, Teacher Certification option. Fall.

**PE 140 Introduction to Athletic Training**

*2 credits*

An introduction to a broad range of concepts in the Athletic Training Profession, including information on formal application to the major. Designed to introduce students to the clinical education component through pre-professional observation hours outside of class time. Lecture. Prerequisites: Permission of instructor. Fall, Spring.

**PE 141 Wellness from Theory to Practice**

Examines a broad range of health issues to develop basic knowledge related to strategies to prevent illness and optimize overall health and quality of life. Implements concepts of wellness, health and fitness behaviors. Includes semester-long behavior change project. Designed for students intending to major in Athletic Training. Lecture and labs. Prerequisite: Permission of instructor. Fall.

**PE 150 Beginning Swimming**

*1 credit*

Students acquire basic knowledge, skills, and techniques in swimming. Designed for non-PE majors. Graded Pass/Fail. Fall.

**PE 152 Aquatics Conditioning**

*1 credit*

Students acquire basic knowledge, skills, and techniques in Aquatics Conditioning. Designed for non-PE majors. Graded Pass/Fail. Fall.

**PE 154 Lifeguard Training**

*2 credits*

Note: Candidates must pass a swimming competency test given on the first day of class. If certification is desired, there will be an additional fee. This course provides an opportunity for students to acquire basic knowledge, skills, and techniques in Lifeguard Training. Designed for non-PE majors. Graded Pass/Fail. Fall, Spring.

**PE 155 Water Safety Instructor**

*2 credits*

Note: Candidates must pass a written water safety exam and a swimming competency test on the first day of class. If certification is desired, there will be an additional fee. This course provides an opportunity for students to acquire basic knowledge, skills, and techniques in Water Safety Instructor. Designed for non-PE majors. Graded Pass/Fail. Spring.

**PE 160 Cardiovascular Fitness**

*1 credit*

Students acquire basic knowledge, skills, and techniques in Cardiovascular Fitness. Designed for non-PE majors. Graded Pass/Fail. Fall, Spring.

**PE 161 Strength Training**

*1 credit*

Students acquire basic knowledge, skills, and techniques in Strength Training. Designed for non-PE majors. Graded Pass/Fail. Fall, Spring.

**PE 162 Tension Control**

*1 credit*

Students acquire basic knowledge, skills, and techniques in Tension Control. Designed for non-PE majors. Graded Pass/Fail. Fall, Spring.

**PE 163 Yoga**

1 credit Develops skill and knowledge related to beginning-level postures, breath work, and simple meditation techniques. Designed for non-PE majors. Graded Pass/Fail. Fall, Spring.

**PE 177 Golf**

*1 credit*

Students acquire basic knowledge, skills, and techniques in Golf. There will be an additional "greens" fee. Designed for non-PE majors. Graded Pass/Fail. Fall.

**PE 181 Tennis**

*1 credit*

Students acquire basic knowledge, skills, and techniques in Tennis. Designed for non-PE majors. Graded Pass/Fail. Fall.

**PE 191 Standard First Aid/CPR**

*1 credit*

First aid and CPR for the Professional Rescuer procedures for certification. If certification is desired, there will be an additional fee. Graded Pass/Fail. 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 sports skills using video and high-speed film. Lecture and labs. Prerequisites: BIO 230 or permission of instructor. Fall, Spring.

**PE 201 Physiology of Exercise**

The study of physiological principles and adaptations to exercise and physical activity. Focuses on the scientific evaluation and understanding of immediate and long-term effects of exercise on the human body. Emphasis placed on the muscular, cardiovascular, endocrine and respiratory systems. Lecture and labs. Prerequisites: BIO 230 and BIO 232 or permission of instructor. Fall, Spring, Summer.

**PE 210 Introduction to Coaching**

*3 credits*

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. Spring.

**PE 240 Emergency Medical Technician**

Based on the curriculum established by the U.S. DOT for Emergency Medical Technician (EMT-Basic) and authorized by the State of New Hampshire-Bureau of Emergency Medical Services (EMS). Topics include patient evaluation, treatment for trauma and emergencies, and infection control procedures. Lecture and labs. Proof of current certification in CPR at the professional rescuer level. Prerequisite: Athletic Training major or Sophomore standing and permission of instructor. Taken concurrently with PE 242. Fall, Spring.

**PE 242 EMT Practicum**

*2 credits*

This laboratory/supervised experience provides opportunities for students to be formally assessed and to participate in clinical experiences with emergency department and ambulance service. Students have the option to take the NH-EMS Practical Examination and the National Registry Written Examination for EMT-Basics. Passage of both these examinations leads to national certification as an EMT-Basic. Proof of current certification in CPR at the professional rescuer level. Prerequisites: Taken concurrently with PE 240 or permission of instructor. Fall, Spring.

**PE 250 Concepts of Exercise Training**

An introduction to fundamental exercise training techniques. Topics covered include appropriate cardiovascular exercise guidelines, introduction to different modes of exercise, introduction to resistance training exercises and guidelines, resistance training technique, resistance training spotting technique, introduction to plyometrics, and benefits of cardiovascular and resistance exercise. Prerequisites: Physical Education major and Exercise Science option, or permission of instructor. Fall, Spring.

**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 Teacher Certification option and permission of instructor. Fall.

**PE 256 Rhythms**

*2 credits*

Develops skill and knowledge to perform and teach selected rhythmic activities. Teaching emphasis on cueing. Prerequisites: PE 360 and PE major, 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 Teacher Certification option and 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 will be on designing learning experiences and activity demonstration/explanation with feedback. Prerequisites: PE 260 and PE major, Teacher Certification option and permission of instructor. Spring.

**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 Teacher Certification option and 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. Prerequisites: PE 360 and PE major, Teacher Certification option. 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 Teacher Certification option and permission of instructor. Spring.

**PE 282 Track and Field**

*1 credit*

Develops skill and knowledge to perform and teach track and field. Teaching emphasis on leading warm-up and skill review and practice with feedback. Prerequisites: PE 360 and PE major, Teacher Certification option. 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 Teacher Certification option and permission of instructor. Spring.

**PE 284 Injury Prevention Strategies**

*2 credits*

A lab designed to provide an introduction to evidenced-based practice concepts and their application to prevent the incidence and/or severity of injuries. Skill development specific to prevention procedures, protective equipment, and prophylactic procedures (including taping, wrapping, and bandaging). Prerequisites: PE 140, PE 141, and Athletic Training major. Fall.

**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 Teacher Certification option and 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, Teacher Certification option and 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 Teacher Certification option and 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 Teacher Certification option and permission of instructor. Fall.

**PE 290 Special Topics**

*1-6 credits*

Study of a selected topic in physical education. May be repeated as topics change. Prerequisite: PE major or permission of instructor. Fall, Spring.

**PE 294 Athletic Training: Foundations Practicum**

*1 credit*

The seminar introduces theoretical foundations of practice and establishes the knowledge, attitudes, and skills required in the field. Supervised clinical observations focus on the primacy of the patient, a collaborative approach to clinical practice, cultural competence and professionalism. Proof of current certification in CPR at the Professional Rescuer level. Prerequisites: PE 140, PE 141, and Athletic Training major. Fall, Spring.

**PE 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. May be repeated for a total of 8 credits. Fall, Spring.

**IIPE 310 The Psycho-Social Aspects of Sport**

The purpose of this course is to present an interdisciplinary approach to sport that will challenge students to critically reflect and discuss sport from psychological and sociological perspectives. The central focus of the course is to understand how these perspectives and experiences interconnect our personal and societal viewpoints of sport today. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101.

**IIPE 311 Outdoor Recreational Leadership**

This interdisciplinary course will explore outdoor recreational leadership qualities, styles, and group dynamics from multiple perspectives (physical education/communication). Additional focus is placed on experiential learning and examinations of selected program activities. Students develop, lead, and evaluate activities based on varying participant requirements, and earn a Leave No Trace certification. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Summer.

**PE 332 Exercise Testing and Programming**

The principles of exercise testing in all five components of health-related fitness, using nationally accepted assessment tools and standards. Designing and implementing exercise programs based on testing results for apparently healthy adults and those with chronic conditions. Prerequisites: Physical Education major, Exercise Science option, and PE 201. Fall, Spring.

**PE 335 Advanced Strength and Conditioning**

Examination and application of strength training and conditioning principles to enhance individual fitness and sport performance. Students develop skills in strength training, conditioning, and exercise leadership to improve individual and group fitness levels. National certification preparation is emphasized. Prerequisites: PE 250, PE 201, or permission of instructor. Fall, Spring.

**PE 340 Epidemiology of Injury and Illness**

An introduction to the principles and methods of epidemiology and their applicability in the field of Athletic Training. Students will examine factors governing health and disease. Students will be expected to critically interpret the epidemiologic literature relevant to health professionals and active populations. Prerequisites: PE 341, and Athletic Training major, or permission of instructor. Spring.

**PE 341 Recognition of Sport-related Injuries and Illness**

An introduction to the primary mechanisms of athletic injuries, psychological response to injury, and the inflammatory process. Material specific to identifying etiology, signs, and symptoms of common sport-related injuries and illness. Students will be expected to critically interpret athletic training literature relevant to active populations. Prerequisites: BIO 230 and Athletic Training major, or permission of instructor. Fall.

**PE 342 Therapeutic Intervention I**

Provides theoretical knowledge and skills in manual and mechanical therapeutic modalities used in the intervention of orthopedic injuries. Knowledge necessary to identify, apply, and evaluate current evidence to support clinical care reflective of maximize patient outcomes. Includes mechanical modalities and manual techniques to control inflammatory response and pain, restore joint mobility, muscle extensibility, and function. Lecture and labs. Prerequisites: PE 383, and PE Athletic Training major, or permission of instructor. Fall.

**PE 343 Therapeutic Interventions II**

Provides knowledge and skills in physical rehabilitation used in the intervention of orthopedic injuries. Knowledge necessary to identify, apply, and evaluate current evidence to support clinical care reflective of maximize patient outcomes. Includes modalities and techniques to improve health-related and performance-related components to return to high level activity. Lecture and labs. Prerequisites: PE 342, PE 200, INPHYS 141 and Athletic Training major, or permission of instructor. Spring.

**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: INCHEM 100 or INCHEM 103, PE 201, and Athletic Training or PE major, or permission of instructor. Spring.

**PE 360 Teaching Physical Education**

Developmental characteristics and needs in relation to physical education and curriculum planning. Emphasis on the development of effective teaching skills including planning and preparation, the classroom environment (classroom management and interpersonal relationships), instruction, and professional responsibilities. Prerequisites: EDUC 100, EDSP 202, and PE major, Teacher Certification option and 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/assessment, and programming. Adaptation of physical education activities to meet special needs of students. Individual child work included. Prerequisites: PE 360 and PE major, Teacher Certification option, Admission to Educator Preparation. Fall.

**PE 362 Organization and Administration of Physical Education Programs**

Issues related to the organization and delivery of PE programs including philosophy, licensure, program standards, curricular approaches to programming, collaboration, advocacy, and behavior, resource, and risk management. Prerequisites: PE 360 and PE major, Teacher Certification option, Admission to Educator Preparation. Spring.

**PE 363 Assessment of K-12 PE Learners**

*2 credits*

Overviews the purpose of evaluation in K-12 physical education programs. Program standards and various methods of evaluation are examined. Emphasis is placed on designing effective assessment tools that are aligned with program objectives as well as methods for using and reporting results. Prerequisites: PE 360 and PE major, Teacher Certification option, Admission to Educator Preparation. 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 students 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 372 Practicum: Exercise Leadership**

Designed to provide students with a practical setting to apply the knowledge and skill learned throughout the Exercise Science program. Students will practice testing, planning, and facilitating exercise programs for individuals as well as groups. Prerequisite: PE 332. Fall, Spring.

**PE 375 Practicum: Teaching Elementary**

*4 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. Prerequisites: PE 255, PE 360 (grade C or higher), admission to the PE major, Teacher Certification Option, admission to Educator Preparation, and current certification in CPR for the Professional Rescuer and Standard First Aid. Cannot be taken concurrently with PE 376. Fall, Spring.

**PE 376 Practicum: Teaching Secondary**

*4 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. Prerequisites: PE 360 (grade C or higher), admission to the PE major, Teacher Certification option, admission to Educator Preparation, and current certification in CPR for the Professional Rescuer and Standard First Aid. Cannot be taken concurrently with PE 375. Fall, Spring.

**PE 383 Clinical Examination Strategies**

*2 credit*

A lab designed to provide the opportunity to research and develop evidenced-based practice concepts and their application to the evaluation process to develop clinical reasoning skills. Skills focus on a comprehensive review of all systems as well as focusing on the clinical diagnosis of the lower extremity and axial region. Proof of current certification in CPR for the Professional Rescuer. Prerequisites: PE 200 and Athletic Training major. Spring.

**PE 384 Advanced Clinical Examination**

*2 credits*

A lab designed to provide advanced understanding of evidence-based practice concepts and their application to the evaluation process to develop clinical reasoning skills. Skills focus on the clinical diagnosis of the upper extremity, spine, and head/face, as well as introducing evidenced based diagnostic tools. Proof of current certification in CPR for the Professional Rescuer. Prerequisites: PE 383 and Athletic Training major. Fall.

**PE 385 Emergent Care Strategies**

*2 credits*

A lab designed to critically examine the body of knowledge in athletic training and related fields to enhance knowledge and skills in planning, examination, and immediate emergent management of acute injuries and illnesses. Proof of current EMT Certification. Prerequisites: PE 384 and Athletic Training major. Spring.

**PE 441 Pharmacology and Pathology for Athletic Trainers**

Provide an understanding of basic physiological mechanisms underlying illness and disease. Discussion of the pathophysiology associated with general medical conditions to facilitate the student's ability to formulate a differential diagnosis and make clinical decisions and the positive outcomes associated with health promotion and disease prevention in active populations. An understanding of relevant pharmacodynamics and pharmacokinetic processes essential to recognize adverse drug interactions, patient harm, and therapeutic medications used in the treatment of sports injuries. Prerequisites: INCHEM 100, INCHEM 103, or INCHEM 111, PE 201, and Athletic Training major, or permission of instructor. Spring.

**PE 443 Health Care Administration of Athletic Training**

Provide understanding of risk management, health care delivery systems, and facility management. A focus on the laws, standards of practice, and guidelines for ethical care within traditional and non-traditional athletic training practice settings. Introduction to professional responsibilities, management and leadership within the Athletic Training profession. Prerequisites: Junior or Senior standing and Athletic Training major, or permission of instructor. Spring.

**PE 460 Experimental Design and Analysis for Physical Education**

Introduction to practical methods and techniques for experimental design and analysis. Topics include simple distributions, correlation, regression, basic statistical tests (both parametric and nonparametric), analysis of variance through factorial analysis, and analysis of frequencies. Prerequisite: Athletic Training or PE major or permission of instructor. Fall, Spring.

**PE 472 Exercise Science Externship**

*4-12 credits*

A supervised experience designed to provide the advanced student an opportunity to gain experience and practical knowledge in an exercise-related facility. The student will practice planning, supervising, and mentoring individuals of all health backgrounds in all aspects of fitness and health. Prerequisite: PE 372 or permission of instructor. Fall, Spring.

**PE 475 Student Teaching: Elementary**

*6 credits*

Full-time placement in an elementary physical education setting. Supervision provided by college supervisor and field-based professional toward mastery of principles, attitudes, and techniques for successful teaching. Graded Pass/Fail. Prerequisite: Permission of Educator Preparation Office. Fall, Spring.

**PE 476 Student Teaching: Secondary**

*6 credits*

Full-time placement in a secondary physical education setting. Supervision provided by college supervisor and field-based professional toward mastery of principles, attitudes, and techniques for successful teaching. Graded Pass/Fail. Prerequisite: Permission of Educator Preparation Office. Fall, Spring.

**PE 477 Student Teaching Seminar**

Issues faced by physical education professionals in schools including but not limited to school policies and procedures, behavior management, record keeping, assessing student performance, student equity, collaboration, technology, advocacy, professional development, licensure, job search, interview skills. Corequisites: PE 475 and PE 476. Fall, Spring.

**PE 483 Athletic Training: Clinical I**

A supervised field-based experience in athletic training linking theory to practice. Focus on the use of evidence-based practice as a foundation for the delivery of care. Seminar focused on assessment of clinical integration competencies on prevention and clinical diagnosis and psychosocial strategies. Cannot be taken concurrently with participation in varsity or club sport.

Proof of current certification in CPR for the Professional Rescuer and EMT Certification. Prerequisites: PE 294, PE 383 and Athletic Training major. Fall.

#### **PE 484 Athletic Training: Clinical II**

A supervised field-based experience in athletic training linking theory to practice. Focus on the use of evidence-based practice as a foundation for the delivery of care. Seminar focused on assessment of clinical integration competencies on clinical diagnosis, acute care, and therapeutic interventions. Cannot be taken concurrently with participation in varsity or club sport. Proof of current certification in CPR for the Professional Rescuer and EMT Certification. Prerequisites: PE 342, PE 384, PE 483 and Athletic Training major. Spring.

#### **PE 490 Advanced Special Topics**

*1-8 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 492 Exercise Science Seminar**

A research-based capstone course intended to allow students to research, present, and discuss current topics within the health, performance, fitness, and nutrition fields. Prerequisites: Physical Education major and Exercise Science option, or permission of instructor. Fall, Spring.

#### **PE 493 Athletic Training: Advanced Clinical**

*6 credits*

A clinical capstone course with an intensive field experience providing the advanced student with an opportunity to demonstrate analytical decision-making and refine evidenced based clinical application prior to certification. Cannot be taken concurrently with participation in varsity or club sport. Cannot be taken concurrently with PE 494 without permission of the athletic training program coordinator. Proof of current certification in CPR for the Professional Rescuer and EMT Certification. Application to enroll. Prerequisite: PE 385, PE 484, Athletic Training major. Fall, Spring.

#### **PE 494 Athletic Training: Advanced Practicum**

*2 credits*

A supervised experience designed to provide exposure to allied health and medical professionals allowing students to function as members of interdisciplinary teams. Clinical exposure in rehabilitation, orthopedics and primary care provide an opportunity to demonstrate clinical integration competency at the pre-professional level. Students are required to disseminate knowledge in athletic training to fellow athletic trainers' students with a professional presentation. Cannot be taken concurrently with PE 493 without permission of the athletic training program coordinator. Proof of current certification in CPR for the Professional Rescuer, EMT Certification. Prerequisites: PE 343, PE 441 and Athletic Training major. Fall, Spring.

#### **PE 498 Independent Study**

*1-8 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. May be repeated for a total of 8 credits. Prerequisites: PE major and permission of instructor. Fall, Spring.

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## **Physics**

### **INPHYS 141 College Physics I**

Algebra-based introduction to Newtonian mechanics. Emphasis on conceptual understanding and problem-solving: motion, forces, Newton's laws applied to both linear and rotational situations, momentum, energy, and conservation laws. Knowledge of algebra and trigonometry are expected. A math competency assessment is administered. Includes two-hour laboratory. Fall, Spring.

**PHYS 142 College Physics II**

Continuation of INPHYS 141 with the extension of basic concepts to include fluids, vibrations and waves, thermal physics, thermodynamics, electrostatics, electrical circuits and magnetism, and geometrical and physical optics. Includes two-hour laboratory. Prerequisite: INPHYS 141. Spring.

**INPHYS 201 Phenomenal Science**

A hands-on, minds-on inquiry-based exploration of the basic physical principles that underlie our observations and experiences in the everyday world. Topics include motion, forces, energy, fluids, sound, heat, light, electricity, magnetism, and the atom. Ideal for preservice teachers. Prerequisite: IQL 101 or by permission of the instructor. Fall, Spring.

**IIPHYS 210 History of Science**

The history and philosophy of science (astronomy, chemistry, geology, physics, and evolution) from its origins in Ancient Greece through Rome, the Middle Ages, the Islamic period, and the Renaissance to the Scientific Revolution of the 17th century to modern times, including plate tectonics, relativity, quantum physics and cosmology. Prerequisites: ITW 101 and IQL 101 or equivalent. Fall.

**INPHYS 241 University Physics I**

The first semester of a three-semester calculus-based sequence for science and technology majors. Emphasized are kinematics, forces, both static and dynamic, energy and momentum, gravitation, thermal physics, and thermodynamics. Includes a two-hour laboratory. Spring.

**PHYS 242 University Physics II**

A continuation of INPHYS 241 that treats rotational dynamics and angular momentum, oscillations, fluids and waves in general and sound, electrostatics, capacitors, d-c circuits, and magnetic fields and forces. Includes a two-hour laboratory. Prerequisite: Grade C or higher in INPHYS 241 required. INPHYS 241, MATH 152 concurrently, or permission of instructor. Fall.

**PHYS 260 Electronics**

Instrumentation, DC and AC circuitry, signals and noise, filters, amplifiers, transducers, and solid-state components. Digital concepts and applications, including coding, gating and counting, and logic circuitry. Includes three-hour lab. Prerequisite: PHYS 142 or PHYS 242. Alternate years.

**PHYS 275 University Physics III**

This course concludes our introductory calculus-based sequence. Topics covered are nature of light, geometric optics and applications, interference and diffraction, quantum theory of light, particles and matter waves, special relativity, nuclear physics, introduction to quantum mechanics. Includes a two-hour laboratory. Prerequisite: Grade of C or in PHYS 242 or permission of instructor. Spring

**PHYS 298 Independent Study**

*1-4 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. May be repeated for a total of 4 credits.

**IIPHYS 305 The Physics of Music**

An interdisciplinary exploration of how analyses of the physics of sound aid our understanding of music. Students will learn how sound is created, sustained, amplified; how limits in human physiology shape approaches to music; and how physical properties of instruments relate to tone quality and give insight into different genres of music. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Fall.

**PHYS 330 Thermodynamics**

Temperature and the zeroth law, heat, work and energy, the three laws of thermodynamics, and applications. Emphasis is on entropy and its applications: the thermodynamic potentials, aspects of kinetic theory, and Maxwell-Boltzmann statistics. Prerequisites: Grade C or higher in PHYS 275 or permission of instructor. Fall, even years



**PHYS 339 Classical Mechanics**

Analytical treatment of Newton's laws in kinematics and dynamics, oscillations, non-inertial reference systems, gravitation and central forces, mechanics, and motion of rigid bodies. Lagrangian mechanics. Prerequisite: Grade C or higher in PHYS 275 or permission of instructor. Fall, odd years.

**PHYS 420 Optics**

An advanced course in geometric and wave optics. Topics covered include one- and three-dimensional wave equation, electromagnetic waves and the electromagnetic spectrum, particle theory of light, reflection and refraction of waves at media boundaries, dispersion, geometric optics, fiber optics, interference effects, interferometry, diffraction and quantum electrodynamics, lasers. Prerequisite: Grade C or higher in PHYS 275 or permission of the instructor. Occasionally.

**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: Grade C or higher in PHYS 275, MATH 251 or permission of instructor. Spring, odd 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: Grade C or higher in PHYS 242 and permission of instructor. Fall, Spring.

**PHYS 498 Independent Study**

*1-4 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 for a total of 4 credits. Prerequisite: Permission of instructor. Fall, Spring.

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## Political Science

**ISPOSC 110 Governing America**

An analysis of governance and political citizenship in the United States. Includes examination of national institutions (Congress, Courts and the Presidency), other public offices, election cycles, and subnational politics. Compares democracy with other governing models, and examines types of political information and practice in deliberative political discussion. Fall.

**ISPOSC 210 United States Politics**

Survey of U.S. politics at the federal level. Emphasis is on the context and development of the Constitution and the evolution of political institutions, such as Congress, the presidency, and the courts. Other topics include political economy, media, public opinion, parties, elections, interest groups, and social movements. Fall, Spring.

**ISPOSC 211 State and Local Politics**

The role of power and institutions in the states and their government subdivisions. Comparative state and local cultures, federalism, revenues and expenditures, and contemporary problems. Spring.

**POSC 215 Public Administration**

Local government planning and administration techniques emphasizing field study and observation of local public institutions at work. Consideration of public/private partnership and conflict. Spring, odd years.

**ISPOSC 220 Global Politics**

International politics in the era of globalization. International security frameworks, the global political economy, and critical agendas. Fall, Spring.

**ISPOSC 223 Introductory Comparative Government**

Introduction to comparative analysis, usually focusing on a pair of cases (such as Canada and the United States) that have similar histories and societies, but different governments and policy outcomes. Primary emphasis: the context and evolution of political traditions, institutions, and behavior. Secondary emphasis: the methods of comparative analysis. Spring.

**ISPOSC 228 Understanding Global Politics Through Literature and Film**

Survey of important concepts in global politics that can be studied through such media as documentaries, films, and novels. The course treats important political questions and provocative theories about the international environment, hegemony, the international monetary regime, and the use of war. Occasionally.

**ISPOSC 230 Foundations of Political Thought**

Introduction to the political philosophies that framed political action and governance in the West between the Classical Era and the end of the 17th century. Students learn the political contributions of Greek, Roman, Church, Reformation, and Enlightenment thinkers. Students also learn how to ask, answer, and assess philosophical questions about political power. Fall, Spring.

**POSC 250 Writing and Research**

Emphasizes the background study and the writing tasks that are intrinsic to applied public policy analysis and scholarly analysis. Students will learn to develop a thoroughly researched and carefully revised analytical study that will be an exemplary demonstration of their research and writing skills. Prerequisite: Two courses in Political Science at the 200 level or higher. Must be successfully completed at least one semester prior to POSC 401. Spring.

**POSC 290 Special Topics**

*1-4 credits*

Study of a selected topic in Political Science. May be repeated as topic changes.

**POSC 294 Cooperative Education**

*1-4 credits*

Introductory work-learning experience related to career interests, for which compensation may be received. Positions arranged by students with sponsorship, approval, and evaluation by full-time faculty. Elective credit only (normally 120 hours per credit) for a total 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**

*1-4 credits*

Individualized study of an issue, problem, or topic, selected and pursued in consultation with a faculty member. May be repeated. Prerequisite: Permission of instructor.

**POSC 310 Participation and Democracy in America**

An examination of American elections and voting, assessing the quality of modern democracy. Theories about participatory democracy will be analyzed and used to evaluate alternative forms of citizen action proposed or practiced in America. Class experience will include some form of active participation or observation in the political arena. Prerequisite: ISPOSC 210 is strongly recommended but not required. Fall, even years.

**POSC 312 Public Policy Analysis**

Emphasis is on the study of public policy and the profession of policy analysis. Central to the course will be an understanding of three main ideological approaches to policy problems and the ability to see these approaches enacted in real-life cases. Application of popular models of how policy is made and to understand the role of institutions and actors in policy. Prerequisite: ISPOSC 210 or permission of instructor. Spring, even years.

**POSC 315 Environmental Policy**

Critical discussion of specific environmental policies broken into two categories: policies dealing with pollution and public health and policies dealing with land management and the public realm. Includes a brief history and discussion of policy theory applied to the environment. Prerequisite: ISPOSC 210 or permission of instructor. Spring, odd years.

**POSC 316 Constitutional Law**

The Constitution as interpreted by the U.S. Supreme Court, nature and origins of judicial review, battles over strict and loose construction and judicial activism, recent cases in political and civil rights, economic regulation, and distribution and scope of government powers. Prerequisite: ISPOSC 210, ISPOSC 220, or ISPOSC 223, or permission of instructor. Fall.

**ISPOSC 317 The U.S. Presidency**

This course examines the modern American presidency. It provides a broad introduction to the executive branch and covers a range of topics, including campaigns and elections, rhetoric and speechmaking, and foreign and domestic policymaking. A key theme concerns the nature and paradoxes of presidential power. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. Fall.

**POSC 318 The U.S. Congress**

This course is a comprehensive examination of the legislative branch. Topics include: institutional design, representation and elections, rules and procedures, committee power, party leadership, and inter-branch relations. Students will be introduced to major theoretical and research approaches in the congressional literature. Prerequisite: ISPOSC 210 is recommended but not required. Spring, even years.

**POSC 321 U.S. Foreign Policy and Globalization**

Analysis of foreign policy formation in the United States as it interacts with the international system, and investigation of the major role of the United States in shaping the ideology and institutions of the international monetary regime. Includes historical setting and contemporary policies and problems. Prerequisite: ISPOSC 210, ISPOSC 220, or ISPOSC 223, or permission of instructor. Fall, odd years.

**POSC 322 Global Political Economy**

Investigation of the interrelationships between political and economic interests, institutions and processes that form an international monetary regime, and the political resources determining the relative power of global actors to affect the allocation of scarce resources on the planet. Prerequisite: ISPOSC 210, ISPOSC 220, or ISPOSC 223, or permission of instructor. Fall, even years.

**POSC 323 Advanced Comparative Government**

Focuses on key concepts and techniques of comparative analysis, and provides an opportunity to conduct original comparative research on polities of interest to the student. Prerequisite: ISPOSC 223 is strongly recommended but not required. Fall, odd years.

**POSC 334 Modern Political Thought**

Critical study of political philosophies that have explained and critiqued political action and governance since the 17th century. Students integrate knowledge of foundational political thought with modern political thought. ISPOSC 230 is strongly recommended, but is not required. Spring, even years.

**POSC 335 Qualitative Research Methods**

This course introduces students to the logic and strategies of qualitative research design. Students will learn how to design comparative case studies, conduct process tracing, and manage the challenges of elite interviews. Students will also be exposed to competing beliefs about how the socio-political world operates. Spring, odd years.

**POSC 390 Special Topics**

1-4 credits Study of a selected topic in Political Science. May be repeated as topic changes. Occasionally.

**POSC 401 Keystone in Political Science**

Advanced study and writing about politics that integrates the individual student's previous work in political analysis through the scholarly study of a topic that the student and instructor jointly select. Prerequisites: ISPOSC 210, ISPOSC 220, ISPOSC 230, POSC 301. Fall, Spring.

**POSC 497 Internship**

*1-4 credits*

Application of a political science background to the practical affairs and activities of a political organization or institution as a participant observer. May be repeated for a total of 8 credits. Prerequisites: A minimum of 12 credits in Political Science, 2.5 cumulative GPA in major, and permission of instructor.

**POSC 498 Independent Study**

*1-4 credits*

Intensive study of an issue, problem, or topic. May be repeated. Prerequisite: A minimum of 12 credits in Political Science at the 200 level or higher, and permission of instructor.

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## Psychology

**ISPSYC 100 Topics in Psychology**

An exploration of topical psychological issues for nonmajors. Topics vary in sub-areas of psychology such as biological, social, cognitive, developmental, and clinical psychology. May be repeated for credit as topics change. Fall, Spring.

**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**

Systematic study of the major theories and scientific assumptions endemic to the development, structure, and functions of human personality. Exploration of the methodological and research dimensions of this inquiry will be a central component of this course. Consideration of the roles of multiculturalism in theory development will also be examined. 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. Fall, Spring.

**PSYC 252 Research Methods in Psychology**

Methodologies of psychological research will be explored. Students will learn to conduct, evaluate, and interpret experiments within various subareas of psychology. 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 Biology course recommended. Fall, Spring.

**PSYC 290 Psychology Topics**

*1-4 credits*

Exploration and analysis of elementary topics in psychology. Prerequisite: Permission of instructor. Occasionally.

**PSYC 298 Independent Study**

*1-4 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. Prerequisite: Permission of instructor. May be repeated. Fall, Spring.

**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. Fall, Spring.

**ISPSYC 312 Lifespan Psychology**

This course investigates the major psychological theories of lifespan development and provides a multifaceted introduction to the dynamics of intrapsychic development that occurs across the human lifespan. Major developmental milestones, effects of diversity and multiculturalism, socioeconomic status, family constellation, and socio-cultural variables are essential components of this analysis. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Fall, Spring

**PSYC 314 Adulthood and Aging**

A psychological analysis of human development from post-adolescence to death. Topics include sexuality, self-image, family and work relationships, independence, power, developmental experiences, multicultural issues, emotional and physical health, and aging. Prerequisites: PSYC 101 and junior standing, or permission of instructor. Spring.

**PSYC 321 Culture and 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 experiences with select test types. Prerequisites: PSYC 101, PSYC 251, or MATH 141 and junior standing, or permission of the instructor. Fall.

**PSYC 345 Abnormal Psychology**

An introduction to the systematic study of theories of etiology, signs, and treatment of psychopathology with an emphasis on prevention, and the social and cultural forces that influence views of abnormality. Prerequisites: PSYC 242 and junior standing, or permission of instructor. Fall, Spring.

**IIPSYC 350 When Harm Is Done**

An interdisciplinary exploration of restorative justice, difficult dialogue, nonviolent resistance, and other models that differ from revenge and punishment as responses to crime and injustice. We will examine applications at the national and international level, in community criminal justice systems, in schools, in groups, and in personal relationships. Prerequisites: 24 credits in the ISP, including ITW and IQL. Fall.

**PSYC 355 Psychology of Learning**

Analysis of contemporary theories and research on learning. Integration of behavioral, cognitive, and ecological perspectives. Prerequisites: PSYC 101 and junior standing, or permission of instructor. Spring.

**PSYC 357 Cognitive Processes**

An investigation of the continuum of cognitive activities from perception to memory and thought processes. Traditional, neo-behaviorist, 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 of Psychology**

Exploration of the development of modern psychology through an examination of influential figures, events, and ideas from the mid-19th century to the present. Prerequisites: PSYC 101 and junior standing, or permission of the instructor. Fall, Spring.

**PSYC 385 Industrial-Organizational Psychology**

Industrial-organizational psychology applies psychological theory and research to workplace topics such as employee selection, training, evaluating and motivating performance, occupational health and stress, job attitudes and leadership.

Emphasis on how the worker and the organization benefit from effective workplace practices. Prerequisites: PSYC 221 and Junior standing, or permission of instructor. Spring.

**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 and similarities. Prerequisite: Junior standing and ITW 101, or permission of instructor. Fall.

**PSYC 444 Counseling**

Exposes students to counseling techniques and corresponding theoretical frameworks to cultural, ethical, and psychological issues that are confronted by counselors, and to an examination of students' interests and aptitudes as they relate to the counseling profession. Prerequisites: PSYC 242, PSYC 345, and junior standing, or permission of instructor. Fall, Spring.

**PSYC 447 Clinical Psychology**

Introduction to the spectrum of subdisciplines within clinical psychology. Topics include clinical theory and research, assessment procedures, ethical decision making, and risk assessment. Prerequisites: 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**

An examination of contemporary theories and research on how the brain makes sense of all the sensory inputs it receives to produce the rich perceptual world we experience. Prerequisites: PSYC 252 and PSYC 253. Spring, odd years.

**PSYC 467 Human Behavior and the Legal System**

Human behavior is shaped and limited by the laws that human society develops. An understanding of the effects of individual behavior on the legal system and the consequence of the existence of a legal system for individual behavior is central to the understanding of human behavior. This course is crosslisted with CJS 467. Prerequisite: CJS 342 or PSYC 221 or permission of instructor. Occasionally.

**PSYC 470 Practicum**

*1-8 credits*

Field experience focused on the ethical 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 8 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**

Capstone experience that refines basic skills and concepts through an exploration of specific themes in psychological literature. Course work emphasizes analysis, synthesis, organization and oral communication. Students lead classroom discussions; active participation is essential. May be repeated as topics change. Prerequisites: Senior psychology major or permission of instructor. Fall, Spring.

**PSYC 496 Honors Seminar**

*1 credit*

Research seminar for participants in the Psychology Honors Program. Prerequisite: admission to Psychology Honors Program. Graded Pass/Fail. Must be repeated to qualify for psychology honors. Fall, Spring.

**PSYC 498 Independent Study**

*1-4 credits*

Individual study or research in selected topics in Psychology under direction of a faculty member. May be repeated. Prerequisite: Permission of instructor.

**PSYC 499 Honors Research**

*3 credits*

Independent topical research for participants in the Psychology Honors Program. Prerequisite: Admission to Psychology Honors Program. Graded Pass/Fail. Must be repeated to qualify for psychology honors. Fall, Spring.

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## **Safety and Occupational Health Applied Sciences**

**SAFE 101 Safety Awareness**

Studies the impact of accidents, develops strategies to eliminate, mitigate accident outcomes through education and awareness. Identifies factors associated with activities at school, home, and work that result in accidents. By applying this knowledge people can make informed decisions leading to minimum risk and maximum success. Fall, Spring.

**INSAFE 103 Safety Chemistry**

Lecture-lab survey course of introductory chemistry principles applied for professionals in, but not limited to, the safety field. Topics covered span from a basic understanding of matter to the properties of gases and chemical effects on biological and environmental processes. Knowledge of basic algebra is mandatory. 3.5 hour lecture, 1.5 hour laboratory. Fall, Spring.

**SAFE 200 Safety Internship**

*2-8 credits*

Career-related work-learning experience. Placements arranged, supervised, and evaluated by Safety faculty. Elective credit only (cannot be applied to credits in the major; maximum Internship credits 16 hours per degree program). Minimum 12 weeks per semester required (120 hours, 2 credits; 240 hours, 4 credits; 360 hours, 6 credits; 480 hours, 8 credits). Prerequisites: 16 SAFE credits earned, 2.0 cumulative GPA, and permission of instructor. Graded Pass/Fail. Fall, Spring.

**SAFE 202 Occupational 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, including a review of basic geometry and mathematical calculations and conversion factors. Fall, Spring.

**SAFE 203 Fire and HAZMAT Response**

An overview of the National Fire Protection Association Codes that apply to occupational exposures. The safe handling, storage, and use of hazardous materials for industrial, commercial, transportation, and public service operations are covered in detail. Fire and accident prevention measures, training, regulatory requirements, emergency procedures and response are studied. Prerequisites: Safety Studies majors or minors only, or permission of instructor. Fall, Spring.

**SAFE 204 Human Factors in Safety**

This course will provide students with the understanding of the importance of ergonomic design and evaluation of workplaces and the work environment to enable the student to understand physiological and psychological stresses, human capabilities and limitations, and their importance in designing work spaces, processes, tools, equipment, and products. Prerequisites: Safety Studies majors or minors and SPDI Majors only, or permission of instructor. Fall, Spring.

**SAFE 206 Construction Safety Standards**

Compliance with OSHA standards specific to construction, including rights and responsibilities under OSHA, inspections, citations, appeals, and record keeping. The course will also cover the most frequently referenced OSHA, NFPA, ACGIH, CGA, NIOSH, ANSI, and ASTM standards in the construction industry. Prerequisites: SOHAS majors or minors only, SAFE 202 or permission of the instructor. Fall, Spring.

**SAFE 222 Introduction to Traffic Safety**

*3 credits*

Elements that compose driving and the highway transportation system. Emphasis is on human performance, traffic engineering, and related research. For educators and those whose responsibilities include motor fleet safety. Due to the extensive content, students can expect considerable out of class assignments. Additional driving time will be scheduled with the instructor. Prerequisites: State of N.H. Driver Education Teacher Certification requires driver license possession for five consecutive years, high school diploma or GED, valid operator's license and acceptable driving record.

**SAFE 290 Special Topics in Safety**

*1-4 credits*

Study of a selected topic in the Safety Studies program. May be repeated as topics change. Prerequisites vary as topics change. Fall, Spring.

**SAFE 298 Independent Study**

*1-4 credits*

An opportunity for a qualified student to explore work in an area of individual interest, in Safety, selected and pursued in consultation with a faculty member. Consent is required from the instructor who will supervise the independent study. May be repeated for a total of 4 credits.

**SAFE 301 Loss Prevention**

Introduces key Risk Management and Loss Prevention principles through exploration of allied consensus standards including OSHA's Voluntary Protection Program, OHSAS 18001 Safety Management System, LEAN Management and Environmental Management Systems ISO 14001. Prerequisites: SAFE 202, SOHAS majors or minors only, or permission of the instructor. Fall, Spring.

**SAFE 302 Law and Ethics in Safety**

Introduction to federal and state regulatory authorities governing safety in industry and the environmental impacts of industrial activity. Discusses ethical dilemmas, management challenges, professional responsibilities, and liability and legal ramifications of accidents. Prerequisites: SAFE 202, SAFE 307, SOHAS majors or minors only, or permission of instructor. Fall, Spring.

**SAFE 303 Safety and Health Standards**

Familiarizes students with OSHA general industry standards, including responsibilities under OSHA regulations, inspections, citations, appeals, and recordkeeping. Highlights frequently cited standards by OSHA in general industry, hazard identification and control. Explores safety standards from ANSI, NFPA and DOT. Prerequisites: SOHAS majors and minors only, SAFE 202, SAFE 307, or permission of instructor. Fall, Spring.



**SAFE 304 Environmental Law and Regulation**

Develops an understanding of the system of laws and regulations that protect the environment, human health, and natural resources. The role of science in the legal/regulatory process will be emphasized, as will federal/state regulatory processes and requirements. Prerequisite: ENST 253, or SAFE 302, or permission of instructor. Cross-listed as ENST 304. Fall.

**SAFE 305 Health Hazard Identification**

Reviews health hazards in industry and their effects on humans. Study of hazards involved with chemical, physical and biological stressors at work. Explores methods of hazard identification recognition and control. Prerequisites: SAFE 202, SOHAS majors or minors only, or permission of the instructor. Fall, Spring.

**SAFE 306 Behavioral Based Safety**

This course challenges students to learn theory and apply behavioral safety. Research shows people-centered efforts are most effective at reducing injury vs. traditional methods. This course explores factors influencing everyday worker behavior and identifies how behavior can be changed systematically, in a positive, supportive way, keeping workers safe. Prerequisites: SOHAS majors or minors only, SAFE 307, or permission of the instructor. Fall, Spring.

**SAFE 307 Safety Management Systems**

Examination of principles underlying management of organizational activities in accordance with occupational health and safety systems. Emphasizes ANSI Z10 standard. Explores ethical leadership, psychology, training, communication, metrics, human resources, cost benefit analysis, and project management. (Membership in the American Society of Safety Engineers required.)

**SAFE 333 Driver Education Methods**

*3 credits*

Professional preparation to meet the traffic and safety needs of schools and communities. Focus on methods of classroom and laboratory teaching. State and national standards are recommended for teaching driver and traffic safety education. (Includes laboratory experience.) Students can expect considerable out of class assignments. Prerequisite: State of N.H. Driver Education Teacher Certification requires driver license possession for five consecutive years, high school diploma or GED, valid operator's license and acceptable driving record, access to Internet and e-mail, and successful completion of Introduction to Traffic Safety.

**SAFE 400 Advanced Safety Internship**

*1-8 credits*

Sequential work-learning experience related to career interests. Compensation may be received. Placements arranged, supervised, and evaluated by full-time Safety faculty. Open-elective credit only (does not apply to elective credits in the major; maximum coop credits 16 hours per degree program). Prerequisites: Declaration of major, junior standing 32 credit hours in the major, 2.5 cumulative GPA, and permission of instructor. Graded Pass/Fail. Fall, Spring.

**SAFE 401 Industrial Hygiene**

Familiarizes students with the various techniques and procedures involved in the practice of the profession of Industrial Hygiene. Course work and laboratory exercises illustrate the equipment and methodologies commonly used by Industrial Hygienists in the anticipation, recognition, evaluation and control of occupational health hazards in today's workplace. Prerequisites: SOHAS majors or minors only and INSAFE 103 or permission of instructor. Fall, Spring.

**SAFE 402 Critical Incident Response**

The emergency planning process includes planning, preparing, responding and recovering from an emergency. This course will introduce the key activities in the emergency planning process such as; vulnerability analysis, incident command, and asset protection. Prerequisites: SAFE 303, Safety Studies majors or minors only or permission of instructor. Fall, Spring.

**SAFE 444 In-Vehicle Driver Ed Methods**

*3 credits*

Examines methods for delivering a sequential in-vehicle phase of a driver education program to novice drivers. Includes program organization, route and lesson design, instructional delivery, and assessment of behind-the-wheel lessons in a dual

controlled vehicle. Requires in-vehicle demonstrations by staff and students. Students can expect considerable out of class assignments. Prerequisites: State of N.H. Driver Education Teacher Certification requires driver license possession for five consecutive years, high school diploma or GED, valid operator's license and acceptable driving record, and successful completion of Introduction to Classroom Safety and Classroom Methods for Teaching Driver Education.

**SAFE 490 Special Topics in Safety**

*1-4 credits*

Study of a selected topic in the Safety program at an advanced level. May be repeated as topics change. Prerequisites vary as topics change. Fall, Spring.

**SAFE 491 Honors Research**

*4-8 credits*

Participation in ongoing programmatic research in the Safety Honors Program. Prerequisite: admission to the Safety Honors Program. Graded Pass/Fail. May be repeated for a total of 8 credits.

**SAFE 495 Safety Seminar**

*1-4 credits*

Group discussion of problems and issues in Occupational Safety and Health. May be repeated as topics change. Prerequisites vary as topics change. Fall, Spring.

**SAFE 497 Innovative Safety Leadership**

Instructional and administrative aspects of comprehensive safety programs. Analysis of personal and environmental safety factors in real world application based settings. Emphasizes the application of classroom and field experiences accumulated during completion of prerequisite course work. Prerequisites: 104 credit hours earned, and signature of department chair. Fall, Spring.

**SAFE 498 Independent Study**

*1-4 credits*

Advanced independent study of various aspects of 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 4 credits.

**SAFE 597 Safety and Health Research**

Participation in post-baccalaureate, programmatic research projects in Safety under the direction of a faculty member. Prerequisites: Permission of the Post-Baccalaureate Program Committee. Prerequisites may change with course subject. May be repeated for a total of 8 credits.

**SAFE 601 Current Issues in Safety**

This course examines promotion and management of occupational safety. Globalization, epidemics, foreign workers, and more will be considered. Computer searches, literature reviews, periodicals, and other methods will be used to illustrate the remarkable pathway that occupational safety has taken. Basic research methods are used to enhance the discovery process.

**SAFE 602 Best Practices in Safety**

Participants research and define best practices of the safety process and explore how programs are developed, implemented, assessed, and modified. Organizations recognized with awards for their excellence by private and governmental agencies are used as case studies to facilitate learning and understand relationships of best practices and beneficial stakeholder outcomes.

**SAFE 603 Applied Occupational Health**

This course is designed to provide practical knowledge for safety professionals. This course will examine historic examples of occupational diseases and develop an understanding of exposure assessment techniques in today's workplace. Course discussion and instructional assignments provide students knowledge and skills to manage illness risks in Safety and Health Programs.

**SAFE 604 Leading Safety Change**

What defines leadership, and what about change, can you be a leader without change? This reflective course will study leadership and change concepts by surveying literature, analysis tools, models, and case studies to tease out leadership and change concepts that effectively enhance employee health and safety systems within organizations.

**SAFE 605 Safety Management Systems**

Surveys leading international safety and environmental management systems, including ISO 14000. Focus on requirements of management systems to identify and implement strategies in organizations. Integration of EMS and SMS is emphasized: management, document control, training, and corrective actions. Students will learn to move organizations beyond basic compliance to innovative performance.

**SAFE 610 Risk and Safety**

Introduction to scholarly based risk literature in occupational and environmental health. Students learn basic risk concepts and critically evaluate quantitative risk assessment (QRA). The class will examine the interplay of science and policy, especially how scientific uncertainty can become controversial. An innovative decision-making processes will be reviewed.

**SAFE 620 Legal and Ethical Issues**

Ethical and legal issues faced by safety professionals. Students evaluate issues in terms of their own value system and prudent practices. Case studies and anecdotal presentations examine issues and prepare students for roles in actions such as litigation and worker's compensation claims as well as various court hearings and trials.

**SAFE 650 Self-Directed Study**

An in-depth study of a topic not available through other course work. Student works with supervising faculty member on a carefully planned, student-initiated project. Prior approval is necessary. Prerequisite: Permission of instructor.

**SAFE 655 Advanced Safety Research**

Familiarizes students with strategies for identifying, analyzing, and evaluating safety research. Examines advanced concepts in qualitative and quantitative analysis techniques commonly used in safety research. Explores research design in preparation for their Capstone experience. Prerequisite: Permission of instructor. Spring.

**SAFE 695 Graduate Practicum**

The practicum course experience serves as a central component of our degree program. Prior to the practicum, you will complete core courses in the degree program. Your practicum experience provides you with an opportunity to translate classroom theory into practice in a workplace environment. Prerequisites: 32 earned Safety M.S. program credits and permission of instructor.

**SAFE 696 Applied Safety Research**

Collection and interpretation of data to produce an applied research project for individual students in consultation with their professor. Emphasis on reviewing interconnected data for interpreting research results and applying that research to contemporary safety issues. Students complete a written project based upon their research. Prerequisite: Permission of instructor. Summer.

**SAFE 697 Advanced Safety and Health Research**

Participation in post-baccalaureate, programmatic research projects in Safety under the direction of a faculty member. This course will provide advancing research opportunities for motivated undergraduate students or continuing professionals. Prerequisites: Permission of the Post-Baccalaureate Program Committee. Prerequisites may change with course subject. May be repeated for a total of 8 credits.

**SAFE 698 Independent Study**

*1-4 credits*

Advanced individualized study in an area of safety not normally available in the curriculum. Prerequisite: Permission of graduate advisor. Fall, Spring.

**SAFE 699 Thesis**

Students pursue safety as a profession. Technical, theoretical, and historical aspects of the discipline are studied in an inventive and interconnected manner, with an emphasis on developing cogent and comprehensive safety knowledge rooted in critical thinking. Students are expected to bring their knowledge and critical capacity to bear. Prerequisite: 32 earned Safety M.S. program credits and permission of instructor.

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## Social Science

**SOSC 201 Global Studies I**

Application of social science concepts and multiple perspectives to the study of global history in pre-modern times to 1450. Spring.

**SOSC 301 Global Studies II**

Application of social science concepts and perspectives to the study of world or global history in modern times (1600) to the present. Prerequisite: SOSC 201. Fall.

**IISOSC 305 Travel: Critical Perspectives**

This is an interdisciplinary course examining travel as a dynamic blend of the social sciences. How can travelers apply social science principles to develop global understanding? Travel critically engages the multiple perspectives of political science, economics, geography, archeology, anthropology, history, and sociology. The course will utilize lectures, discussions, and projects. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. Spring, Summer.

**IISOSC 310 War: Why We Fight**

Interdisciplinary examination of war as a social phenomenon. Central to the course are questions regarding the nature and necessity of war. Emphasis is placed on class discussion and readings from the fields of Geography, Psychology, Economics, Political Science, History, and Sociology. Prerequisites: 24 credits in the ISP, including ITW and IQL. Occasionally.

**SOSC 390 Special Topics**

Intensive study of selected topics in the social sciences. May be repeated as topics change. Prerequisite: One 200-level course in the social sciences. Occasionally.

**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.

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## Sociology

**ISSOC 125 Sociology Now**

Course covers current events, applying a sociological perspective. Intended for students completing the ISP or those interested in a major in Sociology or social sciences. Students will learn how sociologists apply the scientific method to study current events. Course does not count for elective credit in the Sociology Major. Fall, Spring.

**SOC 190 Key Topics in Sociology**

Selected topics in sociology. A total of four credits may count toward the major or minor. Course may be repeated as topics change. Occasionally.

**SOC 201 Introduction to Sociology Major**

Introduces basic concepts, theories, and methods of sociology. Develops a sociological perspective on social issues, problems, and events. Provides an overview of major subfields in sociology. Also prepares students for the major and a career in sociology and related professions. Fall, Spring.

**SOC 210 Sociology of Consumption**

This course analyses the complex role that consumption plays in the construction of identity and the commodification of culture and experience in a consumer society. Special attention will be paid to the issues of structure and agency; social class, gender, nature, and space. Prerequisite: SOC 201. Spring, even years.

**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 encountered in central social institutions and community resources available to address these social problems. Prerequisites: SOC 201 or permission of instructor. Fall, Spring.

**ISSOC 260 Popular Culture**

This course focuses on dominant ideas or ideologies of inequality and how they are perpetuated (or not) in mass media and popular culture products such as TV shows, movies, songs, websites, games, and the like. Spring.

**SOC 270 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 and across the globe. Prerequisite: SOC 201 or permission of instructor. Occasionally.

**SOC 275 Deviance and Social Control**

This course studies how a society defines "normal" and "deviant" behavior. The social institutions and processes related to this act of labeling, as well as those concerned with controlling such behavior, are critically analyzed through a survey of the sociological literature on deviance. Fall.

**SOC 277 Sociology of Education**

This course 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 201 or permission of instructor. Occasionally.

**SOC 290 Topics in Sociology**

Selected topics in sociology. May be repeated as topics change. Total of 8 credits. Prerequisite: SOC 201. Occasionally.

**SOC 301 Sociological Research Methods**

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. Three-hour lecture, one-hour lab. Prerequisite: SOC 201. Fall, Spring.

**SOC 303 Sociological Quantitative Analysis**

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. Three-hour lecture, one-hour lab. Prerequisite: SOC 301. Fall, Spring.

**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 201. Fall.

**ISSOC 310 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. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101, and one course from the IS category. Fall, Spring

**SOC 320 Women, Gender, and Society**

A sociological, global, and theoretical approach to the study of women and gender. Emphasis on the social construction of sex and gender. Also analyzes gender inequality and its connections with different forms of oppression over time. Prerequisite: SOC 201 or permission of instructor. Occasionally.

**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 201 or permission of instructor. Fall, even years.

**SOC 326 Sociology of the Holocaust**

Analyzes the Holocaust from a comparative, sociological perspective, applying relevant theories and concepts. Emphasis is on social and cultural forces that led to the Holocaust, including stereotyping, discrimination, anti-Semitism, institutional changes, and social-political indifference. Prerequisite: IHHGS 252/IHHIST 252 or SOC 201. Cross-listed as HGS 326. Fall, odd years.

**SOC 327 Sociology of Genocide**

Focusing on genocide after the Holocaust, this course evaluates theoretical debates on what constitutes genocide and why genocide takes place. It also comparatively analyzes genocide that has occurred in different nation-states from a sociological perspective. Prerequisite: IHHGS 255 or SOC 201. Cross-listed as HGS 327. Spring, even years.

**IISOC 330 Person and Society**

Sociological social psychology lies at the intersection of our inner lives and our social worlds. In this interdisciplinary course, we explore socialization, self-presentation, attitudes and behavior, interpersonal relationships, deviance, conformity, and other topics through sources from sociology, women's and gender studies, psychology, communications, and popular culture. Cross-listed with IIWGS 330. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Spring.

**SOC 335 Practicum in Sociology**

This course provides an opportunity for students to use sociological learning in a community setting for 8 to 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.

**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 201 or permission of instructor. Spring.

**SOC 350 Sociology of Globalization**

Examines major sociological trends relating to globalization, giving special attention to topics such as development theory, consumerism, opposing viewpoints on the benefits of globalization, and consequences of globalization for economics, culture, technology, politics, and other institutions. Prerequisite: SOC 201. Fall, odd years.

**IISOC 360 Nicaragua in Change**

Experiential service-learning course examines the effects of revolution and social change in Nicaraguan society. Faculty and students travel during spring break to the city of Managua and a rural farming cooperative in Nicaragua. Students conduct interdisciplinary research on public health and social conditions and share results in a public forum. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. Occasionally.

**SOC 370 Homeless in NH & US**

In this service-learning course, students study homelessness, while developing research and professional skills. After hearing from experts and reviewing scholarship on homelessness, they work on a statewide needs assessment, interview shelter residents, craft a grant proposal, volunteer at a shelter, and engage in education and advocacy for the homeless. Prerequisite: SOC 201. 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 201. Fall, even years.

**SOC 390 Studies in Sociology**

Intensive study of selected topics in sociology. May be repeated as topics change to a maximum of 8 credits. Prerequisite: SOC 201. Occasionally.

**SOC 427 Sociological Topics in Genocide**

This course involves intensive sociological study of a particular genocide. The genocide to be studied can change in any given semester. Topics include application of the term genocide; historical, social, and cultural background; theoretical explanations for the genocide; and the extent of intervention to stop it. Prerequisite: IHGS 255 or SOC 305, or permission of instructor. Cross-listed as HGS 427. Occasionally.

**SOC 433 Social Movements**

This seminar focuses on the key theoretical paradigms used in social movement studies. These paradigms will be examined with an emphasis on movements in the areas of democratization, civil rights, migration, labor, women, the environment, and globalization. Prerequisite: SOC 305. Occasionally.

**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. Occasionally.

**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 305 or permission of instructor. Occasionally.

**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. Occasionally.

**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. Occasionally.

**SOC 480 Political Sociology**

Seminar acquaints students with sociological approaches to the study of politics in world context. Attention is given to aspects of political culture, political theory, the media, international politics, political participation, social movements, political economy, and globalization. Prerequisite: SOC 305 or permission of instructor. Occasionally.

**SOC 485 Science and Society**

This is a seminar course on the relationship between science and society. We will look at the historical development of science as a social institution and the institutional practices of modern science. We will also study the relations between science and other social institutions, including politics, culture, and the economy. Prerequisite: SOC 305. 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 8 credits. Prerequisite: SOC 305 or permission of instructor. Occasionally.

**SOC 494 Cooperative Education**

*1-4 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 4 credits. Graded Pass/Fail. Prerequisite: Permission of instructor. Fall, Spring.

**SOC 498 Independent Study**

*1-4 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 4 credits. Fall, Spring.

**SOC 499 Senior Honor Thesis**

Planning, executing and completing a senior thesis in Sociology is the goal of this sequence. With guidance from a faculty sponsor and a committee of readers, student will identify and pursue a topic of interest in the field. Written and oral presentation of the project is required for credit. Prerequisites: Senior standing; SOC 301, 303 and 305; overall and major GPA of 3.50 or above; and application to and approval by the Department Faculty. Must be repeated (8 credits total) to qualify for Sociology honors. Fall, Spring.

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## Spanish

**IHSP 100 Basic Spanish Language and Culture**

Introduction to basic skills to communicate about personal and everyday topics and exploration of cultural diversity within the contemporary Spanish-speaking world. For students with no prior knowledge of Spanish. Does satisfy the Arts and Humanities language requirement. Fall, Spring, Summer.

**IHSP 101 Elementary Spanish I**

Introduction to basic skills to communicate about personal and everyday topics, including informal conversations with native speakers, finding and reading information in newspapers and Internet sites, and exploring the contemporary Spanish-speaking world. For students with little or no prior knowledge of Spanish. Fall, Spring.

**IHSP 102 Elementary Spanish II**

Development of skills to communicate about personal and everyday topics, including informal conversations with native speakers, finding and reading information in newspapers and Internet sites, and exploring contemporary issues in the Spanish-speaking world. Students should have prior knowledge of basic Spanish.

**IHSP 103 Elementary Spanish III**

Development of skills to converse with native speakers, explore contemporary issues in the Spanish-speaking world, narrate events in present and past tenses, and to read newspapers, websites, and short fiction with a dictionary. Students should have prior knowledge of elementary Spanish. Fall, Spring.



**IHSP 200 Intermediate Readings in Spanish**

Selected readings in Spanish from literary texts, scholarly journals, magazines, newspapers, and websites. Class discussions are mainly in English. This course meets the Arts and Humanities language requirement and does not count for the Spanish major. Students should have an elementary knowledge of Spanish. Fall, Spring.

**IHSP 201 Intermediate Spanish I**

Development of skills to converse with native speakers, explore contemporary issues in the Spanish-speaking world, narrate events in present and past tenses, and to read newspapers, websites, and short fiction with a dictionary. Students should have prior knowledge of elementary Spanish. Fall, Spring.

**SP 201 Intermediate Spanish**

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**

*1-4 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. May be repeated for a total of 8 credits.

**SP 315 Conversation & Composition I**

To maintain and perfect written and spoken Spanish through intensive classroom work, as well as individual and group work. Discussion and frequent papers in Spanish based on cultural and literary readings and videos given in Spanish. Emphasis on oral communication. Prerequisite: SP 201 or permission of instructor. Fall, Spring.

**SP 316 Conversation & Composition II**

To maintain and perfect written and spoken Spanish through intensive classroom work, as well as individual and group work. Discussions and frequent papers in Spanish based on cultural and literary readings and videos. Given in Spanish. Writing intensive. Prerequisite: SP 315. Fall, Spring.

**SP 325 Introduction to Spanish Literature**

Study of various critical approaches to Spanish literature. Conducted in Spanish. Prerequisite: SP 315 and SP 316 or permission of instructor.

**SP 350 Study in Spain or Latin America**

*Minimum of 12 credits per semester*

Study away, for a full semester, in a Modern Language department-approved program that meets Global Education Office guidelines. Students will take a minimum of 12 credits per semester. Students must meet with Modern Language faculty for preapproval and additional proficiency requirements. May be used to meet the Arts and Humanities language requirement. All majors must take the ACTFL Oral Proficiency Interview, and complete a reflective essay in the target language, within 30 days after their study abroad experience. Permission of instructor. Fall, Spring.

**SP 405 Contemporary Spanish Usage**

Advanced study of syntax, semantics, phonology, lexicon, and language contact, based on actual usage in the contemporary Hispanic world as well as the United States. Prerequisite: SP 316 or permission of instructor. Spring.

**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. Fall.

**SP 495 Seminar**

The capstone experience for Spanish majors. Topics based on needs and interests of the group. Prerequisites: SP 325, SP 405 and senior status. Spring.

**SP 498 Independent Study**

*1-4 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 8 credits. Prerequisite: Permission of instructor.

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## Sustainable Product Design and Innovation

**SPDI 110 Electricity and Electronics Fundamentals**

An introductory course that 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. Two-hour lecture, three-hour lab. Fall, Spring.

**SPDI 121 Drafting, Sketching, and CAD**

Introduction to the graphic language used in product design for students with little or no previous experience with drafting or CAD. Freehand sketching, instrumental expression, and the use of computer-assisted standard drafting techniques and practices are explored. Previous experience with Windows-based operating systems. Two-hour lecture, three-hour lab. Fall, Spring.

**IITDS 140 Media Literacy: Seeing and Selling**

Explore the promotion of world views through the power of visual communications. Apply the tools of many different academic fields to "see more" and become more visually and media literate. Develop interdisciplinary creative problem-solving skills, build your academic portfolio, and contribute to a collaborative service-learning project. Four-hour seminar. Fall.

**IITDS 150 Technology and Civilization**

This course is a multidisciplinary exploration of technology that encourages students to assess the intended and unintended consequences of technical solutions through cultural, scientific, technological, economic, social, and political lenses. Students will research self-selected topics to understand current issues and to select socially responsible solutions. Four-hour seminar. Spring.

**SPDI 152 Product Design I**

Product design involves the integration of human and aesthetic aspects with technological and production aspects in the creation of manufactured products. This first in a series of courses in product design includes areas of human/object interface, product form, product innovation, and an introduction to eco-design. Fall, Spring.

**IITDS 160 Peak Oil and Sustainable Solutions**

Apply tools of many different disciplines to explore national and international issues surrounding "Peak Oil" - impacts of dwindling supplies of fossil fuels, environmental and social costs of energy conversion processes, national energy policies, and grassroots activism. Develop interdisciplinary problem-solving skills by promoting sustainable solutions in a service-learning project. Four-hour seminar. Spring.

**SPDI 170 Introduction to Woodworking Technology**

Focus on woodworking systems in mass production applications and one-of-a-kind manufacturing. Emphasis is on problem-solving and creativity in laboratory activities. Function, maintenance, safety, and use of tools, machinery, and materials, including supportive theory. Two-hour lecture, three-hour lab.

**SPDI 180 Metal Processes and Prototyping**

Deals with the processes involved with machining, casting, and fabricating metal. Shop safety, proper use of hand and measuring tools, and the use of machine tools are covered. Valuable prototyping skills are covered. Two-hour lecture, three-hour lab. Fall, Spring.

**SPDI 221 Three-Dimensional CAD**

Graphic representation of objects intended for manufacture using three-dimensional computer-aided drafting software. Parametric solid modeling of parts and assemblies and creating orthographic view drawings uses SolidWorks software. Previous experience with Windows, Orthographic Drawing, and 2D CAD is expected. SPDI 121 is recommended prior to this course or permission of instructor.

**SPDI 252 Product Design II**

A continuation of Product Design I, emphasis is on rational methods for developing designs in team settings. Basic engineering methods of analysis are introduced to evaluate design structures and mechanisms. Alternative design options are evaluated using analytical techniques. Project planning fundamentals of time and budget emulate industrial development practices. Prerequisite: SPDI 152 or permission of instructor. Spring.

**SPDI 253 Materials: A Life-Cycle View**

Fundamental properties of a wide range of materials are covered emphasizing mechanical and physical properties and manufacturing processes. A material life-cycle view provides transparency to the human health and environmental effects. Lectures, labs, and field trips will be used. Two-hour lecture, three-hour lab. Spring.

**SPDI 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. Two-hour lecture, three-hour lab. Prerequisite: SPDI 170 or permission of instructor. Fall, Spring.

**SPDI 280 CAD/CAM Using MasterCAM**

Parts will be designed, programmed, and created using CAD and MasterCAM software and CNC mills. CNC machine set up and interface are covered. The class will consist of several projects over the semester combined with lab and lecture time. Two-hour lecture, three-hour lab. Prerequisite: SPDI 180 and SPDI 121 or SPDI 221, or permission of instructor. Spring.

**SPDI 290 Special Topics**

*1-4 credits*

Study of a selected topic in the Sustainable Product Design and Innovation program. May be repeated as topics change. Prerequisites vary with topics. Fall, Spring.

**SPDI 294 Cooperative Education**

*1-4 credits*

Introductory work-learning experience related to career interests, for which compensation may be received. Positions arranged by students with sponsorship, approval, and evaluation by full-time faculty. Elective credit only (normally 60 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.

**SPDI 298 Independent Study**

*1-4 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. May be repeated for a total of 4 credits.

**SPDI 321 Advanced 3D CAD**

Parametric, solid modeling is used to create complex parts, surfaces and assemblies, in the context of problem-solving and critical thinking to generate effective prototyping strategies. Applications using SolidWorks software include sheet metal parts,

virtual stress analysis, design tables and parametric databases, ANSI and ISO standard engineering drawings and GD & T. Prerequisite: SPDI 221. Fall.

### **SPDI 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. Two-hour lecture, three-hour lab. May be repeated once with the permission of instructor.

Prerequisites: SPDI 252 and SPDI 221, or permission of instructor. Spring.

### **SPDI 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. Two-hour lecture, three-hour lab. Prerequisite: Junior standing or above. Fall.

### **SPDI 490 Advanced Special Topics**

*1-4 credits*

Study of a selected topic in the Sustainable Product Design and Innovation program at an advanced level. May be repeated as topics change. Prerequisites vary with topics. Fall, Spring.

### **SPDI 494 Advanced Cooperative Education**

*1-4 credits*

Sequential work-learning experience for which compensation may be received. Positions arranged by students with sponsorship, approval, and evaluation by full-time faculty. Elective credit only (normally 60/hours credit) to maximum of 12 credits per program. Prerequisites: SPDI 294, 2.0 cumulative GPA, declaration of major, and permission of instructor. May be repeated for credit. Graded Pass/Fail. Fall, Spring.

### **SPDI 495 Seminar**

*1-4 credits*

Small-group discussion of problems and issues in Sustainable Product Design and Innovation. May be repeated as topics change. Fall, Spring.

### **SPDI 498 Independent Study**

*1-4 credits*

Advanced independent study of various fields of Sustainable Product Design and Innovation through independent reading, writing, laboratory work, or field investigation. Requires a written report. Prerequisite: Permission of instructor. May be repeated for a total of 4 credits. Fall, Spring.

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## **Theatre and Dance**

### **IATAD 100 Theatre: The Art of Imagination**

We humans have an elemental need for make-believe. This course explores the use of imagination in the creation of theatrical events using hands-on creative projects and traditional lecture/discussion. Topics include historical and global perspectives, acting, designing, directing, and playwriting. Attendance at specific Redfern Arts Center productions is mandatory. Fall, Spring.

### **IATAD 102 Acting: Identity and the Creative Process**

This experiential course explores the fundamentals of the art and craft of acting. Our work will include play and performance analysis, class exercises, and collaborative projects. Fall, Spring.

**TAD 112 Modern Dance/Composition I**

An introduction to modern dance, designed to enable students to experientially understand and appreciate this art form, its discipline and its creativity. Includes basic modern dance technique and movement principles, modern dance history, and fundamentals of dance composition. Fall, Spring.

**IATAD 113 Dance As A Way of Knowing**

This experiential dance course addresses issues of identity, culture, and ethics through personal movement exploration and analysis of master works from turning points in modern dance history. Includes dance technique, composition, and research methods from the field of performance studies. Fall, Spring.

**TAD 121 Introduction to Technical Theatre**

*2 credits*

Practical training in the following areas of technical theatre: tools and materials, scenic construction, lighting, stage facilities, and safety. Corequisite: TAD 123. Fall.

**TAD 123 Theatre Laboratory I**

*1 credit*

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. Corequisite: TAD 121. Fall.

**TAD 124 Theatre Laboratory II**

*1 credit*

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. Prerequisite: TAD 123, may be repeated for credit as topic changes. 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 205 Acting: Theatre Movement**

Theatre Movement is designed to increase an actor's physical, emotional, and spatial awareness. Emphasis is placed on understanding and developing movement potential as an individual and in physical interactions with others. Spring.

**TAD 206 Acting: Scene Study**

Building on the skills learned in Acting: Identity and the Creative Process, this course focuses on script analysis and its application to scene study. Through scene work, students explore the external stimuli that lead to specific acting choices. Auditioning for all KSC theatre productions required. Prerequisite: IATAD 102, or permission of instructor. Fall, Spring.

**TAD 212 Modern Dance/Composition II**

A continuation in the study and experience of modern dance as an art form through the development of dance technique and further exploration of movement, composition, and performance principles. Includes modern dance technique, partnering and contact improvisation, and development of the choreographic craft. May be repeated once for credit. Prerequisite: TAD 112 or IATAD 113, or permission of instructor. Fall, Spring.

**TAD 216 Jazz Dance**

An introductory course in jazz dance with emphasis placed on rhythm manipulation, jazz movement vocabulary, and stylistic contrasts encompassed by jazz. Background in modern dance technique recommended. Fall, Spring.

**TAD 217 Ballet/Experiential Anatomy**

A basic course in ballet technique. Emphasis is placed on anatomic and kinesthetic principles, experiential anatomy, and competency in the ballet vocabulary. Prerequisite: TAD 112 and Theatre and Dance major or minor, or by permission of instructor. Spring.

**TAD 223 Theatre Technology Workshop**

*2 credits*

Basic principles and techniques in a specific theatre craft, e.g., rigging, scenic painting, properties, lighting technology, or sound editing. May be repeated for credit as topics change.

**TAD 224 Theatrical Design Studio**

*2 credits*

Basic principles and techniques in a specific design area of theatre, e.g., puppetry, mask making, properties design, makeup, or sound design. May be repeated for credit as topics change.

**TAD 227 Stage Management**

Theory and practice of stage management. Students study the operation and organization of both professional and amateur theatrical production from concept through closing. Course work culminates in close management of a Directing Workshop production. Spring, odd years.

**TAD 231 Theatre History and Literature I**

The history and literature of theatre are examined from Ancient Greece through the 18th century. We will explore great dramatic works and learn the contexts in which they were written through discussion, readings, videotapes, and lectures. Prerequisite: ITW 101. Fall.

**TAD 232 Theatre History and Literature II**

The history and literature of theatre are examined from the 19th century to the present. We will explore great dramatic works and learn the contexts in which they were written through discussion, readings, videotapes, and lectures. Prerequisite: TAD 231. Spring.

**TAD 235 Dance History**

The course examines choreography as a creative and evolutionary process. Through lectures, media presentations, readings, and discussions, the course surveys the history of western theatrical dance and explores the interrelationship of dance and world events. Fall.

**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, acrylic, and watercolor. Fall, odd years.

**TAD 282 Acting: Voice and Diction**

Vocal production, use of the International Phonetic Alphabet for sound identification and articulation, and work in techniques of relaxation, alignment, breath and sound connection and centering, and resonance. Active participation required in warm-ups, articulation drills, memorization for presentations. Fall.

**TAD 290 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 301 Acting: Character Development**

Advanced training in actor preparation and building a character, with emphasis on establishing character relationships. Auditioning for all KSC theatre productions required. Prerequisite: IATAD 102 or permission of instructor. Fall.

**TAD 303 Directing**

An introduction to techniques for director's play analysis and director/actor, as well as director/designer communication. Emphasis will be on visualizing and re-imagining the play from the director's perspective and translating interpretive ideas into production. Culminates in a hands-on directing project for the ten-minute play festival. Prerequisites: TAD 101, TAD 206, TAD 231, and TAD 232. Fall, even years.

**TAD 311 Modern Dance/Composition III**

Intensive work in movement principles, body awareness, and progressively more advanced dance technique emphasizing recent developments in choreography and performance. May be repeated once for credit. Prerequisite: TAD 112 or IATAD 113, TAD 212, or permission of instructor. Fall.

**TAD 312 Modern Dance/Composition IV**

Intensive work in movement principles, improvisation, and progressively more advanced dance technique. Creativity in movement invention and composition are emphasized and historically linked to the post-modern dance era. Includes performance critiques and text readings. May be repeated once for credit. Prerequisite: TAD 311 or permission of instructor. Spring.

**TAD 318 Research in Choreography**

Exploration of the craft of choreography through the application of compositional theories in dance. Studio exploration and research culminate in an end-of-term performance. Prerequisites: Two from TAD 212, TAD 216, TAD 235, TAD 311, TAD 312, or permission of instructor and concurrent enrollment in TAD 112, TAD 212, TAD 216, TAD 311, or TAD 411. May be repeated once for credit. 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. Prerequisites: TAD 121 and TAD 162 or permission of instructor. Spring, even 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. Prerequisites: TAD 121, and TAD 162, or permission of instructor. Spring, odd 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. Prerequisites: TAD 121, and TAD 162, or permission of instructor. Fall, odd years.

**IATAD 370 Playwriting**

The art and craft of the playwright. Students will be involved in the creation of a dialogue text using Dramatic Imagination. Students will study structure and techniques of writing for dramatic forms, primarily theatrical forms. Students will complete writing exercises as well as preliminary drafts and a completed script. Prerequisite: 24 credits in ISP, including ITW 101 and IQL 101. Spring.

**TAD 393 Theatre Internship**

A supervised contracted experience applying theatrical theories and skills in a professional setting. Internships are arranged by the student with approval from the TAD faculty. On-site and faculty supervision are required. Prerequisites: Junior standing and permission of instructor. Summer.

**TAD 397 Production Process**

*1-4 credits*

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 398 Performance Process**

*1-4 credits*

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 411 Modern Dance/Composition V**

Advanced work in modern dance technique and performance. Primary focus is to clarify and articulate technical ability as a means to help illustrate choreographic intention. Composition work emphasizes the use of choreographic collaboration reflecting themes in cultural issues, music analysis, or topics of contemporary concern. May be repeated once for credit. Prerequisites: TAD 311/TAD 312 or permission of instructor. Fall.

**TAD 412 Modern Dance/Composition VI**

This capstone course continues advanced work in modern dance through the investigation of the technique/performance interrelationship. Research and choreography explore original creative voice in preparation for professional dance and/or graduate school. May be repeated once for credit. Prerequisites: TAD 318 and TAD 411 or permission of instructor. 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 491 Advanced Acting/Directing Performance Process**

Using the one-act play format, actors and directors practice and hone skills already learned as they collaborate, analyze, conceptualize, rehearse, and perform one-act plays, chosen because they challenge and expand their capabilities and further define their identities as theatre artists. Course may be repeated once for elective credit. Prerequisite: TAD 301. Spring, odd years.

**TAD 493 Design/Tech Portfolio**

Students will learn the effective and professional techniques on how to showcase their work. The course will cover resume, curriculum vitae, cover letter, presentation techniques, and digital portfolio. Students will complete a design or technical project to complement their body of work. Junior or senior standing. Spring, odd years.

**TAD 495 Modern Dance Seminar**

The course examines the evolution of artistic ideas in contemporary dance. Through the analysis of the modern dance art form and the examination of 20th-century choreographers and dancers, students will contextualize the work of 21st-century dance artists. Prerequisite: TAD 235 or permission of instructor. Fall, odd years.

**TAD 496 Dance Education Internship I**

*2 credits*

A practicum in developing curriculum and teaching dance in public and non-traditional school programs. The course content addresses standards and assessment in the New Hampshire Frameworks for Arts Curriculum. May be repeated for credit. Prerequisite: Permission of instructor. Fall.

**TAD 497 Dance Education Internship II**

*2 credits*

A continued practicum in developing curriculum and teaching dance in public and nontraditional school programs. The course content addresses standards and assessment in the New Hampshire Frameworks for Arts Curriculum. Prerequisite: TAD 496. Spring.

**TAD 498 Independent Study**

*1-4 credits*

Intensive study of an issue, problem, or topic related to theatre arts or dance. May be repeated. Prerequisites: Junior standing and permission of instructor. Fall, Spring.



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## Women's and Gender Studies

### **IIWGS 101 Introduction to Women's and Gender Studies**

This course is designed to introduce students to the key issues, questions, and debates in the interdisciplinary field of Women's and Gender Studies. Central to the course will be a focus on the social construction of identity and the myriad ways in which gender, race, class, sexuality, and nationality work to constitute people's experiences. Fall, Spring.

### **WGS 201 Feminist Practices**

This course considers the theoretical and historical contexts of how social change happens from a feminist perspective. Students will engage in an experiential learning project that requires them to make connections between feminist theory, the history of liberatory social movements, and the need for engaged citizenship. Prerequisite: IIWGS 101. Fall, Spring.

### **IIWGS 210 Abortion**

An interdisciplinary examination of the issue of abortion in the United States. Can one be a feminist and oppose legal access to abortion? Students will explore the legal, theological, and social history informing the abortion debate, with an aim to appreciate why resistance to reproductive choice exists and persists. Prerequisites: ITW 101. Spring, alternate years.

### **IIWGS 220 Starved or Stuffed**

When the body is read as text, eating disorders are manifestations of cultural ideas that communicate to the self and the masses. This interdisciplinary course examines eating disorders through the optic of feminism, taking into consideration feminist discourse, theories of consumption and subjectivity formation, psychology, sociology, and literary analyses. Prerequisites: ITW 101. Fall.

### **IIWGS 230 Spirituality and Sexuality**

An interdisciplinary exploration of spirituality and sexuality, drawing from history, religion, as well as women's and gender studies. Key questions: How are institutions of religion socially constructed? How do they affect women's ways of knowing, women's spirituality, and women's sexuality? What are new ways of representing spirituality as social inquiry? Prerequisites: ITW 101. Spring, alternate years.

### **IIWGS 240 Gender and Media**

We take an interdisciplinary approach to studying representations of gender (as well as class, race, and sexuality) in the mass media and popular culture. Using literature from cultural studies, communication, sociology, and other disciplines, we explore dominant ideologies and how they are perpetuated (or not) in media products. Prerequisites: ITW 101. Fall.

### **IIWGS 250 Race, Sexuality, and Representation**

This interdisciplinary course explores the representation of race, ethnicity, gender, and sexuality within U.S. visual culture, including film, video, and mass media. Drawing on feminist and queer studies, visual culture studies, film studies, and ethnic studies, this course asks how images convey racial, gender, and sexual difference. Spring.

### **IIWGS 254 Women in the Holocaust**

How did women's Holocaust experiences differ from those of men? An interdisciplinary exploration of gender in Central European families, in ghettos, camps, and resistance, this course examines connections between the Holocaust and present day manifestations of anti-Semitism, sexism, homophobia, and nationalism. Readings are drawn from history, women's studies, and Holocaust memoirs. Cross-listed as IIHGS 254. Occasionally.

### **IIWGS 290 Topics in Women's and Gender Studies**

Interdisciplinary study of a specific issue or topic within the field of Women's and Gender Studies. Students will develop skills in critical reading and critical thinking. May be repeated for credit as topics change. Prerequisites: ITW 101. Offered occasionally.

### **WGS 291 Topics in Women's and Gender Studies**

Study of a key issue or topic within the field of Women's and Gender Studies. May be repeated for credit as topics change. Prerequisite: ITW 101. Offered Occasionally.

**WGS 298 Independent Study**

*1-4 credits*

An opportunity for a qualified student to develop and complete an innovative project under the supervision of a Women's and Gender Studies faculty member on a topic not currently offered. Proposals must be submitted to the Women's and Gender Studies Department by the student for review before the start of the course.

**IIWGS 300 Women of Color**

This interdisciplinary course explores the experiences of women of color using feminist scholarship from literature, sociology, history, and women's studies. Analyzes the history of social movements that have influenced the construction of the category "women of color" and articulates a critique of the category of "whiteness." Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Occasionally.

**WGS 301 Feminist Theories**

This course investigates and interrogates key theoretical debates within the feminist movement and women's and gender studies. Central to this course is the idea that understanding significant categories such as race, class, gender, sexuality, and nationality is an interpretive, theoretical, and political act. Prerequisite: WGS 201. Fall, Spring.

**WGS 302 Queer Theory**

Queer studies provide a range of theoretical approaches that challenge fixed, essentialist identities, drawing attention to incoherencies in the allegedly stable sex/gender system. Placing a variety of queer theories in their historical context, this interdisciplinary course will provide a survey of contemporary arguments and critical terms used in the field. Prerequisite: WGS 201. Spring.

**WGS 303 Borderlands: Latina Feminist Theories**

This class is an interdisciplinary examination of Latina feminist theories, drawing from history, epistemology, third-world feminisms, creative nonfiction literature, and art performances. The course is organized around the following issues: colonization, immigration, globalization, critical race theory, sexism, and Latina image representation. Prerequisites: IIWGS 101. Offered every other fall.

**IIWGS 330 Person and Society**

Sociological social psychology lies at the intersection of our inner lives and our social worlds. In this interdisciplinary course, we explore socialization, self-presentation, attitudes and behavior, interpersonal relationships, deviance, conformity, and other topics through sources from sociology, women's and gender studies, psychology, communications, and popular culture. Cross-listed with IISOC 330. Prerequisites: 24 credits in ISP, including ITW 101 and IQL 101. Spring.

**WGS 340 Gender and the Law**

Examines the myriad ways law and policy affects our lives, from hiring practices to the creation and dissolution of family, from crime to sports and education through the lenses of legal theories that promise the most fair creation and application of law. This course is crosslisted with CJS 340. Prerequisite: CJS 240. Spring

**WGS 490 Advanced Topics in Women's and Gender Studies**

Advanced interdisciplinary study of theoretical perspectives within Women's and Gender Studies. Students will develop skills in critical reading and critical thinking. May be repeated for credit as topics change. Prerequisites: One 300-level WGS course or permission of instructor.

**WGS 495 Capstone in Women's and Gender Studies**

Students will explore the relationship between knowledge and power as they research the question, What is activism? Students will read both historical and theoretical accounts of activism, which will inform their work as they design and implement a feminist and/or queer social change project and write a research paper. Prerequisite: WGS 301, WGS 302, or WGS 303, or permission of instructor. Spring.

**WGS 498 Advanced Independent Study**

*1-4 credits*

Independent reading and writing on an approved topic under direction of a Women's and Gender Studies faculty member.

Prerequisite: Permission of instructor.



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