Academic Departments, Programs of Study and Course Listings
Adolescence Education

SUNY Cortland offers 10 undergraduate certification programs that prepare candidates to teach in grades 7-12. Adolescence education programs are available in the following areas of study:

Adolescence Education—Biology (Grades 7-12)
Adolescence Education—Chemistry (Grades 7-12)
Adolescence Education—Earth Science (Grades 7-12)
Adolescence Education—English (Grades 7-12)
Adolescence Education—French (Grades 7-12)
Adolescence Education—Mathematics (Grades 7-12)
Adolescence Education—Physics (Grades 7-12)
Adolescence Education—Physics and Mathematics (Grades 7-12)
Adolescence Education—Social Studies (Grades 7-12)
(3 cr. hr.)
Adolescence Education—Spanish (Grades 7-12)

All adolescence education programs are housed in the School of Arts and Sciences, in the department area of content. For specific program requirements, consult the appropriate department pages. Additional requirements for New York State teacher certification are found on page 39 of this catalog.

Teacher education programs are currently in transition. Transfer students with 50 or more transfer credits who are enrolling in a program leading to teacher certification must contact the program coordinator/representative of their respective department for specific degree requirements.

Adolescence Education

COURSE DESCRIPTIONS

AED 322: Seminar for Field Observation
(S) Seminar for field observation in adolescence education (French and Spanish). Seminar-based course to provide a variety of field experiences for preservice teachers. Observations and field reports from secondary classroom experiences required. Prerequisites: Admission to the adolescence education program and GPA consistent with "good standing" status (not below 2.5). (1 cr. hr.)

AED 391: Introduction to Adolescence Education
(A) Students will develop a coherent and comprehensive personal educational philosophy; analyze the role of education and teachers in society; demonstrate an understanding of teacher certification standards and requirements; evaluate teaching, lesson planning and implementation and cooperative skills; and develop a portfolio. The course includes 25 hours of field observation/teaching experience. (3 cr. hr.)

AED 399: Mathematics Practicum
(O) For students serving as tutors and providing other assistance in 100-level college mathematics courses or in mathematics classes in grades 7-12. Course may be repeated for a maximum of three credit hours. H, S, U grades are assigned. Prerequisites: EDU 391, MAT 224, MAT 227 and permission of department chair. (1-2 cr. hr.)

AED 400: Student Teaching I
Full-time supervised teaching in public schools for four weeks. (3 cr. hr.)

AED 401: Student Teaching II
Full-time supervised teaching in public schools for four weeks. Requires satisfactory completion of AED 400. (3 cr. hr.)

AED 437: Methods of Teaching Foreign Languages in Middle/Junior High Schools I
(A) Twenty-four hours of study in the language at 300-level or above. Must be taken concurrently with EDU 447. Student must receive a grade of B or better in this course as one requirement of eligibility for student teaching. Prerequisites: PSY 101; PSY 232; EDU 391 (required for adolescence education majors); or INT 270. (3 cr. hr.)

AED 438: Methods of Teaching Foreign Languages in Middle/Junior High Schools II
(A) Twenty-four hours of study in the language at 300-level or above. Must be taken concurrently with EDU 447. Student must receive a grade of B or better in this course as one requirement of eligibility for student teaching. Prerequisites: PSY 101; PSY 232; EDU 391; (required for adolescence education majors) or INT 270. (3 cr. hr.)

AED 439: Student Teaching: Adolescence Education—Foreign Languages
(A) Twenty-four hours of study in the language at 300-level or above. Consent of department based on language proficiency. See major department for eligibility criteria. S, U grades are assigned. Prerequisites: PSY 101; PSY 232 or 332; PSY 331 or 432; EDU 391; EDU 437 and 447. (14 cr. hr.)

AED 442: Methods I: Teaching the Sciences in the Middle and Secondary Schools
(F) This course begins with an examination of the history and foundations of education, with an emphasis on the history of science education. It then examines disciplinary models and strategies for classroom management. Students will develop tools for measurement and evaluation of performance and achievement for students with diverse abilities and interests. Students will participate in short and long-range lesson planning and curriculum development. Federal and state laws, policies and procedures for dealing with students with disabilities will be examined. Strategies for collaborating with administrators, faculty/staff, parents/guardians, and community members will be discussed. Includes twenty-five hours of field experience in middle and secondary schools. Prerequisites: PSY 232 and EDU 391. (3 cr. hr.)

AED 442: Methods II: Teaching the Sciences in the Middle and Secondary Schools
(F) This course begins with an examination of the history and foundations of education, with an emphasis on the history of science education. It then examines disciplinary models and strategies for classroom management. Students will develop tools for measurement and evaluation of performance and achievement for students with diverse abilities and interests. Students will participate in short and long-range lesson planning and curriculum development. Federal and state laws, policies and procedures for dealing with students with disabilities will be examined. Strategies for collaborating with administrators, faculty/staff, parents/guardians, and community members will be discussed. Includes twenty-five hours of field experience in middle and secondary schools. Prerequisites: PSY 232 and EDU 391. (3 cr. hr.)

AED 492: Field Experiences in Mathematics Teaching
(A) Seventy-five hours of directed observation of junior or senior high mathematics teachers and other school personnel. H, S, U grades are assigned. Prerequisites: EDU 391, 435, 442, 449; HLH 110 or 199; PSY 232 or 332; MAT 224, 272, 328, 370, 375; MCS 186; and GPA of at least 2.5 both overall and in all MAT/MCS courses. (2 cr. hr.)
African American Studies

INTERDISCIPLINARY MAJOR

FACULTY
Seth N. Asumah (Coordinator), William Buxton, Samuel Kelley, Michelle Kelly, Kassim Kone, Donald Wright, Ibipo Johnston-Anumonwo, Edward Moore, Mechtild Nagel, Emmanuel Nelson, Susan Rayl, Keith Smith

PROGRAMS OFFERED
B.A. in African American Studies – 124 total credit hours
B.A. in Adolescence Education – Social Studies and African American Studies (Grades 7-12) – 127 total credit hours

MAJORS OFFERED
African American Studies with a concentration in African and African American History
African American Studies with a concentration in African American Sociological, Political and Community Development Adolescence Education – Social Studies and African American Studies (Grades 7-12)

CONCENTRATIONS OFFERED
African American Studies (Elementary Education)

MINORS OFFERED
African American Studies

DESCRIPTION
The African American Studies Program is the oldest of the ethnic studies programs at SUNY Cortland, dating back to 1975 when it was founded as the Department of Black Studies. Students who major in African American studies may choose a concentration in African and Black American history or in Black sociological, political, and community development. Thirty-six hours are required for the major.

Students may also minor in African American studies, an 18-hour program. Majors may combine courses in African American Studies with a professional sequence to qualify for provisional certification as social studies teachers for grades 7-12.

SPECIAL FEATURES
• Two professors who have won distinguished awards in teaching
• Fulbright awardees
• Nationally and internationally recognized faculty
• Credit-bearing internships

AED 493: Student Teaching – Adolescent Mathematics I
(A) Five weeks of full-time student teaching supervised by college faculty. H, S, U grades are assigned. Prerequisite: AED 492. (5 cr. hr.)

AED 494: Student Teaching – Adolescent Mathematics II
(A) Seven weeks of full-time student teaching supervised by college faculty. H, S, U grades are assigned. Prerequisites: AED 492 and 493. (7 cr. hr.)

AED 540: Technologies in the Adolescence Mathematics Classroom
(C) Graphing calculators as teaching tools. The Internet as a source for mathematical software packages to promote active learning. Investigation of software packages for graphing functions, geometry and calculus. Course is intended for students in the MAT and MSED programs for adolescence mathematics education, and familiarity with the adolescence mathematics curriculum is assumed. (3 cr. hr.)

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to all of the following majors.
2. Liberal Arts Requirements: 90 credit hours.

Major in African American Studies with a concentration in African and African American History [AAS/AASH]

A. Nine credit hours:
AAS 100: Introduction to African American Studies
AAS 412: Independent Research in African American Studies
AAS 486: Senior Seminar in African American Studies

B. 27 hours in additional courses in African American Studies with at least 18 hours in courses numbered 300 and above, including:
At least three hours from African American sociological, political and community development: AAS 110, AAS 120, AAS 170, AAS 204, AAS 290, AAS 291, AAS 292, AAS 304, AAS 362, AAS 376, AAS 395, AAS 396, AAS 397, AAS 432, AAS 475, AAS 485, AAS 590, AAS 591
At least three hours from African American literature and the humanities: AAS 110, AAS 241, AAS 251, AAS 260, AAS 332, AAS 352, AAS 353, AAS 365, AAS 425, AAS 436, AAS 455
At least three hours from education and administration of African American institutions: AAS 381, AAS 581
At least 12 hours from African American history: AAS 225, AAS 321, AAS 322, AAS 334, AAS 336, AAS 390, AAS 428

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124
Major in African American Studies with a concentration in African American Sociological, Political and Community Development [AAS/AASC]

A. Nine hours:
   AAS 100: Introduction to African American Studies
   AAS 412: Independent Research in African American Studies
   AAS 486: Senior Seminar in African American Studies

B. 27 hours in additional courses in African American studies with at least 18 hours in courses numbered 300 and above, including:
   At least one course from African American history: AAS 225, AAS 321, AAS 322, AAS 334, AAS 336, AAS 390, AAS 428
   At least one course from African American literature and the humanities: AAS 110, AAS 241, AAS 251, AAS 260, AAS 332, AAS 352, AAS 353, AAS 365, AAS 425, AAS 436, AAS 455
   At least one course from education and administration of African American institutions: AAS 381, AAS 581
   At least 12 hours from African American sociological, political and community development: AAS 110, AAS 120, AAS 170, AAS 204, AAS 290, AAS 291, AAS 292, AAS 304, AAS 362, AAS 376, AAS 395, AAS 396, AAS 397, AAS 432, AAS 475, AAS 485, AAS 590, AAS 591

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Dual major in Adolescence Education – Social Studies and African American Studies (Grades 7-12) [SSA & AAS]

This program allows students who major in African American Studies to qualify for certification to teach adolescence education in social studies (grades 7-12). It combines a major in African American Studies with a professional semester that consists of professional preparation and student teaching.

A. Requirements for the African American Studies major (See above)

B. Professional Preparation: 47-68 credit hours
   (Including additional social science courses)
   HLH 199: Critical School Health Issues
   PSY 101: General Psychology I
   PSY 232: Adolescent Psychology
   ECO 105: Political Economy and Social Thought
   GRY 425: Geography in the Classroom
   GRY 520: Maps in the Classroom
   GRY 480: United States
   POL 100: Introduction to American Government
   HIS 100 and 101 or His 110 and 111 and
   HIS 200 and 201 and 9 hours at the 300 level or above
   ENG 306: Advanced Writing for Prospective Teachers
   EDU 449: Literacy in the Middle and Secondary School
   SHH 300: Normal Language Development
   PSY 350: Psychology of Language
   SSS 300: Introduction to Secondary Social Studies
   (A 100-hour field requirement is attached to this course)

C. Professional Semester: 18 credit hours
   SSS 301: Pre-Practice Teaching Seminar
   AED 400: Student Teaching I
   AED 401: Student Teaching II
   SSS 303: Post-Practice Teaching Seminar

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 127

Minor in African American Studies [AAS]

The following courses are required for the minor in African American studies.

A. Six credit hours:
   AAS 100: Introduction to African American Studies
   AAS 412: Independent Research in African American Studies or
   AAS 429: Special Topics in African American Studies

B. Twelve additional hours in African American studies with at least nine hours distributed across three of the four program modules. At least six hours must be 300-level or above. No more than three hours from AAS 241: Gospel Choir may be applied to minor.

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 18

African American Studies

COURSE DESCRIPTIONS

AAS 100: Introduction to African American Studies
   (A) Exploration of philosophies, problems, prospects, challenges of African American Studies viewed in their interdisciplinary nature. (3 cr. hr.) ■

AAS 110: Survey of African American Music
   (F) A general survey of African American music tracing the origin from colonial music of the 17th century to rap music of the 20th Century. (Also listed as MUS 110.) (3 cr. hr.) ■

AAS 120: Politics and Multiculturalism
   (S) Introduce students to how and why general democratic theory, key political institutions, patterns of political interaction, and socio-political attitudes in the American polity and throughout the world generate or attempt to eliminate injustice, prejudice and discrimination. Problems of racism, sexism, classism, ageism, ableism, religio-ethnic conflicts, and prospects for a “just” society will be examined through the lens of post-modernist political theory. (Also listed as POL 110.) (3 cr. hr.) ■

AAS 129, 229, 329, 429, 529: Special Topics in African American Studies
   Selected topics. May be taken more than once as subtitle changes. Prerequisite: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

AAS 170: Institutional Racism
   (O) Racism: its origins in society and its manifestations in contemporary life. (3 cr. hr.)

AAS 204: Survey of African American Psychology
   (F) Developmental and social psychology as applied to the African American. Prerequisite: PSY 101. (3 cr. hr.)

AAS 210: Race and Gender Stereotypes
   (A) Focus on racial and gender role awareness and attitudes in individuals. Prejudice and discrimination against ethnic minorities and women are examined, from both historical and contemporary perspectives. Also, the causes and consequences of prejudice and discrimination are discussed. (Also listed as PSY 210.) (3 cr. hr.) ■
AAS 396: African American Social and Political Thought I  
(O) Social, political thought of African American people and leaders from 1850s to 1950s in periods of emigration, assimilation, accommodation, cultural nationalism, political nationalism, protest movements. (3 cr. hr.)

AAS 397: African American Social and Political Thought II  
(O) Social, political thought of African American people and leaders from 1960s to present. Emphasis on African American Congressional Caucus, selected African leaders. (3 cr. hr.)

AAS 412: Independent Research in African American Studies  
(A) One, two or three credits may be earned on projects related to African American Studies. Students may enroll for independent study as many as three times, but for no more than a total of six credits. Prerequisite: Consent of coordinator. (1-3 cr. hr.)

AAS 425: African American Women Novelists  
(O) Study of African American women's tradition in American literature. Focus on the representative works of Wilson, Harper, Hurston, Larson, Petry, Morrison, Naylor, Walker. (Also listed as ENG 425.) Prerequisite: Six hours in African American studies or SOC 475. (3 cr. hr.)

AAS 428: The Civil Rights Movement in America  
(C) Origins, ideologies, activities, and results of movement to obtain civil and political rights for African Americans, 1945-1975. (Also listed as HIS 428.) Prerequisites: HIS 201 or AAS 100 or permission of instructor. (3 cr. hr.)

AAS 431: Communication and Prejudice  
(B) Examination of roles played by intrapersonal, interpersonal, group, organizational, political, and mass mediated communication in relation to prejudice. Analysis of theories, issues, problems, and practices. Prerequisite: COM 100. (Also listed as COM 341.) (3 cr. hr.)

AAS 432: African Americans in Television and Film  
(F) Historical and critical examination of the evolution of African American images in screen and TV from the early 1900s to the present. (Also listed as COM 432.) (3 cr. hr.)

AAS 436: Films of Spike Lee  
(B) Analysis and critique of Spike Lee films emphasizing directing style, structure and production design on selected films. A thematic analysis of major works and an examination of critical reaction from feminists, black nationalists, film critics and theoreticians. (Also listed as CIN 436.) (3 cr. hr.)

AAS 455: African American Folklore  
(H) African American culture in United States viewed in terms of history (antebellum to present), social change (rural to urban). Use of oral traditions, life histories to explore aspects of African American culture, history. Prerequisite: AAS/ENG 251. (3 cr. hr.)

AAS 475: African American Religions  
(O) Role of religion in the African American experience in America. Prerequisite: Six hours in African American studies or SOC 475. (3 cr. hr.)

AAS 485: Africa, South of the Sahara  
(C) Cultural, political factors and relationship to past and present population patterns. Prerequisite: Introductory geography. (3 cr. hr.)

AAS 486: Senior Seminar in African American Studies  
(O) Interdisciplinary seminar aimed at integrating knowledge of various subspecializations of students beyond the core courses through discussion and readings. Required of all seniors specializing in African American studies. Prerequisite: African American studies major or minor. (3 cr. hr.)

AAS 581: Issues in African American Education  
(C) Relationship of education to the African American experiences. Current topics viewed from African American perspective. Prerequisites: Senior-level African American Studies major and minors. Open to senior-level education majors and minors, and graduate students. (3 cr. hr.)

AAS 590: Seminar in African Politics and Society  
(O) Comparative, analytical study of African socio-cultural and political systems, governmental processes of new African nations. Prerequisites: Seniors with six hours from AAS 290, 291, 237-238, 395; ANT 304; GRY 536; or graduate student. (3 cr. hr.)

AAS 591: Current Issues and Problems in African American Politics  
(O) Emphasis on African American opinion leaders and process of articulating, aggregating, implementing African American socio-political opinions and issues into public policy. Examples, comparisons drawn from African, other African American World situations. Prerequisites: Six hours from AAS 292, 396, 397; or graduate. (3 cr. hr.)

Related Education Courses

AED 400: Student Teaching I  
Full-time supervised teaching in public schools for four weeks (3 cr. hr.)

AED 401: Student Teaching II  
Full-time supervised teaching in public schools for four weeks. Requires satisfactory completion of AED 400 (3 cr. hr.)

SSS 300: Introduction to Secondary Social Studies  
This course introduces students to unit and lesson planning, focuses on the history of American education as it relates to social studies, familiarizes students with the social studies learning standards, and makes comparisons between middle school and high school teaching. Includes 100-hour field experience (3 cr. hr.)

SSS 301: Pre-Practice Teaching Seminar  
(F) Integrated study of A.) Introduction to Secondary Education; B.) Introduction to Methods of Teaching Social Studies; C.) Introduction to Contemporary Secondary School Issues; D.) Preparation for specific practice teaching assignment. S, U grades assigned. (11 cr. hr.)

SSS 303: Post-Practice Teaching Seminar  
(F) Problem approach drawing upon experience of students during practice teaching. Designed to focus on contemporary educational issues, beginning the job search and application process, teaching and learning at the middle school level and exploring the history and philosophy of teaching. S, U grades assigned. (1 cr. hr.)
Facuity
Craig B. Little (Chair), John Alt, Ilyas Ba-Yunus, Jamie Dangler, Nicolas Gavrielides, Herbert Haines, Harjinder Jassal, Richard Kendrick, Devereaux Kennedy, Kassim Kone, William B. Lane, Ellis McDowell-Loudan, John R. Sosa, Sharon Steadman, Stuart Traub, Anne Vittoria

Programs Offered
B.A. in Anthropology – 124 total credit hours
B.A. in Adolescence Education – Social Studies and Anthropology (Grades 7-12) – 127 total credit hours

Majors Offered
Anthropology
Adolescence Education – Social Studies and Anthropology (Grades 7-12)

Concentrations Offered
Applied Anthropology
Archaeology
Ethnic Studies

Minors Offered
Anthropology
Archaeology

Description
Anthropology majors will be introduced to the various anthropological fields including archaeology, physical or biological anthropology and linguistic and cultural anthropology. Students have the option of concentrating in applied anthropology, archaeology, or ethnic studies. Whether or not a concentration is chosen, students will complete a program that provides them with a solid basis for understanding the field of anthropology in general, as well as the human cultural systems of the past and present world. There is also an anthropology minor which is particularly suitable for those interested in the teaching professions (elementary education and secondary social studies majors) who must be prepared for the multicultural classrooms of today’s schools. Students who are interested in teaching may combine study in the anthropology major with professional courses leading to a qualification for certification in adolescence education (grades 7-12).

Special Features
- Hands-on work with objects in our in-house Brooks Museum and Lee Beam Collection and with material from archeological excavations
- Archaeological field work opportunities and possible paid work after ANT 400 participation
- Archaeological/ethnographic fieldwork opportunities outside the U.S.
- Anthropology Honors Program
- Student Referral Program
- Internships
- Teaching certification for adolescence social studies

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to all anthropology majors.
2. Liberal Arts Requirements – 90 credit hours

Major in Anthropology [ANT]
The anthropology major provides students the opportunity to undertake a broad based study of the anthropological approaches to understanding past and present human cultural structures. This concentration is particularly suitable for those interested in teaching professions, continued graduate study, or international aid agencies.

Career Potential
- Corporate positions in culture management
- International aid agency positions (e.g., U.S.A.I.D)
- U.S. government/State Department positions
- Education/teaching including Native American schools (with certification)
- C.A.R.E. posts
- Primate rehabilitation centers, zoos, (e.g., World/National Wildlife Federation)

A. Required Courses: 12 credit hours
- ANT 102: Introduction to Cultural Anthropology [GE 3]
- ANT 300: Human Evolution and Survival [GE 7]
- ANT 492: Anthropological Theory
- ANT 493: Anthropological Methods

B. Anthropology Electives: 12 credit hours
- 6 credit hours from Culture Area Courses
- 6 credit hours from Topics Courses

Students may choose courses from the list that follows, depending on their personal preferences and/or whether they have a declared concentration. Special courses not listed within either group are occasionally taught with a topics (TP) designation (ANT 129, 229, 329 or 429) and may count under one of these groups.

Culture Area Courses: 6 credit hours
- ANT 201: World Cultures
- ANT 301: Native American Archaeology
- ANT 302: Native American Ethnology
- ANT 304: Peoples of Africa
- ANT 305: Archaeology of Eastern United States
- ANT 310: Peoples of South and Southeast Asia
- ANT 312: Peoples of the Middle East
- ANT 314: Peoples of Latin America
- ANT 330: Religions of Asia
- ANT 400: Field Work in Archaeology
- ANT 550: Independent Study in Anthropology (depending on the title)
Major in Anthropology with a concentration in Archaeology [ANT/APPL]

Students with an archaeology concentration acquire field experience and gain an understanding of the theoretical issues related to both general anthropology and archaeology, including management of cultural resources. Projects can be tailored to student interests, and include working with the department’s ethnographic and archaeological collections.

**CAREER POTENTIAL**
- Teaching (all levels and Native American centers)
- Museum curation and collection management positions
- State and federal advisory positions (e.g., Environmental Protection Agency)
- National/state/local historical agencies
- National and state park service positions
- Contract archeology positions (cultural resource management)

**A. Required Courses: 24 credit hours**
- ANT 102: Introduction to Cultural Anthropology [GE 3]
- ANT 300: Human Evolution and Survival [GE 7]
- ANT 301: Native American Archaeology
- ANT 302: Native American Ethnology
- ANT 305: Archaeology of Eastern United States
- ANT 307: World Prehistory
- ANT 492: Anthropological Theory
- ANT 493: Anthropological Methods

**B. Anthropology Electives: 9 credit hours**
Choose three courses from the following:
- ANT 201: World Cultures
- ANT 234: Anthropology of Gender [GE 2]
- ANT 304: Peoples of Africa
- ANT 310: Peoples of South and Southeast Asia
- ANT 312: Peoples of the Middle East
- ANT 314: Peoples of Latin America
- ANT 400: Field Work in Archaeology
- ANT 460: Introduction to Museum Studies

*Three elective credit hours may be fulfilled by completing CPV 400: Cooperative Education/internship*

**TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124**
B. Anthropology Electives: 15 credit hours
Choose five courses from the following:
- ANT 201: World Cultures
- ANT 302: Native American Ethnology
- ANT 304: Peoples of Africa
- ANT 310: Peoples of South and Southeast Asia
- ANT 312: Peoples of the Middle East
- ANT 314: Peoples of Latin America
- ANT 330: Religions of Asia
- ANT 406: Contact and Culture Change
- ANT 460: Introduction to Museum Studies

Three elective credit hours may be fulfilled by completing CPV 400: Cooperative Education/internship

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Dual major in Adolescence Education – Social Studies and Anthropology (Grades 7-12) [SSA & ANT]
This program allows students who major in anthropology to qualify for certification to teach adolescence education in social studies (grades 7-12). It combines a major in anthropology with a professional semester that consists of professional preparation and student teaching.

CAREER POTENTIAL
• Junior high and high school teacher

A. Requirements for the anthropology major (see above)
B. Professional Preparation: 47-68 credit hours
   (Including additional social science courses)
   - HLH 199: Critical School Health Issues
   - PSY 101: General Psychology I
   - PSY 232: Adolescent Psychology or
   - PSY 332: Educational Psychology
   - ECO 105: Political Economy and Social Thought
   - GRY 425: Geography in the Classroom or
   - GRY 520: Maps in the Classroom
   - GRY 480: United States
   - POL 100: Introduction to American Government
   - HIS 100 and 101 or His 110 and 111 and
      HIS 200 and 201 and 9 hours at the 300 level or above
   - ENG 306: Advanced Writing for Prospective Teachers or
   - EDU 449: Literacy in the Middle and Secondary School
   - SHH 300: Normal Language Development or
   - PSY 350: Psychology of Language
   - SSS 300: Introduction to Secondary Social Studies
      (A 100-hour field requirement is attached to this course)

C. Professional Semester: 18 credit hours
   - SSS 301: Pre-Practice Teaching Seminar
   - AED 400: Student Teaching I
   - AED 401: Student Teaching II
   - SSS 303: Post-Practice Teaching Seminar

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 127

Minor in Anthropology [ANT]
A. Required Courses: 6 credit hours
   - ANT 102: Introduction to Cultural Anthropology [GE3]
   - ANT 300: Human Evolution and Survival [GE7]
B. Culture Area Courses: 3 credit hours
   (Must be at the 300 level or above—see list under “Major in Anthropology”)
C. Topics Courses: 3 credit hours
   (Must be at the 300 level or above—see list under “Major in Anthropology”)
D. Anthropology Elective: 3 credit hours
   (Must be at the 300 level or above—see list under “Major in Anthropology”)

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 15

Minor in Archaeology [ARC]
This minor is open to students in any major other than anthropology. Majors in anthropology can declare a concentration in archaeology.
A. Required Courses: 9 credit hours
   - ANT 102: Introduction to Cultural Anthropology [GE3]
   - ANT 301: Native American Archaeology
   - ANT 305: Archaeology of the Eastern United States
B. Anthropology Electives: 3 credit hours
   Choose from either ANT 300: Human Evolution and Survival or ANT 307: World Prehistory
C. Anthropology Electives: 3 credit hours
   Choose from either ANT 302: Native American Ethnology or ANT 400: Field Work in Archaeology

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 15
### Example of the undergraduate degree in Anthropology over four years

(\textit{Note:} The following is based on freshman admission and 15 credits per semester. More than 15 credits will have to be taken in one or more semesters in order to reach the required 124 credits for graduation.)

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<thead>
<tr>
<th>First Year</th>
<th>Second Year</th>
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<tbody>
<tr>
<td><strong>Fall</strong></td>
<td><strong>Fall</strong></td>
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<tr>
<td>ANT 102 (GE 3)</td>
<td>Two anthropology courses (200-300 level)</td>
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<tr>
<td>CPN 100</td>
<td>GE course</td>
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<tr>
<td>Foreign language course</td>
<td>One elective</td>
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<tr>
<td>Two GE courses</td>
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<tr>
<td><strong>Spring</strong></td>
<td><strong>Spring</strong></td>
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<tr>
<td>One anthropology course</td>
<td>One or two anthropology courses (200-300 level)</td>
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<tr>
<td>(200 or 300 level)</td>
<td>GE course</td>
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<tr>
<td>CPN 101</td>
<td>Foreign language course</td>
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<tr>
<td>Quantitative Skills course</td>
<td>One or two electives</td>
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<td>Foreign language course</td>
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<td>GE course</td>
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<table>
<thead>
<tr>
<th>Third Year</th>
<th>Fourth Year</th>
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<tbody>
<tr>
<td><strong>Fall</strong></td>
<td><strong>Fall</strong></td>
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<tr>
<td>One or two anthropology courses (300-400 level)</td>
<td>Two anthropology courses (300-400 level)</td>
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<td>One or two electives</td>
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<td>One or two GE courses</td>
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<tr>
<td><strong>Spring</strong></td>
<td><strong>Spring</strong></td>
</tr>
<tr>
<td>ANT 492</td>
<td>One or two anthropology electives (300-400 level)</td>
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### Anthropology Course Descriptions

**ANT 102: Introduction to Cultural Anthropology**  
(A) Subdisciplines, conceptual frameworks dealing with origins, development, diversity of human cultures. (3 cr. hr.)

**ANT 129, 229, 329, 429, 529: Special Topics in Anthropology**  
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

**ANT 201: World Cultures**  
(B) Exploration of the cultural factors which shape human behavior through the intensive analysis of a selection of anthropological texts from around the globe, organized around a specific theme that varies each time the course is taught. Prerequisite: ANT 102. (3 cr. hr.)

**ANT 230: Prejudice and Discrimination**  
(B) Descriptive and theoretical review of the existence and effects of prejudice and discrimination in world-wide context. Comparison of Western and non-Western social structure, and of dominant and subordinate relationships in the U.S. and around the world. Prerequisite: Introductory course in social science. (Also listed as SOC 230.) (3 cr. hr.)

**ANT 234: Anthropology of Gender**  
(B) A comprehensive approach examining gender, race, sexual orientation and discrimination against these various social groups, using evidence from early human contexts to present-day cultures. Focus is primarily on non-western cultures with some exploration of North American societies. (3 cr. hr.)

**ANT 251: Introduction to Language Study**  
(B) Concepts, scope, methodology of science of language. Principles of descriptive and historical linguistics. Geographical, historical, social dialects of English. (Also listed as ENG 201 and COM 211.) (3 cr. hr.)

**ANT 300: Human Evolution and Survival**  
(A) Combined study of human evolution, genetics, and culture and their theory and methodologies in anthropological archaeology. (3 cr. hr.)

**ANT 301: Native American Archaeology**  
(C) Aboriginal New World cultures before significant Old World contact; from simple tribal societies to civilizations of Meso-American and Andean regions. Prerequisite: ANT 102 or 300. (3 cr. hr.)

**ANT 302: Native American Ethnology**  
(B) Acculturation in New World since Columbus, as seen in range of tribal, peasant and urban groups. Prerequisite: ANT 102 or 300. (3 cr. hr.)

**ANT 304: Peoples of Africa**  
(C) African ethnology; the religion, language, social, economic, political organization of cultures in Africa south of Sahara. Prerequisite: ANT 102 or ANT 300. (3 cr. hr.)

**ANT 305: Archaeology of Eastern United States**  
(C) Local, regional prehistory and protohistory of New York State, eastern United States. Reference to Post-Columbian period of the East, investigation of American Indian arrivals and activities. Prerequisite: ANT 102 or ANT 300. (3 cr. hr.)

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Course codes: A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter, ■ = LAS
ANT 306: Folk Societies and Lifestyles
(C) Anthropological theories, methods dealing with peasant and folk societies and cultures. Comparative analysis of world peasantry and the place of peasants in complex societies. Prerequisite: ANT 102 or ANT 300. (3 cr. hr.)

ANT 307: World Prehistory
(C) Survey of human cultures around the world from earliest evidence to development of civilizations. Human behavior in groups before the time of written records emphasized; comparison and contrast of such social organization throughout time provided. Prerequisite: ANT 102 or ANT 300. (3 cr. hr.)

ANT 310: Peoples of South and Southeast Asia
(C) Social, economic, political, religious institutions of countries of South and Southeast Asia. Traditional cultures, current changes. Prerequisite: ANT 102 or ANT 300. (3 cr. hr.)

ANT 312: Peoples of the Middle East
(C) Ethnic mosaic of North Africa and Southwest Asia; Islam as a cultural tradition in ethnic group relations; integration of urban, peasant and nomadic subcultures of area. Prerequisite: ANT 102 or ANT 300. (3 cr. hr.)

ANT 314: Peoples of Latin America
(C) Historical and contemporary review of Latin American societies with emphasis on the ethnology of indigenous people. Particular attention paid to the role Western colonial policies have played in shaping contemporary conflicts. Prerequisite: ANT 102 or ANT 300. (3 cr. hr.)

ANT 315: Development Anthropology
(O) Anthropologists’ and development sociologists’ specific roles in economic development, public health, other projects involving cross-cultural planned change. Concepts of socio-economic change emphasizing classic case studies of applied anthropology and sociology; modern roles in project planning, design, instrumentation and evaluation. Social scientists’ responsibilities in understanding recipient culture, in encouraging participatory approaches to development as part of interdisciplinary development project team emphasized. Prerequisites: ANT 102 or ANT 300. (3 cr. hr.)

ANT 330: Religions of Asia
(B) General introduction to the basic and enduring structures of the major religions of Asia with attention to the fundamentalss of history, cultural aspects (sacred objects or places, beliefs, values, symbols, and rituals), social organization, and present day position. Prerequisite: ANT 102 or SOC 100 or SOC 150. (Also listed as SOC 315.) (3 cr. hr.)

ANT 350: Language in Society and Culture
(C) Cross-cultural studies in interrelationships between language and the individual, the society and the culture. (3 cr. hr.)

ANT 351: Folklore
(O) Major genres of world folklore with emphasis on American folklore. Regional lore, including New York State. Folklore theory and methodology. (3 cr. hr.)

ANT 352: U.S. Ethnic Identity and Conflict
(B) Social histories of major U.S. ethnic groups are contrasted in terms of both cultural identity and social structural differences. Anthropological and sociological data, theories and interpretations of internal U.S. cultural and power differences are presented to analyze and challenge the concepts of “race” and “minority.” (Also listed as SOC 352 and AAS 361.) Prerequisites: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.)

ANT 369: Population and Society
(S) Social significance of population mass, population redistribution through births, deaths, migration. Prerequisites: SOC 150. (Also listed as SOC 369). (3 cr. hr.)

ANT 400: Field Work in Archaeology
(O) Combination field and laboratory study of one or more archaeology sites. Prerequisite: Consent of department. (3-6 cr. hr.)

ANT 404: Applied Anthropology
(C) Theoretical and empirical analysis of selected topics in applied anthropology. Such topics include poverty, the fulfillment of basic human needs and different approaches that anthropology can contribute to solving these problems. Prerequisite: ANT 102. (3 cr. hr.)

ANT 406: Contact and Culture Change
(C) Mechanisms of acculturation, dominance patterns, cultural conservatism and receptivity, and applied anthropology with examples drawn from non-literate societies. Prerequisite: ANT 102 or ANT 300. (3 cr. hr.)

ANT 408: Culture and Personality
(C) Comparative study of personality and structure produced in various cultures and epochs. Prerequisite: ANT 202 or ANT 300. (3 cr. hr.)

ANT 409: Economic Anthropology
(C) Economic aspects of human behavior in primitive, traditional, peasant societies. Distribution of goods, services through such mechanisms as redistribution, reciprocity, barter, markets, marketing. Prerequisite: ANT 102 or ANT 300. (3 cr. hr.)

ANT 410: Cultural Ecology
(C) Relationship between sociocultural and environmental factors with special attention to political, techno-economic and ideological phenomena. Prerequisite: ANT 102 or 300. (3 cr. hr.)

ANT 415: Culture and Aging
(S) Comparative perspective on roles, problems of the elderly provided by cross-cultural surveys, representative case studies of non-western societies. Prerequisite: ANT 102 or SOC 150. (3 cr. hr.)

ANT 450: Selected Studies in Anthropology
(B) Theoretical and empirical analysis of selected topic in anthropology. May be repeated as subtitle changes. Prerequisite: Nine hours of anthropology. (3-9 cr. hr.)

ANT 455: The Individual in Communication
(C) Relation of language to self-identity, interaction with others. Approaches from psychological anthropology and sociolinguistics. Prerequisite: Three hours of linguistics, anthropology, sociology or psychology. (3 cr. hr.)

ANT 460: Introduction to Museum Studies
(B) Introduction to the field of museology. Topics covered include cataloging, classifying, conservation and display of ethnographic and archaeological materials. Hands on experience is gained through work with the Brooks’ Collection and other department materials. Prerequisite: Nine hours of anthropology. (3 cr. hr.)

ANT 492: Anthropological Theory
(C) Historical development, current emphasis in theoretical approaches to all fields of anthropology, providing integrated frame of reference for discipline as a whole. Prerequisite: Nine hours of anthropology. (3 cr. hr.)
ANT 493: Anthropological Methods
(A) Introduction to anthropological research. Provides students with basic understanding of how to conduct and evaluate scientific research in the anthropological fields. Course topics follow the major steps in design and execution of anthropological research from the definition of the problem and formulation of hypotheses to interpretation of results and preparation of final report. Prerequisites: Nine hours of anthropology, Junior standing. (3 cr. hr.)

ANT 495: Anthropology Honors Course I
(A) Directed in depth research on an anthropological topic in student's major concentration. Open only to eligible students. Prerequisites: Senior status; completion of 18 credit hours of anthropology, overall GPA of 3.0 or higher, major GPA of 3.2 or higher. (2 cr. hr.)

ANT 496: Anthropology Honors Course II
(A) Directed in depth research project, begun in ANT 495, on an anthropological topic in student's major concentration. Open only to eligible students. Prerequisites: Completion of ANT 495 with a grade of B+ or higher; senior status; completion of 18 credit hours of anthropology, overall GPA of 3.0 or higher, major GPA 3.2 or higher. (1-6 cr. hr.)

ANT 550: Independent Study in Anthropology
(A) Prerequisites: Twelve hours of general anthropology including ANT 102 and ANT 300; consent of department. (1-6 cr. hr.)

Related Education Courses

AED 400: Student Teaching I
Full-time supervised teaching in public schools for four weeks (3 cr. hr.)

AED 401: Student Teaching II
Full-time supervised teaching in public schools for four weeks. Requires satisfactory completion of AED 400 (3 cr. hr.)

SSS 300: Introduction to Secondary Social Studies
This course introduces students to unit and lesson planning, focuses on the history of American education as it relates to social studies, familiarizes students with the social studies learning standards, and makes comparisons between middle school and high school teaching. Includes 100-hour field experience (3 cr. hr.)

SSS 301: Pre-Practice Teaching Seminar
(F) Integrated study of A.) Introduction to Secondary Education; B.) Introduction to Methods of Teaching Social Studies; C.) Introduction to Contemporary Secondary School Issues; D.) Preparation for specific practice teaching assignment. S, U grades assigned. (11 cr. hr.)

SSS 303: Post-Practice Teaching Seminar
(F) Problem approach drawing upon experience of students during practice teaching. Designed to focus on contemporary educational issues, beginning the job search and application process, teaching and learning at the middle school level and exploring the history and philosophy of teaching. S, U grades assigned. (1 cr. hr.)

Course codes: A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter, ■ = LAS
Art and Art History

DEPARTMENT

FACULTY
Charles Heasley (Chair), Martine Barnaby-Sawyer, Jeremiah Donovan, Lori Ellis, Allison Graff, Lisa Joyce, Libby Kowalski, Kathryn Kramer, Allen Mooney, Barbara Wisch

PROGRAMS OFFERED
B.A. in Art – 124 total credit hours

MAJORS OFFERED
Art

CONCENTRATIONS OFFERED
Studio Art – with specialization in: ceramics, graphic design, fiber arts, print media, painting, sculpture
Art History

MINORS OFFERED
Art – with specialization in either studio art or art history

DESCRIPTION
The art and art history curriculum develops skills of analysis and critical thinking through instruction in the making and history of visual art. Art and art history courses emphasize the importance of the art object in society as a means of both individual and cultural expression, which is reinforced by a variety of guest lectures, studio critiques, and museum and gallery visits. The year-round program of exhibitions, visiting artists, and symposia organized by the Ruth E. Dowd Fine Arts Gallery complements the Department’s activities by providing further opportunities for students to apply their developing aesthetic awareness to a wide range of artwork, ideas and values.

SPECIAL FEATURES
• Dowd Fine Arts Gallery and Art and Art History Department permanent art collection and study archive
• Internships
• Semester in New York apprenticeship program
• Visiting artists and lecturers program
• Scholarship fund
• Visual resources collection
• Cooperative work-study program

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to the following majors.
2. Liberal Arts Requirements – 90 credit hours.

Major in Art with a concentration in Studio Art [ART/ARTS]
Introductory courses in studio art explore a variety of expressive media, teach basic technical skills, and begin to develop perceptual awareness. Students continuing in advanced courses are directed toward an objective understanding of visual languages and a refinement of independent responses in one of the concentrated specializations in painting, printmaking, graphic design, fiber arts, ceramics and sculpture. Such critical explorations of either two- or three-dimensional forms facilitate intuitive problem solving. This applies not only to visual work, but has been shown to carry over into other academic and professional endeavors as well. This introduction to conceptual problem solving can be one of the most valuable contributions of the study of the visual arts within a liberal arts curriculum. Students should be advised that although most courses do not require text books, studio courses require the purchase of materials and supplies some of which are included in the tuition fees. Check with the instructor.

CAREER POTENTIAL
• Art educators
• Graphic designers:
  • web page designers, environmental designers
• Corporate art buyers
• Artists in ceramics, fiber arts, design, painting, printmaking, sculpture
• Textile design

I. Art Studio Core – 36 total credit hours
A. Required Courses: Core in Art Studio: 15 credit hours
  Drawing Foundation
    ATS 101: Drawing I (GE-4)
    ATS 201: Drawing II
    ATS 301: Drawing III
  Design Foundation
    ATS 102: Design I (GE-4)
    ATS 202: Design II
B. Exposure and Skills Core in Art Studio: 15 credit hours
  ATS 103: Painting I (GE-4)
  ATS 104: Ceramics I (GE-4)
  ATS 105: Weaving I (GE-4) or
  ATS 111: Fabric Design I (GE-4)
  ATS 106: Sculpture I (GE-4)
  ATS 107: Printmaking I (GE-4) or
  ATS 112: Photography I (GE-4) or
  ATS 209: Lithography I
C. Studio Art Specialization Courses: 6 credit hours
  Specialization and advanced skills in one of the following areas: ceramics, graphic design, fibers, painting, print media, or sculpture

II. Art History Foundation – 12 total credit hours
  ATH 121: Art in the Ancient World (GE-4)
  ATH 122: Art in the Modern World (GE-4)
  Six additional credit hours of related electives chosen in consultation with advisor including one 300-level ATH or above

III. Free Electives – 29-42 total credit hours

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124
Major in Art with a concentration in Art History [ART/ARTH]

Art history survey courses (ATH 121, 122, 223) provide a systematic exploration of the major art traditions of the world. Upper division courses (200-level and above) introduce the student to more intensive study of the art of a particular period or region through a variety of approaches and techniques of art historical analysis. ATH 429: Advanced Topics in Art History often is used to meet the special interests of students, and to take advantage of new art discoveries and major exhibitions. The diverse interest of Cortland’s art history faculty provide the student with opportunities to broaden global and multicultural awareness through an understanding of artistic achievement in our own and other cultures.

CAREER POTENTIAL
- Art historian
- Art educator
- Museum practices: curator, archivist, researcher

I. Art History Core – 36 total credit hours
A. Required Art History Core Courses: 9 credit hours
   ATH 121: Art in the Ancient World
   ATH 122: Art in the Modern World
   ATH 223: Art History III
B. Core exposure in Art History: 12 credit hours
   Three hours from each of the following areas:
   1.) ATH 254: Art of the Middle Ages
       ATH 326: Art of Greece and Rome
   2.) ATH 340: The Early Renaissance in Italy
       ATH 341: 15th, 16th-Century Painting in Northern Europe
       ATH 344: Renaissance, Mannerism, Baroque
   3.) ATH 355: Rococo through Impressionism – 18th and 19th Centuries
       ATH 357: Modern Art
       ATH 457: Contemporary Art
   4.) ATH 330: Far Eastern Art
C. Additional Art History Course Requirements selected from (areas 1-4): 3 credit hours
D. Art history elective chosen from courses at the 200-400 level: 9 credit hours
E. ATH 429: Special Topics in Art and Art History: 3 credit hours

II. Related Areas – 12 total credit hours
A. Studio Art: 3 credit hours
B. History Courses: 6 credit hours
   (It is recommended that three hours be directly related to student’s area of specialization in section C of the Art History Core above)
C. Electives: 3 credit hours
   Chosen in consultation with the student’s advisor from literature, philosophy, political science, anthropology/sociology which relate directly to the temporal or spacial period of the cultural context of an art history course that the student has taken or is taking, or three additional hours of a second or third language.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Minor in Art with a specialization in Art History [ART]

CAREER POTENTIAL
- Art historian
- Art educator
- Art critic

A. Required Courses: 18 credit hours
   ATH 121: Art in the Ancient World
   ATH 122: Art in the Modern World
   12 credit hours of additional art history and art theory courses (except ATT 480) at the 300-level or above

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 18

Minor in Art with a specialization in Art Studio [ART]

CAREER POTENTIAL
- Art educators
- Corporate art buyers
- Artists in ceramics, graphic designers, environmental designers

A. Required Courses: 6 credit hours
   ATH 121: Art in the Ancient World
   ATH 122: Art in the Modern World

B. Additional Required Studio Art Courses: 12 credit hours
   ATS 101: Drawing I
   ATS 102: Design I
   ATS 106: Sculpture I
   ATS 201: Drawing II

C. Minimum of nine additional studio art hours

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 27
Example of the undergraduate degree in Art (Studio) over four years

First Year

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Art and Art History

COURSE DESCRIPTIONS

Art History Courses

ATH 120: Backgrounds in Art
(A) Art principles and concepts, with their historical development, shown through design in visual art forms. (3 cr. hr.)

ATH 121: Art in the Ancient World
(A) Art prior to Renaissance: Architecture, sculpture, and painting of Egypt, Near East, Greece, Rome, medieval Europe. (3 cr. hr.)

ATH 122: Art in the Modern World
(A) Developments in Western Europe and the Americas from Renaissance culture through 20th century art. (3 cr. hr.)

ATH 129, 229, 329, 429, 529: Special Topics in Art and Art History
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

ATH 222: Art History III
Introduction to arts of Africa, Oceania and the Americas. (3 cr. hr.)

ATH 223: Art History IV
Introduction to arts of North America from prehistoric to contemporary periods. (3 cr. hr.)

ATH 254: Art of the Middle Ages
(C) Art from A.D. 300 through 1400, beginning with Christianization of the Roman Empire, formation of new Christian states in Europe and Byzantium, and influence of Islamic art, through international styles of Romanesque and Gothic art in Europe. Prerequisite: ATH 121 or ATH 122. (3 cr. hr.)

ATH 321: Seminar in Art History
(C) Specialized area of Western tradition of history of art. Reports based on independent research and study of related topic chosen in consultation with instructor required. Prerequisite: Consent of instructor. (3 cr. hr.)

ATH 322: North American Art: Colonial Period to World War II
(C) From 1620 to 1940 with emphasis not only on art and architecture from what is now the U.S., but also from Canada. Prerequisite: ATH 121 or ATH 122. (3 cr. hr.)

ATH 323: North American Art: Colonial Period to World War II
(C) From 1620 to 1940 with emphasis not only on art and architecture from what is now the U.S., but also from Canada. Prerequisite: Consent of instructor. (3 cr. hr.)

ATH 324: Spanish and Spanish American Art and Architecture
(O) Survey of art and architecture produced in Spain and Latin America from 1492 to present. A major concern is not only Spanish Colonial Art, including the contribution of indigenous peoples to it, but also contemporary art from Latin America. Prerequisites: Consent of instructor or ATH 121 or ATH 122. (3 cr. hr.)

ATH 326: Art of Greece and Rome
(C) Sculpture, painting, architecture from Bronze Age civilizations of Aegean through Greece and Rome to fall of the Empire; Etruscan art included. Plastic visual arts related to other aspects of culture (history, literature, drama) in each period. Prerequisite: ATH 121 or ATH 122. (3 cr. hr.)

ATH 330: Far Eastern Art
(C) Introduction to art, architecture of Far East including India, China, Japan, Central Asia, Southeast Asia from periods of early river cultures through 19th century. Differences between Eastern, Western cultures; interaction among Far Eastern cultures; influence upon modern society stressed. (3 cr. hr.)

ATH 340: The Early Renaissance in Italy
(C) Architecture, sculpture, and painting from the late 13th through 15th centuries. Works by Giotto, Brunelleschi, Donatello, Masaccio, Fra Angelico, Botticelli, etc., studied in their social and cultural contexts. Prerequisite: ATH 120, ATH 121, ATH 122, or permission of instructor. (3 cr. hr.)

ATH 341: 15th, 16th-Century Painting in Northern Europe
(C) Development of Flemish, Dutch, German and French painting of 15th and 16th centuries: works by Hubert and Jan van Eyck, Rogier van Weyden, Bosch, Dürer, Grünewald, the elder Bruegel. Prerequisite: ATH 120, ATH 121, or permission of instructor. (3 cr. hr.)

ATH 342: The Renaissance in Italy
(C) Development of Italian Renaissance of 15th and 16th centuries. Works by Michelangelo, Raphael, Titian, Bernini, Velázquez, Rubens, Rembrandt, etc., studied in their social and historical contexts. Prerequisite: ATH 120, ATH 121, ATH 122, or permission of instructor. (3 cr. hr.)

ATH 344: Renaissance, Mannerism, Baroque
(C) Development of Italian Mannerism, and 17th-century Baroque art in Italy, France, Spain, England, Flanders, and Holland. Works by Leonardo da Vinci, Michelangelo, Raphael, Titian, Bernini, Velázquez, Rubens, Rembrandt, etc., studied in their social and historical contexts. Prerequisite: ATH 120, ATH 121, ATH 122, or permission of instructor. (3 cr. hr.)

ATH 345: Rococo Through Impressionism – 18th and 19th Centuries
(C) Value structures in painting, sculpture, architecture in 18th

Course codes: A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter, LAS = School of Arts and Sciences
and 19th centuries in relation to political and industrial revolutions, changes in class structure, religious revivals and atheism. Prerequisite: ATH 121 or ATH 122. (3 cr. hr.) ■

ATH 357: Modern Art
(C) This course is a survey of significant activity and ideas in the visual arts from ca. 1880-1945. Focus is on the art of Western Europe with attention to changing critical perspectives. In addition, a number of themes such as gender, visuality, technology, and mass media will be considered within the chronological framework. Prerequisite: ATH 120, ATH 121, ATH 122, or permission of instructor. (3 cr. hr.) ■

ATH 385: History of Prints
(C) Technical and artistic developments in printmaking from beginning in 15th century to present. Prerequisite: ATH 121 or ATH 122. (3 cr. hr.) ■

ATH 420: Aesthetics
(C) Analysis of nature and function of art. Aesthetic theories from ancient Greece to modern period. Prerequisites: ATH 121 or ATH 122. (3 cr. hr.)

ATH 457: Contemporary Art
(C) This course is intended to provide an introductory overview of the visual forms, media, and theories of contemporary art, with particular focus upon how art is defined and how the role of the artist is understood. Prerequisite: ATH 120, ATH 121, ATH 122, or permission of instructor. (3 cr. hr.) ■

Studio Art Courses
The State University of New York College at Cortland reserves the right to select and retain indefinitely any student art work done in connection with course work completed at the College.

ATS 101: Drawing I
(A) Lectures, demonstrations, critiques in methods and techniques of drawing. Series of basic graphic problems designed to develop visual perception. (3 cr. hr.) ■

ATS 102: Design I
(A) Basic principles of two-dimensional design. Aesthetic, perceptive relationships of forms, colors explored with emphasis on development of visual perception through lectures, problems, critiques, outside reading. (3 cr. hr.) ■

ATS 103: Painting I
(A) Basic approach to oil painting. Observation, physical control of paint, color, drawing, understanding of both conceptual and technical methods involved in historical painting. Reading requirements, critiques, lectures intended to broaden student’s knowledge of visual art. (3 cr. hr.) ■

ATS 104: Ceramics I
(A) Forming processes aimed at discovering creative, structural, plastic potentials inherent in ceramics materials. Frequent technical lectures, demonstrations, group critiques and outside reading in historical, technical aspects of pottery design and construction. (3 cr. hr.) ■

ATS 105: Weaving I
(A) Weaving processes, including loom preparation. Emphasis on development of structural elements and color relationships used in the design of woven fabrics. Creative use of materials encouraged. Introduction of computer graphics software used to design textiles. Weekly lectures, critiques and discussions of historic and contemporary fabrics. (3 cr. hr.) ■

ATS 106: Sculpture I
(A) Concepts of form. Various media, techniques explored as preparation for further study in sculpture. Weekly lectures, critiques, discussions of historical aspects of sculpture. (3 cr. hr.) ■

ATS 107: Printmaking I
(A) Basic concepts of graphic image. Techniques of etching, block printing, silk screen, lithography explored as they relate to basic graphic concepts. Weekly illustrated lectures, critiques, discussion of historical aspects of printmaking. (3 cr. hr.) ■

ATS 111: Fabric Design I
(A) Introduction of silk screen processes on fabric, open screen, cut stencil and photo silk screen. Batik, stitchery, applique and quilt-making techniques also explored. Emphasis on creative use of alternative materials. Introduction of graphics intensive textile design programs used in this medium. Frequent lectures, critiques and discussions of historic and contemporary textiles. (3 cr. hr.) ■

ATS 112: Photography I
(B) Introduction to black and white photography as creative form of expression. Emphasis on camera use, darkroom techniques, aesthetics of the print and presentation of completed work of art. Prerequisite: ATS 102 or consent of department. (3 cr. hr.) ■

ATS 113: Three-Dimensional Design
(A) Basic principles of three-dimensional design. Aesthetic and analytical exploration of form through problems, lectures, critiques and readings designed to strengthen visual perception. (3 cr. hr.) ■

ATS 129, 229, 329, 429, 529: Special Topics in Studio Art
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

ATS 201: Drawing II
(A) Drawing from nature, the figure, landscape, still life. Experimentation with various media. Frequent lectures, critiques, museum visits. Prerequisite: ATS 101. (3 cr. hr.) ■

ATS 202: Design II
(B) Continuation of Design I. Class meetings include critiques of assignments. Lectures, visiting critics, films. Prerequisite: ATS 102. (3 cr. hr.) ■

ATS 203: Painting II
(A) Intensified study of painting techniques. Personal investigation into techniques. Selected problems stressing student investigation of abstract visual concepts. Frequent lectures, critiques and museum visits. Prerequisite: ATS 103. (3 cr. hr.) ■

ATS 204: Ceramics II
(A) Development of ceramic processes. Creative exploration of materials emphasized. Frequent technical lectures, demonstrations, group critiques, outside reading in historical and technical aspects of pottery design and construction. Prerequisite: ATS 104. (3 cr. hr.) ■

ATS 205: Weaving II
(A) Emphasis on designing more advanced weave structures using graphics software for textiles. Introduction of synthetic dye techniques and various fabric finishing processes. Independent and group projects designed to extend personal expression. Introduction of additional weaving techniques. Frequent lectures, critiques, museum visits. Prerequisite: ATS 105. (3 cr. hr.) ■

ATS 206: Sculpture II
(A) Human figure, other subjects related to nature. Emphasis on personal investigation of form. Continued exploration of various media, techniques related to sculpture. Frequent lectures, critiques, museum visits. Prerequisite: ATS 106. (3 cr. hr.) ■
ATS 207: Printmaking II
(A) Intensified study of specific graphic techniques. Personal investigation of particular technique emphasized. Frequent lectures, critiques, museum visits. Prerequisite: ATS 107. (3 cr. hr.) ■

ATS 209: Lithography I
(B) Introduction to fine art lithography from aluminum plates. Intention is to acquaint students with fundamentals of black and white lithographic printing with emphasis on hand drawn and manipulated imagery. Techniques of image formation will include crayon application, wash drawing or lithotint, transfer from paper and Xerox, photomechanically applied image. Prerequisite: ATS 101 or 102 or 107. (3 cr. hr.) ■

ATS 211: Fabric Design II
(A) Investigation of more advanced fabric design techniques including work in three-dimensional, sculptural fabric forms. Experimentation encouraged of other materials used in fabric design techniques. Continued use of various textile design and 3-D animation graphics programs. Frequent lectures, critiques, museum visits. Prerequisite: ATS 111. (3 cr. hr.) ■

ATS 212: Computers in the Visual Arts
(S) An introduction to a variety of computer programs which deal with Computer Aided Design in the visual arts. Several software programs will be explored throughout the semester with the objective of teaching the student about the similarities and differences of these graphics-intensive programs as used in various areas of art and design. Prerequisite: ATS 102. (3 cr. hr.) ■

ATS 301: Drawing III
(A) Emphasis on composition, media intended to develop understanding of possibilities in drawing and student’s own subjective approach. Lectures, critiques, reading assignments, wide variety of media used to expose students to more intellectual, technical possibilities. Prerequisite: ATS 201. (3 cr. hr.) ■

ATS 302: Design III
(B) Experimental two-, three-dimensional design concepts explored as they relate to contemporary situations. Individual, group problems designed to develop understanding, control of aesthetic and perceptual design variables. Independent research, problems, critiques, lectures, field trips. Prerequisite: ATS 202. (3 cr. hr.) ■

ATS 303: Painting III
(A) Development of student’s personal creative interests. Investigation of techniques of primary interest. Historical inquiry into specific areas in painting most related to student’s work. Prerequisite: ATS 203. (3 cr. hr.) ■

ATS 304: Ceramics III
(A) Practical experience in advanced technical aspects of firing and glaze chemistry; body formulations emphasized. Frequent lectures, reading assignments, group critiques. Prerequisite: ATS 204. (3 cr. hr.) ■

ATS 305: Weaving III
(A) Prerequisite: ATS 205. (3 cr. hr.) ■

ATS 306: Sculpture III
(A) Prerequisite: ATS 206. (3 cr. hr.) ■

ATS 307: Printmaking III
(A) Prerequisite: ATS 207. (3 cr. hr.) ■

ATS 309: Lithography II
(B) Continuation of Lithography I; intended to encourage experimental uses of mechanical process in advanced multiple image formation. Technical problems involving use of color in lithography introduced; registration methods will demand that student has command over basic techniques of Lithography I. Prerequisite: ATS 209. (3 cr. hr.) ■

ATS 311: Fabric Design III
(A) Prerequisite: ATS 211. (3 cr. hr.) ■

ATS 314: Figure Drawing I
(A) Study of human figure using various media. Historical research emphasized through lectures; gallery, museum visits. Prerequisite: ATS 101. (3 cr. hr.) ■

ATS 315: Figure Drawing II
(A) Continued study of the figure emphasizing individual problems, research, museum, gallery visits required. Prerequisite: ATS 314. (3 cr. hr.) ■

ATS 316: Silk Screen Printing
(C) Creating of fine prints by silk screen process. Various types of stencils explored, i.e. paper, cut film, tusche-glue, etc. Prerequisite: ATS 101, or 102, or 107. (3 cr. hr.) ■

ATS 401: Drawing IV
(A) Individual study, experimentation with various media. Portfolio of drawings required before completion of course. Frequent lectures, critiques, museum visits. Prerequisite: ATS 301. (3 cr. hr.) ■

ATS 403: Painting IV
(A) Self-directed study in selected area of interest. Further development of painting concepts as expressed through various media of student’s choice. Research into historical aspect of painting relating to other intellectual, artistic activity. Painting collections of Everson and Cornell Museums utilized. Prerequisite: ATS 303. (3 cr. hr.) ■

ATS 404: Ceramics IV
(A) Self-directed study expanding on earlier course work. Advanced glaze chemistry, other technical and aesthetic aspects of pottery design and execution. Independent research, group critiques, lectures. Prerequisite: ATS 304. (3 cr. hr.) ■

ATS 405: Weaving IV
(A) Self-directed study in selected area of interest. Further development of weaving techniques as expressed through different processes and/or research involving historic methods, procedures. Expanded use of computer graphics applications for textile design solutions. Independent research, experimentation. Group lectures, critiques, seminars, museum visits. Prerequisite: ATS 305. (3 cr. hr.) ■

ATS 406: Sculpture IV
(A) Self-directed study in selected area of interest. Further development of sculptural ideas as expressed through various media and techniques. Research into historical aspects of sculpture. Group lectures, critiques, seminars, museum visits. Prerequisite: ATS 306. (3 cr. hr.) ■

ATS 407: Printmaking IV
(A) Self-directed study in selected area of interest. Further development of graphic concepts as expressed through various media of student’s choice. Research into historical aspects of graphic form relating to other intellectual, artistic activity. Group lectures, critiques, personal criticism, museum visits; print collection at Cornell Museum utilized. Prerequisite: ATS 307. (3 cr. hr.) ■

Course codes: A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter, ■ = LAS
Art Theory Courses

ATT 129, 229, 329, 429, 529: Special Topics in Art Theory
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

ATT 470: Junior/Senior Seminar
(B) Addresses traditional problems as well as contemporary issues and guidance needs of the advanced art major. Demonstrations, critiques, portfolio preparation, visiting artists, informal discussions and field trips. Prerequisite: art majors/minors only, junior standing, portfolio review and department permission required. (Graded on H.P.F. system only) (0 cr. hr.)

ATT 480: Art and the Child
(A) Covers competencies needed to develop and conduct art activities program at elementary school level. Available generally only to upperclass and graduate elementary education majors. (3 cr. hr.)

ATT 490: Individual Problems in Art I
(A) Research or experimentation in area of visual arts or art history. Prerequisite: Consent of instructor. (3-6 cr. hr.) ■

ATT 491: Individual Problems in Art II
(A) Continuation of ATT 490. Prerequisite: Consent of instructor. (3-6 cr. hr.) ■

ATT 495: Historical and Technical Research
(A) Advanced problems, experimentation stressing research, involvement with theoretical, technical, historical aspects of a discipline as they relate to student’s work. May be repeated when subtitle changes for maximum of 12 hours. Prerequisite: Consent of department. (3 cr. hr.) ■

Asian Studies
INTERDISCIPLINARY MINOR

FACULTY
Deborah Spencer, coordinator

MINOR OFFERED
Asian Studies – 15 credit hours

DESCRIPTION
The Asian studies minor is an interdisciplinary program designed to serve the needs of students majoring in any subject area who desire more knowledge regarding Asia and Asian American concerns. The minor consists of 15 credit hours including AST 200: Introduction to Asia and an additional 12 credits of upper level coursework that will be drawn from at least two (and preferably three) different departments.

In addition to the following courses, other courses with a very substantial Asian or Asian American focus may also meet the requirements, with the approval of the Asian studies minor coordinator. Such courses might include independent studies, special topics, and other appropriate courses.

SPECIAL FEATURES
Overseas opportunities

Minor in Asian Studies (AST)

CAREER POTENTIAL
• Education
• International communications
• Tourism
• International business
• Government
• Policy research

A. Required Course: 3 credit hours
AST 200: Introduction to Asia

B. Additional upper level courses (300 and 400 level), drawn from at least two different departments: 12 credit hours
- ANT 310: People of South and Southeast Asia
- ANT 312: Peoples of the Middle East
- ANT 330: Religions of Asia
- ATH 330: Far Eastern Art
- ECO 313: Economic Development of Asia
- GRY 486: Monsoon Asia
- HIS 383: Chinese Civilization
- HIS 384: Modern China
- HIS 385: History of Japan
- HIS 386: Modern Pacific Asia
- HIS 435: East Asian-American Relations
- POL 262: Comparative Politics: Asia
- POL 376: Asian Political Thought
- POL 454: International Politics in Asia
- POL 462: Political Culture and Behavior in Asian Societies

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 15

Asian Studies
COURSE DESCRIPTIONS

AST 200: Introduction to Asia
(C) Basic knowledge and understanding of the diverse societies and cultures of Asia. Study of the geography, nations, religions, cultural traditions, economic, social, and political developments including the circumstances leading to emigration from Asian countries to the United States and the Asian American experience. (3 cr. hr.)
The Athletics Department conducts a broad-based NCAA Division III sports program for men and women including 11 varsity sports for men and 14 varsity sports for women. The athletic program is considered an integral part of the College’s mission as recognized by the allocation of academic credit for participation.

Most coaches lecture in their areas of specialty within the Physical Education Department, therefore affording SUNY Cortland students the best instruction in activities and sports from faculty who are also practitioners.

The overall development of each student-athlete is of paramount importance. The department will provide the necessary vision and leadership for student-athletes to participate at the highest level of their ability while pursuing a quality education. Participation on an intercollegiate team will provide student-athletes with the opportunity to learn and develop values which foster self-discipline, teamwork, leadership skills and fair play in an equitable and diverse environment.
FACULTY
Elliott B. Mason (Chair), Timothy J. Baroni, Barry L. Batzing, Steven B. Broyles, Patricia L. Conklin, Peter K. Ducey, Terrence D. Fitzgerald, Louis A. Gatto, Rena C. Janke, R. Lawrence Klotz, Brian R. Rivest, John M. Sternfeld, John E. Straneva, Mary Beth Voltura

PROGRAMS OFFERED
B.A. in Biology – 124 total credit hours
B.S. in Biology – 124 total credit hours
B.A. in Adolescence Education – Biology (Grades 7-12) – 124 total credit hours
B.S. in Adolescence Education – Biology (Grades 7-12) – 124 total credit hours

MAJORS OFFERED
Biology
Adolescence Education – Biology (Grades 7-12)

CONCENTRATIONS OFFERED
Environmental Science

MINORS OFFERED
Biology

DESCRIPTION
The biology program at SUNY Cortland is designed to ensure that majors obtain a strong, comprehensive foundation in the central areas of biology and related sciences. The program also offers specialized study in many areas. The Biological Sciences Department offers more than 30 courses in diverse areas of biology. Together with a faculty advisor, a biology major can design a course of study suited to his/her interests, whether they are at the level of molecular, cellular, organismal or environmental biology. Biology majors can become certified to teach in grades 7-12, prepare to pursue health-related careers such as medicine or dentistry, or concentrate in environmental science.

SPECIAL FEATURES
• Well-equipped on-campus facilities, including two greenhouses, a molecular biology laboratory, and a scanning electron microscope
• Outstanding field facilities at Hoxie Gorge near campus and the Outdoor Education Center at Raquette Lake in the Adirondack Mountains
• Opportunities to participate in research projects with faculty members
• Opportunities for off-campus internships
• An active Biology Club and a chapter of Beta Beta Beta, the national honor society for biology
• Cooperative programs with the SUNY College of Environmental Science and Forestry, the SUNY Upstate Medical University, Duke University, and the New York Chiropractic College

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to the following majors.
2. Liberal Arts Requirements: B.A. – 90 credit hours; B.S. – 75 credit hours

Major in Biology [BIO]
This major provides a solid foundation in biology yet retains considerable flexibility. Students in this major can prepare for a variety of biology-related employment opportunities or for entry into graduate or professional schools.

CAREER POTENTIAL
• Biomedical professions
• Environmental biologist
• Research scientist
• Biotechnology careers

A. Biology Courses: 36 credit hours
BI 201: Biological Sciences I
BI 202: Biological Sciences II
BI 210: Cellular Biology
BI 312: Genetics
BI 319: Biological Literature
BI 412: General Ecology
Biology Elective Courses

B. Related Science and Math Courses: 26 credit hours
CHE 221: General Chemistry I
CHE 222: General Chemistry II
CHE 301: Organic Chemistry I
MAT 121: Calculus A
MAT 122: Calculus B or
MAT 201: Statistical Methods or
GLY 281: Data Analysis in Natural Science
PHY 105: Elementary Mechanics and Heat and
PHY 106: Elementary Electricity, Light and Sound or
PHY 201: Principles of Physics I and
PHY 202: Principles of Physics II

C. Additional Requirements for the B.A. degree: 62 credit hours
Composition and General Education Courses: 27 credit hours
Foreign Language Courses: 0-13 credit hours
Free Elective Courses: 22-35 credit hours

D. Additional Requirements for the B.S. Degree: 62 credit hours
Composition and General Education Courses: 27 credit hours
Foreign Language Courses: 0-7 credit hours
Additional Science or Math: 10 credit hours
Free Elective Courses: 18-25 credit hours

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Adolescence Education – Biology (Grades 7-12) [SBI]
This major leads to New York State certification to teach biology in grades 7-12.

CAREER POTENTIAL
• Biology teacher (Grades 7-12)

A. Biology Courses: 30 credit hours
BI 201: Biological Sciences I
BI 202: Biological Sciences II
BI 210: Cellular Biology
BI 310: Field Biology
BI 312: Genetics
BI 319: Biological Literature
Major in Biology with a concentration in Environmental Science [BIO/ENVS]

This major provides a focused exposure to environmentally related areas of biology.

**CAREER POTENTIAL**
- Environmental consultant
- Conservation biologist
- Fish and wildlife biologist
- Ecologist

A. Biology Courses: 36 credit hours
- BIO 201: Biological Sciences I
- BIO 202: Biological Sciences II
- BIO 210: Cellular Biology
- BIO 310: Field Biology
- BIO 312: Genetics
- BIO 319: Biological Literature
- BIO 412: General Ecology

Biology Elective Courses

B. Related Science and Math Courses: 33 credit hours
- CHE 221: General Chemistry I
- CHE 222: General Chemistry II
- CHE 301: Organic Chemistry I
- GLY 261: Physical Geology
- GLY 410: Hydrogeology
- MAT 121: Calculus A
- MAT 122: Calculus B
- MAT 201: Statistical Methods
- MAT 201: Statistical Methods or
- GLY 281: Data Analysis in Natural Science
- PHY 105: Elementary Mechanics and Heat
- PHY 106: Elementary Electricity, Light and Sound
- PHY 201: Principles of Physics I
- PHY 202: Principles of Physics II

C. Environmental Courses: 12 or 13 credit hours
- EST 100: Introduction to Environmental Studies*
- ENS 486: Seminar in Environmental Science
- ENS 487: Environmental Science Internship

And one course from the following:
- GLY 292: Land Use and Planning
- GLY 367: Geomorphology
- GLY 396: Aqueous Geochemistry
- GRY 327: Computer Mapping
- GRY 328: Geographic Information Systems

* A student entering the program in the sophomore year or later may apply to the department chair for an exemption from EST 100, based on a comparable course or courses the student has taken or will take.

D. Additional Requirements for the B.A. Degree: 42-43 credit hours
- Composition and General Education Courses: 27 credit hours
- Foreign Language Courses: 0-13 credit hours
- Free Elective Courses: 2-16 credit hours

E. Additional Requirements for the B.S. Degree: 42-43 credit hours
- Composition and General Education Courses: 27 credit hours
- Foreign Language Courses: 0-7 credit hours
- Free Elective Courses: 8-16 credit hours

Note: It is highly recommended that students in the environmental science concentration take or become proficient in public speaking, computer applications and computer graphics.

**TOTAL CREDIT HOURS REQUIRED FOR GRADUATION:** 124
Minor in Biology [BIO]
- BIO 110: Principles of Biology I and
- BIO 111: Principles of Biology II or
- BIO 201: Biological Sciences I and
- BIO 202: Biological Sciences II
- BIO 306: Human Genetics or
- BIO 312: Genetics

A biology course at the BIO 210 level or above of at least three credit hours that is open to biology majors for major credit

Additional biology courses to reach a total of 21 credit hours

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 21

Cooperative Programs

2+2 Cooperative Program with the SUNY College of Environmental Science and Forestry [ESF]
This program leads to the award of the bachelor's degree from the SUNY College of Environmental Science and Forestry. Possible areas of study include environmental studies, environmental and forest biology, forest engineering, landscape architecture, paper science and wood products engineering. Students spend the first two years of this program at SUNY Cortland and the remaining years at the SUNY College of Environmental Science and Forestry, from which they receive the degree.

2+2 Cooperative Program in Cytotechnology or Medical Technology with the SUNY Upstate Medical University
This program leads to the award of the bachelor's degree in cytotechnology or in medical technology from the SUNY Upstate Medical University. A student spends the first two years of this program at SUNY Cortland and the final two years at the SUNY Upstate Medical University.

3+2 Cooperative Program in Forestry or Environmental Management with Duke University [BS_BIO]
This program leads to the award of the B.S. degree in biology from SUNY Cortland and the master of forestry or master of environmental management degree from Duke University. A student spends the first three years of this program at SUNY Cortland and the final two years at Duke University.

Cooperative Program with the New York Chiropractic College
This program leads to the award of the B.S. degree in biology from SUNY Cortland and the doctor of chiropractic degree from the New York Chiropractic College. A student spends the first three years of this program at SUNY Cortland and the remaining years at the New York Chiropractic College. After completing one year at the New York Chiropractic College, the student is awarded a B.S. degree in biology from SUNY Cortland.

Example of the undergraduate degree in Biology (B.S.) over four years

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<tr>
<th>First Year</th>
<th>Second Year</th>
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<tr>
<td><strong>Fall</strong></td>
<td><strong>Fall</strong></td>
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<td>BIO 201</td>
<td>BIO 210</td>
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<td>CHE 221</td>
<td>CHE 301</td>
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<td>CHE 224</td>
<td>GLY 281</td>
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<td>CPN 100</td>
<td>GE course</td>
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<td>Foreign language or GE</td>
<td>GE course or free elective</td>
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<tr>
<td><strong>Spring</strong></td>
<td><strong>Spring</strong></td>
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<td>BIO 202</td>
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<td>CHE 222</td>
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<td>CHE 225</td>
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<td>Foreign language or GE</td>
<td>GE course or free elective</td>
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<tr>
<th>Third Year</th>
<th>Fourth Year</th>
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<tr>
<td><strong>Fall</strong></td>
<td><strong>Fall</strong></td>
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<td>BIO 319</td>
<td>BIO 412</td>
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<tr>
<td>PHY 105</td>
<td>Biology elective</td>
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<td>Science or math elective</td>
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<td>PHY 106</td>
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<tr>
<td>Science or math elective</td>
<td>Free elective</td>
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<tr>
<td>GE course</td>
<td>Free elective</td>
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</tbody>
</table>

* GE = General Education course
BIO 102: Ecology and the Human Environment
(O) Biological, physical principles regulating human interaction with environment. Not open to biology majors or those having credit for BIO 405 or 412. Three lectures. (3 cr. hr.) ■

BIO 110: Principles of Biology I
(F) Origin, evolution and diversity of life; molecular, cellular and genetic basis of life, with emphasis on scientific method. Not open to those having credit for BIO 201 or 202 (or equivalent) or to biology majors. Three lectures, one two-hour laboratory. (4 cr. hr.) ■

BIO 111: Principles of Biology II
(S) Physiology and ecological concepts of biology as related to higher animals and plants. Not open to those having college credit for BIO 201 and 202 (or equivalent) or to biology majors. Two lectures, one two-hour laboratory. (3 cr. hr.) ■

BIO 129, 229, 329, 429, 529: Special Topics in Biological Sciences
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

BIO 201: Biological Sciences I
(A) Principles of biology from a botanical perspective, emphasizing structure, function, ecology, and the evolutionary diversity of the moneran, protistan, fungal and plant kingdoms. For biology majors. Not open to students with credit in both BIO 110 and 111. Three lectures, one three-hour laboratory. (4 cr. hr.) ■

BIO 202: Biological Sciences II
(A) Principles of biology from a zoological perspective emphasizing genetics, evolution, animal structure and function, development, and diversity of the animal kingdom. For biology majors. Not open to students with credit in both BIO 110 and 111. Three lectures, one three-hour laboratory. (4 cr. hr.) ■

BIO 205: Methods in Laboratory Biology
(S) Introduction to some basic methods of laboratory biology including microscopy, spectrophotometry, chromatography and cell culture. Emphasis is placed on helping students improve quantitative skills. Not open to students with credit for BIO 210. Two lectures, one three-hour laboratory. (2 cr. hr.) ■

BIO 210: Cellular Biology
(A) Examination of the molecular and biochemical systems central to cellular structures and processes including organelles and some specialized cell types. Three lectures, one three-hour laboratory. Prerequisites: BIO 201-202, CHE 221-222. (4 cr. hr.) ■

BIO 301: Human Anatomy and Physiology I
(F) Structure, function of human body; cells, tissues; skeletal, muscular, nervous systems. Primarily for health, physical education majors. May be applied toward biology major only by dual majors in biology and physical education, biology and health, or biology and athletic training. Two lectures, one two-hour laboratory. Prerequisite: BIO 110-111. (3 cr. hr.) ■

BIO 302: Human Anatomy and Physiology II
(S) Structure, function of human body; urinary, digestive, respiratory, cardiovascular, endocrine, and reproductive systems. Primarily for health, physical education majors. May be applied toward biology major only by dual majors in biology and physical education, biology and health, or biology and athletic training. Two lectures, one two-hour laboratory. Prerequisite: BIO 110-111. (3 cr. hr.) ■

BIO 303: Microbiology and Human Disease
(A) Introduction to microorganisms and microbiological laboratory techniques. Emphasis on roles of microorganisms in disease, mechanisms of immunity. Primarily for students majoring in health; not open to biology majors. Two lectures, one three-hour laboratory, one two-hour laboratory. Prerequisites: BIO 110-111. (4 cr. hr.) ■

BIO 304: Microbiology
(S) Introduction to microorganisms and their laboratory study. Major topics include microbial metabolism, genetics, immunology, medical microbiology, microbial ecology. Three lectures, one three-hour laboratory. Prerequisite: BIO 210. (4 cr. hr.) ■

BIO 305: Histology
(S) Microscopic study of fundamental tissues and organs with emphasis on the human body. Three lectures, one three-hour laboratory. Prerequisite: One year of biology. (4 cr. hr.) ■

BIO 306: Human Genetics
(F) Introduction to inheritance of similarities and differences in humans. Emphasis on genetic causes of diseases and defects. Not open to biology majors. Three lectures. (3 cr. hr.) ■

BIO 307: Field Natural History
(F) Natural history of plants and animals with emphasis on ecosystems of New York State. Collections of flora and fauna required. Two lectures, one three-hour field trip. Not open to biology majors. (3 cr. hr.) ■

BIO 310: Field Biology
(M) Examination of biological diversity and ecology in terrestrial and aquatic communities of New York. The course is taught during August at Cortland’s Outdoor Education Center in Adirondack State Park. Daily and evening classes include field trips, laboratories, and lectures. Students are assessed a fee for room and board. Required of biology majors in programs for secondary science certification and environmental science concentration. Prerequisites: BIO 110-111 or BIO 201-202. (3 cr. hrs.) ■

BIO 312: Genetics
(S) Genetic, cyogenetic, biochemical aspects of inheritance. Three lectures, one three-hour laboratory. To be taken by biology majors before the end of the junior year. Prerequisite: BIO 210. (4 cr. hr.) ■

BIO 313: Taxonomy of Vascular Plants
(F) Identification of vascular plant families, taxonomy history, classification, nomenclature, economic importance, and natural history. Herbarium collection of vascular plants flora required. Two lectures, one three-hour laboratory. Prerequisite: BIO 110-111 or BIO 201. (3 cr. hr.) ■
BIO 315: Marine Biology
(F-C) Living organisms in marine environments; ocean habitats, ecological relationships, utilization. Two lectures, one recitation; one ten-day field trip to the Caribbean in January. Prerequisites: BIO 110-111 or 201-202, consent of instructor (4 cr. hr.) ■

BIO 319: Biological Literature
(F) Techniques in use of library resources resulting in a comprehensive technical bibliography and oral presentation. Recommended before second semester of junior year. (1 cr. hr.) ■

BIO 323: Field Herpetology
(C) Functional ecology, behavior, classification and conservation biology of reptiles and amphibians with emphasis on field investigation of New York species. Involves extensive field work. Prerequisite: one year of biology. (3 cr. hr.) ■

BIO 324: Mammalian Anatomy
(S) Structural organization of mammalian organ systems with emphasis on detailed dissections of the integumentary, skeletal, muscular, respiratory, digestive, urogenital, reproductive, circulatory, endocrine and nervous systems. Not open to students with credit for both BIO 301 and 302. Two three-hour laboratory. Prerequisites: BIO 110 and BIO 111, or BIO 201 and 202. (4 cr. hr.) ■

BIO 401: Invertebrate Zoology
(F-C) Functional morphology, life histories and evolutionary relationships of selected invertebrate phyla. Three lectures, one three-hour laboratory. Prerequisite: BIO 111 or 202. (4 cr. hr.) ■

BIO 402: Biology of Vertebrates
(F-C) Evolution, functional morphology, and behavioral ecology of extant and living vertebrate taxa. Three lectures, one three-hour laboratory. Prerequisite: BIO 111 or 202. (4 cr. hr.) ■

BIO 405: Conservation Biology
(S) Origin and preservation of biotic diversity, including species diversity, genetic variation, and ecosystem variety. Two lectures, one three-hour laboratory/field trip. Prerequisites: BIO 110-111 or 201-202. (3 cr. hr.) ■

BIO 408: Biology of Insects
(S) Ecological, behavioral, and physiological adaptations of insects to their environment. Insect morphology, systematics, and applied entomology. Three lectures. Prerequisites BIO 110-111 or 201-202. (3 cr. hr.) ■

BIO 409: Animal Behavior
(S) External stimuli, hormones, biological rhythms, orientation mechanisms, learning and behavioral ecology as related to maintenance of natural populations. Behavior in the natural context. Two lectures, one three-hour laboratory. Prerequisite: BIO 111 or 202. (3 cr. hr.) ■

BIO 410: Plant Physiology
(O) Physiological studies of plants, including plant hormones, photosynthesis, water, and mineral relations, influence of environmental stimuli, and plants in tissue culture. Two lectures, one three-hour laboratory. Prerequisite: BIO 210. (3 cr. hr.) ■

BIO 411: Ornithology
(S) Behavior, environmental relationships, classification and identification of birds, especially those of Central New York. Early morning field trips. Two lectures, one three-hour laboratory. Prerequisite: BIO 111 or 202. (3 cr. hr.) ■

BIO 412: General Ecology
(F) Interrelations of living organisms and their environment. Investigations of quantitative, qualitative aspects of environments. Three lectures, one three-hour laboratory. Prerequisite: BIO 110-111 or 201-202. (4 cr. hr.) ■

BIO 414: Mammalian Physiology
(F) Functions of mammalian organ systems, including the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, respiratory, digestive, urogenital, and reproductive systems. Not open for biology credit to students having biology major credit for both BIO 301 and BIO 302. Three lectures, one three-hour laboratory. Prerequisite: BIO 210. (4 sem hr.) ■

BIO 415: Radiation Biology
(O) Effects of ionizing radiation on biological systems at molecular, cellular, and organism levels. Two lectures, one three-hour laboratory. Prerequisites: BIO 111 or 201-202; CHE 122 or 222. (3 cr. hr.) ■

BIO 418: Fungi
(F-C) Structure, classification, economic importance, methods of isolating, culturing and identifying the major groups of fungi. Three lectures and one three-hour laboratory. Prerequisite: BIO 201. (4 cr. hr.) ■

BIO 419: Plant Cell and Tissue Culture
(O) Theory, practice of isolation and cloning of plant cells, tissues, protoplasts. One lecture, one three-hour laboratory. Prerequisites: BIO 201, 210. (2 cr. hr.) ■

BIO 420: Plant Morphology
(O) Structure, life histories of vascular and non-vascular plants. Comparative morphology, evolution. Three lectures, one three-hour laboratory. Prerequisite: BIO 110 or 201. (4 cr. hr.) ■

BIO 421: Plant Anatomy
(F-C) Structure of cells, tissues and organs of seed plants. Introduction to microtechniques and methods of preparing plant material for microscopic study. Two lectures, one three-hour laboratory. Prerequisite: BIO 201. (3 cr. hr.) ■

BIO 422: Biological Evolution
(F) Analysis of the mechanisms of organic evolution, with emphasis on the investigative approaches employed in its study. Two two-hour lecture/discussions. Prerequisite: BIO 312 or permission of instructor. (3 cr. hr.) ■

BIO 423: Field Mycology
(C) Emphasis on field and laboratory techniques used in identifying macrofungi (mushrooms, polypores, stinkhorns, coral fungi, jelly fungi, cup fungi, etc.). Skills involving microscopic preparations and interpretation of cells and tissues, microchemical reactions, and tissue sectioning will be developed. Lecture and laboratory topics will cover morphology, taxonomy, ecology, and economic importance of the macro-fungi. Project and paper required. Prerequisites: BIO 110 and BIO 111, or BIO 201 and BIO 202. (3 cr. hr.) ■

BIO 424: Physiological Ecology
(O) Physiological responses and adaptation of organisms to environmental factors. Three lectures per week. Prerequisite: BIO 210. (3 cr. hr.) ■

BIO 425: Developmental Biology
(S) Examination of embryology, molecular aspects of development, differentiation, regeneration and pattern formation. Three lectures, one three-hour laboratory. Prerequisite or corequisite: BIO 210. (4 cr. hr.) ■

BIO 426: Plant Systematics
(O) Processes and mechanisms of variation in plants with emphasis on biochemical evolution, breeding systems, cytology, hybridization, pollination biology and polyploidy. Students will have the opportunity to learn modern laboratory techniques used in plant systematics. Three lectures, one three-hour laboratory. Prerequisites: BIO 110-111 or BIO 201-202. (4 cr. hr.) ■

Course codes: A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter, ■ = LAS
BIO 427: Scientific Photography
(S-C) Develop technical skills and learn basic theory for producing highly resolved images with bright field, phase and differential interference compound light microscopes. Students will learn photographic darkroom techniques, image digitizing, and must prepare poster/oral presentations of projects. One hour lecture, two hours laboratory per week. Prerequisites: BIO 110-111 or BIO 201-202 and permission of instructor. (2 cr. hr.)

BIO 428: Scanning Electron Microscopy
(S-C) Theory and practice of scanning electron microscopy. Training in specimen preparation and use of the scanning electron microscope to produce highly magnified and resolved images of biological samples. Students will also learn photographic darkroom techniques. Project and paper required. Three hours of lectures/demonstrations and three hours of laboratory each week. Prerequisites: BIO 201-202, 210; CHE 221-222; recommended PHY 106 or 202. Permission of instructor. (4 cr. hr.)

BIO 434: Advanced Laboratory Experience
(A) Students serve as assistants in laboratory sections of a biology course. Includes advanced preparation for lab meetings, weekly attendance in the laboratory section while serving as instructional assistant in laboratory activities, and meetings with course instructor. May be taken twice. Not open to secondary education majors. H, S, U grades are assigned. Prerequisite: Grade B or better in the host course and permission of instructor. (1 cr. hr.)

BIO 436: Research Seminar
(S) Literature research and project design under the sponsorship of a faculty member. Fulfills prerequisite for BIO 438. Not open to second-semester seniors. May be substituted for BIO 319 but credit for both not permitted. Prerequisite: Junior biology major or consent of chair. (1 cr. hr.)

BIO 437: Directed Study
(A) Development of technical skills or preliminary investigation of a biological problem. May be taken twice, with different subtitle, for maximum of two credit hours. H, S, U grades are assigned. Prerequisite: Consent of department. (1-2 cr. hr.)

BIO 438: Research in Biology
(A) Investigation, under faculty supervision, terminated by report written in scientific format. Presentation of final results to be made in BIO 436 (Research Seminar). May be repeated for maximum of six credit hours. H, S, U grades are assigned. Prerequisites: BIO 436 or 437. (2-3 cr. hr.)

BIO 439: Special Studies in Biology
(O) Special off-campus studies in biology by individual student. H, S, U grades are assigned. Prerequisite: Consent of department. (1-15 cr. hr.)

BIO 512: Limnology
(F) Aquatic biology covering thermal, physical, chemical attributes of fresh water and their effect on composition of an aquatic ecosystem. Two lectures, one three-hour laboratory. Prerequisites: BIO 110-111 or BIO 201-202, CHE 222. (3 cr. hr.)

BIO 521: Molecular Genetics
(F-C) Modern genetic and molecular biological techniques applied to a study of genes, their structure, function, mutagenesis, and regulation. Three lectures, one three-hour laboratory. Prerequisites: BIO 312; CHE 301. (4 cr. hr.)

Related Education Courses

AED 391: Introduction to Adolescence Education
(A) Students will develop a coherent and comprehensive personal educational philosophy; analyze the role of education and teachers in society; demonstrate an understanding of teacher certification standards and requirements; evaluate teaching, lesson planning and implementation and cooperative skills; and develop a portfolio. The course includes 25 hours of field observation/teaching experience. (3 cr. hrs)

AED 442: Methods I: Teaching the Sciences in the Middle and Secondary Schools
(F) This course begins with an examination of the history and foundations of education, with an emphasis on the history of science education. It then examines disciplinary models and strategies for classroom management. Students will develop tools for measurement and evaluation of performance and achievement for students with diverse abilities and interests. Students will participate in short and long-range lesson planning and curriculum development. Federal and state laws, policies and procedures for dealing with students with disabilities will be examined. Strategies for collaborating with administrators, faculty/staff, parents/guardians, and community members will be discussed. Includes 25 hours of field experience in middle and secondary schools. Prerequisites: PSY 232 and AED 391. (3 cr. hr.)

EDU 393: Student Teaching: Adolescence Education — Science
(A) Full semester of student teaching. Prerequisites: PSY 232 or 332, EDU 423, EDU 443. See major department for eligibility criteria. S, U grades are assigned. (6-14 cr. hr.)

EDU 423: Laboratory Practicum
This course is designed to provide a student with the opportunity to work with an experienced teacher in the planning, preparation, and implementation of laboratory exercises in an introductory, college level lab course. Additionally, students will assist in one-on-one and in small group activities within the laboratory setting. It includes 25 hours of field experience. Corequisite: EDU 443. (1 cr. hr.)

EDU 443: Methods II: Teaching the Sciences in the Middle and Secondary Schools
Students will participate in the development of sample course syllabi, a comprehensive laboratory safety plan, field trip proposal, and strategies for facilitating parental/community involvement. Students will design and implement classroom demonstrations and laboratory exercises. Alignment of lesson plans with state and national learning standards and state core curriculum guides, strategies for motivation of students with diverse needs and learning styles, and development of assessment tools that parallel those of Regents examinations will be emphasized. Students will explore the uses of technology to enhance the teaching-learning environment in the science classroom. The course will conclude with a discussion of the importance of continuing self-evaluation and professional growth and development. Twenty-five hours of field experience in middle and secondary schools. Prerequisite: AED 442. Corequisite: EDU 443. (3 cr. hr.)

EDU 449: Literacy in the Middle and Secondary School
(F) Methods, materials and assessment for fostering literacy at the middle and secondary levels. (3 cr. hr.)
FACULTY
Peter M. Jeffers (Chair), Juliet M. Hahn, M. Gail Phillips, Robert G. Silberman, Charles H. Spink, Arden P. Zipp

PROGRAMS OFFERED
B.A. in Chemistry – 124 total credit hours
B.S. in Chemistry – 124 total credit hours
B.A. in Adolescence Education – Chemistry (Grades 7-12) – 124 total credit hours
B.S. in Adolescence Education – Chemistry (Grades 7-12) – 124 total credit hours

MAJORS OFFERED
Chemistry
Adolescence Education – Chemistry
Chemistry leading to the 3+2 Engineering Program

CONCENTRATION OFFERED
Environmental Science

MINORS OFFERED
Chemistry

DESCRIPTION
Study of chemistry prepares students for laboratory, sales and management positions in industry; for advanced study of chemistry; for teaching careers in chemistry and related sciences. Students use modern chemical instrumentation and are actively involved in research projects. Learning proceeds through a balance of theoretical (classroom) and practical (laboratory) experiences. The program is approved by the American Chemical Society.

SPECIAL FEATURES
• Small classes, personal attention
• Student use of the most modern instruments and methods
• Extensive laboratory experience
• Opportunities to cooperate with faculty in original research
• Excellent record of graduate school placements and fellowships

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to the following majors.
2. Liberal Arts Requirements: B.A. – 90 credit hours; B.S. – 75 credit hours; B.S. (in Adolescence Education) – 60 credit hours.

Major in Chemistry [CHE]
Chemistry majors study inorganic, organic, analytical, physical, and biochemistry, with theoretical and practical laboratory work in all these areas of modern chemical science.
Career potential
• Laboratory technician
• Sales of chemical products and analytical instruments
• Research worker in chemical or medical fields
• With graduate study, high-level industrial and academic positions

A. Required Courses: 38-40 credit hours
CHE 221: General Chemistry I
CHE 222: General Chemistry II
CHE 301: Organic Chemistry I
CHE 302: Organic Chemistry II
CHE 304: Organic Chemistry Laboratory II
CHE 410: Quantitative Analysis
CHE 411: Chemical Instrumentation
CHE 431: Physical Chemistry I
CHE 432: Physical Chemistry II
CHE 470: Advanced Lab * (6 credit hours)
Two electives in chemistry numbered 300 or above
* One credit may be substituted from CHE 442, 453, or 480 with prior departmental approval

B. Other: 17-20 credit hours
MAT 115: Preparation for Calculus
MAT 121: Calculus A
MAT 122: Calculus B
MAT 425: Methods of Applied Mathematics *
or
MAT 125: Calculus I
MAT 126: Calculus II
MAT 227: Calculus III
* Or a math course selected in consultation with advisor

Plus:
PHY 201: Principles of Physics I
PHY 202: Principles of Physics II

Plus:
14-27 credit hours of free electives
B.S. – Foreign Language – 0-7 credit hours

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Adolescence Education – Chemistry (Grades 7-12) [ACH]
This major leads to New York State certification to teach chemistry in grades 7-12.

Students will be accepted to the program after 45 credit hours have been completed. At that time students must have an overall GPA of 2.5 and a GPA of 2.5 in chemistry, related areas and the professional preparation courses.

A. Required Courses: 30 credit hours
CHE 221: General Chemistry I
CHE 222: General Chemistry II
CHE 301: Organic chemistry I
CHE 340: Inorganic Chemistry
CHE 410: Quantitative Analysis
CHE 431: Physical Chemistry I
CHE 470: Advanced Lab (CHE 470-10 and 470-20 plus two elective modules)
Two chemistry electives
B. Related Courses: 28 credit hours
MAT 121: Calculus A
MAT 122: Calculus B
PHY 201: Principles of Physics I
PHY 202: Principles of Physics II
BIO 110-111: Principles of Biology I and II
GLY 261-262: Physical and Historical Geology

C. Required Professional Courses: 38 credit hours
PSY 101: General Psychology
PSY 232: Adolescent Psychology
AED 391: Introduction to Adolescence Education
EDU 423: Laboratory Practicum
AED 442: Methods I: Teaching the Sciences in the Middle and Secondary Schools
EDU 443: Methods II: Teaching the Sciences in the Middle and Secondary Schools
EDU 393: Student Teaching*
HLH 199: Critical School Health Issues
SHH 300 or PSY 350: Language Acquisition
EDU 449: Literacy in the Middle/Secondary Schools

* To be eligible for EDU 393: Student Teaching, a minimum GPA of 2.5 is required overall and in chemistry, related and professional areas.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Chemistry with a concentration in Environmental Science [CHE/ENVS]
This program is designed to familiarize the student with the interdisciplinary nature of environmental problems. In addition to the College's General Education requirement for the bachelor or science or bachelor of arts degree, the following courses are required.

A. Required courses: 50 credit hours
BIO 110-111:* Principles of Biology I and II or BIO 201-202: Biological Sciences I and II
BIO 412: General Ecology
CHE 221-222: General Chemistry I and II
GLY 261: Physical Geology
GLY 367: Geomorphology
GLY 371: Meteorology
GLY 492: Planning and Land Use Topics: Internship
MAT 121-122:** Calculus A and B
PHY 201-202: Principles of Physics I and II
ENS 486: Seminar in Environmental Science

* Biology majors take BIO 201-202
** Physics majors take MAT 125-126

B. Related courses: 6 credit hours
Two courses to be chosen from the following (may also fulfill General Education requirements).
ECO 110: Principles of Macroeconomics
ECO 105: Political Economy and Social Thought
GRY 120: Cultural Geography
GRY 221: Social Geography
POL 100: Introduction to American Government and Politics
SOC 150: Introduction to Sociology

Two courses from the same department are not permitted.
Sufficient complementary courses shall be taken to fulfill the 124-hour graduation requirement.

C. Additional requirements for chemistry majors: 35 credit hours
CHE 301-302: Organic Chemistry I and II
CHE 304: Organic Chemistry Laboratory II
CHE 410: Quantitative Analysis
CHE 411: Chemical Instrumentation
CHE 431: Physical Chemistry I
CHE 470: Advanced Lab
Chemistry Electives
MAT 201: Statistical Methods

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Chemistry leading to the 3 + 2 Engineering Program [CEN]
This program leads to the award of the bachelor of science in chemistry from SUNY Cortland and the bachelor of science in engineering from a cooperating institution — State University College of Ceramics at Alfred University, Binghamton University, State University Center at Buffalo, Case Western Reserve University or Clarkson University.

Requirements for the chemistry major under the program include:
A. Study within the major area:
38 hours in chemistry including CHE 221, 222, 301, 302, 304, 410, 411, 431, 432, 470 (for four credits), 434, and 451 (or 540). Up to nine additional hours of engineering and chemistry courses taken at the cooperating engineering institution in the fourth and fifth years may be used toward meeting American Chemical Society certification requirements.
B. Courses in Related Areas:
Twelve hours in mathematics including MAT 125, 126, 227, and 430; and eight hours in physics including PHY 201 and 202
C. Additional Courses:
Six hours of English composition; 21 hours in General Education
D. Courses at the cooperating engineering institution:
For the additional degree in engineering the student will take courses at the cooperating engineering institution. A maximum 30 hours of courses approved by the cooperating institution will be transferred to Cortland to complete the 124 hours needed for the award of the degree

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Minor in Chemistry [CHE]
A. Required Courses:
CHE 221, 222, and 301 plus sufficient chemistry electives at the 300-level or above to total at least 19 credit hours.

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 19
Example of the undergraduate degree in Chemistry over four years

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<tr>
<th>First Year</th>
<th>Second Year</th>
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<tbody>
<tr>
<td><strong>Fall</strong></td>
<td><strong>Fall</strong></td>
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<tr>
<td>CHE 221</td>
<td>CHE 301</td>
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<td>MAT 125</td>
<td>CHE 340</td>
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<td>CPN 100</td>
<td>CHE 480</td>
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<td>ECO 105</td>
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<td>POL 110</td>
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<td><strong>Spring</strong></td>
<td><strong>Spring</strong></td>
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<td>CHE 222</td>
<td>CHE 302</td>
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<td>MAT 126</td>
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<td>CPN 101</td>
<td>PHY 202</td>
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<td>ANT 102</td>
<td>SCI 320</td>
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<td>ATH 120</td>
<td>MUS 100</td>
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<tr>
<th>Third Year</th>
<th>Fourth Year</th>
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<tr>
<td><strong>Fall</strong></td>
<td><strong>Fall</strong></td>
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<tr>
<td>CHE 431</td>
<td>CHE 470: Adv. Lab 5/6</td>
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<tr>
<td>CHE 410</td>
<td>CHE 340</td>
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<td>CHE 451</td>
<td>CHE 480</td>
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<td>CHE 470: Adv. Lab 1/2</td>
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<td>ATS 103</td>
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<td>CHE 133</td>
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<td><strong>Spring</strong></td>
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<td>CHE 432</td>
<td>CHE 452</td>
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<td>CHE 411</td>
<td>CHE 360</td>
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<td>CHE 470: Adv. Lab 3/4</td>
<td>CHE 480</td>
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<td>ENG 204</td>
<td>BIO 110</td>
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<tr>
<td>PHY 150</td>
<td>CAP 350</td>
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<thead>
<tr>
<th>CHE 221: General Chemistry I</th>
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<tbody>
<tr>
<td>(F) Atomic theory, structure, chemical bonding. Application of thermodynamic, structural and kinetic considerations to inorganic systems. Electrochemistry, quantitative analysis, other current topics. Three lectures, one three-hour laboratory. (4 cr. hr.)</td>
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<tr>
<th>CHE 222: General Chemistry II</th>
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<tr>
<td>(S) Three lectures, one three-hour laboratory. Honors laboratory section available. Prerequisite: CHE 221. (4 cr. hr.)</td>
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<tr>
<th>CHE 224: Problem-Solving in General Chemistry I</th>
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<tbody>
<tr>
<td>Methods of solving problems in general chemistry: stoichiometry, atomic and molecular structure, bonding. Corequisite: CHE 221. S, U grading. Cannot be applied toward chemistry minor. (1 cr. hr.)</td>
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<table>
<thead>
<tr>
<th>CHE 225: Problem-Solving in General Chemistry II</th>
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<tbody>
<tr>
<td>Methods of solving problems in general chemistry: thermodynamics, kinetics, chemical equilibrium. Corequisite: CHE 222. S, U grading. Cannot be applied toward chemistry minor. (1 cr. hr.)</td>
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<tr>
<th>CHE 301: Organic Chemistry I</th>
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<tr>
<td>(F) Organic compounds, their structure, properties, relationships, synthesis and uses. Three lectures, one three-hour laboratory. Prerequisite: One year of general chemistry. (4 cr. hr.)</td>
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<tr>
<th>CHE 302: Organic Chemistry II</th>
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<tr>
<td>(S) Three lectures. Prerequisite: CHE 301. (3 cr. hr.)</td>
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<tr>
<th>CHE 340: Inorganic Chemistry</th>
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<tbody>
<tr>
<td>(S) Structures and reactivities of elements and compounds emphasizing modern theories of bonding and periodicity. Prerequisite: CHE 221-222. (3 cr. hr.)</td>
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<tr>
<th>CHE 360: Introductory Radiochemistry</th>
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<tr>
<td>(O) Radioactivity, interactions with matter, detection, characterization and application of radioisotope techniques in study of physical and biological systems. Two lectures, one three-hour laboratory. Prerequisite: CHE 222. (3 cr. hr.)</td>
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<th>CHE 410: Quantitative Analysis</th>
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<tr>
<td>(F) Theory, methodology of modern chemical analysis. Volumetric, electrochemical and spectrophotometric methods. Three lectures. Prerequisite: CHE 222. (3 cr. hr.)</td>
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<tr>
<th>CHE 411: Chemical Instrumentation</th>
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<tbody>
<tr>
<td>(S) Theory of instrumental design. Application to a variety of spectrophotometric techniques in chemistry. Three lectures. Prerequisite: Concurrent with, or after CHE 431. (3 cr. hr.)</td>
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</tbody>
</table>
CHE 434: Engineering Thermodynamics
(S) Fundamentals of classical thermodynamics from engineering perspective. Properties of pure substances and use of thermodynamic tables; control volume analysis; heat engines and refrigerators. Prerequisite: CHE 431. (3 cr. hr.) ■

CHE 442: Advance Preparations
(A) Synthesis problems and techniques in organic and inorganic chemistry. Preparation may involve glassblowing and other specialized techniques. Not allowed for General Education science credit or minor in chemistry. Prerequisite: Consent of department. (1-3 cr. hr.) ■

CHE 451: Introductory Biochemistry I
(F) Compounds, reactions of biological importance, amino acids, nucleic acids, proteins, lipids, carbohydrates, vitamins, enzyme systems, digestion, absorption and pathways of intermediary metabolism. Three lectures. Prerequisite: One semester of organic chemistry. (3 cr. hr.) ■

CHE 452: Introductory Biochemistry II
(O) Three lectures. Prerequisite: CHE 451. (3 cr. hr.) ■

CHE 453: Introductory Biochemistry Lab II
(O) Laboratory practice with biochemical substances and experiments illustrating chemical reactions which may occur in biological systems. Concurrent with, or after, CHE 451. (1 cr. hr.)■

CHE 470: Advanced Lab
(A) Laboratory work in 1) analysis; 2) equilibrium; 3) thermodynamics; 4) kinetics; 5) spectroscopy; and other areas. Offered each quarter. Two three-hour labs. May be taken eight times as subject change. Prerequisite: Consent of department. Modules 1 and 2 offered in fall; 3, 4 and 5 offered in spring. (1 cr. hr.) ■

CHE 480: Independent Research
(A) Limited to qualified upperclassmen. May be taken for total of six credits. Prerequisite: Consent of department. (1-3 cr. hr.) ■

CHE 499: Chemistry Tutoring
(A) Tutoring lower-level chemistry students taking courses using personalized instruction method (Keller Plan). Students act as tutors for four-and-a-half hours a week, attend half hour discussions a week. May be taken up to three times for maximum of three credit hours provided a different course is tutored each time. Not applicable to chemistry minor. Prerequisites: B average in chemistry courses; consent of instructor. H, S, U grades are assigned. (1 cr. hr.) ■

CHE 500: Advanced Organic Chemistry
(O) Reaction mechanisms, physical organic chemistry and theoretical concepts in organic chemistry; recent developments. Prerequisites: CHE 302. (3 cr. hr.) ■

CHE 531: Physical Chemistry I
(F) Kinetic theory of gases, thermodynamics, introductory quantum chemistry, chemical bonding, Molecular spectroscopy. Prerequisites: CHE 222, MAT 126, and PHY 202. (Also listed as PHY 531). (3 cr. hr.) ■

CHE 532: Physical Chemistry II
(S) Chemical kinetics, solid and liquid states, phase equilibria, properties of solutions and surface chemistry. Prerequisite: CHE 531. (Also listed as PHY 532). (3 cr. hr.) ■

CHE 540: Advanced Inorganic Chemistry
(F) Periodic relationships occurring among elements and their compounds. Current theories of atomic structure, bonding, acid-base behavior and coordination. Prerequisite: CHE 431. (3 cr. hr.) ■

Related Education Courses

AED 391: Introduction to Adolescence Education
(A) Students will develop a coherent and comprehensive personal educational philosophy; analyze the role of education and teachers in society; demonstrate an understanding of teacher certification standards and requirements; evaluate teaching, lesson planning and implementation and cooperative skills; and develop a portfolio. The course includes 25 hours of field observation/teaching experience. (3 cr. hr.)

AED 442: Methods I: Teaching the Sciences in the Middle and Secondary Schools
(F) This course begins with an examination of the history and foundations of education, with an emphasis on the history of science education. It then examines disciplinary models and strategies for classroom management. Students will develop tools for measurement and evaluation of performance and achievement for students with diverse abilities and interests. Students will participate in short and long-range lesson planning and curricular development. Federal and state laws, policies and procedures for dealing with students with disabilities will be examined. Strategies for collaborating with administrators, faculty/staff, parents/guardians, and community members will be discussed. Includes 25 hours of field experience in middle and secondary schools. Prerequisites: PSY 232 and EDU 439. (3 cr. hr.)

EDU 423: Laboratory Practicum
This course is designed to provide a student with the opportunity to work with an experienced teacher in the planning, preparation, and implementation of laboratory exercises in an introductory, college level lab course. Additionally, students will assist in one-on-one and in small group activities within the laboratory setting. It includes 25 hours of field experience. Corequisite: EDU 443. (1 cr. hr.)

EDU 443: Methods II: Teaching the Sciences in the Middle and Secondary Schools
Students will participate in the development of sample course syllabi, a comprehensive laboratory safety plan, field trip proposal, and strategies for facilitating parental/community involvement. Students will design and implement classroom demonstrations and laboratory exercises. Alignment of lesson plans with state and national learning standards and state core curriculum guides, strategies for motivation of students with diverse needs and learning styles, and development of assessment tools that parallel those of Regents examinations will be emphasized. Students will explore the uses of technology to enhance the teaching-learning environment in the science classroom. The course will conclude with a discussion of the importance of continuing self-evaluation and professional growth and development. Twenty-five hours of field experience in middle and secondary schools. WI. Prerequisite: AED 442. Corequisite: EDU 423. (3 cr. hr.)

EDU 444: Literacy in the Middle and Secondary School
(F) Methods, materials and assessment for fostering literacy at the middle and secondary levels. (3 cr. hr.)
MINORS OFFERED
Cinema Study — 18 credit hours

DESCRIPTION
The “non-production” interdisciplinary minor in cinema study is designed for those who are studying film from the point of view of criticism, history and appreciation instead of as a trade to be learned. Courses are taught by members of the Art and Art History, Communication Studies, English, Geography, International Communications and Culture (ICC), History, Performing Arts, Philosophy, Political Science and Psychology Departments. The minor is coordinated through the Communication Studies Department.

SPECIAL FEATURES
• Internships
• Independent study – such as, filmmaking with video cameras
• Editing

Minor in Cinema Study [CIN]
At least 18 hours in cinema study courses including CIN 101 and CIN 102.
TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 18

CIN 101: History of the Cinema I: The Silent Era
(F-C) Evolution of the motion picture from early beginnings to the 1930s. Film concepts, film appreciation. Study of representative films from the U.S. and abroad. (3 cr. hr.) ■

CIN 102: History of the Cinema II: The Sound Era
(S-C) History of film from early 1940s to present. Filmmaker as artist, humanist. Emphasis on great international directors. (3 cr. hr.) ■

CIN 129, 229, 329, 429: Special Topics in Cinema Studies
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

CIN 210: Racial and Gender Role Stereotypes
(A) Focus on racial and gender role awareness and attitudes in individuals. Prejudice and discrimination against ethnic minorities and women are examined, from both historical and contemporary perspectives. Also, the causes and consequences of prejudice and discrimination are discussed. (Also listed as PSY 210) (3 cr. hr.) ■

CIN 225: Aesthetics and Film
(O) Theoretical issues surrounding film, including: the nature of film and judgments about film; comparison of film theories and theories of film criticism; genres. Prerequisite: three hours of philosophy. (Also listed as PHI 225) (3 cr. hr.) ■

CIN 251: History and Film
(B) Use of films as historical sources and/or statements of historical work. May be repeated with different subtitle: Twentieth Century England, Twentieth Century France, Twentieth Century Germany, The U.S. in the Thirties, The Medieval World Reconstructed, Russian History and Film. (Also listed as HIS 351) (3 cr. hr.) ■

CIN 260: Geography and Film
(O) Select problems in cultural geography as exhibited through film. May be repeated with different subtitle: Social Geography of England, Comparative Cultural Geographies — India and Brazil, Race Issues in Southern Africa. (Also listed as GRY 260.) (3 cr. hr.)

CIN 270: The Sports Film
(O) Film and sport in a symbiotic relationship: film will be taught in light of sport and sport in light of film. Films used will be instructional, documentary and feature. (3 cr. hr.) ■

CIN 278: Introduction to Film and Short Fiction
(O) Introduction to analysis, interpretation of films and short fiction through study of selected short stories, novelettes, film scripts, films. (Also listed as ENG 278.) (3 cr. hr.) ■

CIN 304: Introduction to Play and Script Writing
(O) Practical and theoretical instruction in basics of play and script writing. (Also listed as ENG 304.) (3 cr. hr.)

CIN 305: Film Criticism
(O) Close study of a number of selected films, domestic and foreign, from aesthetic, technical perspectives. Extensive writing of reviews, critiques aimed at different media. High level of writing proficiency expected. Prerequisites: CPN 101, consent of instructor. (Also listed as ENG 305.) (3 cr. hr.) ■

CIN 335: Music and the Film
(O) Style, historical significance, contributions of selected film composers through a study of their musical techniques and viewing of representative films. Relationship of music to dramatic and psychological elements of film. Prerequisite: MUS 100 or 221 or 222. (Also listed as MUS 335.) (3 cr. hr.) ■

CIN 374: Politics and the Arts Film
(O) Interpretations, analysis of political life rendered by major films and directors; relation between politics and culture. (Also listed as POL 329; credit for cinema is applicable only when the topic is film). (3 cr. hr.) ■
Communication Studies

FACULTY
David A. Hollenback (Chair), John C. Hartsock, Samuel L. Kelley, Kathleen A. Lawrence, Thomas O. Mwanika, Syed H. Pasha

PROGRAMS OFFERED
B.A. in Communication Studies – 124 total credit hours

MAJORS OFFERED
Communication Studies

MINORS OFFERED
Communication Studies

DESCRIPTION
The communication studies major focuses on the scholarly analysis and application of human communication in all its phases. It prepares students for careers as communication specialists in the public or private sector and in the mass media. Communication studies majors receive a bachelor of arts degree from a balanced program emphasizing theory, analysis, writing, and practical application through campus media and an extensive internship program. Significant study abroad work is available through the University of North London. Cortland communication studies graduates have careers in business, government, journalism, radio-television, electronic communication, advertising, public relations, and other areas.

SPECIAL FEATURES
- Internships
- WSUC-FM
- Dragon Chronicle
- Cortland County Chamber of Commerce Speech Contest
- Society of Professional Journalists (SPJ) Sigma Delta Chi

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to the following major.
2. Liberal Arts Requirements – 90 credit hours

Major in Communication Studies [COM]
A broad-based, balanced, and flexible curriculum offering a background in theory, analysis, writing, and practical application through classwork, campus media, internship and international study opportunities.

CAREER POTENTIAL
- Television/radio/journalism
- Government/business
- Public relations/advertising
- Electronic communication

A. Required Core Courses: 24 credit hours

- COM 100: Human Communication
- COM 200: Communication History
- COM 201: Writing for Radio and Television or COM 202: News Writing and Reporting
- COM 300: Interpersonal Communication
- COM 302: Intercultural Communication or COM 303: International Communication
- COM 400: Communication Law and Ethics

B. Module Courses: 9 credit hours
(One course from each of the following modules)

Module 1: Message Strategies – 3 credit hours from:
- COM 210: Fundamentals of Public Speaking
- COM 211: Introduction to Language Study
- COM 310: Feature and Opinion Writing
- COM 311: Interviewing Principles and Practices
- COM 340: Small Group Communication
- COM 345: News Editing and Design
- COM 410: Communication in Social Change

Module 2: Communication Institutions – 3 credit hours from:
- COM 320: Organizational Communication
- COM 338: Media and Politics
- COM 420: Broadcast Programming and Management
- COM 421: Mass Media Advertising
- COM 422: Public Relations

Module 3: Analysis and Criticism – 3 credit hours from:
- COM 212: General Semantics
- COM 230: Statistical Methods
- COM 330: Semiotics and Structuralism in Communication
- COM 331: Issues in News
- COM 430: Media Criticism
- COM 431: Communication and Prejudice

Course codes: A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter, ■ = LAS
COM 432: African Americans in Television and Film
COM 433: Literary Journalism
COM 434: Gender Communication
COM 442: Rhetorical Criticism

NOTE: Additional courses in any module may be taken and counted as an elective.

C. Elective Courses: 3 credit hours from:
COM 240: Parliamentary Procedure
COM 241: Argumentation and Debate
COM 242: Audio Production
COM 243: Studio Television Production
COM 341: Nonverbal Communication
COM 342: Field Television Production
COM 343: Broadcast Journalism
COM 344: Photojournalism
COM 346: Advanced News Reporting
COM 441: Persuasion
COM 443: Rhetorical Theory
COM 444: Advanced Interpersonal Communication
COM 498: Senior Seminar
COM 229/329/429: Special Topics in Communication Studies

NOTE: Electives may be chosen from any of the above courses or from the list of Module courses. Special Topics vary from semester to semester.

D. Variable Credit Courses: Optional

NOTE: Fulfills the departmental elective requirement if they are taken for three hours of credit or more:
COM 398: Independent Study in Communication
COM 399: Internship in Communication Studies
COM 499: Senior Thesis
COM 590: Advanced Independent Study in Communication Studies

E. Participation Courses: Optional. One credit hour.

Courses cannot be used to fulfill the departmental elective requirement, but participation is strongly encouraged. Cannot exceed eight credit hours.

COM 390: Participation in Student Newspaper
COM 391: Participation in Yearbook
COM 392: Participation in Literary Magazine
COM 393: Participation in Television
COM 394: Participation in Radio
COM 395: Participation in Debate
COM 396: Participation in Individual Forensic Events

NOTE: No more than 18 transfer semester credit hours in communication may count toward the minor in communication studies.

No more than 45 COM hours (including transfer credit) can be counted toward graduation.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Minor in Communication Studies [COM]
Students in any major other than communication studies may declare a minor in communication studies. A total of 21 semester hours of course work is required for the minor in communication studies distributed as follows:
A. COM 100: Human Communication
B. Any three courses in remaining major core courses
C. Two courses from any two major modules
D. One three-hour COM course

NOTE: Transfer credit – No more than nine transfer semester credit hours in communication may count toward the minor in communication studies.

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 21

Example of the undergraduate degree in Communication Studies over four years

The sample program listed below is given as a model only. Students should consult an advisor to obtain up-to-date program requirements and to formulate a degree plan.

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<tr>
<th>First Year</th>
<th>Second Year</th>
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<td><strong>Fall</strong></td>
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<td>GE 6 (WI)</td>
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<td>GE 4</td>
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<td>GE 7</td>
<td>Internship or Study Abroad</td>
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<td>COM Module #2</td>
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<td>One-hour participation course</td>
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TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 21
Communication Studies

COURSE DESCRIPTIONS

COM 100: Human Communication
(A) An introduction to basic communication concepts, principles and practices; consideration of theories and models, language, perception, audiences, messages, technologies, mass media, persuasion, and intercultural communication with practical application in various contexts. (3 cr. hr.) ■

COM 129, 229, 329, 429, 529: Special Topics in Communication Studies
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.) ■

COM 200: Communication History
(A) Survey of the mass media from an historical perspective, with an emphasis on the social, political and economic environments in which those media developed. (3 cr. hr.) ■

COM 201: Writing for Radio and Television
(B) Traditional, non-traditional features, feature interviews, writing news (for print and broadcast) features, entertainment, writing for communication contexts. Basic skills exercises in principles, basic research and reporting, basic editing skills and news writing. Focus on basic writing skills, news values and news analysis. Prerequisite: CPN 101. (3 cr. hr.) ■

COM 202: News Writing and Reporting
(B) Basic course covering techniques for print and broadcast news writing. Focus on basic writing skills, news values and principles, basic research and reporting, basic editing skills and news analysis. Prerequisite: CPN 101. (3 cr. hr.) ■

COM 203: Introduction to Media Writing
(A) Introduction to theories, techniques, and formats used in writing for communication contexts. Basic skills exercises in writing news (for print and broadcast) features, entertainment, public relations, media, and research. Prerequisites: CPN 101, COM 100. (3 cr. hr.) ■

COM 210: Fundamentals of Public Speaking
(A) Oral communication: selection, organization, presentation of ideas. Study of principles, application through oral practice. (3 cr. hr.) ■

COM 211: Introduction to Language Study
(B) Concepts, scope, methodology of science of language. Principles of descriptive and historical linguistics. Geographical, historical, social dialects of English. (Also listed as ENG 201 and ANT 251.) (3 cr. hr.) ■

COM 212: General Semantics
(B) Problems in use of words in communication and interpreting meaning. Analysis of semantic breakdowns which lead to misunderstanding and conflict. Prerequisites: COM 100. (3 cr. hr.) ■

COM 230: Statistical Methods
(A) Basic concepts of probability, descriptive and inferential statistics including central tendency, variability, correlation, regression, parametric tests. Mathematics majors may take course only as a free elective. (Also listed as MAT/PSY 201; ECO 221.) (3 cr. hr.) ■

COM 240: Parliamentary Procedure
(O) Theory, practice of handling all categories of motions in conducting meetings. (3 cr. hr.)

COM 241: Argumentation and Debate
(B) Techniques of evidence and reasoning; application through use in various forms of debate. Not open to students having credit for PHI 110. Prerequisite: COM 210. (3 cr. hr.)

COM 242: Audio Production
(B) Fundamentals in studio operations and procedures; development, production of radio commercials, public service announcements, drama, interviews, news reporting and actualities. One lecture, one three-hour laboratory. Prerequisite: COM 100, consent of department. (3 cr. hr.) ■

COM 243: Studio Television Production
(B) Basic techniques in studio operations and procedures; development, production of television programs. One lecture, one three-hour laboratory. Prerequisite: COM 100, consent of department. (3 cr. hr.) ■

COM 300: Interpersonal Communication
(A) Application of communication principles and concepts to two-person and small group situations; discussion of processes in relational development and disintegration; skills for improving interpersonal relationships, self-awareness, assertiveness, listening, and value clarification are included. Prerequisite: COM 100. (3 cr. hr.) ■

COM 301: Mass Media and Society
(A) Mass communication in United States; organization, role, content, effects; emphasis on radio, television. Prerequisite: COM 100. (3 cr. hr.) ■

COM 302: Intercultural Communication
(B) Analysis of relationship between culture and communication and its relative influence on perception, information processing and behavior. Emphasis is on systems of signification and their relative social issues, and considerations for practical applications in international business, politics, negotiations, missionary work, small group activities and planned social change. Prerequisite: COM 100. (3 cr. hr.) ■

COM 303: International Communication
(B) Designed to provide an analysis and understanding of communication and related issues in today’s complex world both within and across national and cultural boundaries. Prerequisite: COM 100. (3 cr. hr.) ■

COM 304: Communication Research
(A) Introduction to behavioral science research methods in communication study. Topics include problem formulation; measurement; hypothesis testing; design; sampling; questionnaire construction and interviewing; data collection, analysis and presentation. (3 cr. hr.) ■

COM 310: Feature and Opinion Writing
(B) Traditional, non-traditional features, feature interviews, background features, editorials, columns, reviews. Prerequisite: CPN 101. (3 cr. hr.) ■

COM 311: Interviewing Principles and Practices
(B) Analysis of principles, techniques of interviewing in various contexts including selection, appraisal and persuasive interviews. Emphasis is on communication between two people. Includes
assessment of interviewing preparation, questioning techniques, post interview evaluation, and bases of interpersonal communication of special significance within this context. Prerequisite: COM 100. (3 cr. hr.) ■

COM 312: Television and Radio Performance
(C) A practical introduction to the various modes of media performance. Students work on voice, articulation and style through an array of exercises. (3 cr. hr.) ■

COM 320: Organizational Communication
(S) Study and application of fundamental concepts and principles of communication in formal organizations. Provides opportunities for developing essential skills in methods for understanding and analyzing communication problems in organizations and devising appropriate corrective actions. Emphasis is on making communication more efficient and effective for organization growth and development. Prerequisite: COM 100. (3 cr. hr.) ■

COM 322: Intermediate Writing for Radio and Television
(A) An intermediate-level course designed to build on the content of COM 203 and offer students extended experience in preparing longer format scripts for radio and television as well as in-depth research reports for documentaries and advertising campaigns. Students will gain practical knowledge of script preparation and useful information about the business of writing for the media. Prerequisite: COM 203. (3 cr. hr.)

COM 323: Intermediate News Writing and Reporting
Intermediate level course reinforcing techniques utilized in print news reporting. Focus on polishing writing skills, and honing application of news values and principles, research and reporting, editing skills, and news analysis. Prerequisite: COM 203. (3 cr. hr.)

COM 330: Semiotics and Structuralism in Communication
(S) Application of linguistic concepts and principles to analysis of meanings and messages which underlie various systems of signs and symbols. Consideration of communicative nature of those systems and type of relationships which they define. Prerequisite: COM 100. (3 cr. hr.) ■

COM 331: Issues in News
(A) Critical view of television news and procedures. Systems and policies at network and local station level. Prerequisite: COM 100. (3 cr. hr.)

COM 332: Readings in Journalism
(F) Students will critically read contemporary journalism to examine professional methodologies and cultural contexts that help to shape such texts. Prerequisites: CPN 101, COM 100. (3 cr. hr.)

COM 333: Critical and Cultural Analysis in Communication Studies
(F) Examine critical positions that have emerged in recent years to redefine communication studies. Emphasizes rigorous thinking in challenging cultural and critical assumptions in the field. Prerequisites: CPN 101, COM 100. (3 cr. hr.)

COM 338: Media and Politics
(O) Focus on political interactions of electronic and print media with political system in America and elsewhere. How medium affects the message, via sender and receiver. (Also listed as POL 338.) (3 cr. hr.) ■

COM 339: Political Communication
(G) Use of communication theory and research to investigate the role of interpersonal and mass communication in the political process. Prerequisites: COM 100, POL 100. (3 cr. hr.)

COM 340: Small Group Communication
(B) Study and application of communication theory, concepts, and principles in small group contexts including committees, classroom, families, formal organizations and public forums. Analysis of messages, communication barriers and breakdowns, interpersonal communication processes and influences, communication networks and group development, composition, standards and goals. Emphasis is on making communication more efficient and effective in small group activities. Prerequisite: COM 100. (3 cr. hr.) ■

COM 341: Nonverbal Communication
(C) Analysis of theories and empirical research on nonverbal communication with implications for application. Topics include paralinguistics, proxemics, kinesics, chronemics, and semantics and their use in various interpersonal and intercultural contexts. Prerequisite: COM 100. (3 cr. hr.) ■

COM 342: Field Television Production
(B) Advanced techniques in television production emphasizing field operations, directing, writing, and producing news and public affairs programs. One lecture, one three-hour laboratory. Prerequisite: COM 100. (3 cr. hr.)

COM 343: Broadcast Journalism
(A) Theories, principles of television journalism; practical experience in writing, producing news programs for television. Two lectures, one three-hour studio. Prerequisites: CPN 100, consent of department. (3 cr. hr.)

COM 344: Photojournalism
(A) Techniques of journalistic photography; camera work, composition, lighting, use of photographic materials. Critical examination of work of contemporary photographers; production and critique of student work. Two lectures, two-hour studio. Prerequisite: Consent of department. (3 cr. hr.)

COM 345: News Editing and Design
(B) Basic skills in professional news package preparation combining expertise in writing and editing with an understanding of computer-assisted graphic design. (3 cr. hr.) ■

COM 346: Advanced News Reporting
(B) Techniques, principles of news reporting with emphasis on varieties of news reporting, writing, editing. Covers investigative, background, interpretive news writing for various print media. Some coverage of broadcast writing principles. Prerequisite: COM 202. (3 cr. hr.) ■

COM 360: Sports Broadcasting
(G) Introduction to the history, techniques, and practice of sports broadcasting. Program analysis and field exercises in both radio and television coverage. Prerequisite: COM 100. (3 cr. hr.)

COM 390: Participation in Student Newspaper
(A) Participation in management board of student weekly newspaper, The Dragon Chronicle. Elective credit only. S, U grading only. Prerequisite: Consent of department. (1 cr. hr.)

COM 391: Participation in Yearbook
(A) Participation in yearly production of the student yearbook, Didascalion. Open only to editor(s) and section editors. For elective credit only. S, U grading only. Prerequisite: Consent of department. (1 cr. hr.)

COM 392: Participation in Literary Magazine
(A) Participation in production of Transition, the student literary magazine. Open only to editor(s). For elective credit only. S, U grading only. Prerequisite: Consent of department. (1 cr. hr.)

COM 393: Participation in Television
(A) Participation in the College television station, CSTV. For elective credit only. Prerequisite: Consent of department. S, U grading. (1 cr. hr.)
COM 394: Participation in Radio
(A) Participation in the College radio station, WSUC-FM. For elective credit only. Prerequisite: Consent of department. S, U grading only. (1 cr. hr.)

COM 395: Participation in Debate
(A) Participation in intercollegiate debate. For elective credit only. S, U grading only. Prerequisite: Consent of department. (2 cr. hr.)

COM 396: Participation in Individual Forensic Events
(A) Participation in intercollegiate oratory, extemporaneous events, after-dinner speaking, other events. For elective credit only. S, U grading only. Prerequisite: Consent of department. (1 cr. hr.)

COM 398: Independent Study in Communication
(O) Faculty-supervised individual study of a specific topic in any communication area. Designed for students wishing to acquire specific knowledge and/or technical skills not offered in other courses in communication studies. May be taken more than once for a maximum of six hours. S, U grading available. Prerequisites: COM 100, junior standing, consent of department. (1-6 cr. hr.)

COM 399: Internship in Communication Studies
(A) Supervised on-the-job training experiences combined with appropriate readings, writing, and seminar sessions. A portfolio in the area of major concentration is expected. Prerequisites: COM 100, junior standing, consent of department. S, U grading. (1-3 cr. hr.)

COM 400: Communication Law and Ethics
(A) Case approach to libel, privacy, news gathering, freedom of information and other legal topics: treatment of ethical concerns for current media. Prerequisites: COM 301. (3 cr. hr.)

COM 410: Communication in Social Change
(B) Application of communication principles and analysis of research traditions underlying diffusion of ideas, information, and parameters in acceptance of innovations and change. Emphasis is on strategies for introduction of change through the use of communication in rural, urban, and formal organizational settings. Prerequisite: COM 100. (3 cr. hr.)

COM 412: Computer-Assisted Reporting
(F) Application of specialized journalism skills in professional preparation of news and feature stories utilizing electronic sources. Prerequisites: CAP 100 or CAP 110/111, COM 100. (3 cr. hr.)

COM 420: Broadcast Programming and Management
(F) Survey of organizational structure of broadcasting stations, including responsibilities of various departments. Analysis of management decision-making process with emphasis on program policies, sales, personnel administration, government regulations. Prerequisite: COM 200. (3 cr. hr.)

COM 421: Mass Media Advertising
(S) Survey of advertising in broadcasting and print media with attention to history and government regulations. Analysis of advertising theories, issues, problems, effects. Prerequisite: COM 301. (3 cr. hr.)

COM 422: Public Relations
(B) Survey of principles and practices of public relations with an emphasis on applied research and practical application. Analysis of theories, issues, problems, and effects. Prerequisite: COM 100. (3 cr. hr.)

COM 430: Media Criticism
(B) Critical examination of a variety of media forms. Application of current theories and deep analysis of issues, problems and effects. Prerequisite: COM 200. (3 cr. hr.)

COM 431: Communication and Prejudice
(B) Examination of roles played by intrapersonal, interpersonal, group, organizational, political, and mass or mediated communication in relation to prejudice. Analysis of theories, issues, problems, and practices. Prerequisite: COM 100. (3 cr. hr.)

COM 432: African Americans in Television and Film
(B) Historical and critical examination of the evolution of African American images in screen and TV from the early 1900s to the present. (Also listed as AAS 432.) (3 cr. hr.)

COM 433: Literary Journalism
(C) Students study the richness of narrative journalistic accounts that speak compellingly to the human condition and its society. Students explore linguistic and social strategies literary journalists employ for interpreting our social world. Prerequisites: COM 100 for COM majors. (3 cr. hr.)

COM 434: Gender Communication
(C) Explores the effects of gender and culture on communication. Students examine the characteristics, dynamics, patterns and presumptions that combine to create what is known as “Gender speak.” Prerequisites: COM 100, COM 300 or consent of instructor. (3 cr. hr.)

COM 436: Films of Spike Lee
(B) Analysis and critique of films of Spike Lee emphasizing directing style, structure, and production design on selected films. A thematic analysis of major works and an examination of critical reaction from feminists, black nationalists, film critics and theoreticians. (also listed as AAS 436) (3 cr. hr.)

COM 441: Persuasion
(B) Theory, application of changing attitudes, opinions, beliefs in all forms of oral communication. Prerequisite: COM 100. (3 cr. hr.)

COM 442: Rhetorical Criticism
(O) Principles, practice in writing reviews of books, plays, concerts, films, art exhibition. Prerequisites: COM 100, 210. (3 cr. hr.)

COM 443: Rhetorical Theory
(O) Principles of speech: Historical overview, with emphasis on such rhetoricians as Aristotle, Cicero, Quintilian, Campbell, Whately. Prerequisite: COM 210, 441. (3 cr. hr.)

COM 444: Advanced Interpersonal Communication
(O) Readings and experiences in selected areas of interpersonal relations; emphasis on practical application of theory. Prerequisites: COM 300. (3 cr. hr.)

COM 498: Senior Seminar
(O) Variable topic seminar dealing with current issues in communication studies. Course may be repeated as topic changes. Prerequisites: Junior standing, consent of department. (3 cr. hr.)

COM 499: Senior Thesis
(O) Research for the advanced student on a research question of interest. A senior thesis paper is expected. Prerequisite: Consent of department. (3-6 cr. hr.)

COM 590: Advanced Independent Study in Communication Studies
(O) Faculty-supervised individual study of a specific topic in any communication studies area. May be taken more than once for a maximum of six hours. Prerequisite: COM 100, consent of department. (1-6 cr. hr.)

Course codes: A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter, ■ = LAS
Computer Applications
INTERDISCIPLINARY MINOR

FACULTY
Terrence McGovern (Coordinator), Gretchen Douglas

MINOR OFFERED
Computer Applications

DESCRIPTION
The interdisciplinary minor in computer applications is designed to complement any academic major and focuses on the development of applications within various academic disciplines. Students completing the minor will have been exposed to the skills and knowledge needed to use a variety of computers and packaged software as tools to solve problems in their respective disciplines.

SUNY Cortland offers interdisciplinary courses in computer applications so that all students in liberal arts or professional studies programs will have the opportunity to become familiar with the use of computers. Applications courses are described in this section.

For those who wish to combine study in computers with study in mathematics, the Mathematics Department offers a minor in mathematics with a concentration in computer science. See the Mathematics Department page in this catalog.

Computer Applications Minor [CAP]
Courses in five categories totaling 14 to 15 credit hours are required for the minor in computer applications. Requirements include:

Category 1: Introduction to Computers (3 cr. hr.)
Note: This course is a prerequisite for all subsequent courses
CAP 100: Introduction to Computer Applications

Category 2: Computer Programming (3 cr. hr.)
CAP 200: Programming
CAP 201: C Programming
CAP 202: BASIC Programming
MCS 186: Introductory Programming or any college-level course in high-level programming language

Category 3: Software Applications (3 cr. hr.)
CAP 230: Introduction to SPSS
CAP 231: Introduction to Data Base Management
CAP 232: Microcomputer Graphics
CAP 233: Computerized Information Retrieval
CAP 234: Topics in Software Evaluation
CAP 235: Presentation Graphics
CAP 236: Desktop Publishing
CAP 237: Electronic Communication

Category 4: Applied Data Analysis with Computers (3 cr. hr.)
CAP 328: Geographic Information Systems
MGT 423: Computer Applications in Economics and Management
GRY 400: Geographical Analysis
CHE 470: Advanced Lab
PED 434: Measurement and Evaluation in Physical Education
POL 312: Methods of Political Analysis
PSY 201: Statistical Methods
MAT 201: Statistical Methods
COM 230: Statistical Methods

Any course modified to include a substantial computer component to analyze data and approved by the Computer Applications Minor Steering Committee also may meet this requirement.

Category 5: Specialized Computer Applications (2-3 cr. hr.)
CAP 210: Computers in Laboratory Sciences
CAP 326: Computer Graphics
CAP 327: Computer Mapping
CAP 350: Data Base Management
CAP 358: Digital Logic Systems
ATS 207: Print 2 – Computer Generated Printing
COM 345: Editing and Newspaper Design
CAP 330: Advanced GIS Techniques also may satisfy this requirement with approval of the CAP coordinator.

TOTAL CREDIT HOURS REQUIRED FOR MINOR: 15-16

Computer Applications
COURSE DESCRIPTIONS

CAP 100: Introduction to Computer Applications
(A) Computing applications in various academic disciplines; topics include operating systems, word processing, spreadsheets, graphics, database, communications, the Internet, current topics, and a brief introduction to computers and their impact on society. Not open to students with credit for CAP 110 or CAP 111. Lecture and laboratory required. (3 cr. hr.)

CAP 129, 229, 329, 429, 529: Special Topics in Computer Applications
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

CAP 200: Programming
(F) A first course in computer programming. Topics include algorithm development, I/O, logical decisions, arrays, subroutines, program coding and syntax, debugging, and documentation. Program examples are taken from many disciplines. Three lectures including terminal time. (Also listed as PHY 325.) (3 cr. hr.)

CAP 129, 229, 329, 429, 529: Special Topics in Computer Applications
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

CAP 201: C Programming
(O) Programming in C using programming examples encountered in the physical and social sciences. Three lecture hours. (3 cr. hr.)

CAP 202: BASIC Programming
(O) Programming in BASIC using examples and problems encountered in the sciences and humanities. The focus of the course will be creating efficient, practical solutions for common problems. Three lecture hours (3 cr. hr.)
CAP 210: Computers in Laboratory Sciences
(C) Principles, practice of computer use in laboratory. Topics include data acquisition, analysis, presentation in experimental laboratory situations using computer. One lecture, one three-hour laboratory. Prerequisite: CAP 100 or CAP 110 and CAP 111 or equivalent programming experience and background in laboratory science. (2 cr. hr.)

CAP 230: Introduction to SPSS
(O) Introduces statistical procedures available to computer users in Statistical Package for the Social Sciences (SPSS). Weekly laboratory. (1 cr. hr.)

CAP 231: Introduction to Data Base Management
(O) Familiarization with form, function and use of data base management programs common to microcomputer. Course is designed to enable student to apply commonly available data base management packages to simplify tasks involving information storage, retrieval and manipulation. Prerequisite: CAP 100 or CAP 110 and CAP 111. (1 cr. hr.)

CAP 232: Microcomputer Graphics
(O) Course provides experiences in producing graphic images with microcomputer using BASIC and introduces software package (or packages) to allow development of more complex graphics for data interpretation and/or artistic uses. Prerequisite: CAP 100 or CAP 110 and CAP 111. (1 cr. hr.)

CAP 233: Computerized Information Retrieval
(B) Introduction to retrieving information from commercial, computerized data bases containing bibliographic, numeric and full text documents. Students will learn how data bases are organized and documented; how information is retrieved using command languages and communications software. Prerequisite: CAP 100 or CAP 110 and CAP 111. (1 cr. hr.)

CAP 234: Topics in Software Evaluation
(B) Application of software evaluation principles to a subset of software identified by subtitle (e.g., Educational Software, K-6; Software Suitable for Administrative Purposes; Word Processing Software). May be repeated as subtitle changes. Prerequisite: CAP 100 or CAP 110 and CAP 111. (1 cr. hr.)

CAP 235: Presentation Graphics
(O) Using the computer to create graphic representations of information and enhance print and non-print communication. Prerequisite: CAP 100 or CAP 110 and CAP 111 or consent of instructor. (1 cr. hr.)

CAP 236: Desktop Publishing
(B) Using the computer to create desktop publishing layouts of newspapers, newsletters, and resumes. Prerequisite: CAP 100 or CAP 110 and CAP 111 or consent of instructor. (1 cr. hr.)

CAP 237: Electronic Communication
(B) Sending and receiving information electronically. Topics include electronic mail, Internet, newsgroups, discussion lists, bulletin boards, library catalogues, archives searching and distributed file servers. Students will research a subject determined by their major. Prerequisite: CAP 100 or CAP 110 and CAP 111 or consent of instructor. (1 cr. hr.)

CAP 250: Computer Practicum
(A) For students who are resource assistants in computer applications courses. Prerequisites: CAP 100 or CAP 110 and CAP 111, CAP 231 or equivalent, and consent of instructor. (1-2 cr. hr.)

CAP 258: Digital Logic Systems
(O) The design of digital logic circuits using small- and medium-scale logic elements. Topics include integrated circuitry, Boolean algebra, Karnaugh mapping, flip-flops, shift registers, and memory elements. Two three-hour laboratories. Prerequisite: Consent of department. (Also listed as PHY 358.) (3 cr. hr.)

CAP 260: Computer Graphics
(S) Introduction to computer graphics. Development, use of original, commercial programming to produce two- and three-dimensional images on graphics terminal, plotter and line printer. Emphasis upon skills in cartography, business and the sciences. (Also listed as GRY 326.) Prerequisite: MCS 287 or GRY 324. (3 cr. hr.)

CAP 270: Computer Mapping
(O) Introduction to desktop computer mapping. Practical experience using computer mapping techniques to create thematic maps that graphically display data. Database organization, manipulation and analysis for efficient production of publication quality maps for communicating spatial information. Three lectures and/or demonstrations, one two-hour laboratory. (Also listed as GRY 327.) Prerequisites: CAP 100 or CAP 110 and CAP 111. (4 cr. hr.)

CAP 328: Geographic Information Systems
(S) Desktop computer-based Geographic Information System (GIS) Applications. Practical experience using GIS software to learn geographic data management, thematic mapping, basic map and database querying, as well as map creation and report writing. Three lectures and/or demonstrations, one two-hour lab. (Also listed as GRY 328.) Prerequisite: CAP 100 or CAP 110 or CAP 111. (4 cr. hr.)

CAP 330: Advanced GIS Techniques
(S-C) Planning, execution, and delivery of a GIS- and CAP-based project, which demonstrates mastery of tools of GIS in a substantive application tailored to a field of interest. (Also listed as GRY 330.) Prerequisite: GRY/CAP 327 or GRY/CAP 328. (4 cr. hr.)

CAP 350: Data Base Management Systems
(O) Developing data base applications using integrated data base management tools. Survey of data base structures and methodologies. Generation of custom reports and graphics displays. Selected advanced data base features such as screen design, macros and procedures introduced. Prerequisites: CAP 100 or CAP 110 or CAP 111. (3 cr. hr.)

CAP 358: Digital Logic Systems
(O) The design of digital logic circuits using small- and medium-scale logic elements. Topics include integrated circuitry, Boolean algebra, Karnaugh mapping, flip-flops, shift registers, and memory elements. Two three-hour laboratories. Prerequisite: Consent of department. (Also listed as PHY 358.) (3 cr. hr.)
Major in Economics [ECO]
The economics major emphasizes critical thinking and creative problem-solving skills, in addition to providing technical training in the economics discipline. Students are encouraged to apply analytical techniques to real world problems that are developed in elective courses within the major.

CAREER POTENTIAL
• Banker
• Consultant
• Economist
• Financial analyst

A. Required Courses: 18 credit hours
ECO 105: Political Economy and Social Thought
ECO 110: Principles of Macroeconomics
ECO 111: Principles of Microeconomics
ECO 221: Economic Statistics or
ECO 222: Mathematical Economics
ECO 300: Macroeconomic Theory
ECO 301: Economics of the Firm

B. Other: 15 additional credit hours of economics (ECO) courses at the 300 level or above.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Economics with a concentration in International Political Economy and Public Policy [ECO/IPEP]
This concentration is designed to give students a solid grounding in the analysis of the contemporary international economy and the key issues that face policy makers on the local, state, national and international levels.

CAREER POTENTIAL
• City planner
• Country analyst
• Labor activist
• Nonprofit project manager

import/export bank

A. Required Courses: 9 credit hours
ECO 105: Political Economy and Social Thought
ECO 110: Principles of Macroeconomics
ECO 111: Principles of Microeconomics

B. Required Core in Political Economy: 6 credit hours
ECO 303: History of Economic Thought
ECO 304: Comparative Economic Systems
ECO 306: Comparative Approaches in Political Economy
ECO 307: Marxist Economics
ECO 402: Seminar in Economics

C. International Political Economy and Public Policy – Applied Courses: 18 credit hours (nine hours to be selected from each of the following two categories*):
Public Policy in the Global Economy: 9 credit hours
ECO 300: Macroeconomic Theory
ECO 306: Comparative Approaches in Political Economy**
ECO 325: Political Economy of Women
ECO 326: Political Economy of Race and Class
ECO 335: Resource and Environmental Economics
ECO 383: Labor Economics

FACULTY
Mark Prus (Chair), Howard Botwinick, Kathleen Burke, Katherine Graham, Ric Keller, Lisi Krall, Mary Leonard, Joel Maxey, Tim Phillips, Susanne Polley, Raymond C. Quick, John Shirley, Deborah Spencer, Richard Van Donsel, German Zarate-Hoyos

PROGRAMS OFFERED
B.A. in Economics – 124 total credit hours
B.A. in Business Economics – 124 total credit hours
B.S. in Business Economics – 124 total credit hours
B.A. in Adolescence Education – Social Studies and Economics (Grades 7-12) – 124 total credit hours

MAJORS OFFERED
Economics
Business Economics
Adolescence Education – Social Studies and Economics (Grades 7-12)

CONCENTRATIONS OFFERED

MINORS OFFERED
Economics, Management, Political Economy and Public Policy

DESCRIPTION
The Economics Department offers both an economics major and a business economics major. Students may select courses from a wide variety of areas, including: international trade and finance, economic development, fiscal economics, money and banking, labor economics, the political economy of race and class, the political economy of women, environmental economics and sports economics.

The department offers two different concentrations that lead to the B.A. in economics: one leads to a traditional economics degree, the other emphasizes international political economy and public policy. Moreover, courses in the economics major may be combined with a professional sequence leading to qualification for provisional certification as a teacher of secondary social studies.

The major in business economics allows students with career goals in various management-related fields to acquire the skills necessary for such careers. The major leads to the award of the bachelor of arts or bachelor of science degree.

SPECIAL FEATURES
• Internships/Cooperative Education
• Economics Club
• Women in Economics Club
• Study abroad opportunities
• Omicron Delta Epsilon, Economics Honor Society
• 4+1 MBA program with Clarkson University

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to the following majors.

2. Liberal Arts Requirements: B.A. – 90 credit hours; B.S. – 75 credit hours
ECO 393: Urban Economics
ECO 432: Fiscal Economics
ECO 482: Labor Market Analysis
ECO 494: Regional Economics
ECO 400: Advanced Topics (in fields related to public policy)
ECO 401: Coop Education/Internship in Economics

International Political Economy: 9 credit hours
ECO 304: Comparative Economic Systems**
ECO 311: Economic Development
ECO 312: Economic Development in Latin America
ECO 313: Economic Development of Asia
ECO 441: International Trade
ECO 443: International Finance
ECO 400: Advanced Topics (in fields relating to international political economy)
ECO 401: Coop Education/Internship in Economics

* Appropriate alternative courses, of a technical or interdisciplinary nature, may be substituted for up to two of the six applied courses (one in each category), in consultation with and with the consent of the student’s advisor. Such courses may be offered by the economics, geography, history, international studies, philosophy, political science, sociology, and other departments.

** These courses may be taken to fulfill the requirements for applied courses (C) if they are not taken to satisfy the comparative approaches (B) requirements

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Business Economics [BUSE]
The major in business economics leads to the award of the bachelor of arts or bachelor of science degree. The major is unique among SUNY institutions in its emphasis on the development of both technical and analytical skills in a strong liberal arts context.

Students may focus on one of the four concentrations described below or may choose a different combination of electives which will provide them with a broad perspective of important issues.

CAREER POTENTIAL
• Economic consultant
• Entrepreneur
• Policy analyst

A. Required Core in Economics: 21 credit hours
ECO 105: Political Economy and Social Thought
ECO 110: Principles of Macroeconomics
ECO 111: Principles of Microeconomics
ECO 221: Economic Statistics
ECO 301: Economics of the Firm
ECO 222: Mathematical Economics or MAT 121 and MAT 122: Calculus A and B or MAT 125 and MAT 126: Calculus I and II
ECO 352: Finance

B. Required Core in Management: 18 credit hours
CAP 100: Introduction to Computer Applications
MGT 250: Principles of Management
MGT 253: Principles of Marketing or ECO 385 or COM 302 or COM 303 or COM 320 or COM 421 or COM 422
MGT 254: Principles of Accounting I
MGT 423: Computer Applications in Economics and Management
MGT 454: Strategic Management

C. Elective Courses: 12 credit hours
The requirements for this section may be met by either:
1. A semester of study abroad or
2. 12 credit hours of MGT 456: Co-Op Education/Internship in Management or
3. 12 credit hours to be divided among the following three broad perspective categories as described below:

Three credit hours in Alternate Economic Theory selected from the following courses:
ECO 303: History of Economic Thought
ECO 304: Comparative Economic Systems
ECO 306: American Political Economy
ECO 307: Marxian Economics
ECO 311: Economic Development
ECO 325: Political Economy of Women
ECO 326: Political Economy of Race and Class
ECO 335: Resource and Environmental Economics
ECO 383: Labor Economics

Three credit hours in International Economics selected from the following courses:
ECO 304: Comparative Economic Systems
ECO 311: Economic Development
ECO 312: Economic Development of Latin America
ECO 313: Economic Development of Asia
ECO 441: International Trade
ECO 443: International Finance

Three credit hours in Applied and Policy Perspectives selected from the following courses:
ECO 300: Macroeconomic Theory
ECO 325: Political Economy of Women
ECO 326: Political Economy of Race and Class
ECO 335: Resource and Environmental Economics
ECO 366: The Economics of Sport
ECO 383: Labor Economics
ECO 393: Urban Economics
ECO 401: Coop Education/Internship in Economics
ECO 421: Econometrics
ECO 431: Money and Banking
ECO 432: Fiscal Economics
ECO 441: International Trade
ECO 443: International Finance
ECO 452: Advanced Finance
ECO 455: Asset Markets
ECO 460: Industrial Organization and Public Policy
ECO 482: Labor Market Analysis
ECO 494: Regional Economics

As an alternative to the study abroad or the broad perspective approach described above, students may choose a major in business economics that concentrates their study in one of the following four fields of management.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124
Major in Business Economics with a concentration in Environmental Management [BUSE/ENMG]
The concentration in environmental management provides students with the opportunity to immerse themselves in the various environmental issues that confront today’s society.

CAREER POTENTIAL
• Cost benefit analyst
• Environmental consultant
• Waste manager

A. Required Core in Economics: 21 credit hours
   ECO 105: Political Economy and Social Thought
   ECO 110: Principles of Macroeconomics
   ECO 111: Principles of Microeconomics
   ECO 221: Economic Statistics
   ECO 301: Economics of the Firm
   ECO 222: Mathematical Economics or
   MAT 121 and MAT 122: Calculus A and B or
   MAT 125 and MAT 126: Calculus I and II
   ECO 352: Finance

B. Required Core in Management: 18 credit hours
   CAP 100: Introduction to Computer Applications
   MGT 250: Principles of Management
   MGT 253: Principles of Marketing or ECO 385 or COM 302 or COM 303 or COM 320 or COM 421 or COM 422
   MGT 254: Principles of Accounting I
   MGT 423: Computer Applications in Economics and Management
   MGT 454: Strategic Management

C. Elective Courses: 15 credit hours
   Nine credit hours:
   EST 100: Introduction to Environmental Studies
   ECO 335: Resource and Environmental Economics
   ENS 486: Seminar in Environmental Science

Six credit hours selected from the following courses:
   BIO 102: Ecology and Human Environment
   GRY 110: Physical Geography
   GLY 160: Geology and the Human Environment
   CHE 125: Chemistry and the Environment
   POL 242: Environmental Policy
   GLY 292: Land Use and Planning
   SCI 300: Science and its Social Context
   SCI 304: Plants and People
   BIO 307: Field Natural History
   POL 308: Environmental Law
   REC 310: Wilderness and American Culture
   SCI 320: Science, Technology, Culture
   GRY 328: Geographic Information Systems
   SCI 330: Science and the Public
   SCI 350: Science in the Social World
   REC 402: Management of Recreation Resources
   ANT 410: Cultural Ecology
   GRY 470: Resource Geography
   ECO 401: Co-op Education/Internship in Economics
   ECO 421: Econometrics

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Business Economics with a concentration in Financial Management [BUSE/FMGT]
The financial management concentration allows interested students to pursue courses that will allow them to function well in any area of finance. Proper financial management is an essential function of organizations and an important skill for individuals as well.

CAREER POTENTIAL
• Banker
• Financial planner
• Mortgage analyst
• Stock broker

A. Required Core in Economics: 21 credit hours
   ECO 105: Political Economy and Social Thought
   ECO 110: Principles of Macroeconomics
   ECO 111: Principles of Microeconomics
   ECO 221: Economic Statistics
   ECO 301: Economics of the Firm
   ECO 222: Mathematical Economics or
   MAT 121 and MAT 122: Calculus A and B or
   MAT 125 and MAT 126: Calculus I and II
   ECO 352: Finance

B. Required Core in Management: 18 credit hours
   CAP 100: Introduction to Computer Applications
   MGT 250: Principles of Management
   MGT 253: Principles of Marketing or ECO 385 or
   COM 302 or COM 303 or COM 320 or COM 421 or COM 422
   MGT 254: Principles of Accounting I
   MGT 423: Computer Applications in Economics and Management
   MGT 454: Strategic Management

C. Elective Courses: 12 credit hours
   MGT 255 Principles of Accounting II

   And nine credit hours selected from the following courses:
   ECO 300: Macroeconomic Theory
   ECO 401: Co-op Education/Internship in Economics
   ECO 421: Econometrics
   ECO 431: Money and Banking
   ECO 443: International Finance
   ECO 452: Advanced Finance
   ECO 455: Asset Markets

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Business Economics with a concentration in Human Resource Management [BUSE/HRM]
The increased realization of the importance and diversity of the employees of an organization is captured in the concentration in human resource management.

CAREER POTENTIAL
• Affirmative action officer
• Benefits administrator
• Compensation analyst
• Human resource manager

A. Required Core in Economics: 21 credit hours
   ECO 105: Political Economy and Social Thought
   ECO 110: Principles of Macroeconomics
   ECO 111: Principles of Microeconomics
   ECO 221: Economic Statistics
   ECO 301: Economics of the Firm
   ECO 222: Mathematical Economics or
   MAT 121 and MAT 122: Calculus A and B or
   MAT 125 and MAT 126: Calculus I and II
   ECO 352: Finance
Major in Business Economics with a concentration in International Business and Economics [BUSE/IBE]

The concentration in international business and economics addresses the complexity of today's economy through a variety of international course offerings, including coursework in economic development, international trade and finance, and comparative analysis of different economies.

CAREER POTENTIAL

- Exchange rate risk manager
- Foreign exchange trader
- Import/export manager
- International law and business

A. Required Core in Economics: 21 credit hours
   ECO 105: Political Economy and Social Thought
   ECO 110: Principles of Macroeconomics
   ECO 111: Principles of Microeconomics
   ECO 300: Macroeconomic Theory
   ECO 301: Economics of the Firm
   ECO 302: Economic Analysis of the Firm
   ECO 221: Economic Statistics
   ECO 222: Mathematical Economics or
   MAT 121 and MAT 122: Calculus A and B or
   MAT 125 and MAT 126: Calculus I and II

B. Required Core in Management: 18 credit hours
   CAP 100: Introduction to Computer Applications
   MGT 250: Principles of Management
   MGT 253: Principles of Marketing or ECO 385 or COM 302
   or COM 303 or COM 320 or COM 421 or COM 422
   MGT 254: Principles of Accounting I
   MGT 423: Computer Applications in Economics and Management
   MGT 454: Strategic Management

C. Elective Courses: 12 credit hours from the following:
   ECO 304: Comparative Economic Systems
   ECO 311: Economic Development
   ECO 312: Economic Development of Latin America
   ECO 313: Economic Development of Asia
   ECO 401: Co-op Education/Internship in Economics
   ECO 421: Econometrics
   ECO 441: International Trade
   ECO 443: International Finance

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Dual major in Adolescence Education – Social Studies and Economics (Grades 7-12) [SSA & ECO]

CAREER POTENTIAL

- High school teacher
- Consultant
- Economist
- Financial analyst
- Import/export manager
- International law and business

This program allows students who major in economics to qualify for certification to teach adolescence education in social studies (grades 7-12). It combines a major in economics with a professional semester that consists of professional preparation and student teaching.

A. Required Courses in Economics: 18 credit hours
   ECO 105: Political Economy and Social Thought
   ECO 110: Principles of Macroeconomics
   ECO 111: Principles of Microeconomics
   ECO 221: Economic Statistics or
   ECO 222: Mathematical Economics
   ECO 300: Macroeconomic Theory
   ECO 301: Economics of the Firm
   B. Other: 15 additional credit hours of economics (ECO) at the 300 level or above.

C. Additional Requirements:
   GRY 425: Geography in the Classroom or
   GRY 480: United States
   GRY 520: Maps in the Classroom
   POL 100: Introduction to American Government and Politics
   HIS 100: The World to 1500 and
   HIS 101: The World Since 1500 or
   HIS 110: Western Civilization to 1715 and
   HIS 111: Western Civilization Since 1715 or
   HIS 200: The United States to 1877 and
   HIS 201: The United States Since 1877

   Nine hours of HIS courses at the 300 level, three of which must be in U.S. history, and three of which must be in European history or Third World history.

D. Other Professional Courses: 25-27 credit hours
   PSY 101: General Psychology
   PSY 232: Adolescent Psychology or
   PSY 332 Educational Psychology
   SSS 301: Pre-Practice Teaching Seminar (11 credit hours)
   SSS 303: Post-Practice Teaching Seminar (1 credit hour)
   AED 400: Student Teaching I (3 credit hours)
   AED 401: Student Teaching II (3 credit hours)

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Minor in Economics [ECO]

A. Required Courses: 9 credit hours
   ECO 105: Political Economy and Social Thought
   ECO 110: Principles of Macroeconomics
   ECO 111: Principles of Microeconomics

B. Elective Courses: 6 credit hours
   Two economics electives (300 level or above).
   Note: MGT courses do not count toward the minor in economics

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 15
Minor in Management [MGT]

A. Required Courses: 12 credit hours
   - ECO 105: Political Economy and Social Thought
   - MGT 250: Principles of Management
   - MGT 254: Principles of Accounting I
   - ECO 352: Finance

B. Other Courses: 6 credit hours selected from the following courses:
   - CAP elective above CAP 100
   - ECO 111: Principles of Microeconomics
   - PHI 233: Management Ethics
   - MGT 253: Principles of Marketing
   - MGT 254: Principles of Accounting II
   - MGT 265: Business Law
   - COM 302: Intercultural Communication or
   - COM 303: International Communication or
   - COM 320: Organizational Communication or
   - COM 421: Mass Media Advertising or
   - COM 422: Public Relations
   - ECO 385: Human Resource Management

Note: Economics majors pursuing a management minor cannot count ECO 111 and ECO 385 toward both the economics major and the management minor. ECO 111 will count toward the major, and ECO 385 may count toward either the major or the minor.

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 18

Minor in Political Economy and Public Policy [PEPP]

A. Required Course: 3 credit hours
   - ECO 105: Political Economy and Social Thought

B. Other Courses: 6 credit hours from the following courses:
   - ECO 303: History of Economic Thought
   - ECO 304: Comparative Economic Systems
   - ECO 306: Comparative Approaches in Political Economy
   - ECO 307: Marxist Economics
   - ECO 402: Seminar in Economics

C. Other Courses: 3 credit hours from the following courses:
   - ECO 300: Macroeconomic Theory
   - ECO 306: Comparative Approaches in Political Economy
   - ECO 325: Political Economy of Women
   - ECO 326: Political Economy of Race and Class
   - ECO 335: Resource and Environmental Economics
   - ECO 383: Labor Economics
   - ECO 393: Urban Economics
   - ECO 432: Fiscal Economics
   - ECO 482: Labor Market Analysis
   - ECO 494: Regional Economics
   - ECO 400: Advanced Topics (in fields related to public policy)

D. Other Courses: 3 credit hours from the following courses:
   - ECO 304: Comparative Economic Systems
   - ECO 311: Economic Development
   - ECO 312: Economic Development in Latin America
   - ECO 313: Economic Development of Asia
   - ECO 441: International Trade
   - ECO 443: International Finance
   - ECO 400: Advanced Topics (in fields relating to international political economy)
   - ECO 401: Co-op Education/Internship in Economics

Note: MGT courses do not count toward the minor in political economy and public policy.

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 15

Example of the undergraduate degree in Business Economics over four years

This is just a model, and does not reflect the expectations for all of our programs.

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<tr>
<th>First Year</th>
<th>Second Year</th>
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<td><strong>Fall</strong></td>
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<tr>
<td>COR 101</td>
<td>ECO 111</td>
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<td>CPN 100</td>
<td>MGT 250</td>
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<td>ECO 105 (GE 1)</td>
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<td>GE 3</td>
<td>GE 8a</td>
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<tr>
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<th>Third Year</th>
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<tbody>
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<td><strong>Fall</strong></td>
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<td>GE 2</td>
<td>Internship or ECO</td>
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<tr>
<td>ECO elective</td>
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<td>Free elective</td>
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Example of the undergraduate degree in Business Economics over four years

This is just a model, and does not reflect the expectations for all of our programs.
Economics

COURSE DESCRIPTIONS

ECO 105: Political Economy and Social Thought
(A) Introduction to key controversies within history of economic and social thought which provide basis for ongoing debates on role of government, private enterprise and community within capitalist economies. Topics include: historical overview of the rise of capitalism and the evolution of economic thought, classical liberalism and radical critiques; Great Depression and the New Deal; Neoliberalism and the modern global economy; poverty and income distribution, welfare reform, minimum wage, unemployment, class, race and gender inequality. (3 cr. hrs.) ■

ECO 110: Principles of Macroeconomics
(A) Principles which govern economic behavior; full employment, price stability and economic growth. (3 cr. hr.) ■

ECO 111: Principles of Microeconomics
(A) Analysis of behavior of individual economic units such as households and firms, pricing of goods and services under different market structures and applications to real-world microeconomic phenomena. (3 cr. hr.) ■

ECO 129, 229, 329, 429: Special Topics in Economics
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

ECO 221: Economic Statistics
(B) Estimation, measurement in economic research; probability, sampling, hypothesis testing, regression, index numbers, seasonal and trend analysis. Also listed as MAT 201, PSY 201, and COM 230 (3 cr. hr.) ■

ECO 222: Mathematical Economics
(B) Mathematical formulation of economic theories. Prerequisite: ECO 110, 111; working knowledge of college algebra. (3 cr. hr.) ■

ECO 300: Macroeconomic Theory
(B) Analysis of factors determining national income, employment and production levels. Social accounting, comparative study of Keynesian and classical macrotheories, monetary and fiscal policy, and economic growth. Prerequisite: ECO 110. (3 cr. hr.) ■

ECO 301: Economics of the Firm
(A) Description and analysis of economics of firms, markets and competitive behavior. Stresses many microeconomic concepts discussed in context of profit and non-profit organizations. Prerequisite: ECO 110. (3 cr. hr.) ■

ECO 303: History of Economic Thought
(O) Origins of contemporary economic thought. These origins are to be studied with particular reference to their historical and philosophic context. Prerequisite: ECO 105. (3 cr. hr.) ■

ECO 304: Comparative Economic Systems
(C) Analysis of differences in economic organization, public policy, and performance across countries. Differences in economic performance are discussed in terms of economic theory and actual outcomes. Emphasis on the differences among capitalist economic systems and between capitalist and non-capitalist systems. Problems with the evolution and transition of economies are discussed with examples from the former Soviet Union, China, and other socialist countries. Prerequisites: ECO 105 or 110 or 111 (3 cr. hr.) ■

ECO 306: Comparative Approaches in Political Economy
(C) Analysis of differing approaches to key issues of concern to the U.S. and other economies within the emerging global economy. Course will build on the theoretical and empirical base introduced in ECO 105, and will address themes in political economy from several vantage points. Prerequisite: ECO 105. (3 cr. hr.) ■

ECO 307: Marxian Economics
(C) Principles of Marxian economic analysis from Das Kapital to present. Prerequisites: ECO 105; and junior standing (or consent of department). (3 cr. hr.) ■

ECO 311: Economic Development
(C) Alternative roads to economic growth and development. Prerequisites: ECO 105. (3 cr. hr.) ■

ECO 312: Economic Development of Latin America
(C) Introduction to social, economic problems associated with process of economic development (or “underdevelopment”) in Latin America from perspectives of economic history and analysis of current economic issues. Prerequisites: ECO 105. (3 cr. hr.) ■

ECO 313: Economic Development of Asia
(C) Overview of economic history and current economic concerns of different subregions of Asia (East, Southeast, South Asia in particular). One or more countries will be emphasized, and specific economic issues of current interest will be analyzed. Prerequisites: ECO 105. (3 cr. hr.) ■

ECO 325: Political Economy of Women
(C) Political economic analysis of participation and status of women in the economy. Special emphasis is placed on analyzing labor force participation rates over time, historical trends in occupational sex segregation, wage differences based on sex, and women's struggle for economic equality. Additionally, international, racial, and ethnic differences in the economic status of women are covered. Prerequisites: ECO 105 and 111. (3 cr. hr.) ■

ECO 326: Political Economy of Race and Class
(C) Examines the economic, historical and institutional forces that have seriously undermined the promise of equal opportunity for all people within the U.S. Topics include: contrasting views on discrimination in the labor market; racial and ethnic conflicts in the labor movement; de-industrialization and urban poverty; current debates on race and class in America. Prerequisite: ECO 105. (3 cr. hr.) ■

ECO 335: Resource and Environmental Economics
(C) Course explores relationships between our modern market economy and present ecological and environmental problems. Students are introduced to models of steady state and ecological economics in addition to more traditional approaches to issues of depletion (conservation) and allocation of renewable and nonrenewable resources, pollution, population and food production. Prerequisites: ECO 111. (3 cr. hr.) ■

Course codes: A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter, ■ = LAS
ECO 352: Finance  
(A) Fundamentals of finance emphasizing the financing, investing, and financial management decisions made by businesses. Topics include financial markets and financial analysis, time value of money, asset valuation, risk and return, capital budgeting. Prerequisites: MGT 254. (3 cr. hr.) ■

ECO 366: The Economics of Sport  
(B) Application of economic theory to professional and amateur sports. Topics include analysis of sports institutions, labor relations, and the role of government in sports markets. Prerequisites: ECO 111, ECO 221. (3 cr. hr.) ■

ECO 383: Labor Economics  
(C) Introduction to contemporary issues in labor relations. Topics include: modern dynamics of capitalist labor process, economic and social consequences of mechanization, wages determination, role of trade unions. Prerequisites: ECO 105 and ECO 110 or 111 (3 cr. hr.) ■

ECO 385: Human Resource Management  
(C) Strategic role and functional responsibilities of human resource management in a multi-cultural society. Prerequisites: ECO 105, MGT 250. (3 cr. hr.) ■

ECO 393: Urban Economics  
(O) Description and analysis of urban economy; urban location, land use theory; goals, processes, problems, policy in urban economic development. Prerequisites: ECO 110, 111. (3 cr. hr.) ■

ECO 401: Co-op Education/Internship in Economics  
(A) Field study program covering off-campus experiences in the area of applied economics. Open to economics majors or business economics majors only. Students must be in good academic standing and initiate the process through the Internships and Volunteer Office. Course offered on S, U grading system only. Prerequisite: Consent of department. (3 cr. hr.)

ECO 402: Seminar in Economics  
(O) Examination, discussion of selected economic problems. (3 cr. hr.)

ECO 421: Econometrics  
(C) Application of statistical techniques to analysis of economic data. Simple and multiple regression; structure of econometric models; distributed lags; forecasting. Prerequisite: ECO 221. (3 cr. hr.) ■

ECO 431: Money and Banking  
(C) Money and economic activity; money and capital markets; monetary, income theory; central banking; elements of international finance; public policy issues. Prerequisites: ECO 110, 111, 300, 352, or consent of department. (3 cr. hr.) ■

ECO 432: Fiscal Economics  
(C) Development and structure of modern public economy: economics of government taxation; spending, debt management; intergovernmental fiscal relations; fiscal theory; public policies, issues. Prerequisites: ECO 110, 111, 300. (3 cr. hr.) ■

ECO 441: International Trade  
(C) Examination and discussion of why nations trade, barriers to trade, commodity composition, trade problems of developed and developing nations, selected topics. Prerequisites: ECO 111, and either ECO 105 or ECO 110. ECO 301 recommended. (3 cr. hr.) ■

ECO 443: International Finance  
(C) Examination and discussion of exchange rate determination and adjustment; international monetary institutions and systems, balance of payments accounts, national income determination in open economy, selected topics. Prerequisites: ECO 110, and either ECO 105 or ECO 111. ECO 300 recommended. (3 cr. hr.) ■

ECO 452: Advanced Finance  
(C) Examination and discussion of concepts introduced in ECO 352 and enhanced development of topics such as: capital budgeting, financial statement analysis, cash flow management, dividend policy, capital structure, working capital management, current asset management, mergers, acquisitions, divestiture and bankruptcy. Prerequisites: ECO 352. (3 cr. hr.) ■

ECO 455: Asset Markets  
(C) Analysis of stock, bond, option and commodity markets and the Federal Tax treatment of gains and losses. By watching a portfolio of assets, students learn relationships between different markets, between risk and rate of return, and between level of interest rate and level of asset prices. Prerequisites: ECO 111, 352. (3 cr. hr.) ■

ECO 460: Industrial Organization And Public Policy  
(C) Structure, conduct, performance of American industry; anti-trust legislation, other aspects of public regulation and control; economic analysis of selected legal cases. Prerequisites: ECO 110, 111, 301. (3 cr. hr.) ■

ECO 482: Labor Market Analysis  
(C) Advanced course in labor economics, including in-depth analysis of supply and demand for labor, competitive wage determination, wage differentials, labor market segmentation. Contrasting perspectives are presented. Prerequisites: ECO 111 and either 301 or 383. (3 cr. hr.) ■

ECO 494: Regional Economics  
(O) Process of regional economic growth: location theory, techniques of regional analysis; regional economic development problems and policies. Prerequisites: ECO 110, 111, 300, 301. (3 cr. hr.) ■

MGT 250: Principles of Management  
(A) Management essentials of planning, organizing, staffing, controlling and leading; structure, functioning of organizations. (3 cr. hr.) ■

MGT 253: Principles of Marketing  
(A) Introduction to marketing system; marketing principles and practice; application of marketing techniques. (3 cr. hr.) ■

MGT 254: Principles of Accounting I  
(A) Introduction to basic accounting concepts and procedures. Topics include preparation of financial statements, depreciation policies, payroll accounting, present value theory. Does not fulfill requirements for economics major or minor. (3 cr. hr.)

MGT 255: Principles of Accounting II  
(S) Corporate accounting practice. Topics include stock and bond transactions, working capital, financial and break-even analysis, and inflation-adjusted statements. Note: Not open to freshmen. Does not fulfill requirements for economics major or minor. Prerequisite MGT 254. (3 cr. hr.)

MGT 265: Business Law  
(A) Basic legal considerations in starting a business, acquiring assets, making contracts with suppliers and customers; applications in selected case studies. (3 cr. hr.) ■
MGT 360: Sport Marketing
(B) Application of marketing and market analysis techniques to sports. Topics include sport consumer behavior, demand analysis, strategic market planning, and sponsorship. Prerequisites: ECO 111 and ECO 221 and MGT 253. (Cross-listed with SPM 360). (3 cr. hr.)

MGT 373: Sport Law and Organization
(A) Examination of the legal environment in which professional and amateur sports presently operate. Included will be aspects of contract law, labor law, constitutional law and antitrust law as they apply to the sport industry. Prerequisites: SPM 275 and MGT 250. (Cross-listed with SPM 373). (3 cr. hr.).

MGT 423: Computer Applications in Economics and Management
(B) Problem-solving oriented course using spreadsheet and statistical software to analyze and solve economics and management problems. Prerequisites: ECO 110, 111, CAP 100 or CAP 110 and CAP 111. (3 cr. hr.)

MGT 454: Strategic Management
(A) Integrative study of strategic decision making in organizations. Application of economic and management concepts developed in prior course work; in addition, an intensive use of case studies will be incorporated. Prerequisite: senior status; ECO 352. (3 cr. hr.) ■

MGT 456: Co-op Education/Internship in Management
(A) Field study program covering off-campus experiences in area of management. Open to economics majors only. Student is required to have a minimum GPA of 3.0 and obtain a job with significant responsibilities. Student must initiate the process through the Internships and Volunteer Office. Course offered on S, U grading system only. Prerequisite: Consent of department. (3-16 cr. hr.)

Related Education Courses

AED 400: Student Teaching I
Full-time supervised teaching in public schools for four weeks (3 cr. hr.)

AED 401: Student Teaching II
Full-time supervised teaching in public schools for four weeks. Requires satisfactory completion of AED 400 (3 cr. hr.)

SSS 300: Introduction to Secondary Social Studies
This course introduces students to unit and lesson planning, focuses on the history of American education as it relates to social studies, familiarizes students with the social studies learning standards, and makes comparisons between middle school and high school teaching. Includes 100-hour field experience. (3 cr. hr.)

SSS 301: Pre-Practice Teaching Seminar
(F) Integrated study of A.) Introduction to Secondary Education; B.) Introduction to Methods of Teaching Social Studies; C.) Introduction to Contemporary Secondary School Issues; D.) Preparation for specific practice teaching assignment. S, U grades assigned. (11 cr. hr.)

SSS 303: Post-Practice Teaching Seminar
(F) Problem approach drawing upon experience of students during practice teaching. Designed to focus on contemporary educational issues, beginning the job search and application process, teaching and learning at the middle school level and exploring the history and philosophy of teaching. S, U grades assigned. (1 cr. hr.)

Course codes: A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter, ■ = LAS
IMPORTANT: Teacher education programs are currently in transition. Transfer students with 50 or more transfer credits who are enrolling in a program leading to teacher certification must contact the program coordinator/representative of their respective department for specific degree requirements.

FACULTY

Cynthia Benton DeCorse (Chair), V. Lawrence Bell, Heather Bridge, Bill Buxton, Richard Castallo, Sheila Cohen, Barbara Combs, Susana Davidenka, Virginia Dudgeon, Michele Irvin Gonzalez, William Griffen, Ellen Jampole, Michelle Kelly, Mary Kinsella, Beth Klein, Karl Klein, Emilie Kudela, Andrea Lachance, Sue Lehr, Thomas Lickona, John Marciano, Mary Lee Martens, Joy Mosher, Pamela Perrigo, Jerry Rice, Rita Rosenberg, Margaret Richardson, Judith Schillo, Timothy Slekar, Dorothy Troike, Mary Ware, Kimberly Williams

PROGRAMS OFFERED

B.A. or B.S. in Childhood Education: 128-143 total credit hours
B.A. or B.S. in Early Childhood Education: 128-142 total credit hours
B.A. or B.S. in Early Childhood/Childhood Education – 128 to 153 total credit hours
B.S. in Special Education/Childhood Education: 135.5-142.5 total credit hours

MAJORS OFFERED

Childhood Education (Grades 1-6)
Early Childhood Education (Birth-Grade 2)
Early Childhood/Childhood Education (Birth-Grade 6)
Special Education/Childhood Education (Grades 1-6)

DESCRIPTION

A major in the various certification programs offers a foundation for building an enriching life as an educator and can also be applied toward careers within the education field and in areas as diverse as law, industrial training or social work.

Professional education courses are offered by the Education Department. Courses in the student's minor are offered by the appropriate departments in the School of Arts and Sciences.

SPECIAL FEATURES

• Resident Student Teaching Centers in urban and suburban settings
• Study abroad
• Student teaching at the University of North London, England
• Rural and urban partnership programs
• National Honor Society in Education (Phi Delta Kappa)
• Cortland’s Urban Recruitment of Educators (C.U.R.E.) Scholarship
• Outdoor education opportunities at Camp Huntington, Raquette Lake
• College and community projects

Requirements

1. Degree Requirements listed on pages 31-39 of this catalog apply to all education majors.
2. Liberal Arts Requirements: B.A. – 90 credit hours; B.S. – 66 credit hours
3. Foreign Language: All students must have proficiency in a foreign language. For the B.S. degree, students complete one year of a foreign language (7 credit hours) or its equivalent (through the 102 level). For the B.A. degree, students complete two years of a foreign language (13 credit hours) or its equivalent (through the 202 level).

MINOR IN LIBERAL ARTS

The minor provides depth of study in a field that will support at least one of the New York State Learning Standards (State Education Department). Approved minors include: African American studies, anthropology, biology, English, French, geography, geology, history, international studies, Latin American studies, mathematics, music, Spanish, and urban studies.

ENROLLMENT IN THE EDUCATION MAJORS

Enrollment in the education majors are limited. Admission to any of the programs is competitive, based on cumulative grade point average. Admission to the College does not guarantee admission to an education major.

Students who begin as freshmen at Cortland may apply to an education major after completing at least 30 credit hours. To be accepted as an Education major, students must have a cumulative Cortland GPA of at least 2.5, and at least 2.7 for the special education/childhood education major. Application is made during the college-wide change of major period. There is a separate application process for the special education/childhood education major available through the Education Department office.

Transfers who have completed a minimum of 30 hours with a minimum GPA of 2.5 may be admitted directly to the major. Transfers not meeting these requirements may apply to the major after completing a total of 30 hours, 15 of which must be completed at Cortland with a cumulative Cortland GPA of at least 2.5. Application to the major must be made at admission to the College, if eligible, or during the college-wide change of major period.

ELIGIBILITY FOR STUDENT TEACHING

To be eligible for student teaching, students must be in good academic standing, have no incompletes, complete all prerequisite education courses, have an overall Cortland GPA of 2.5 (2.7 for special education), have completed at least two-thirds of the course work in the minor, and have no grade lower than a C- in required education courses. Students must be eligible at the time of application, and if ineligible, reapply when eligibility is achieved.

ADVICE MANUAl

Advisement manuals for education majors are available in the Education Department. Students must follow the manual in place at the time of their matriculation. Students should study the manual carefully since it supplements the information provided in this catalog.
Major in Childhood Education (Grades 1-6) [CED]
The childhood education major prepares students to become elementary school teachers in grades 1-6. Students learn to develop curriculum in all areas of the New York State Learning Standards.

CAREER POTENTIAL
• Elementary school teacher
• Educational resource coordinator
• Sales representative in training and educational programs

A. College-wide and General Education Courses – 38 credit hours (plus foreign language)
   COR 101: The Cortland Experience
   CPN 100: Academic Writing I
   CPN 101: Academic Writing II
   MAT 101: Concepts of Elementary School Mathematics I
   Foreign Language – 0 to 13 credit hours

   General Education Program
   GE 1:
   ECO 105: Political Economy and Social Thought or POL 100: Introduction to American Government and Politics
   GE 2: Any GE 2 course
   EDU 103 or GRY 221 are recommended
   GE 3:
   GRY 120: Cultural Geography or GRY 125: Human Geography and Global Development
   GE 4: Any GE 4 course
   GE 5: Any GE 5 course
   HIS 101: The World Since 1500 is recommended
   GE 6:
   ENG 200: Introduction to Literature or ENG 202: Introduction to Fiction or ENG 203: Introduction to Poetry or ENG 204: Introduction to Drama
   GE 7: Any GE 7 course
   SCI 320: Science, Technology and Culture or GRY 370: Will the World Provide? are recommended
   GE 8: One life science and one earth science
   SCI 141: Earth Science and SCI 142: Physical Science are recommended

B. Content Core – 31 credit hours
   MAT 102: Concepts of Elementary School Mathematics II
   PSY 101: General Psychology I
   PSY 231: Child Psychology or PSY 332: Educational Psychology
   ECO 105: Political Economy and Social Thought or POL 100: Introduction to American Government and Politics (whichever not taken as GE 1)
   HLH 265: Health for the Child
   HIS 200: The United States to 1877
   HIS 201: The United States since 1877
   ENG 302: Advanced Writing or ENG 306: Advanced Writing Workshop
   PED 245: Activities for Children
   INT 270: Exploring Education
   SPE 270: Introduction to Special Education

C. Pedagogy Courses – 40 credit hours

Methodology Block I – 11 credit hours
   EDU 314: Teaching with Computers in Elementary and Middle School
   EDU 371: Teaching Elementary School Reading and Language Arts I
   EDU 373: Teaching Elementary School Mathematics
   EDU 374: Teaching Elementary School Science

Methodology Block II – 13 credit hours
   EDU 372: Teaching Elementary School Reading and Language Arts II
   EDU 375: Teaching Elementary School Social Studies
   EDU 430: Measurement and Evaluation in Education
   EDU 478: Classroom Discipline for Personal and Social Responsibility
   EDU 477: Elementary School Practicum

Application and Reflection on Teaching – 16 credit hours
   EDU 490: Student Teaching I
   EDU 491: Student Teaching II
   EDU 492: Seminar in Student Teaching
   EDU 400: Foundations of Education: The School in American Society

D. Minor in an Approved Liberal Arts Area – 15 to 24 credit hours
   Credit hours vary depending on area chosen. Requirements in General Education and Content Core may reduce the number of credit hours in a minor. Approved minors are listed above.

E. Elective Courses – 0 to 10 credit hours
   Free Electives to complete the minimum of 128 credit hours

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 128-133 *

* Foreign language requirement (0-13 credit hours) may increase the total hours.

Major in Early Childhood Education (Birth to Grade 2) [ECE]
The early childhood education major prepares students to become early childhood education teachers in preschool settings through grade two. Students learn to create high quality environments that respect children and their families, are developmentally appropriate, and are child centered.

CAREER POTENTIAL
• Teacher of Preschool through Grade 2 (birth to eight years old)
• Childcare provider
• Childcare center director
• Resource and referral counselor

A. College-wide and General Education Courses – 38 credit hours (plus foreign language)
   COR 101: The Cortland Experience
   CPN 100: Academic Writing I
   CPN 101: Academic Writing II
   MAT 101: Concepts of Elementary School Mathematics I
   Foreign Language – 0 to 13 credit hours

   General Education Program
   GE 1:
   ECO 105: Political Economy and Social Thought or POL 100: Introduction to American Government and Politics
   GE 2: Any GE 2 course
   EDU 103 or GRY 221 are recommended
   GE 3:
   GRY 120: Cultural Geography or GRY 125: Human Geography and Global Development
   GE 4: Any GE 4 course
   GE 5: Any GE 5 course
   HIS 101: The World Since 1500 is recommended
   GE 6:
   ENG 200: Introduction to Literature or ENG 202: Introduction to Fiction or ENG 203: Introduction to Poetry or ENG 204: Introduction to Drama
   GE 7: Any GE 7 course
   SCI 320: Science, Technology and Culture or GRY 370: Will the World Provide? are recommended
   GE 8: One life science and one earth science
   SCI 141: Earth Science and SCI 142: Physical Science are recommended

B. Content Core – 31 credit hours
   MAT 102: Concepts of Elementary School Mathematics II
   PSY 101: General Psychology I
   PSY 231: Child Psychology or PSY 332: Educational Psychology
   ECO 105: Political Economy and Social Thought or POL 100: Introduction to American Government and Politics (whichever not taken as GE 1)
   HLH 265: Health for the Child
   HIS 200: The United States to 1877
   HIS 201: The United States since 1877
   ENG 302: Advanced Writing or ENG 306: Advanced Writing Workshop
   PED 245: Activities for Children
   INT 270: Exploring Education
   SPE 270: Introduction to Special Education

C. Pedagogy Courses – 40 credit hours

Methodology Block I – 11 credit hours
   EDU 314: Teaching with Computers in Elementary and Middle School
   EDU 371: Teaching Elementary School Reading and Language Arts I
   EDU 373: Teaching Elementary School Mathematics
   EDU 374: Teaching Elementary School Science

Methodology Block II – 13 credit hours
   EDU 372: Teaching Elementary School Reading and Language Arts II
   EDU 375: Teaching Elementary School Social Studies
   EDU 430: Measurement and Evaluation in Education
   EDU 478: Classroom Discipline for Personal and Social Responsibility
   EDU 477: Elementary School Practicum

Application and Reflection on Teaching – 16 credit hours
   EDU 490: Student Teaching I
   EDU 491: Student Teaching II
   EDU 492: Seminar in Student Teaching
   EDU 400: Foundations of Education: The School in American Society

D. Minor in an Approved Liberal Arts Area – 15 to 24 credit hours
   Credit hours vary depending on area chosen. Requirements in General Education and Content Core may reduce the number of credit hours in a minor. Approved minors are listed above.

E. Elective Courses – 0 to 10 credit hours
   Free Electives to complete the minimum of 128 credit hours

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 128-133 *

* Foreign language requirement (0-13 credit hours) may increase the total hours.
GE 3:  
GRY 120: Cultural Geography or  
GRY 125: Human Geography and Global Development  

GE 4: Any GE 4 course  

GE 5: Any GE 5 course.  
HIS 101: The World Since 1500 is recommended  

GE 6:  
ENG 200: Introduction to Literature or  
ENG 202: Introduction to Fiction or  
ENG 203: Introduction to Poetry or  
ENG 204: Introduction to Drama  

GE 7: Any GE 7 course.  
SCI 320: Science, Technology and Culture or  
GRY 370: Will the World Provide? are recommended  

GE 8: One life science and one earth science.  
SCI 141: Earth Science and  
SCI 142: Physical Science are recommended  

B. Content Core – 28 credit hours  
MAT 102: Concepts of Elementary School Mathematics II  
PSY 101: General Psychology I  
PSY 231: Child Psychology  
ECO 105: Political Economy and Social Thought or  
POL 100: Introduction to American Government and Politics  
(whichever not taken as GE 1)  
HLH 265: Health for the Child  
HIS 200: The United States to 1877  
HIS 201: The United States Since 1877  
ENG 302: Advanced Writing or  
ENG 306: Advanced Writing Workshop  
PED 245: Activities for Children  
SPE 270: Introduction to Special Education  

C. Pedagogy Courses – 42 credit hours  
ECE 270: Introduction to Early Childhood Education  
ECE 330: Observation and Assessment of Young Children  
ECE 331: Curriculum Development I  
ECE 332: Preschool Practicum  
ECE 333: Children, Families, and Their Community  
EDU 371: Teaching Elementary School Reading and Language Arts I  
ECE 431: Curriculum Development II  
ECE 435: Children's Literacy Across the Curriculum  
EDU 477: Elementary School Practicum  
EDU 478: Classroom Discipline for Personal and Social Responsibility  

Application and Reflection on Teaching – 16 credit hours  
ECE 490: Student Teaching I  
ECE 491: Student Teaching II  
ECE 492: Seminar in Student Teaching  
EDU 400: Foundations of Education: The School in American Society  

D. Minor in an Approved Liberal Arts Area – 15-24 credit hours  
Credit hours vary depending on area chosen. Requirements in General Education and Content Core may reduce the number of credit hours in a minor. Approved minors are listed above.  

E. Elective Courses – 0 to 11 credit hours  
Free Electives to complete the minimum of 128 credit hours  

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 128-132*  
* Foreign language requirement (0-13 credit hours) may increase the total hours.

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Major in Early Childhood Education/Childhood Education (Birth - Grade 6) [ECCE]

This major prepares students to have dual certification in early childhood education and childhood education for teaching from birth through grade six. Refer to these majors and the career potential as described above.

A. College-wide and General Education Courses – 38 credit hours (plus foreign language)  
COR 101: The Cortland Experience  
CPN 100: Academic Writing I  
CPN 101: Academic Writing II  
MAT 101: Concepts of Elementary School Mathematics I  
Foreign Language – 0 to 13 credit hours  

General Education Program  
GE 1:  
ECO 105: Political Economy and Social Thought or  
POL 100: Introduction to American Government and Politics  

GE 2: Any GE 2 course  
EDU 103 or GRY 221 are recommended  

GE 3:  
GRY 120: Cultural Geography or  
GRY 125: Human Geography and Global Development  

GE 4: Any GE 4 course  

GE 5: Any GE 5 course.  
HIS 101: The World Since 1500 is recommended  

GE 6:  
ENG 200: Introduction to Literature or  
ENG 202: Introduction to Fiction or  
ENG 203: Introduction to Poetry or  
ENG 204: Introduction to Drama  

GE 7: Any GE 7 course.  
SCI 320: Science, Technology and Culture or  
GRY 370: Will the World Provide? are recommended  

GE 8: One life science and one earth science.  
SCI 141: Earth Science and  
SCI 142: Physical Science are recommended  

B. Content Core – 31 credit hours  
MAT 102: Concepts of Elementary School Mathematics II  
PSY 101: General Psychology I  
PSY 231: Child Psychology  
ECO 105: Political Economy and Social Thought or  
POL 100: Introduction to American Government and Politics  
(whichever not taken as GE 1)  
HLH 265: Health for the Child  
HIS 200: The United States to 1877  
HIS 201: The United States since 1877  
ENG 302: Advanced Writing or  
ENG 306: Advanced Writing Workshop  
PED 245: Activities for Children  
SPE 270: Introduction to Special Education  

C. Pedagogy Courses – 50 [+] credit hours  
ECE 270: Introduction to Early Childhood Education  

Application and Reflection on Teaching – 16 credit hours  
ECE 490: Student Teaching I  
ECE 491: Student Teaching II  
ECE 492: Seminar in Student Teaching  
EDU 400: Foundations of Education: The School in American Society  

D. Minor in an Approved Liberal Arts Area – 15-24 credit hours  
Credit hours vary depending on area chosen. Requirements in General Education and Content Core may reduce the number of credit hours in a minor. Approved minors are listed above.  

E. Elective Courses – 0 to 11 credit hours  
Free Electives to complete the minimum of 128 credit hours  

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 128-132*  
* Foreign language requirement (0-13 credit hours) may increase the total hours.
EDU 371: Teaching Elementary School Reading and Language Arts I
EDU 372: Teaching Elementary School Reading and Language Arts II
EDU 373: Teaching Elementary School Mathematics
EDU 374: Teaching Elementary School Science
EDU 375: Teaching Elementary School Social Studies
EDU 478: Classroom Discipline for Personal and Social Responsibility
EDU 477: Elementary School Practicum

Application and Reflection on Teaching – 16 [+] credit hours
ECE 490: Student Teaching I
ECE 491: Student Teaching II
ECE 492: Seminar in Student Teaching
EDU 400: Foundations of Education: The School in American Society

D. Minor in an Approved Liberal Arts Area – 15 to 24 credit hours
Credit hours vary depending on area chosen. Requirements in General Education and Content Core may reduce the number of credit hours in a minor. Approved minors are listed above.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 128-143 *
* Foreign language requirements (0-13 credit hours) may increase the total hours.

Major in Special Education/Childhood Education (Grades 1-6) [SPC]
The special education/childhood education major prepares students to have dual certification in childhood education and teaching children with disabilities for teaching in grades one through six.

CAREER POTENTIAL
• Elementary education teacher, Grades 1-6
• Special education teacher, Grades 1-6
• Inclusive curriculum specialist
• Inclusion consultant
• Developmental disabilities provider/caregiver

A. College-wide and General Education Courses – 38 credit hours (plus foreign language)
COR 101: The Cortland Experience
CPN 100: Academic Writing I
CPN 101: Academic Writing II
MAT 101: Concepts of Elementary School Mathematics I
Foreign Language – 0 to 13 credit hours

General Education Program
GE 1:
ECO 105: Political Economy and Social Thought or
POL 100: Introduction to American Government and Politics
GE 2: Any GE 2 course
EDU 103 or GRY 221 are recommended
GE 3:
GRY 120: Cultural Geography or
GRY 125: Human Geography and Global Development
GE 4: Any GE 4 course
GE 5: Any GE 5 course.
HIS 101: The World Since 1500 is recommended

GE 6:
ENG 200: Introduction to Literature or
ENG 202: Introduction to Fiction or
ENG 203: Introduction to Poetry or
ENG 204: Introduction to Drama

GE 7: Any GE 7 course.
SCI 320: Science, Technology and Culture or
GRY 370: Will the World Provide? are recommended

GE 8: One life science and one earth science.
SCI 141: Earth Science and
SCI 142: Physical Science are recommended

B. Content Core – 25 credit hours
MAT 102: Concepts of Elementary School Mathematics II
PSY 101: General Psychology I
PSY 231: Child Psychology
ECO 105: Political Economy and Social Thought or
POL 100: Introduction to American Government and Politics (whichever not taken as GE 1)
HLH 265: Health for the Child
HIS 200: The United States to 1877
HIS 201: The United States since 1877
ENG 302: Advanced Writing or
ENG 306: Advanced Writing Workshop
PED 245: Activities for Children

C. Special Education Courses – 20.5 credit hours
SHH 270: Introduction to Communication Disorders
SPE 270: Introduction to Special Education
SPE 280: Perspectives on Disabilities: Child, Family, School, and Community
SPE 315: Assistive and Adaptive Technology
SPE 360: Measurement and Evaluation in Education
SPE 436: Assessment and Instruction of Learners with Special Needs

D. Minor in Psychology of Exceptionality – 18 credit hours
PSY 331: Psychology of Exceptional Children
PSY 332: Educational Psychology
PSY 360: Applied Behavior Analysis I
PSY 431: Psychology of Mental Retardation
PSY 432: Psychology of Learning Disabilities
PSY elective

E. Pedagogy Courses – 36 credit hours
EDU 314: Teaching with Computers in Elementary and Middle School
EDU 371: Teaching Elementary School Reading and Language Arts I
EDU 372: Teaching Elementary School Reading and Language Arts II
EDU 373: Teaching Elementary School Mathematics
EDU 374: Teaching Elementary School Science
EDU 375: Teaching Elementary School Social Studies
EDU 478: Classroom Discipline for Personal and Social Responsibility

Application and Reflection on Teaching – 16 credit hours
SPE 490: Student Teaching I
SPE 491: Student Teaching II
SPE 492: Seminar in Student Teaching
EDU 400: Foundations of Education: The School in American Society

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 128-137.5 *
* Foreign language requirement (0-13 credit hours) may increase total hours.
Example of the undergraduate degree in Childhood Education (B.S.) with a minor in History over four years

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<td>HIS minor</td>
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Interdisciplinary Courses

**INT 270: Exploring Education**
(A) Introduction to education and teaching through the perspectives of a variety of disciplines such as psychology, history, sociology, philosophy, and political science. Open to students in all major fields. (3 cr. hr.)

Early Childhood Education Courses

**ECE 270: Introduction to Early Childhood Education**
(A) This course is an orientation to the issues, challenges and opportunities of early childhood education. It provides an overview of the history and philosophy of early care and education to the current system of early care and education in the United States. Criteria for developing, operating and evaluating early childhood programs will be introduced. Students will be introduced to the early childhood education program's conceptual framework, program plan, technological and other resources, and will observe early childhood programs and classrooms. (3 cr. hr.)

**ECE 330: Observation and Assessment of Young Children**
(B) This course will acquaint students with the observation and assessment techniques that they will need to understand young children's growth and development in order to meet the individual needs of children while building on their strengths. Students will examine formal and informal assessments of physical, cognitive, language and social/emotional development. Critical issues in early childhood developmental assessment will be addressed. Students will practice the techniques and assessments throughout the semester. Prerequisites: ECE 270 and PSY 231. (3 cr. hr.)

**ECE 331: Curriculum Development I**
(B) This course focuses on curriculum development for children from birth to grade 3 with an emphasis on the preschool age child. The planning of developmentally appropriate learning experiences, the design of learning environments and the use of play and exploration for the purpose of expanding the young child's social, emotional, cognitive, linguistic, physical, and aesthetic growth and development will be explored. Students will develop methods and materials that address the content areas associated with the domains of early childhood growth and development, and develop awareness of cultural values of different families. Taken concurrently with ECE 332 (field component). Prerequisite: ECE 270. (3 cr. hr.)

**ECE 332: Pre-School Practicum**
(B) This course provides students with hands-on field experience in an early childhood preschool setting. Each student will work with an experienced early childhood professional as their cooperating teacher for a minimum of 75 hours during the semester. S, U grades are assigned. This course is taken concurrently with ECE 331. Prerequisite: ECE 270. (1 cr. hr.)

**ECE 333: Children, Families, and Their Community**
(B) This course explores the nature of families and communities as dynamic systems. The course focuses on current theories of family interactions, family patterns and communication and problem solving between early childhood programs and families. It is an ecological approach to understanding children, families and their

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Course codes: A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter, ■ = LAS
communities for the purpose of supporting the developing child and their family. Community resources for families and models of support programs will be considered. Prerequisite: ECE 270. (3 cr. hr.)

**ECE 431: Curriculum Development II**

(B) This course will emphasize developing instructional techniques, methods, and materials in primary grade classrooms (Kindergarten – grade 3). The focus will be on developing an integrated curriculum that includes all content areas with an emphasis on developing methods for the teaching of mathematics, science and social studies. Prerequisites: ECE 331 and 332. (3 cr. hr.)

**ECE 435: Children’s Literacy Across the Curriculum**

(B) This course builds on knowledge of speech and language patterns and literacy development in young children, constructed in previous classes. Various models for literacy development are examined. Students will examine language environment and the role of language experience, play, integrated arts and literature in fostering all children’s literacy, and knowledge of self and the world. Practical skills derived from each model are demonstrated, practiced by students and integrated into an early childhood classroom field experience. Prerequisite: ECE 331 and PSY 231. (3 cr. hr.)

**ECE 490: Student Teaching I**

(A) First half of student teaching in early childhood classroom; supervised by college faculty. Prerequisites: Consent of department, ECE 270, ECE 330, ECE 331, ECE 332, ECE 333, ECE 435, EDU 371, EDU 477, EDU 478; ECE 431 or EDU 314, EDU 372, EDU 373, EDU 374, EDU 375; no outstanding incompletes; an overall GPA of 2.5; no grade lower than a C- in required education courses. (6 cr. hr.)

**ECE 491: Student Teaching II**

(A) Second half of student teaching in early childhood classrooms; supervised by college faculty. Prerequisites: Consent of department, ECE 270, ECE 330, ECE 331, ECE 332, ECE 333, ECE 435, ECE 490, EDU 477, EDU 478; ECE 431 or EDU 314, EDU 372, EDU 373, EDU 374 and EDU 375; no outstanding incompletes; an overall GPA of 2.5; no grade lower than a C- in education courses. (6 cr. hr.)

**ECE 492: Seminar in Student Teaching**

(A) Semester-long seminar for discussion and analysis of issues related to preserve classroom teaching. Taken concurrently with student teaching. ECE 490/491 (withdrawal from ECE 490 or ECE 491 requires withdrawal from ECE 492). Prerequisites: ECE 270, ECE 330, ECE 331, ECE 332, ECE 333, ECE 435, EDU 371, EDU 477, EDU 478; ECE 431 or EDU 314, EDU 372, EDU 373, EDU 374 and EDU 375; no outstanding incompletes; an overall GPA of 2.5; no grade lower than a C- in education courses. (6 cr. hr.)

**Education Courses**

**EDU 103: Gender, Race and Class Issues in Education**

(O) Examine prejudice and discrimination (on the basis of class, race and gender) as these are institutionalized by schools, both in the United States and elsewhere in the world. The course will examine the school both as an agent of socialization which can be used to combat prejudice and discrimination and as an agent of socialization which can perpetuate prejudice and discrimination. (3 cr. hr.)

**EDU 129, 229, 329, 429, 559: Special Topics in Education**

Selected topics. May be taken more than once as subject changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

**EDU 314: Teaching With Computers in Elementary and Middle School**

(A) Content and methods for teaching with computers and related technologies in the elementary and middle school.

Prerequisite: INT 270. (2 cr. hr.)

**EDU 341: Teaching English Language Arts in Secondary Schools I: Literature Methods and Practicum**

Course emphasizes the teaching of literature. Instructional strategies, lesson planning, and teaching with educational standards are also stressed, as are working with ESL and special needs students in included classrooms. Prerequisites: 2.75 grade point average in both the major and all other courses. Two lectures and one two-hour lab experience per week. (3 cr. hr.)

**EDU 351: Strategies for Coping With Individual Differences**

(O) Identifying, coping in classroom with educationally important individual differences in cognitive characteristics, social-emotional functioning, perceptual-motor skills, and behaviors related to sex role and family background. Focus varies (early childhood, intermediate, secondary) depending upon instructor. (3 cr. hr.)

**EDU 371: Teaching Elementary School Reading and Language Arts I**

(A) Part I of integrated approach to teaching reading, writing, speaking and listening in elementary school classroom. Prerequisite: INT 270. (3 cr. hr.)

**EDU 372: Teaching Elementary School Reading and Language Arts II**

(A) Part II of integrated approach to teaching reading, writing, speaking and listening in elementary school classroom. Strategies for teaching special needs of children included. Prerequisites: INT 270, EDU 371. (3 cr. hr.)

**EDU 373: Teaching Elementary School Mathematics**

(A) Content and methods for teaching mathematics in the elementary school program focusing on problem solving, mathematical reasoning and communication in mathematics. Special attention will be given to integrating mathematics with other areas of the curriculum helping students see the connection among mathematics and other areas of study. Prerequisite: INT 270. (3 cr. hr.)

**EDU 374: Teaching Elementary School Science**

(A) Content and methods for teaching inquiry science in the elementary school. Special attention is given to how children learn science, interpretation of science education research, and integrating science across the curriculum. Prerequisite: INT 270. (3 cr. hr.)

**EDU 375: Teaching Elementary School Social Studies**

(A) Content and methods of teaching elementary school social studies focusing upon how children learn social studies, problem solving, social issues and social action, recent trends and programs, and the integration of social studies with other areas of the elementary school curriculum. Prerequisite: INT 270. (3 cr. hr.)

**EDU 392: Student Teaching: Secondary Education — Mathematics**

(A) One-half semester. S, U grades are assigned. Prerequisite: EDU 442. (7 cr. hr.)

**EDU 393: Student Teaching: Adolescence Education — Science**

(A) Full semester of student teaching. Prerequisites: PSY 232 or 333, EDU 423, EDU 443. See major department for eligibility criteria. S, U grades are assigned. (6-14 cr. hr.)
Course codes: A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter, ■ = LAS

EDU 394: Student Teaching: Secondary Education — Social Studies
(O) One-half semester. S, U grades are assigned. (6 cr. hr.)

EDU 400: Foundations of Education: The School in American Society
(A) Investigation of foundations of American educational system. Readings and discussion designed to enable students to reason, speak and write about purposes and practices of American education. Prerequisites: EDU 314, 371, 372, 373, 374, 375, 430, 477, 478. (3 cr. hr.) ■

EDU 423: Laboratory Practicum
This course is designed to provide a student with the opportunity to work with an experienced teacher in the planning, preparation, and implementation of laboratory exercises in an introductory college level lab course. Additionally, students will assist in one-on-one and in small group activities within the laboratory setting. It includes twenty-five hours of field experience. Corequisite: EDU 443. (1 cr. hr.)

EDU 430: Measurement and Evaluation in Education
(A) Nature and use of measurement, assessment, evaluation and testing in educational settings. Construction of teacher-made tests, examination of professionally prepared standardized tests and consideration of alternative forms of assessment, including portfolios. (3 cr. hr.)

EDU 431: Content and Methods of Teaching English in Middle/Junior High School
(S) Prerequisite: INT 270. (3 cr. hr.)

EDU 433: Content and Methods of Teaching Science in Middle/Junior High School
(S) Prerequisite: INT 270. (3 cr. hr.)

EDU 434: Content and Methods of Teaching Social Studies in Middle/Junior High School
(S) Prerequisite: INT 270. (3 cr. hr.)

EDU 435: Content and Methods of Teaching Mathematics in Middle/Junior High School
(S) Prerequisite: INT 270. (3 cr. hr.)

EDU 441: Teaching English Language Arts in Secondary Schools II: Integrated Methods and Practicum
Course brings together literature, composition, language, and general material on teaching methods. Progress toward an integrated knowledge of teaching practices and preparation for student teaching are among its goals. (3 cr. hr. – 2 lectures plus one lab contact hour per week)

EDU 442: Methods of Teaching Mathematics in the Secondary School
(A) Prerequisite: EDU 391. (3 cr. hr.)

EDU 443: Methods II: Teaching the Sciences in the Middle and Secondary Schools
Students will participate in the development of sample course syllabi, a comprehensive laboratory safety plan, field trip proposal, and strategies for facilitating parental/community involvement. Students will design and implement classroom demonstrations and laboratory exercises. Alignment of lesson plans with state and national learning standards and state core curriculum guides, strategies for motivation of students with diverse needs and learning styles, and development of assessment tools that parallel those of Regents examinations will be emphasized. Students will explore the uses of technology to enhance the teaching-learning environment in the science classroom. The course will conclude with a discussion of the importance of continuing self-evaluation and professional growth and development. Twenty-five hours of field experience in middle and secondary schools. WI. Prerequisite: AED 442. Corequisite: EDU 423. (3 cr. hr.)

EDU 444: Methods of Teaching Philosophy in Secondary School
(O) Prerequisite: Consent of Philosophy Department. (3 cr. hr.)

EDU 446: Individual or Independent Study
(A) Curriculum or other aspects of elementary education. Purpose, design of study determined by instructor-adviser. Weekly conferences. S, U grades are assigned. (1, 2, or 3 cr. hr.)

EDU 449: Literacy in the Middle and Secondary School
(F) Methods, materials and assessment for fostering literacy at the middle and secondary levels. (3 cr. hr.)

EDU 450: Issues and Trends in Special Education
(O) Examination of current issues in field of special education. Emphasis will be placed on practical relevance of this information to students’ professional careers. Prerequisite: EDU 490. (2 cr. hr.)

EDU 471: Foundations of Modern Education
(A) Social, historical, philosophical. (3 cr. hr.) ■

EDU 477: Elementary School Practicum
(A) 75-hour practicum experience in an elementary school, one day or two half-days each week. Reflective analysis and assignments in on-campus seminars. Must be taken in conjunction with EDU 478. S, U grades are assigned. Corequisite: EDU 478. (1 cr. hr.)

EDU 478: Classroom Discipline for Personal and Social Responsibility
(A) Various models for effective classroom management are examined in the light of their effect on the growth of children as persons and as members of a pluralistic, democratic society. Practical skills derived from each model are demonstrated, practiced by students and integrated into overall philosophy. Relevant field experiences concurrent with EDU 477. Prerequisite: Junior standing or registered in EDU 372, 375, or 430. (3 cr. hr)

EDU 487: Urban Education
(O) Understanding inner city children in their total environment as it affects their school years, learning. (2 cr. hr.)

EDU 490: Student Teaching I
(A) First half of student teaching in elementary schools; supervised by college faculty. Prerequisites: consent of department, INT 270, EDU 314, 371, 372, 373, 374, 375, 430, 477, 478; must be taken concurrently with EDU 492; no outstanding incompletes; an overall GPA of 2.5; no grade lower than a C- in required education courses. (6 cr. hr.)

EDU 491: Student Teaching II
(A) Second half of student teaching in elementary schools; supervised by college faculty. Prerequisites: consent of department, INT 270, EDU 314, 371, 372, 373, 374, 375, 430, 477, 478, 490; must be taken concurrently with EDU 492; no outstanding incompletes; an overall GPA of 2.5; no grade lower than a C- in required education courses. (6 cr. hr.)

EDU 492: Seminar in Student Teaching
(A) Semester-long seminar for discussion and analysis of issues related to preservice classroom teaching. Taken concurrently with student teaching, EDU 490 and 491 (withdrawal from EDU 490 or EDU 491 requires withdrawal from EDU 492). Prerequisites: INT 270, EDU 314, 371, 372, 373, 374, 375, 430, 477, 478. (1 cr. hr.)

EDU 510: Inquiry into Teaching, Technology and Research
(B) This course will introduce students to the field of teaching, which will include an exploration of teachers’ practices, the structure of schools, student diversity, current initiatives in education in New York State, and other general areas related to education. The course will also examine the uses of technology in the public schools and ethical issues in using technology. Finally, students will learn how to be consumers and creators of research as
EDU 511: Teaching Literacy in the Primary Grades
(A) The purpose of this course is to emphasize reading, writing, listening, and speaking at the primary school level. Students will learn to assess and instruct primary grade students through class and tutoring sessions. In addition, students will investigate philosophy of literacy, related research, students with special needs, multicultural issues, the use of technology in tutoring, and integrating content areas. Prerequisite: Admission to the MST Program. (3 cr. hr.)

EDU 512: Teaching Elementary School Mathematics
(B) The goal of this course is to prepare preservice teachers in the MST Program to teach mathematics to elementary school students in an effective, constructivist, and equitable manner. In class meetings, the instructor will use hands-on mathematics activities to model appropriate strategies for teaching mathematics in a student-centered classroom and to build preservice teachers' understandings of mathematics. Inquiry teaching will be also modeled and expected in students' lesson plans. By completing class readings, course assignments, and observations of children in classrooms, students will develop a multitude of techniques and strategies for providing mathematics instruction to diverse learners. Prerequisite: Admission to the MST Program. (Undergraduates restricted.) (3 cr. hr.)

EDU 513: Teaching Elementary School Science
(B) This course will provide hands-on activities that enable students to experience inquiry and learning science in a constructivist manner. Through reflection of these experiences and on structured interactions with children, students will participate in action research as they simultaneously engage in real life applications of the National Science Standards and the New York State Math/Science Technology Learning Standards. Prerequisite: Admission to the MST Program. (3 cr. hr.)

EDU 514: Teaching Elementary School Social Studies
(B) This course investigates innovative and traditional approaches to teaching social studies concepts for children preK-6. It emphasizes the objectives (including adaptation for diverse and exceptional children), curriculum content, materials and resources to engage in historical, social and citizenship understanding and activities at the appropriate developmental level. Experiences are provided to develop National Standards and State Learning Frameworks. Prerequisite: EDU 510, 511, 512 and 513. (3 cr. hr.)

EDU 516: Teaching Literacy in the Intermediate Grades
(B) The purpose of this course is to emphasize reading, writing, listening, and speaking at the intermediate school level. Students will learn to assess and instruct an intermediate grade student through class and tutoring sessions. In addition, students will examine their philosophy of reading, related research, special needs, multicultural issues, the use of technology in tutoring, and integrating content areas. Prerequisite: EDU 510, 511, 512 and 513, 514. (3 cr. hr.)

EDU 521: Elementary School Language Arts
(B) Guiding children in written, oral communication. Prerequisite: Student teaching. (3 cr. hr.)

EDU 522: Readings, Research and Teaching Innovations in Mathematics and Science Education
(A) This course will examine issues related to the teaching and integration of math, science and technology in elementary school classrooms. Students will examine theory and classroom-based research to construct an understanding of how these subject areas can be made accessible to all learners. Pre/Corequisite: EDU 660. (3 cr. hr.)

EDU 523: Elementary School Science
(B) Objectives, content of science programs for children in pre-kindergarten through middle school. Planning pupil activities, utilizing teaching aids, materials. Prerequisite: Student teaching. (3 cr. hr.)

EDU 524: Democracy and Social Education
(A) This course will be conducted through research-based and self-reflective-oriented inquiry. Students will analyze and define democracy and social education in the context of American public schools. Students will confront the antidemocratic forces of greed, individualism, and intolerance in today's society and be challenged to implement the study of social education with the goal of social justice. Students will be exposed to a theoretical and historical analysis of education and society. The course will also provide a practical analysis of classroom pedagogy and school organization. Pre/Corequisite: EDU 660. (3 cr. hr.)

EDU 525: Teaching the Inner City Child
(F) Challenge of educating urban youngsters; objectives, approaches, and procedures to meet this need. Includes disciplinary approaches, multicultural concerns, methods for involving students directly in their learning and background information for teaching multicultural social studies. Prerequisite: Graduate status; post student teaching undergraduates; African American Studies majors or minor in their senior year. (3 cr. hr.)

EDU 528: Language and Literacy Development
(A) Explores connections between overall language development and the specific development of print literacy. Studies theoretical perspectives of language development and examines how they are applied to learning environments. Prerequisite: Student teaching. (3 cr. hr.)

EDU 529: Elementary School Reading
(A, M) Developmental reading concepts, trends, research studies. Prerequisite: Student Teaching. (3 cr. hr.)

EDU 531: Developing Creative Elementary School Experiences
(O) Research, objectives and procedures related to creativity in elementary school programs are examined. Emphasis is given to the development, implementation and evaluation of selected activities which integrate with various curriculum areas, enrich learning experiences and nurture the creative processes. Prerequisite: Consent of department. (3 cr. hr.)

EDU 532: Elementary School Mathematics II
(B) Extension of EDU 522, introduces additional math concepts including informal geometry, metrics, number patterns, probability. Prerequisite: Student teaching. (3 cr. hr.)

EDU 538: Discipline and Classroom Behavior in the Elementary School
(B) Identifying various behavior problems; alternative strategies for dealing with inappropriate behavior; discipline, classroom management as preventive measure; cognitive and affective approaches for resolving behavior problems. Not open to undergraduates having credit for EDU 478. Prerequisite: Student teaching. (3 cr. hr.)
EDU 539: Reading and Writing Across the Curriculum
(A) This course is designed for practicing educators and teachers and will cover emerging educational technologies that are increasingly changing the way teachers perform their tasks. The emphasis of this course will be a hands-on approach to using new digital tools to enhance teaching, learning, and communication, not only within the classroom, but also to the larger contexts of schools, communities, and the world. It may not be taken before SPE 270, however. (3 cr. hr.)

EDU 540: Current Practices in Literacy Assessment and Instruction of Learners from Birth-Grade 6
(A) This course will explore developmental reading concepts. Students will explore trends and research in the field of literacy. A field experience equal to one credit hour is required. Prerequisite/corequisite: EDU 528. (4 cr. hr.)

EDU 541: Teaching Literature in the Secondary School: Critical Theory and Classroom Practice
(F) Instructional strategies and curriculum planning for the teaching of literature in secondary school. Prerequisite: Graduate status. (3 cr. hr.)

EDU 544: Methods of Teaching Social Studies in Secondary Schools
(O) (3 cr. hr.)

EDU 549: Reading in the Secondary School
(A, M) Problems, learning theories related to reading and adolescence, causes of reading disabilities, diagnostic procedures, organizing developmental reading program. Prerequisite: Student teaching. (3 cr. hr.)

EDU 550: Current Practices in Literacy Assessment and Instruction of Learners in Grades 5-12
(A) Understanding the role of comprehension for all middle and secondary students will be emphasized through research, strategies, metacognition, and assessment. Topics include background, vocabulary, graphic organizers, purposes, questioning, study skills, and writing. Evaluating, selecting, and using textbooks will also be examined. A field experience equal to one credit hour is required. Prerequisite/Co-require: EDU 528. (4 cr. hr.)

EDU 551: eLearning and the American Classroom
(A) This course is designed for practicing educators and teachers and will cover emerging educational technologies that are increasingly changing the way teachers perform their tasks. The emphasis of this course will be a hands-on approach to using new digital tools to enhance teaching, learning, and communication, not only within the classroom, but also to the larger contexts of schools, communities, and the world. Previous experience with personal computers is suggested but is not required. Pre/Corequisite: EDU 528. (4 cr. hr.)

EDU 552: Gender Issues in Education
(F) Seminar integrating recent scholarship on women and women’s ways of knowing into a broader study of gender issues in education including socialization of men and women through education; socialization of women and men teachers and administrators and the costs and benefits of these structures for men and women. The course will focus upon application of these issues to policy and practice in education today. Prerequisites: Junior, senior or graduate level; education methods course. (Also listed as WST 552.) (3 cr. hr.)

EDU 555: Environmental and Outdoor Education
(S) Development of program materials for various age, grade levels in public school. Policies, procedures, practices in supervision, administration of outdoor education. Prerequisite: Consent of instructor. (Also listed as REC 568.) (3 cr. hr.)

EDU 557: Character Education
(B) Character education is defined as helping students understand, care about, and act upon on widely shared ethical values such as respect, responsibility, honesty, fairness, caring, and civic virtue. Emphasis on a comprehensive approach that integrates character development into every phase of school life — including academics and behavior — and develops the classroom and school into caring communities that embody good character. Prerequisite: Student teaching. (3 cr. hr.)

EDU 560: Literacy and Society
(A) Explores connections between literacy and practices of the larger society. Readings cover a wide range of theories and perspectives. Introduces important theories in the field of literacy. Classic authors and works form the majority of course content. Prerequisite: Student Teaching. (3 cr. hr.)

EDU 566: Practicum I: Student Teaching in the School
(O) Supervised student teaching in a middle school for students enrolled in the Master of Arts in Teaching English program. (6 cr. hr.)

EDU 567: Practicum II: Student Teaching in the Secondary School
(O) Supervised student teaching in a high school for students enrolled in the Master of Arts in Teaching English program. (6 cr. hr.)

EDU 569: Student Teaching: Secondary Education — Mathematics
Full-time supervised student teaching in an approved secondary school for students enrolled in the Master of Arts in Teaching program. Prerequisite: PSY 516; EDU 600, 601. (7 cr. hr.)

EDU 573: Student Teaching: Secondary Education — Science
Full-time supervised student teaching in an approved secondary school for students in the program for master of arts in teaching. Prerequisite: PSY 516; EDU 600, 645. (7.5 cr. hr.)

Special Education Courses

SPE 270: Introduction to Special Education
(A) Course meets all SED teacher certification requirements for childhood and early childhood teachers to teach students with disabilities in inclusive classrooms. Introductory course for students in the Teaching Students with Disabilities in Childhood Education Program, intended to orient general education and special education pre-service teachers to special education, the characteristics of students with special needs, strategies to work effectively with diverse student populations, and techniques for forming partnerships with each other and other professionals and parents. (3 cr. hr.)

SPE 273: Perspectives on Disabilities – The Child, Family, School, and Community
(B) Introductory course to assist special education majors to develop a deeper understanding of the child with a disability and his/her family at home and in the school and community. Includes 25 hours of field experience with a family and child and issues of family support, advocacy, respite, financing of services, and futures planning to understand the role of the special education teacher in enabling the family to access necessary services. (3 cr. hr.)

SPE 315: The Use of Assistive/Adaptive Technology
(B) This course will cover the use of assistive technology in the classroom to maximize the participation of students identified as having special needs. Students will begin to pinpoint the need for assistive technology, participate in locating or adapting the device, and will be able to train the student, paraprofessional, parent, or others in the use of frequently used devices. Prerequisite: Completion of EDU 314. (1.5 cr. hr.)

SPE 360: Measurement and Evaluation for Special Education and General Education
(B) Examination of current trends and practices in measurement and evaluation for both special education and general education. Emphasis will be placed on practical relevance to students’ professional careers. Prerequisites: Students in the dual certification program may take this course concurrently with SPE 270 or other EDU/SPE course-work. It may not be taken before SPE 270, however. (3 cr. hr.)
SPE 436: Assessment and Instruction of Learners with Special Needs
(B) This course will provide the student preparing for dual certification in special education (K-12) and childhood education (1-6) with the skills necessary to participate in the identification and instruction of children with special needs. Directed field experiences will lead participants to increase their awareness of the learning needs of these groups through methods and practices applicable to all students in an inclusive environment. Prerequisites: Acceptance into dual major program. Completion of SPE 270 and a minimum of nine hours of psychology. (4 cr. hr.)

SPE 476: Adaptations and Accommodations for Learners with Special Needs
(B) Analysis, evaluation, and application of a variety of curriculum modification strategies, environmental and curricular adaptations and accommodations, as they apply to the academic content material in elementary education, and in compliance with individualized educational planning goals (IEP) for students with special educational needs. This course must be taken in conjunction with Block Two courses. Ten hours of fieldwork is included in this class. Prerequisites: SPE 270, SPE 315. (3 cr. hr.)

SPE 490: Student Teaching I (Special Education)
(A) (6 cr. hr.)

SPE 492: Seminar in Student Teaching
(A) Semester-long seminar for discussion and analysis of issues related to preservice classroom teaching in inclusive classrooms where students with and without disabilities are educated together. Taken concurrently with student teaching, SPE or EDU 490 and 491 (withdrawal from SPE or EDU 490 or SPE or EDU 491 requires withdrawal form SPE 492). Prerequisites: SPE 270, 280, 315, 360, 436, 476; EDU 314, 371, 372, 373, 374, 375, 477, 478; PSY 331, 436. (1 cr. hr.)

SPE 510: Teaching the Special Education Learner in the General Education Classroom
(O) This course provides a knowledge of special education to teachers who are seeking to accommodate students with disabilities more effectively in their classrooms and schools. (3 cr. hr.)

Course codes: A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter, ■ = LAS
PROGRAMS OFFERED
B.A. in English – 124 total credit hours
B.A. in Adolescence Education – English (Grades 7-12) – 124 total credit hours

MAJORS OFFERED
English
Adolescence Education – English (Grades 7-12)

MINORS OFFERED
English with emphasis areas in: Literature, Language and Literature, Literature and Writing

DESCRIPTION
English study involves an exploration of human values and the nature of their literary expression, and of the use of the language and the cultural background that shapes it. Courses in English are intended to help students read with understanding and enjoyment and write with skill and grace.

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to all of the following majors.
2. Liberal Arts Requirements: 90 credit hours.

Major in English [ENG]
The following courses meet the College’s requirement for the bachelor of arts degree and the major in English. Note: the bachelor of arts degree requires proficiency in a foreign language.

CAREER POTENTIAL
• Teacher
• Lawyer
• Librarian
• Journalist

A. Required Courses: 36 credit hours
ENG 203: Introduction to Poetry
ENG 302: Advanced Writing
ENG 325: American Literature before 1900
ENG 326: American Literature since 1900
ENG 355: Major Figures in British Literature to 1780
ENG 356: Major Figures in British Literature 1780-Present
ENG 433: Shakespeare
Additional course in literature before 1800 at 400-level
12 credit hours of electives in English

(Note: a minimum of 15 credit hours of the total 36 hours in English must be at the 400-level)
* English majors must pass English 203 and 302 with a C or better grade

B. Other: 15 credit hours
One three-hour course in philosophy

Two six-hour sequences chosen from:
HIS 100: The World to 1500 and HIS 101: The World since 1500 or
HIS 110: Western Civilization to 1715 and HIS 111: Western Civilization since 1715 or
HIS 200: The United States to 1877 and HIS 201: The United States since 1877 or
HIS 440: Britain to 1688 and HIS 441: Britain since 1688 or
ATH 121: Art in the Ancient World and ATH 122: Art in the Modern World

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Adolescence Education – English (Grades 7-12) [AEE]
This major leads to New York State certification to teach English in grades 7-12. Note: the bachelor of arts degree requires proficiency in a foreign language.

CAREER POTENTIAL
• High school teacher
• Educational researcher
• Junior high school teacher

A. Required Courses: 36 credit hours
ENG 203: Introduction to Poetry
ENG 306: Advanced Writing for Prospective Teachers
ENG 325: American Literature before 1900 and ENG 326: American Literature since 1900
ENG 355: Major Figures in British Literature to 1780 and ENG 356: Major Figures in British Literature 1780-Present
ENG 402: Grammar for Teachers
ENG 433: Shakespeare
An additional course in literature before 1800 at 400 level
An additional course in ethnic or third world literature at 400 level
An elective course in English at the 400 level
An elective course in English

B. Core in Professional courses 36-38 credit hours
COM 210: Fundamentals of Public Speaking or THT 330: Literature in Performance
PSY 101: General Psychology I
PSY 232: Adolescent Psychology or PSY 332: Educational Psychology
AED 391: Introduction to Secondary Education
EDU 341: Practicum in Teaching Secondary English
EDU 441: Methods of Teaching Secondary English
EDU 386: Student Teaching in English in the Middle School
EDU 387: Student Teaching in English in the High School
EDU 400: Senior Seminar: The School in American Society
EDU 449: Literacy in the Middle and Secondary Schools
HLH 110: Personal and Community Health or
HLH 199: Critical School Health Issues

C. To be eligible for the Professional Semester, which includes student teaching and is offered only in the fall, students must complete the following requirements:
1. 24 hours of English, including ENG 203, 306, 325, 326, 355, 402, and 433
2. COM 210 or THT 330; PSY 101, PSY 232 or 332; HLH 110 or 199; EDU 391, and EDU 341.

Students must meet all requirements for eligibility to student teach by the end of the semester prior to the semester they are scheduled to student teach. Additional work in summer school or independent study cannot be used to remedy deficiencies. Students with incompletes at the end of the spring semester must complete all courses by the last day of the first session of summer school. Successful completion of EDU 391 is a prerequisite for EDU 341.

Required grade point average: Students must have a cumulative grade point average of 2.75 in English courses (plus EDU 341) to be able to student teach. To receive the full benefits of EDU 341, which include receiving early placement for student teaching and being able to visit and participate in the classrooms where student teaching will be done, students must have the 2.75 at the beginning of EDU 341. Student teaching placements cannot be guaranteed for students who do not receive early placements during EDU 341.

Off-schedule student teaching: Undergraduates may student teach in the spring semester if they meet all requirements, including grade point average. However, off-schedule placements for student teaching cannot be guaranteed.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Minor in English [ENG]

Emphasis in Literature (LIT)
Eighteen hours of courses in literature with at least nine at the 400-level, selected in consultation with an advisor (excluding ENG 373: Literature for Children and ENG 374: Literature in the Secondary Schools).

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 18

Emphasis in Language and Literature (LANG)
ENG 201: Introduction to Language Study
ENG 402: Grammar for Teachers
Twelve elective hours in literature with at least six hours at the 400-level (excluding ENG 373: Literature for Children and ENG 374: Literature in the Secondary Schools)

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 18

Emphasis in Literature and Writing (WRIT)
At least six hours in literature and
At least six hours selected from
ENG 301: Creative Writing
ENG 302: Advanced Writing
ENG 303: Technical Writing
ENG 304: Introduction to Play and Script Writing
ENG 305: Film Criticism

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 18

ENG 306: Advanced Writing for Prospective Teachers
Six hours of electives (excluding ENG 373: Literature for Children and ENG 374: Literature in the Secondary Schools)

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 18

Example of the undergraduate degree in English over four years

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Example of the undergraduate degree in English over four years
English

COURSE DESCRIPTIONS

CPN 100: Academic Writing I
(A) Introduction to college writing. Students learn basic expository strategies for writing thoughtful papers based on ideas they have developed themselves and information they have obtained from reading sources. (3 cr. hr.) ■

CPN 101: Academic Writing II
(A) Focuses on analysis, synthesis, argument, and research. Students learn to analyze and critique readings, produce essays based on multiple sources, and conduct library research. Prerequisite: CPN 100. (3 cr. hr.) ■

Successful completion of CPN 100 and CPN 101 is prerequisite to all courses in English.

ENG 200: Introduction to Literature
(A) Introduction to systematic study in literature. Emphasis on fiction, with attention to poetry and drama. (3 cr. hr.) ■

ENG 201: Introduction to Language Study
(B) Concepts, scope, methodology of science of language. Principles of descriptive and historical linguistics. Geographical, historical, social dialects of English. (Also listed as ANT 251 and COM 211.) (3 cr. hr.) ■

ENG 202: Introduction to Fiction
(A) Introduction to reading and analysis of short story, novella, novel. (3 cr. hr.) ■

ENG 203: Introduction to Poetry
(A) Introduction to reading and analysis of poetry. (3 cr. hr.) ■

ENG 204: Introduction to Drama
(B) Introduction to basics of theatrical literature. (3 cr. hr.) ■

ENG 205: Introduction to Professional Writing
(B) Introduces students to the principles of writing in a range of professional genres and presents options that they may pursue in future course work and careers. (3 cr. hr.)

ENG 212: Introduction to Fiction Writing
(C) In a workshop environment, students practice writing skills with an emphasis on the short story. Prerequisite: ENG 200 or ENG 202. (3 cr. hrs.)

ENG 213: Writing Poetry
(B) Writing Poetry will provide potential poets with new insights into the power and excitement of poetry and practice with techniques and strategies for making poetry a personal form of discourse. Students will spend considerable time in group workshops evaluating and making constructive suggestions about each other’s work. Prerequisites: ENG 203.

ENG 220: Introduction to Western Literature I
(O) Major phases of literary heritage of Western World from Classical Age to Renaissance. (3 cr. hr.) ■

ENG 221: Introduction to Western Literature II
(O) Major phases of literary heritage of Western World from Enlightenmen to present. (3 cr. hr.) ■

ENG 229, 329, 429, 529: Special Topics in English
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

ENG 230: Issues in Poetry
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

ENG 240: Survey of African-American Literature
(O) Survey of African-American literature: representative novels, poetry, drama from various time periods. (Also listed as AAS 251.) (3 cr. hr.) ■

ENG 245: Women and Herstory in Literature
(O) Literary portrayal of women by female and male authors of different periods and nationalities. (3 cr. hr.)

ENG 246: Literature of War
(O) Literary portrayal of war in Western literature from antiquity to present. (3 cr. hr.) ■

ENG 247: Literature of Sports
(O) Philosophical, psychological, sociological ideas and problems associated with growing emphasis on sport in modern life. (3 cr. hr.) ■

ENG 251: Introduction to African-American Literature
(O) Survey of African-American literature: representative novels, poetry, drama from various time periods. (Also listed as AAS 251.) (3 cr. hr.) ■

ENG 252: Introduction to Modern American Multicultural Literature
(O) Introduction to prose, poetry, and drama that reflects the diverse ethnic, cultural, and social worlds of United States, Canada and the Caribbean today. (3 cr. hr.) ■

ENG 253: The Immigrant Experience in American Literature
(O) Understanding and critical appreciation of the similarities and differences between literary portrayals of the American immigrant experience by first and second generation members of various ethnic, racial, and religious groups. (3 cr. hr.)

ENG 256: Introduction to American Indian Literature
Introduction to “Native American” culture through analytical appreciation of its oral and written literature. (3 cr. hr.) ■

ENG 257: Introduction to Irish Literature
(O) Introduction to Irish writers and their themes. Readings include some translations from Irish to English. Poetry, fiction, and drama will be included. (3 cr. hr.) ■

ENG 260: Literature of Sports
(O) Philosophical, psychological, sociological ideas and problems associated with growing emphasis on sport in modern life. (3 cr. hr.) ■

ENG 261: Introduction to Women in Literature
(O) Study of literary portrayal of women by female and male authors of different periods and nationalities. (3 cr. hr.) ■

ENG 262: War in Literature
(O) Literary portrayal of war in Western literature from antiquity to present. (3 cr. hr.) ■

ENG 263: Ethical Issues in Literature
(O) Issues concerning moral and social law as reflected in the literature of various western cultures and historical backgrounds. (3 cr. hr.)

ENG 266: Literature of Modern Times
(O) Major phases of literary heritage of Western World from Enlightenment to present. (3 cr. hr.) ■

ENG 274: Modern American Multicultural Literature
(O) Major phases of literary heritage of Western World from Enlightenment to present. (3 cr. hr.) ■

ENG 275: Modern American Literature
(O) Major phases of literary heritage of Western World from Enlightenment to present. (3 cr. hr.) ■

ENG 278: Introduction to Film and Short Fiction
(O) Introduction to analysis, interpretation of films and short fiction through study of selected short stories, novelettes, film scripts, films. (Also listed as CIN 278.) (3 cr. hr.) ■

ENG 280: Introduction to Mythology and the Bible
Survey of major characters and events in classical mythology and the Bible. (3 cr. hr.) ■

ENG 299: Rhetoric: The Art of Influence
(B) Provides fundamental theory about how writing exerts powerful influences on audiences. Students will explore the situations and purposes that writing serves and the voices and genres that historically have defined written texts. (3 cr. hr.)

ENG 300: Writing in Cyberspace
(B) Students read and analyze published hypermedia texts in a variety of genres; reflect on the evolution of the book as a technology; explore how printed text has changed culture; consider the economic, political
and philosophical significance of the modern institutions of the library, the author and the reader; and analyze modern debates concerning the fate of printed texts in the age of digital media. Prerequisites: Basic competency in word processing. (3 cr. hr.)

ENG 301: Creative Writing
(O) Study and writing assigned according to students' interest in one or both genres of poetry and the short story. Prerequisite: See Course Schedule for possible prerequisite. May be repeated once with consent of instructor. (3 cr. hr.)

ENG 302: Advanced Writing
(A) Expository writing. (3 cr. hr.)

ENG 303: Technical Writing
(O) Strategies for effective technical communication and persuasive business writing. (3 cr. hr.)

ENG 304: Introduction to Play and Script Writing
(O) Practical and theoretical instruction in basics of play and script writing. (Also listed as CIN 304.) (3 cr. hr.)

ENG 305: Film Criticism
(O) Close study of a number of selected films, domestic and foreign, from aesthetic, technical perspectives. Extensive writing of reviews, critiques aimed at different media. High level of writing proficiency expected. Consent of instructor. (Also listed as CIN 305.) (3 cr. hr.)

ENG 306: Advanced Writing Workshop
(A) Objectives of this course are to help prospective teachers improve their own writing, introduce them to the process approach of teaching writing, and show them methods of instruction that work to improve writing performance. Prerequisite: Major in elementary education, English concentration or English, secondary education. (3 cr. hr.)

ENG 307: Computer Technology in the Classroom
(B) Students will study the application of computer technology to the composing process and assist English instructors in composition classes. (3 cr. hr.)

ENG 308: Business Writing
(C) Principles of effective communication, focusing on how to choose appropriate organizational plans for a variety of messages, how to write from a "you" perspective and understand audience psychology, and how to format messages for effective visual impact. (3 cr. hr.)

ENG 309: Electronic Writing
(B) Students learn to apply rhetorical principles and effective writing techniques in the context of desktop publishing and electronic publishing via the Internet and World Wide Web. (3 cr. hr.)

ENG 325: American Literature Before 1900
(A) Representative works of major writers of the Puritan Age, the Age of Reason, the Romantic Age, and the Age of Realism and Regionalism. (3 cr. hr.)

ENG 326: American Literature Since 1900
(A) Representative works of major writers of the Age of Naturalism, the Age of Modernism, and the Postmodern Age. (3 cr. hr.)

ENG 327: Irish-American Literature
(O) Problems, patterns of assimilation and acculturation in selected works of such Irish-American writers as James T. Farrell, F. Scott Fitzgerald, Eugene O'Neill, Edwin O'Connor, J.P. Dunleavy. (3 cr. hr.)

ENG 352: Early African-American Writing
(O) African-American writing before World War II. Emphasis on critical reactions, analysis. Slave narrative, autobiography, rhetoric, fiction, poetry included. Prerequisite: AAS/ENG 251. (Also listed as AAS 352.) (3 cr. hr.)

ENG 353: Recent African-American Writing
(O) African-American experience in America as reflected since World War II in works of outstanding Black American writers: fiction, nonfiction, poetry, drama. Prerequisite: AAS/ENG 251. (Also listed as AAS 353.) (3 cr. hr.)

ENG 355: Major Figures in British Literature to 1780
(A) From Chaucer to the Romantics, including Spenser, Shakespeare, Donne, Milton, Dryden, Swift, Pope, Fielding. (3 cr. hr.)

ENG 356: Major Figures in British Literature 1780-Present
(A) From Blake to the present including such writers as Wordsworth, Coleridge, Keats, Browning, Hardy, Yeats, Joyce, Woolf, Auden. Prerequisite: ENG 355. (3 cr. hr.)

ENG 365: Third World Literature
(O) Representative postcolonial works of fiction in English from the Caribbean, Africa, India, and the South Pacific. (3 cr. hr.)

ENG 373: Literature for Children
(A) Understanding, critical appreciation of books for elementary school pupils. Not to be counted in the English 120 and 220 major programs. (3 cr. hr.)

ENG 374: Literature in Middle and Secondary Schools
(O) Reading, appraisal of literature written for students of junior and senior high school age. Works originally intended for adults but widely read by adolescents. Not to be counted as part of the English 220 major program. (3 cr. hr.)

ENG 378: Film as Literature
(O) Study of six or more selected films and scripts. Emphasis on literary methods of analysis, interpretation. (Also listed as CIN 378.) (3 cr. hr.)

Three credit hours in ENG 325, 326, 352 or 356 are prerequisite to 400-level literature courses.

ENG 401: History of the English Language
(C) Historical development of the English Language, with attention to changes in the sound system, grammar and vocabulary of the language in all periods as well as the establishment of American English and English as a world language. (3 cr. hr.)

ENG 402: Language Development in Adolescents
Objectives for this course are to determine the appropriate role of grammar in the English Language Arts curriculum, to explore the psycholinguistic nature of the language processes, and to develop methods of instruction through study and field practice. Prerequisite: Junior standing or permission of English Department. Three lecture hours plus one two-hour lab experience per week. (4 cr. hr.)

ENG 404: Teaching Writing
(F) Instructional strategies, curriculum planning, and assessment techniques for the teaching of writing in middle and secondary schools. Three lectures, one two-hour laboratory/field experience. Prerequisite: ENG 306 (4 cr. hr.)

Course codes: A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter, ■ = LAS
ENG 405: Sales Writing
(C) This course will develop students' skills in practical persuasive writing. Prerequisite: ENG 308. (3 cr. hr.)

ENG 410: Revising and Editing
(B) Students will examine theories of revising and editing. In workshops students will learn strategies for revision, effective editing and proofreading. (3 cr. hr.)

ENG 413: Contemporary Poetics
(C) Students respond to critical texts on poetic inspiration and creation working toward their own theory of the sources of poetry. Prerequisites: A 300-level writing course and a 400-level literature class. (3 cr. hr.)

ENG 415: Experiments in Creative Writing
(C) Students will, in a workshop setting, compose, share and critique cross-genre and experimental works—prose, poems, short stories, experimental texts and multi-media and performance works. Prerequisite: ENG 212, or ENG 213, or ENG 214. (3 cr. hr.)

ENG 417: The Romantic Age in American Literature
(B) Such writers as Cooper, Poe, Hawthorne, Melville, Emerson, Thoreau and Whitman. (3 cr. hr.)

ENG 418: Realism and Naturalism in American Literature
(A) From Civil War to Twenties. (3 cr. hr.)

ENG 419: American Fiction of the Twenties and Thirties
(B) Studies in important American prose writers from the Twenties to World War II. (3 cr. hr.)

ENG 420: Modern American Poetry
(C) Important poets from 1914 to present. (3 cr. hr.)

ENG 421: African-American Autobiography
(O) Autobiographical narratives of Douglass, Washington, Hughes, Wright, Baldwin, Malcolm X, Moody, Angelou. (3 cr. hr.)

ENG 422: American Women Writers
(O) Representative works, from the late 18th Century to the present. (3 cr. hr.)

ENG 423: American Fiction Since 1940
(O) Important American prose writers from the forties to present. (3 cr. hr.)

ENG 425: African-American Women Novelists
(O) Study of African-American women's tradition in American literature. Focus on the representative works of Wilson, Harper, Hurston, Larson, Petry, Morrison, Naylor, Walker. (Also listed as AAS 425.) (3 cr. hr.)

ENG 433: Shakespeare I
(A) Dramatic effectiveness, structure, characterization, and poetry in selected group of Shakespeare plays. (3 cr. hr.)

ENG 434: Shakespeare II
(O) Dramatic effectiveness, structure, characterization, poetry, textual and scholarly problems in selected group of Shakespeare plays. Will cover certain plays that present different types of problems requiring more extensive analysis and discussion than Shakespeare I. Prerequisite: ENG 433. (3 cr. hr.)

ENG 438: Seventeenth-Century Poetry and Prose
(C) Literature of the late Renaissance, 1590-1660; selected works of metaphysical (Donne, Herbert, Vaughan) and/or cavalier (Jonson, Herrick, Marvell) writers and their contemporaries. (3 cr. hr.)

ENG 440: The Age of Satire
(O) Restoration and Augustan prose, poetry, drama; Dryden, Swift, Pope, and their contemporaries with attention to precursors and subsequent developments. (3 cr. hr.)

ENG 441: The Age of Sensibility
(O) Pre-Romantic poetry: Thomson, Gray, Collins; Sentimentalism in the novel and drama; Sterne, Sheridan, Goldsmith; criticism and biography of Johnson, Boswell. (3 cr. hr.)

ENG 445: The Romantic Age
(O) Major writers of Romantic period of England. (3 cr. hr.)

ENG 446: The Victorian Age
(C) Selected works of Victorian writers studied in relation to intellectual movements of period. (3 cr. hr.)

ENG 455: The English Novel to 1900
(O) From the beginnings to 1900. (3 cr. hr.)

ENG 456: Modern Irish Drama
Representative works of selected modern Irish playwrights such as Synge, Yeats, O’Casey, Johnston, Carroll, Beckett, Behan, Friel and Murphy. (3 cr. hr.)

ENG 457: Modern Irish Fiction
(C) Representative works of selected modern Irish novelists and short-story writers — for example: Moore, O’Kelly, Stephens, Joyce, O’Connor, O’Faolain, Murdoch, Trevor. (3 cr. hr.)

ENG 458: Modern Irish Poetry
(C) Representative works of selected modern Irish poets, such as Yeats, Kavanagh, Heaney, Kinsella and Montague. Equal emphasis will be placed on work of women poets, including Ni Chuilleanain, Boland, Ni Dhomhnaill and McGuckian. (3 cr. hr.)

ENG 460: Mythology in Literature of the Western World
(B) Translated selections from Greek and Latin epics, Greek drama, and selections from the Bible, with special reference to myths, other traditional narratives and their use in later literatures. (3 cr. hr.)

ENG 464: Modern Russian Literature 1860-1960
(O) Representative works in translation of selected Russian writers; novel, short story, drama; Tolstoy, Turgenev, Dostoevsky, Chekhov, Pasternak. (3 cr. hr.)

ENG 470: Modern British Poetry
(C) Poetry since 1890 written in England and Ireland. (3 cr. hr.)

ENG 471: The Modern English Novel
(C) Important English novels since 1900. (3 cr. hr.)

ENG 472: Modern Drama
(C) Important plays since 1875 written in America, England, Ireland and Europe. (3 cr. hr.)

ENG 473: Teaching Drama in the Schools
A course introducing English Education majors to the basic principles of the teaching of drama in the schools. Plays will be selected from the list of those commonly taught in New York State high schools and middle schools. Prerequisites: Three credit hours in ENG 325, 326, 355 or 356.

ENG 495: Internship in Professional Writing
(B) Supervised experience in the professional work force in areas such as publishing, multi media, public relations, advertising and management. Prerequisite: 2.75 GPA, computer literacy, nine credit hours of writing courses (300 level or higher), permission of English Department internship coordinator. (3-15 cr. hr.)
ENG 497: Senior Seminar in Professional Writing
(B) Students will produce a Senior Writer's Project that provides evidence of writing and editing skills through publication of a finished work and compile a portfolio of works to present to prospective employers and graduate schools. Prerequisite: Senior standing or permission of instructor. (3 cr. hr.)

ENG 498: Independent Study
(O) Prerequisite: Approval of English Department Honors Committee. (3 cr. hr.)

ENG 499: Senior Thesis
(O) Prerequisites: Completion of at least three credits in Honors studies, approval of English Department Honors Committee. (3 cr. hr.)

ENG 500: Old English
(O) Phonemic and grammatical structures of Old English; translation and analyses of selected West-Saxon tests; general background reading in history of English language, major trends in Old English literature. (3 cr. hr.)

ENG 502: Seminar in the Composing Process: Rhetoric and Analysis
(O) The seminar is an experiential and theoretical approach to the teaching of writing, focusing on research, theory and practice. (3 cr. hr.)

ENG 506: Computers and the Study of English
(F-C) Introduces graduate students, particularly students who plan to teach or are currently teaching English at middle school, secondary school, or adult levels, to computer tools and environments that complement the study of literature, language, rhetoric, and composition. Students examine how technology applies to the process of teaching and learning literature, language, and writing; study the directions the new technologies are taking texts, research, scholarship, and teaching; and assess technology's impact on the field of English. (3 cr. hr.)

ENG 530: Chaucer
(B) Poetry of Chaucer in Middle English; emphasis upon literary rather than linguistic aspect of his work. (3 cr. hr.)

ENG 532: Middle English Literature
(O) Most significant works by English writers in periods 1200-1500, in Middle English. (3 cr. hr.)

ENG 539: Milton
(B) Poetry and prose. (3 cr. hr.)

ENG 548: Studies in British Literature 1950-Present
(O) Study of selected author(s), theme, genre or movement of the period. (3 cr. hr.)

ENG 549: Studies in Irish Literature
(O) Intensive study of a few authors or of literary movements in Irish literature, such as Irish Renaissance. May be repeated as subtitle changes. (3 cr. hr.)

ENG 572: Seminar in Literary Criticism
Study of examples of several contemporary approaches to literary analysis and interpretation. Use of one such approach in the writing of multiple drafts of a substantial paper which presents an original thesis and incorporates the most recent research on the topic (Master's Paper). (3 cr. hr.)

Related Education Courses

AED 391: Introduction to Adolescence Education
(A) Students will develop a coherent and comprehensive personal educational philosophy; analyze the role of education and teachers in society; demonstrate an understanding of teacher certification standards and requirements; evaluate teaching, lesson planning and implementation and cooperative skills; and develop a portfolio. The course includes 25 hours of field observation/teaching experience. (3 cr. hr.)

EDU 386: Student Teaching in English in the Middle Schools
(B) Supervised student teaching in the middle school. S, U grades are assigned. (7 cr. hr.)

EDU 387: Student Teaching in English in the High School
Supervised student teaching in the high school. Prerequisites: EDU 441. S, U grades are assigned. (7 cr. hr.)

EDU 400: Foundations of Education: The School in American Society
(A) Investigation of foundations of American educational system. Readings and discussion designed to enable students to reason, speak and write about purposes and practices of American education. Prerequisites: EDU 314, 371, 372, 373, 374, 375, 430, 477, 478. (3 cr. hr.)

EDU 441: Teaching English Language Arts in Secondary Schools II: Integrated Methods and Practicum
Course brings together literature, composition, language, and general material on teaching methods. Progress toward an integrated knowledge of teaching practices and preparation for student teaching are among its goals. Two lectures plus one lab contact hour per week. (3 cr. hr.)

EDU 449: Literacy in the Middle and Secondary School
(F) Methods, materials and assessment for fostering literacy at the middle and secondary levels. (3 cr. hr.)
Faculty
Jack C. Sheltmire (Director)

Minor Offered
Environmental and Outdoor Education

Concentrations Offered
Environmental Health (See requirements listed under Health Science)
Environmental Management (See requirements listed under Biology)
Environmental Policy (See requirements listed under Political Science)
Environmental Science (See requirements listed under Biology, Chemistry, Geology, and Physics)
Pre-Environmental Science and Forestry (See requirements listed under Environmental Science)

Description
The Interdisciplinary Center for Environmental and Outdoor Education was established to create and coordinate curricular and extracurricular environmental and outdoor education programs that serve the needs of the College, regional educators, and the general public. Students enrolled in the Center’s programs benefit from SUNY Cortland’s long-standing commitment to environmental and outdoor education. The College’s three field campuses, Brauer Field Station, Hoxie Gorge, and the Huntington Outdoor Education Center at Raquette Lake (established in 1948), offer students a vast array of field study opportunities. The Center also hosts a national organization, The Coalition for Education in the Outdoors.

Special Features
- The Huntington Outdoor Education Center
- Brauer Geological Field Station
- Hoxie Gorge Field Campus

Minor in Environmental and Outdoor Education [EOE]
Offered through the Center for Environmental and Outdoor Education, this interdisciplinary minor is open to students in all majors. It is valuable to students preparing for careers in elementary and secondary education, scouting, adventure programming, youth and community groups, nature centers, state and national parks and organized outdoor camping programs.

The minor is organized around a core group of courses, and allows students to select one of the following specialized “tracks”: environmental education and interpretation, outdoor pursuits or organized camping.

Requirements for the Minor
A. Core – 11 credit hours from the following:
   BIO 307: Field Natural History or
   BIO 310: Field Biology

   BIO 102: Ecology and the Human Environment or
   BIO 412: General Ecology or
   GLY 160: Geology and the Human Environment or
   GRY 110: Physical Geography
   EDU 462: Environmental and Outdoor Education
   (Also listed as REC 462)

   A practicum experience is required of all students. Students may meet this requirement by completing REC 370: Outdoor Education Practicum or by completing another practicum approved by the outdoor education minor advisor

B. Electives – specialization in one of the following tracks:

   Environmental Education and Interpretation Track
   To be taken in addition to core group (8-9 credit hours by advisement):
   ANT 300: Human Evolution and Survival
   ANT 305: Archaeology of Eastern United States
   (Prerequisite ANT 102 or 104)
   BIO 310: Field Biology
   (Prerequisite BIO 201-202)
   Unless used in place of BIO 307
   BIO 405: Conservation Biology
   BIO 411: Ornithology
   (Prerequisite BIO 111 or 201)
   BIO 418: Fungi
   ECO 335: Resource and Environmental Economics
   (Prerequisite ECO 301 or consent)
   GRY 110: Physical Geography
   GRY 120: Cultural Geography
   GRY 250: Urban Geography
   GRY 301: Science, Human Affairs and the Environment
   GLY 261: Physical Geology
   GLY 292: Land Use and Planning
   GLY 371: Meteorology
   INT 201: Adirondack Winter Studies
   PHY 150: Astronomy
   REC 310: Wilderness and American Culture
   REC 360: Camp Counseling and Outdoor Education
   (may not be counted for RLS majors)
   REC 460/EDU 460: Environmental and Cultural Interpretation
   (also listed as REC 345)

   Outdoor Pursuits Track
   To be taken in addition to core group (9 credit hours):
   HLH 325: Instructor’s First Aid or
   HLH 120: Responding to Emergencies
   HLH 430: CPR–Basic Life Support
   PED 181: Adventure Activities
   REC 379: Outdoor Recreation Activities
   REC 474: Outdoor Pursuits Education

   Notes: A National Standard Course from the Wilderness Education Association or the National Outdoor Leadership School may be substituted for REC 379.
Organized Camping Track
To be taken in addition or core group (9 credit hours):
HLH 325: Instructor's First Aid or
HLH 120: Responding to Emergencies

Environmental Studies

COURSE DESCRIPTIONS

EST 100: Introduction to Environmental Studies
(B) History and development of contemporary western thought about relationship of human beings to natural world; analysis of elemental character, patterns and processes of alteration and impacts of humans on local environments; study of socio-economic systems that give rise to and must ultimately solve environmental problems. (3 cr. hr.) ■

EST 129, 229, 329, 429, 529: Special Topics in Environmental Studies
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

EST 486: Seminar Environmental Studies
(S) Directed readings, library research, and discussion of contemporary environmental problems with emphasis on their social and scientific aspects. Prerequisite: Permission of instructor required. (Also listed as ENS 486.) (3 cr. hr.)

HLH 325: CPR–Basic Life Support
HLH 430: CPR–Basic Life Support
PED 181: Adventure Activities
REC 360: Camp Counseling and Outdoor Education
REC 560: Camp Administration

Notes: A SOLO or other approved wilderness first responder course may be substituted for HLH 325 and HLH 430.
With advisor approval, HLH 120: Responding to Emergencies, may be substituted for HLH 325 and HLH 430.
Environmental Science

CONCENTRATION

FACULTY
Christopher Cirmo (Coordinator)

CONCENTRATION OFFERED
Environmental Science

DESCRIPTION
Environmental problems require solutions that draw from many academic areas. The environmental science concentration provides broad training in all of the sciences as well as in relevant social sciences. Students learn modern techniques for identifying and resolving environmental problems. All students complete an internship which provides them with an opportunity to work with environmental science professionals and to make career contacts with local, state and federal government agencies, industry, or private consulting firms. Majors in the Biological Sciences, Chemistry, Geology and Physics Departments may choose the environmental science concentration; requirements for the concentration are listed with each of these departments.

SPECIAL FEATURES
• Internships
• Courses at Raquette Lake, Hoxie Gorge, and Brauer Field Station
• New Geographic Information Systems (GIS) facility
• Research with faculty
• Interdisciplinary program

ENVIRONMENTAL SCIENCE COURSE DESCRIPTIONS

ENS 310: Wetland Analysis
(F) Investigation of the hydrology, biogeochemistry, soils, classification, delineation, and functional assessment of freshwater wetlands. Lectures, laboratory field trips and group field projects. Prerequisite: Completion of GE-8 and junior status, or permission of instructor. (4 cr. hr.) (also listed as GLY 310)

ENS 486: Seminar in Environmental Science
(S) Directed readings, library research and discussion of contemporary environmental problems with emphasis on their scientific and social aspects. Required for environmental science concentration; open to senior science majors; others by permission of instructor. (Also listed as EST 486.) (3 cr. hr.)

ENS 487: Environmental Science Internship
(A) Project-oriented internship with a government agency, industry, other private or public enterprise, or faculty member. Supervised application of science knowledge and skills to an environmental issue, project, or study. Prerequisites: junior or senior status in environmental science concentration; consent of environmental science coordinator. (3-12 cr. hr.)
Exercise Science and Sport Studies

DEPARTMENT

Faculty
Chris Malone (Chair), Farron Bennett, Jeff Bauer, John Cotrone, Jack Daniels, Alyson Dearie, Ted Fay, Joy Hendrick, Jim Hokanson, Yomee Lee, Peter McGinnis, Steve Meyer, Susan Rayl, Dave Snyder

Majors Offered
B.S. in Physical Education – 124 total credit hours
B.S. in Athletic Training – 124 total credit hours
B.S. in Kinesiology – 124 total credit hours
B.S. in Kinesiology: Fitness Development – 124 total credit hours
B.S. in Sport Management – 124 total credit hours
B.A. in Sport Management – 124 total credit hours

Concentrations Offered
Adult Fitness (Not open to students entering after 2000-2001)
Exercise Science
Sport Studies

Minors Offered
Athletic Training (Not open to students entering after 1997-98)
Sport Management
Exercise Science

Description
The B.S. programs are designed to increase general knowledge of the broad field of kinesiology and to prepare students for a wide variety of professions related to physical activity and sport. Future programs will be directed toward the study of the science and culture of exercise, sport and human movement.

In all programs, professional preparation is enhanced by the development of concentrations and minors that allow some specialization for those students who already have an interest in a specific aspect of kinesiology. Some programs include theory and activity courses while others involve practical internship experience and clinical experience. Elective hours may also be used to enroll in a study abroad program.

Special Features
- Study abroad in Germany, China, etc.
- The ARETE Program: as a member of this program, students take all their required theory courses together. Includes a semester of study at Deutsche Sporthochschule in Cologne, Germany.

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to the following majors.
2. Liberal Arts Requirements: B.A. – 90 credit hours; B.S. in Athletic Training – 60 credit hours; B.S. in Physical Education and B.S. in Sport Management – 75 credit hours; B.S. in Kinesiology – 75 credit hours; B.S. in Kinesiology: Fitness – 75 credit hours

Major in Physical Education (B.S.) [PES]
A. General Education and Liberal Arts: 75 credit hours
   CPN 100: Academic Writing I
   CPN 101: Academic Writing II
   BIO 110: Principles of Biology I
   BIO 111: Principles of Biology II
   PSY 101: General Psychology
   BIO 301: Anatomy and Physiology I
   BIO 302: Anatomy and Physiology II
   General Education Courses (21 cr. hr.)
   Liberal Arts Electives (32 cr. hr.)
B. Physical Education Theory: 15 credit hours
   EXS 197: History and Philosophy of Physical Education
   EXS 287: Social Psychological Aspects of Physical Activity
   EXS 297: Motor Behavior
   EXS 387: Biomechanics
   EXS 397: Exercise Physiology
   C. Professional Physical Education: 6 credit hours
      EXS 420: Sport in American Culture
      PED 434: Measurement and Evaluation
   D. Physical Education Electives: 7 credit hours
   E. Physical Education Activities: 8 credit hours
   F. Free Electives: 22 credit hours

Minor in Exercise Science [EXSC]
(For non-Physical Education majors only)
A. Required Courses
   EXS 297: Motor Behavior
   EXS 387: Biomechanics (Prereq: BIO 301 or 324)
   EXS 397: Exercise Physiology (Prereq: BIO 301/302 or BIO 324/414)
   EXS 489: Exercise Science Research Methods (Prereq: MAT 201/PSY 201 or PED 434)
      (Pre-Coreq: EXS 297, 387, 397)
   EXS 490: Independent Research in Exercise Science (Prereq: EXS 489)
   BIO 301/302: Anatomy and Physiology I and II
      or
   BIO 324/414: Mammalian Anatomy and Physiology
   CHE 221: General Chemistry I

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124
Applicants will be notified of the selection committee's decision, interview students to determine acceptance into the program.

Students, clinical instructor and assistant trainer will evaluate the applicants, evaluate the clinical abilities of the students, screen and clinical instructor and assistant trainer will evaluate the applicants.

Prior college and/or high school faculty/staff should be attached.

Future goals.

Courses completed, and a statement of related experiences and courses completed, and a statement of related experiences and future goals.

Candidates for the program must complete the internal application review by the selection committee which takes place during the fall of each semester.

At the completion of the program, students are eligible for National Athletic Trainers Association Board of Certification Examination. The program is also recognized by the New York State Education Department for Registration as a license-qualifying program for professional purposes.

The number of students admitted into the program is still governed by the Joint Review Committee on Educational Programs in Athletic Training Standards and Guidelines. The ratio of students/instructor will be maintained at approximately 8:1.

Additional information regarding the selection process and the technical standards which establish the essential qualities considered necessary for students admitted to the program are available from the athletic training program director or can be found at www.cortland.edu/athtrain/.

ADMISSION REQUIREMENTS

1. Candidates must have a minimum cumulative GPA of 2.5.
2. Candidates must earn a minimum grade of 3.0 (B) in ATR 221 and corresponding laboratory.
3. Candidates must have a cumulative grade point average of 3.0 in the following courses: ATR 101 and 221, PSY 101, HLH 110, BIO 301.
4. Candidates must earn a minimum grade of 2.0 in BIO 301 and 302.

SELECTION PROCEDURES

1. Candidates for the program must complete the internal application form, attaching a transcript (transfer students only) of courses completed, and a statement of related experiences and future goals.
2. Three recommendations from faculty members at Cortland or prior college and/or high school faculty/staff should be attached.
3. Applications will be reviewed in January.
4. A selection committee made up of the program director, clinical instructor and assistant trainer will evaluate the applications, evaluate the clinical abilities of the students, screen and interview students to determine acceptance into the program.

Applicants will be notified of the selection committee's decision, which will be final for that year. (Students may re-apply the following year.)

A. General Education and Liberal Arts: 37 credit hours
   - CPN 100 Academic Writing (3 cr. hr.)
   - CPN 101 Academic Writing II (3 cr. hr.)
   - Quantitative Skills (3 cr. hr.)
   - General Education Requirements (28 cr. hr.)

B. Arts and Science: 12 credit hours
   - (A) BIO 110: Principles of Biology* (3 cr. hr.)
   - (A) BIO 111: Principles of Biology* (3 cr. hr.)
   - (A,B) BIO 301: Human Anatomy and Physiology I^ (3 cr. hr.)
   - (B) BIO 302: Human Anatomy and Physiology II^ (3 cr. hr.)
   - PSY 101: General Psychology (3 cr. hr.)
   - COM 210: Fundamentals of Public Speaking (3 cr. hr.)

*C. Liberal Arts Electives: 11 credit hours

D. Professional Education: 15 credit hours
   - HLH 110: Personnel and Community Health* (3 cr. hr.)
   - HLH 323: Foods and Nutrition* (3 cr. hr.)
   - EXS 397: Exercise Physiology I (3 cr. hr.)
   - EXS 387: Biomechanics (3 cr. hr.)
   - EXS 287: Social/Psychological Aspects of Physical Education
   - EXS 345: Sport and Society
   - EXS 346: Sport Psychology (3 cr. hr.)

^D. Professional Education: 15 credit hours
   - HLH 110: Personnel and Community Health* (3 cr. hr.)
   - HLH 323: Foods and Nutrition* (3 cr. hr.)
   - EXS 397: Exercise Physiology I (3 cr. hr.)
   - EXS 387: Biomechanics (3 cr. hr.)
   - EXS 287: Social/Psychological Aspects of Physical Education
   - EXS 345: Sport and Society
   - EXS 346: Sport Psychology (3 cr. hr.)

*Dual majors in health may substitute HLH 203 for HLH 110 and HLH 232 for HLH 323.

E. Athletic Training: 32 credit hours
   - ATR 101: Foundations of Athletic Training (3 cr. hr.)
   - ATR 221: Athletic Training: Theory and Methods (3 cr. hr.)
   - ATR 222: Recognition and Evaluation of Injury (3 cr. hr.)
   - ATR 317: Practicum in Athletic Training (2 cr. hr.)
   - ATR 318: Advanced Athletic Training (3 cr. hr.)
   - ATR 319: Organization and Administration in Athletic Training (3 cr. hr.)
   - ATR 342: Therapeutic Exercise (3 cr. hr.)
   - ATR 343: Therapeutic Modalities (4 cr. hr.)
   - ATR 223: Clinical Education in Athletic Training I (1 cr. hr.)
   - ATR 323: Clinical Education in Athletic Training II (1 cr. hr.)
   - ATR 324: Clinical Education in Athletic Training III (1 cr. hr.)
   - ATR 423: Clinical Education in Athletic Training IV (1 cr. hr.)
   - ATR 233: Field Experience in Athletic Training I (1 cr. hr.)
   - ATR 333: Field Experience in Athletic Training II (1 cr. hr.)
   - ATR 334: Field Experience in Athletic Training III (1 cr. hr.)
   - ATR 434: Field Experience in Athletic Training IV (1 cr. hr.)

F. Free Electives: 17 credit hours

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124
Major in Kinesiology (B.S.) [KIN]

Students selecting this major will earn a B.S. in kinesiology and complete a concentration in either exercise science or sport studies.

Exercise science is concerned with how and why the human body responds to physical activity. There are two primary areas of inquiry that exercise scientists focus their attention: health-related aspects of physical activity and sports performance.

In regards to health-related aspects of physical activity, exercise scientists have studied how exercise benefits health. The study of sports performance by exercise scientists involves a wide range of diverse areas, which can include the growth and development of athletes, nutritional needs of athletes, and movement analysis.

Sport studies is the liberal arts and science approach to studying human movement through the humanities and social science sub-disciplines of the field. The humanities sub-disciplines include sport history and sport philosophy, and can be expanded to include sport art, sport communication and journalism, sport literature, and sport law. The social science sub-disciplines include sport psychology and sport sociology.

A. General Education and Liberal Arts: 75 credit hours
   - CPN 100: Academic Writing I
   - CPN 101: Academic Writing II
   - BIO 110: Principles of Biology I *
   - BIO 111: Principles of Biology II *
   - PSY 101: General Psychology
   - BIO 301: Anatomy and Physiology I
   - BIO 302: Anatomy and Physiology II
   - CAP 100: Computer Applications
   - General Education (9 cr. hr.)
   - Quantitative Skills (3 cr. hr.)

   Total: 31 credit hours

Example of the undergraduate degree in Athletic Training over four years

<table>
<thead>
<tr>
<th>First Year</th>
<th>Second Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPN 100 (3 cr. hr.)</td>
<td>Fall: Application for acceptance into the training program</td>
</tr>
<tr>
<td>CPN 101 (3 cr. hr.)</td>
<td>BIO 301 (3 cr. hr.)</td>
</tr>
<tr>
<td>BIO 110 (4 cr. hr.)</td>
<td>ATR 221 (3 cr. hr.)</td>
</tr>
<tr>
<td>BIO 111 (3 cr. hr.)</td>
<td>COM 210 (3 cr. hr.)</td>
</tr>
<tr>
<td>HLH 110 (3 cr. hr.)</td>
<td>ESS 287 (3 cr. hr.)</td>
</tr>
<tr>
<td>PSY 101 (3 cr. hr.)</td>
<td>General Education (3 cr. hr.)</td>
</tr>
<tr>
<td>ATR 101 (3 cr. hr.)</td>
<td>Spring: After acceptance, the following athletic training courses may be taken with special permission.</td>
</tr>
<tr>
<td></td>
<td>ATR 222 (3 cr. hr.)</td>
</tr>
<tr>
<td></td>
<td>ATR 317 (2 cr. hr.)</td>
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<tr>
<td></td>
<td>ATR 223 (1 cr. hr.)</td>
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<tr>
<td></td>
<td>ATR 233 (1 cr. hr.)</td>
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<td></td>
<td>ATR 234 (4 cr. hr.)</td>
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<tr>
<td></td>
<td>BIO 302 (3 cr. hr.)</td>
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<tr>
<td></td>
<td>permission not required</td>
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<tr>
<td></td>
<td>Quantitative Skills (3 cr. hr.)</td>
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<tr>
<td></td>
<td>Total: 32 credit hours</td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Third Year</td>
<td>Fourth Year</td>
</tr>
<tr>
<td>ATR 318 (3 cr. hr.)</td>
<td>ATR 319 (3 cr. hr.)</td>
</tr>
<tr>
<td>ATR 342 (3 cr. hr.)</td>
<td>EXS 397 (3 cr. hr.)</td>
</tr>
<tr>
<td>ATR 323 (1 cr. hr.)</td>
<td>HLH 323 (3 cr. hr.)</td>
</tr>
<tr>
<td>ATR 324 (1 cr. hr.)</td>
<td>ATR 423 (1 cr. hr.)</td>
</tr>
<tr>
<td>ATR 333 (1 cr. hr.)</td>
<td>ATR 433 (1 cr. hr.)</td>
</tr>
<tr>
<td>ATR 334 (1 cr. hr.)</td>
<td>Liberal arts electives (9 cr. hr.)</td>
</tr>
<tr>
<td>EXS 387 (3 cr. hr.)</td>
<td>Free electives (10 cr. hr.)</td>
</tr>
<tr>
<td>General Education/</td>
<td></td>
</tr>
<tr>
<td>Liberal arts electives (12 cr. hr.)</td>
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</tr>
<tr>
<td>Free electives (6 cr. hr.)</td>
<td>Total: 30 credit hours</td>
</tr>
</tbody>
</table>

| Fourth Year         |                                                   |
| ATR 319 (3 cr. hr.)|                                                   |
| EXS 397 (3 cr. hr.)|                                                   |
| HLH 323 (3 cr. hr.)|                                                   |
| ATR 423 (1 cr. hr.)|                                                   |
| ATR 433 (1 cr. hr.)|                                                   |
| Liberal arts electives (9 cr. hr.) | Free electives (10 cr. hr.) |
| Total: 30 credit hours |                                                   |

B. Kinesiology Theory Core: 21 credit hours
   - EXS 197: History and Philosophy of Physical Education +
   - EXS 287: Social Psychological Aspects of Physical Activity +
   - EXS 297: Motor Behavior
   - EXS 351: Philosophy of Sport +
   - EXS 387: Biomechanics
   - EXS 397: Exercise Physiology
   - EXS 420: Sport in American Culture+  

C. Concentration Requirements (must complete a concentration)

   Sport Studies Concentration Requirements: 33 credit hours
   - EXS 345: Sport and Society +
   - EXS 346: Sport Psychology +
   - EXS 410: Sport Ethics +
   - EXS 499: Special Study in Exercise Science and Sport Studies Track (courses outside the major): 18 credit hours
   - Exercise Science Concentration Requirements: 27 credit hours
     - MAT 121: Calculus A or MAT 125: Calculus I+
     - CHE 221: General Chemistry I +
     - CHE 222: General Chemistry II +
     - PHY 201: Principles of Physics I +
     - or PHY 105: Elementary Mechanics, Heat and Matter +
     - CAP 200: Fortran Programming + or CAP 201: C Programming or CAP 202: Basic Programming
     - PSY 201 or MAT 201 or COM 230 or ECO 221: Statistical Methods +
     - EXS 489: Exercise Science Research Methods
     - EXS 490: Independent Research in Exercise Science
D. Exercise Science and Sport Studies Activity Requirements

**Sport Studies Concentration Activity Requirements: 5 credit hours**
- PED181: Adventure Activities
- PED182: Health-related Physical Fitness
- PED188: Rhythms and Dance
- Aquatics activity elective
- Activity elective

**Exercise Science Concentration Activity Requirements:**
- PED182: Health-related Physical Fitness
- PED188: Rhythms and Dance
- Aquatics activity elective
- Activity electives (2 credit hours)

E. Free Electives
- Sport Studies Concentration: 15 credit hours
- Exercise Science Concentration: 24 credit hours

+ May count toward liberal arts hours.
* Satisfies General Education requirements.

No more than 45 hours of courses with the EXS or PED prefix may be counted toward graduation.

**TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124**

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C. Fitness Development Theory Requirements: 27 credit hours
- ATR421: Care and Prevention of Athletic Injuries
- PED 434: Measurement and Evaluation in Physical Education
- EXS435: Neuromuscular Fitness Assessment and Programming
- EXS438: Cardio-respiratory Fitness Assessment and Programming
- HLH120: Responding to Emergencies
- HLH210: Wellness and Health Promotion
- HLH301: Stress Management
- HLH323: Foods and Nutrition
- MGT250: Principles of Management

Practica Required
- EXS196: Fitness Facility Tutorial (5 credit hours)
- EXS470: Fitness/Wellness Center (2 credit hours)
- CPV400: Internship (varies from a minimum 4 to maximum 16 credit hours)

D. Fitness Development Activity Requirements: 8 credit hours
- PED181: Adventure Activities
- PED182: Health-related Physical Fitness
- PED188: Rhythms and Dance
- PED189: Aquatics or PED195: Water Exercise
- PED283: Racket Activities
- PED284: Self-defense
- Activity electives (2 credit hours)

E. Free Electives: 0 to 6 credit hours

+ May count toward liberal arts hours.
* Satisfies General Education requirements.

No more than 45 hours of courses with the EXS or PED prefix may be counted toward graduation.

**TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124**

---

**Major in Kinesiology: Fitness Development (B.S.) [BS_FIT]**

This program provides a theoretical and practical knowledge base for students who are interested in careers in health/fitness settings. Students in this program have the opportunity to prepare for careers in fitness management, health promotion, and other wellness-related programs.

This program can lead to certification as a health/fitness instructor, personal trainer, and/or certified strength and condition- ing specialist through the American College of Sports Medicine and the National Strength and Conditioning Association.

A. General Education and Liberal Arts: 75 credit hours
- CPN100: Academic Writing I
- CPN101: Academic Writing II
- BIO110: Principles of Biology I *
- BIO111: Principles of Biology II *
- PSY101: General Psychology
- BIO301: Anatomy and Physiology I
- BIO302: Anatomy and Physiology II
- CAP100: Computer Applications
- General Education Courses (23 credit hours)
- Liberal Arts Electives (27 credit hours)

B. Kinesiology Theory Core: 21 credit hours
- EXS197: History and Philosophy of Physical Education +
- EXS287: Social Psychological Aspects of Physical Activity +
- EXS297: Motor Behavior
- EXS351: Philosophy of Sport +
- EXS387: Biomechanics
- EXS397: Exercise Physiology
- EXS420: Sport in American Culture +
Major in Sport Management (B.S. or B.A.) [SPMG]

Sport management is a management degree that is focused on the business and governance of sport as it applies to sport organizations in both the non-profit and profit sectors. This program has been developed to reflect the North American Society for Sport Management's (NASSM) approved curriculum guidelines.

More information can be found on the sport management web page at www.cortland.edu/sptmgmt/.

Requirements for Sport Management Majors Seeking a Bachelor of Arts Degree

A student can earn a B.A. degree by fulfilling the same professional requirements along with the addition of a foreign language (0-13 credit hours) for a total number of 90 liberal arts credit hours.

Career Potential

- Sports marketing director
- Director of media relations
- Event/venue manager – Olympic Games
- Regional sales manager – sport product company

A. General Education and Liberal Arts: 37 credit hours
   - CPN 100: Academic Writing I
   - CPN 101: Academic Writing II
   - Quantitative Skills (3 cr. hr.)
   - General Education requirements (28 cr. hr.)

B. Required Courses: 36 credit hours
   - SPM 149: Event Management Practicum I
   - SPM 249: Event Management Practicum II
   - SPM 275: Foundations of Sport Management +
   - SPM 330: Sport Media Management
   - SPM 335: Information Technology in Sport
   - SPM 360: Sport Marketing +
   - SPM 373: Sport Law and Organizations +
   - SPM 466: Strategic Management in Sport Organizations +
   - SPM 400: Internship in Sport Management **
   - ECO 366: Economics of Sport +

C. Required Professional Electives: 6 credit hours minimum from following:
   - ECO 110: Macroeconomics +
   - EXS 287: Social Psychological Aspects of Physical Activity +
   - EXS 410: Ethics in Sport +
   - GRY 327: Computer Mapping
   - REC 402: Management of Recreation Resources +
   - REC 541: Site and Facilities Planning
   - SPM 227: Stadium and Arena Management
   - SPM 320: Sport Entrepreneurship
   - SPM 349: Sport Management Practicum
   - SPM 355: Sport Event Management
   - SPM 430: Applied Sport Media Management
   - SPM 435: Applied Information Technology in Sport
   - SPM 440: The International Sport Enterprise +
   - SPM 460: Applied Sport Sales and Marketing

D. Required LAS Courses: 15 credit hours
   - PSY 101: General Psychology +
   - CAP 100: Introduction to Computer Applications +
   - COM 100: Human Communication +
   - ECO 345: Sport in Society + or
   - ECO 420: Sport in American Culture +
   - COM 300: Interpersonal Communication or
   - COM 210: Public Speaking +

E. Other Required Management and Economics Foundation: 18 credit hours
   - MGT 250: Principles of Management +
   - MGT 253: Principles of Marketing +
   - MGT 254: Principles of Accounting
   - ECO 111: Principles of Microeconomics +
   - ECO 221: Economic Statistics + *
   - ECO 352: Finance +

F. Free Electives: 18 credit hours

* ECO 221 (Satisfies Quantitative Skills Requirement)
** Students will be eligible to apply CPV 400 internship credits as free elective credits. Students are able to use free elective credits to increase internship credits to 12-15.
+ Course approved as meeting liberal arts criteria.

Total Credit Hours Required for Graduation: 124

Minor in Sport Management [SPMG]

This minor is designed to be flexible enough to allow students majoring in other disciplines (e.g., economics and management, communications, pre-law, political science, exercise science and sport studies, and recreation) to be able to reasonably combine this minor together with their major. The following are the requirements for a minor in sport management which total 18 credit hours.

A. Required Courses: 15 credit hours
   - MGT 250: Principles of Management
   - SPM 275: Foundations of Sport Management
   - SPM 465: Policy and Strategic Management in Sport
   - (One of two possibilities)
   - SPM/EXS 345: Sport in Society
   - EXS 420: Sport in American Culture
   - (One of three possibilities)
   - SPM 360: Sport Marketing
   - SPM 330: Sport Media Management
   - SPM 335: Information Technology in Sport
   - ECO 366: Economics of Sport +

B. Related Elective Requirements: 3 credit hours
   One course to be selected from the following list of courses (prerequisites may apply):
   - SPM 227: Stadium and Arena Management
   - SPM 355: Sport Event Management
   - SPM 373: Sport Law and Organization
   - ECO 366: Economics of Sport
   - SPM/EXS 287: Social Psychological Aspects of Sport
   - SPM 430: Applied Sport Media Management
   - SPM 435: Applied Information Technology in Sport
   - SPM 440: The International Sport Enterprise
   - SPM 460: Applied Sport Sales and Marketing
   - REC 402: Management of Recreation Resources

Total Credit Hours Required for the Minor: 21
Exercise Science and Sport Studies

COURSE DESCRIPTIONS

Athletic Training Courses

ATR 101: Foundations of Athletic Training
Designed for entry-level students' initial exposure to the athletic training profession. The course is intended to serve as an overview to the vast science of athletic health care using the CAAHEP educational model. (3 cr. hr.)

ATR 221: Athletic Training Theory and Methods
(F) Basic theory and methods associated with prevention and management of common injury/illnesses sustained in the physically active individual. (Required for students seeking admission into the Athletic Training Program.) Prerequisites: BIO 110/111. (3 cr. hr.)

ATR 222: Recognition and Evaluation of Injury
(S) Recognition and evaluation of injury/illness common to the physically active individual. Students will learn techniques required to assess injury/illness for administering first aid and emergency care. Prerequisites: ATR 221, BIO 301, acceptance into the athletic training program. (3 cr. hr.)

ATR 223: Clinical Education in Athletic Training I
(S) This course will provide students with the opportunity to develop the specific athletic training clinical proficiencies that are outlined in the Athletic Training Education Competencies. In preparation of these skills, competence of subject matter will be verified through the teaching, practice and subsequent evaluation of outcomes documented over time. Prerequisite: Acceptance in the Athletic Training Program. (1 cr. hr.)

ATR 317: Athletic Training Practicum
(E) Laboratory experience introducing the various supplies, equipment, taping and wrapping procedures used for the management, treatment and disposition of athletic injuries. Prerequisites: ATR 221 and acceptance into the athletic training program. (2 cr. hr.)

ATR 318: Advanced Athletic Training
(S) Investigation into advanced cognitive domain of athletic training. Specific topics in various areas of the body to include further recognition, management, and disposition of athletic injuries. Prerequisites: ATR 221, 222, 317 and acceptance into athletic training program. (3 cr. hr.)
ATR 323: Clinical Education in Athletic Training II
(S) This course will provide students with the opportunity to
develop the specific athletic training clinical proficiencies that
are outlined in the Athletic Training Education Competencies.
In preparation of these skills, competence of subject matter will be
verified through the teaching, practice and subsequent
evaluation of outcomes documented over time. Prerequisite:
ATR 223. (1 cr. hr.)

ATR 333: Field Experience in Athletic Training II
(F) The field experience will provide students with the
opportunity to develop specific competencies in athletic
training. Based on prerequisite requirements, this experience
provides for a progressive development of technical skills and
knowledge as part of an on-going two-year field experience as
required by the NATA. This experience partially fulfills the
minimum field experience requirement. Prerequisite: ATR 333.
S, U grade assigned. (1 cr. hr.)

ATR 324: Clinical Education in Athletic Training III
(S) This course will provide students with the opportunity to
develop the specific athletic training clinical proficiencies that
are outlined in the Athletic Training Education Competencies.
In preparation of these skills, competence of subject matter will be
verified through the teaching, practice and subsequent
evaluation of outcomes documented over time. Prerequisite:
ATR 323. (1 cr. hr.)

ATR 334: Field Experience in Athletic Training III
(S) The field experience will provide students with the
opportunity to develop specific competencies in athletic
training. Based on prerequisite requirements, this experience
provides for a progressive development of technical skills and
knowledge as part of an on-going two-year field experience as
required by the NATA. This experience partially fulfills the
minimum field experience requirement. Prerequisite: ATR 333.
S, U grade assigned. (1 cr. hr.)

ATR 342: Therapeutic Exercise
(F) Investigation into principles, objectives, indications,
contraindications and progression of various modes of
conditioning and reconditioning exercises. Methods for
evaluation, progress, and development of criteria for return to
activity. Prerequisites: ATR 221, 222, acceptance into athletic
training program, and consent of instructor. (3 cr. hr.)

ATR 343: Therapeutic Modalities
(S) Normal physiological responses of human body to trauma,
affects of trauma and inactivity on specific body tissues will be
studied with implications for selection and use of therapeutic
modalities. Prerequisite: ATR 222 and acceptance into the
athletic training program. (4 cr. hr.)

ATR 421: Care and Prevention of Athletic Injuries
(A) Prevention, protection, first aid care of injuries occurring in
athletics. Evaluation of protective devices, methods, diets,
conditioning. Two lectures, one two-hour laboratory. Prerequi-
site: BIO 301. (Students provide own tape.) (3 cr. hr.)

ATR 423: Clinical Education in Athletic Training IV
(F) This course will provide students with the opportunity to
develop the specific athletic training clinical proficiencies that
are outlined in the Athletic Training Education Competencies.
In preparation of these skills, competence of subject matter will be
verified through the teaching, practice and subsequent
evaluation of outcomes documented over time. Prerequisite:
ATR 324. (1 cr. hr.)

ATR 433: Field Experience in Athletic Training IV
(S) The field experience will provide students with the opportunity
to develop specific competencies in athletic training. Based on
prerequisite requirements, this experience provides for a progressive
development of technical skills and knowledge as part of an on-
going two-year field experience as required by the NATA. This
experience partially fulfills the minimum field experience
requirement. Prerequisite: ATR 334. S, U grade assigned. (1 cr. hr.)

ATR 434: Field Experience in Athletic Training V
(S) The field experience will provide students with the opportunity
to develop specific competencies in athletic training. Based on
prerequisite requirements, this experience provides for a progressive
development of technical skills and knowledge as part of an on-
going two-year field experience as required by the NATA. This
experience partially fulfills the minimum field experience
requirement. This experience is reserved for students who have not satisfactorily met all the terms from their contract
remediation received in ATR 433. A student who does not earn
a satisfactory grade in this course will not be endorsed for the
NATABOC Certification Examination. Prerequisite: Consent
of Program Director. S, U grade assigned. (1 cr. hr.)

ATR 444: Laboratory Assistant in Athletic Training
(A) Student may assist with the lab portion of one of several
athletic training classes. Responsibilities may include attending
and assisting with a lab section, holding office hours, assisting
with collecting research data and/or completing other tasks as
assigned by the instructor. Students will enhance their knowl-
edge and understanding of concepts covered in the associated
theory course, learn additional lab techniques as well as gain
valuable leadership experience. Prerequisite: Consent
of instructor. May be repeated: no more than three credit hours
toward graduation. (1-3 cr. hr.)

ATR 499: Special Study in Athletic Training
(A) Independent study/research on selected topics. Topics may
include in-depth study of a particular subject area. Student will
work with faculty member (project director) whose own special
interests and expertise coincide most closely with chosen topic.
Students must follow suggested guidelines available in depart-
ment chair's office. Prerequisite: Consent of department chair
and instructor. May be repeated: no more than three credit
hours toward graduation. (1-3 cr. hr.)

ATR 521: Problems in Athletic Training
(O) Specific problems of class members will be investigated.
Emphasis on prevention, identification and treatment of sport-
related trauma. Prerequisite: PED 421. (3 cr. hr.)

Exercise Science and Sport Studies Courses
EXS 196: Fitness Facility Tutorial
(A) Introductory laboratory experience in fitness facilities for
the adult fitness concentration student. Students will assist in
monitoring use of facilities, assist in administering fitness tests
and experience the overall operations of fitness facility. (5 cr. hr.)

EXS 197: History and Philosophy of Physical Education and Sport
(A) Devoted to study of physical education and sport and based
on major historical events and associated philosophies that have
shaped physical education and sport from ancient times to
present. Examines basic concepts and current issues within
physical education, play, cultural games and sports, athletics,
fitness and wellness. Future trends explored. (3 cr. hr.)
**EXS 287: Social Psychological Aspects of Physical Activity**  
(A) Introductory overview of social psychology as it relates to physical activity. Focus is on group and individualized behavior in play, sport, and dance. Not open to those having credit for PSY 422. Prerequisites: PSY 101 or SOC 150. (3 cr. hr.) ■

**EXS 290: Social Problems and Issues in Sport and Exercise**  
(O) Examination of social problems and issues that impact upon a variety of physical activities. Consideration of how values, prejudice, discrimination and stereotypes affect sport and exercise in ways similar to society at large. Open to non-physical education majors only. (3 cr. hr.) ■

**EXS 297: Motor Behavior**  
Introductory course in motor behavior encompassing motor learning and motor development. Emphasis is on the application of principles which affect behavior, learning, and performance. (3 cr. hr.)

**EXS 345: Sport and Society**  
(A) Role and influence of sports in social system. Influence of other social systems upon sport. (3 cr. hr.) ■

**EXS 346: Sport Psychology**  
(A) Selected psychological and related theoretical factors that influence behavior of individuals participating in sport and physical education. Prerequisite: PSY 101. (Also listed as PSY 346). (3 cr. hr.) ■

**EXS 350: Aesthetics of Sport**  
(O) Visual survey of art and architecture encompassing motifs of athletics, sports, games, contest, dance, exercise, play, recreation. Aesthetic pleasure, interest in this professional cultural dimension emphasized. (3 cr. hr.)

**EXS 351: Philosophy of Sport**  
(B) This course examines the methods of the philosophical process and its relationship to human movement. (3 cr. hr.) ■

**EXS 387: Biomechanics**  
(A) Analysis, evaluation and application of anatomical and mechanical factors influencing motor skills activity. Prerequisite: BIO 301 or BIO 324. Basic algebra skills expected. (3 cr. hr.)

**EXS 397: Exercise Physiology I**  
(A) Physiological adjustments, changes occurring in human organism as a result of physical activity. Physiology of muscular contraction; role of circulatory and respiratory systems in exercise. Lectures, recitation, laboratory. Prerequisites: BIO 110, 111, 301, 302 or BIO 324, 414. (3 cr. hr.)

**EXS 410: Ethics in Sport**  
Examination of selected ethical and moral issues current in the conduct of American sport such as the ethics of competition, equality and excellence and the place of athletics in education. (3 cr. hr.) ■

**EXS 420: Sport in American Culture**  
(A) Analysis and interpretation of changes in physical education and sport in the United States using the concepts of modernization, urbanization and industrialization, ontology, and religion to describe changes since 1600. (3 cr. hr.) ■

**EXS 432: Exercise Prescription**  
(F-S) Theory of exercise prescription in physical fitness programs for typical adults. Content will include overview of health-related components of physical fitness. Prerequisite: EXS 397. (1 cr. hr.)

**EXS 433: Exercise Prescription Practicum**  
(F-S) Clinical experience in theory and practice of exercise prescription in physical fitness programs for adults. Prerequisites: EXS 397 and 432. S, U grades assigned. (1 cr. hr.)

**EXS 435: Neuromuscular Fitness Assessment and Programming**  
(F) Basic understanding of muscle structure, function, and physiology as it applies to strength and power. Review types of strength training programs and techniques for developing goal-specific programs will be included. Lectures and laboratory. Prerequisite: EXS 397. (3 cr. hr.)

**EXS 438: Cardio-Respiratory Fitness Assessment and Programming**  
(S) Integration of cardio-respiratory physiological concepts into the assessment of an individual’s aerobic capacity and the application of these data in designing an effective aerobic exercise program. American College of Sports Medicine (ACSM) guidelines will be followed. Lectures and laboratory. Prerequisite: EXS 397. (3 cr. hr.)

**EXS 449: Exercise Science Research Methods**  
(F) Purpose of course is to provide students with integrated background in exercise science and to prepare them for research testing in procedures commonly found in exercise science research. Students introduced to current trends and research topics coupled with laboratory techniques in areas of motor behavior, biomechanics and exercise physiology. Two-hour laboratory session each week gives students hands-on experiences with computers and equipment. Prerequisites: PED 434 or MAT 201 or PSY 201. Corequisites: EXS 297, EXS 387 and EXS 397. (3 cr. hr.)

**EXS 490: Independent Research in Exercise Science**  
(S) Independent research project for the exercise science concentration or minor. Undergraduate research opportunity for critical review of literature in area of sport and society. Prerequisites: PSY 101. (Also listed as PSY 346). (3 cr. hr.)

**EXS 522:Sport in Contemporary Society**  
(O) Study of sport from social perspective, investigating the interrelationship of sport to other institutions. Course offers opportunity for critical review of literature in area of sport in society. (3 cr. hr.)

**EXS 535: Neuromuscular Fitness Assessment and Programming**  
(F) Basic understanding of muscle structure, function, and physiology as it applies to strength and power. Review types of strength training programs and techniques for developing goal-specific programs will be included. Lectures and laboratory. Prerequisite: EXS 397. (3 cr. hr.)

**EXS 538: Cardio-Respiratory Fitness Assessment and Programming**  
(S) Integration of cardio-respiratory physiological concepts into the assessment of an individual’s aerobic capacity and the application of these data in designing an effective aerobic exercise program. ACSM guidelines will be followed. Lectures and laboratory. Prerequisite: EXS 397. (3 cr. hr.)

**EXS 546: Behavior in Sport**  
(O) Study psychological factors which influence behavior of men and women as they participate in physical activity and sport. (3 cr. hr.)

**EXS 551: Philosophy of Sports and Physical Education**  
(O) Background, development of modern physical education; formulation of scientific principles which foster biological, sociological, and psychological benefits of physical education. (3 cr. hr.)
EXS 555: Physiology of Exercise II
(O) Physiological adaptations, mechanisms of change of function taking place as result of physical exercise. Physiological factors influencing human performance; environmental factors of altitude, space, temperature extremes; drugs and doping; age and gender; related problems in sport medicine. Prerequisite: EXS 397. (3 cr. hr.)

EXS 558: Physiological Principles of Conditioning for Sports
(O) Application of physiological principles to development of specific conditioning components. Analysis of research implications and critical evaluation of current practices emphasized. Prerequisites: EXS 397, 434. (3 cr. hr.)

EXS 565: Perceptual Motor Development
(O) Developmental processes from prenatal period to adolescence, with emphasis for elementary physical education. (3 cr. hr.)

EXS 575: Nutritional Aspects of Physical Fitness and Athletic Performance
Application of metabolic and nutritional principles to performance patterns of athletes and individuals desiring to increase their physical fitness capacity. Includes role of carbohydrates, fats, proteins, vitamins, minerals, and water in exercise. Effects of dietary manipulation, fat diets, body composition, and ergogenic aids will be investigated. Prerequisite: EXS 397: Exercise Physiology or consent of instructor. (3 cr. hr.)

EXS 587: Advanced Biomechanics
(O) Application of fundamental laws of physics. Techniques of physical activities, sports in terms of mechanical principles. Available research reviewed. Prerequisites: EXS 387. (3 cr. hr.)

Sport Management Courses

SPM 149: Event Practicum I
(S) Introduction to game and event administration. Required minimum of 40 hours of on-site game administration including assisting in the planning, organizing, and conducting of SUNY Cortland intercollegiate athletic events during a given semester. Required of all first year majors including transfer students. H, S, and U grades are assigned. (1 cr. hr.)

SPM 227: Ice Arena Management
Devoted to teaching students how to supervise, market, finance, schedule, and administer an ice arena. Deals in areas of maintenance, daily operations, and contracting of the building. (3 cr. hr.)

SPM 249: Event Practicum II
(S) Game and event administration progressing to some supervisory duties. Minimum of 40 hours of on-site game administration involving SUNY Cortland intercollegiate athletic events. Hours can be accumulated over the course of fall and spring semesters. Required of all second year majors including transfer students. H, S, and U grades are assigned. Prerequisite: SPM 149. (1 cr. hr.)

SPM 275: Foundations of Sport Management
Course examines the discipline of sport management. Relationship of interdisciplinary body of knowledge, technological and interpersonal communication skills and management styles are presented. Field experience required. (3 cr. hr.)

SPM 311: Legal Issues in Physical Education and Sport
(B) Study of legal issues affecting management of sport programs. Focus is on liability as it affects teachers, coaches, administrators, and sport management personnel. Prerequisite: junior status or consent of instructor. (3 cr. hr.)

SPM 320: Sport Entrepreneurship
(S-C) A detailed analysis of the management and marketing of sports goods companies and sport retail businesses including e-commerce in sport-related enterprises. Students will study trends, display, target marketing, marketing demographics, customer service, and the basic functions of selling and managing a retail business operation. Purchasing, inventory control, cost and price analysis, supplier relationships, offshore procurement, and quality and ethical considerations will be examined. Prerequisite: SPM 360. (3 cr. hr.)

SPM 330: Sport Media Management
(A) Introduction to the structure, function, role and effects of the mass media in the sport industry. Study of principles and fundamentals through application of approaches to sport information and media relations. Includes the development and production of promotional, informational, and news-oriented material. Prerequisite: SPM 275. (3 cr. hr.)

SPM 335: Information Technology in Sport
(A) A comprehensive investigation of the current applications of information and communication technology and database management utilized in sport organizations within the intercollegiate, professional, and international segments of the sport industry. Students will use common database, spreadsheet and proprietary software used within the industry to analyze and solve management problems. Prerequisites: CAP 100 or CAP 110/111 and SPM 275. (3 cr. hr.)

SPM 349: Sport Event Practicum
(F-C) Overview of all elements involved in sport event management. Key component of course is the planning, organizing, marketing, and conducting of a sport event on campus during the semester. Permission of instructor. Prerequisite: SPM 360. (3 cr. hr.)

SPM 355: Sport Event Management
(F-C) Overview of all elements involved in sport event management. Key component of course is the planning, organizing, marketing, and conducting of a sport event on campus during the semester. Permission of instructor. Prerequisite: SPM 360. (3 cr. hr.)

SPM 360: Sport Marketing
(S) Application of marketing and market analysis techniques to sport. Topics include sport consumer behavior, demand analysis, strategic market planning, and sponsorship. Prerequisites: ECO 111 and ECO 221 and MGT 253. (Also listed as MGT 360) (3 cr. hr.)

SPM 373: Sport Law and Organization
(A) Examination of the legal environment in which professional and amateur sports presently operate. Included will be aspects of contract law, labor law, constitutional law and anti-trust law as they apply to the sport industry. (Cross-listed with MGT 373). Prerequisites: SPM 275 and MGT 250. (3 cr. hr.)

SPM 384: Pre-Internship Seminar in Sport Management
(A) Development and analysis of internship and career goals including an exploration of characteristics of the profession in relation to personal and professional goals. Emphasis is placed on the development of a professional portfolio including cover letters, resumes, and basic interviewing techniques as related to internship and job search. Issues related professional ethics and
etiquette will be explored. Prerequisites include: SPM 275, and permission of the SPM internship. This course is usually taken one to two semesters prior to expected internship placement. (1 cr. hr.)

**CPV 400: Cooperative Education**

(A) Elective work experience in public, private and/or governmental agencies. Experiences are sponsored, approved and evaluated by academic departments and are coordinated by the Internship and Volunteer Office. Credit is based on the content and duration of the experience and will be evaluated on an individual basis by the academic department involved. Prerequisites: junior or senior standing, good academic standing (see catalog definition) with no outstanding incompletes, consent of department in consultation with the Internship and Volunteer Office. Consult individual academic departments for additional prerequisites and policies. (1-16 cr. hr.)

**SPM 430: Applied Sport Media Management**

(A) An applied sport media management class involving the application of basic journalistic and communication principles and practices as used in sport information and sport media relations. Students will be involved in the coverage and media support of team and events involving SUNY Cortland intercollegiate athletic teams. Semester long project required. Prerequisites: SPM 330, plus permission of SPMG program director. (3 cr. hr.)

**SPM 435: Applied Information Technology in Sport**

(A) An applied information technology class involving the application of IT principles using specific software involving database and web-based projects. Specific introduction to proprietary software systems will be introduced. Semester-long project involving Avid clients will be required. Prerequisites: SPM 335, plus permission of SPMG program director. (3 cr. hr.)

**SPM 440: The International Experience in Sport**

(F-C) Focus on the globalization of sport with an emphasis on the organization, governance, and management of international sport, including the Olympic and Paralympic Games and FIFA World Cup. Comprehensive investigation of the structural and cultural environments in which U.S. organizations and corporations must consider in conducting business in foreign markets. Major semester long project includes the development of a bid document for a U.S. city to host a major international sports event. Prerequisite: SPM 360. (3 cr. hr.)

**SPM 460: Applied Sport Sales and Marketing**

(A) An applied sport promotion class involving the application of promotional theory, event planning and management, public relations, sponsorship proposal writing and the sales and solicitation of sponsorships to an existing sports event, sport organization, or team. Semester long project required. Prerequisites: SPM 360, plus permission of SPMG program director. (3 cr. hr.)

**SPM 466: Strategic Management of Sport Organizations**

(A) Investigates the skills and knowledge applicable to the process of planning for an organization’s future including a focus on contemporary issues. Key elements of policy development and strategic planning will be considered including the roles of mid and top level managers, strategy formulation, ethical and environmental analysis, and strategy implementation. Prerequisites: SPM 275 and Senior Status. (3 cr. hr.)

Please refer to the Physical Education Department for all physical education course listings.
Geography

DEPARTMENT

FACULTY
David L. Miller (Chair), Scott Anderson, Ibipo Johnston-Anumonwo, Robert Pierce, and J. E. Willmer

PROGRAMS OFFERED:
B.A. in Geography – 124 total credit hours
B.S. in Geography – 124 total credit hours
B.A. in Adolescence Education – Social Studies and Geography (Grades 7-12) – 127 total credit hours

MAJORS OFFERED
Geography
Adolescence Education – Social Studies and Geography (Grades 7-12)

CONCENTRATIONS OFFERED
Geographic Information Systems, Tourism Development

MINORS OFFERED
Geography, Tourism Development

DESCRIPTION
Students who major in geography may choose a program leading to the award of a bachelor of arts or bachelor of science degree. The bachelor of arts program includes a 13-hour foreign language requirement. The bachelor of science program incorporates a 13-hour sequence in computer techniques, environmental science, or demographics and business geographics in lieu of the foreign language requirement for the bachelor of arts degree.

SPECIAL FEATURES
• High-tech training in a friendly, supportive environment
• ESRI (Environmental Systems Research Institute) authorized learning center with 21 GIS workstations – learn advanced applications including network and 3D modeling applications
• Global Positioning System (GPS) – master field survey techniques using the GIS lab and handheld GPS units.
• Internships – numerous opportunities with local, state and federal agencies and study abroad options at locations such as the Australia Zoo
• Student-faculty research opportunities

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to the following majors.
2. Liberal Arts Requirements: B.A. – 90 credit hours; B.S. – 75 credit hours

Major in Geography (B.A.) [GRY]
The bachelor of arts program prepares students for graduate school, international studies, international commerce, and tourism development-related activities.

CAREER POTENTIAL
• Census Bureau data analyst
• Military intelligence officer
• International commerce
• Tourism development planner

A. Required Courses: 19 credit hours
   GRY 110: Physical Geography
   GRY 120: Cultural Geography
   GRY 125: Human Geography and Global Development
   GRY 324: Cartography and Geographic Information
   GRY 400: Geographical Analysis
   GRY 440: Seminar in Geography

B. Elective Courses in Geography: 15 credit hours

C. Other: 43-56 credit hours
   (which may include a minor of 15 to 21 credit hours)

D. Proficiency in a modern foreign language through the intermediate level: 0-13 credit hours

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Geography (B.A.) with a concentration in Tourism Development [GRY/TOUR]
The tourism development concentration and the accompanying minor focus on the planning, development and marketing of tourism at regional and community levels, and the development and preservation of cultural and environmental characteristics as tourism resources.

CAREER POTENTIAL
• Travel industry planner
• Transportation industry consultant
• Local or state tourism agency staff

A. Required Courses: 13 credit hours
   GRY 110: Physical Geography
   GRY 120: Cultural Geography
   GRY 125: Human Geography and Global Development
   GRY 400: Geographical Analysis
   GRY 440: Seminar in Geography

B. Core in Tourism Development: 9 credit hours
   GRY 215: Geography of Travel and Tourism
   GRY/REC 315: Ecotourism
   GRY/REC 415: Tourism Planning and Development

C. Selected from the following courses: 6 credit hours
   GRY 251: Cities of the World
   GRY 480: United States
   GRY 482: Central America and the Caribbean
   GRY 484: Europe
   GRY 485: Africa, South of the Sahara
   GRY 486: Monsoon Asia
   ECO 312: Economic Development in Latin America
   ECO 313: Economic Development in Asia

D. Selected from the following courses: 6 credit hours
   REC 344: Commercial Recreation Management
   REC 402: Management of Recreation Resources
   ANT 315: Development Anthropology
   ECO 311: Economic Development
   GRY 324: Cartography and Geographic Information
   GRY 327: Computer Mapping or
   GRY 328: Geographic Information Systems
   GRY 499: Internship
E. Other: 43-56 credit hours  
(which may include a minor of 15 to 21 credit hours)
F. Proficiency in a modern foreign language through the intermediate level: 0-13 credit hours

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

**Major in Geography (B.S.) with a concentration in Geographic Information Systems [GRY/GIS]**

The applied geography courses place a strong emphasis upon computer literacy and spatial analysis skills in preparing students for careers in site assessment, marketing and demographic analysis. The department’s Geographic Information Systems (GIS) computer lab features state-of-the-art hardware and software.

**CAREER POTENTIAL**

- Environmental GIS specialist
- Land use planner
- Marketing and business geographics consultant
- Law enforcement analyst
- Transportation planner
- Emergency response planner

A. Required Courses: 19 credit hours  
GRY 110: Physical Geography  
GRY 120: Cultural Geography  
GRY 125: Human Geography and Global Development  
GRY 324: Cartography and Geographic Information  
GRY 400: Geographical Analysis  
GRY 440: Seminar in Geography

B. Core in Geographic Information Technology: 15 credit hours
GRY 327: Computer Mapping  
GRY 328: Geographic Information Systems  
GRY 330: Advanced GIS Techniques  
Advanced GRY course in consultation with advisor

C. Introductory CAP (Computer Applications) course and/or advanced CAP courses in consultation with advisor: 3 credit hours

D. Completion of one of the following sequences: 9 credit hours

1) Sequence: Computer Techniques  
MCS 186: Intro Programming  
CAP 200: Programming or  
MCS 287: Intermediate Programming  
And at least three hours selected from:  
CAP 201: C Programming  
CAP 202: BASIC Programming  
MCS 388: Advanced Programming and Data Structures  
CAP 350: Data Base Management Systems  
CAP 250: Computer Practicum

2) Sequence: Environmental Science: 12 credit hours  
EST 100: Introduction to Environmental Studies  
And at least six hours selected from:  
BIO 307: Field Natural History  
BIO 315: Marine Biology  
BIO 405: Conservation of Natural Resources  
BIO 412: General Ecology  
GLY 261: Physical Geology  
GLY 292: Land Use and Planning  
GLY 310: Wetlands Analysis  
GLY 367: Geomorphology  
GLY 371: Meteorology  
GLY 397: Physical Oceanography  
GLY 510: Hydrogeology  
GLY 430: Field Hydrology  
ECO 335: Resource and Environmental Economics

E. Foreign language: 0-7 credit hours

**Dual major in Adolescence Education – Social Studies and Geography (Grades 7-12) [SSA & GRY]**

This program allows students who major in geography to qualify for certification to teach adolescence education in social studies (grades 7-12). It combines a major in geography with a professional semester that consists of professional preparation and student teaching.

**CAREER POTENTIAL**

- Junior high and high school teacher

A. Requirements for the geography major (see above)

B. Professional Preparation: 47-68 credit hours  
(Including additional social science courses)  
HLH 199: Critical School Health Issues  
PSY 101: General Psychology I  
PSY 232: Adolescent Psychology or  
PSY 332: Educational Psychology  
ECO 105: Political Economy and Social Thought  
GRY 425: Geography in the Classroom or  
GRY 520: Maps in the Classroom  
GRY 480: United States  
POL 100: Introduction to American Government  
HIS 100 and 101 or His 110 and 111 and  
HIS 200 and 201 and 9 hours at the 300 level or above  
ENG 306: Advanced Writing for Prospective Teachers or  
EDU 449: Literacy in the Middle and Secondary School  
SHH 300: Normal Language Development or  
PSY 350: Psychology of Language  
SSS 300: Introduction to Secondary Social Studies  
(A 100-hour field requirement is attached to this course)

C. Professional Semester: 18 credit hours  
SSS 301: Pre-Practice Teaching Seminar  
AED 400: Student Teaching I  
AED 401: Student Teaching II  
SSS 303: Post-Practice Teaching Seminar

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 127
### Minor in Geography [GRY]
Students who minor in geography are encouraged to select applied geography courses which place a strong emphasis upon computer literacy and spatial analysis skills.

**Career Potential**
- Site assessment and planning
- Environmental education
- Marketing and demographic analysis
- Community and economic development

A. Required Courses: 6 credit hours
   - GRY 110: Physical Geography
   - GRY 120: Cultural Geography

B. Elective Geography Courses: 12 credit hours
   - Nine of the 12 hours must be at the 200 level or higher.

**Total Credit Hours Required for the Minor:** 18

### Minor in Geography with an emphasis in Tourism Development [TOUR]
Students who elect the tourism development minor in geography focus on the planning, development and marketing of tourism at community and regional levels and the development and preservation of cultural and environmental characteristics as tourism resources.

**Career Potential**
- Tourism planning and marketing
- Transportation coordination

A. Required Courses: 9 credit hours
   - GRY/REC 315: Ecotourism
   - GRY 215: Geography of Travel and Tourism
   - GRY/REC 415: Tourism Planning and Development

B. Elective selected from the following courses: 9-10 credit hours
   - At least three hours must be from each of the following groups:
     1) Regional Courses
        - GRY 251: Cities of the World
        - GRY 482: Central America and the Caribbean
        - GRY 480: United States
        - GRY 484: Geography of Europe
        - GRY 485: Africa, South of the Sahara
        - GRY 486: Monsoon Asia
        - ECO 312: Economic Development of Latin America
        - ECO 313: Economic Development of Asia
     2) Planning and Development Courses
        - REC 344: Commercial Recreation Management
        - REC 402: Management of Recreation Resources
        - ECO 311: Economic Development
        - ANT 315: Development Anthropology
        - GRY 327: Computer Mapping or
        - GRY 328: Geographic Information Systems

**Total Credit Hours Required for the Minor:** 18

### Example of the undergraduate degree in Geography with a concentration in Geographic Information Systems and a minor in Computer Applications over four years

<table>
<thead>
<tr>
<th>Year</th>
<th>First Year</th>
<th>Second Year</th>
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<tbody>
<tr>
<td><strong>Fall</strong></td>
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<tr>
<td>CAP 100</td>
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<td>GRY 125</td>
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<td>POL 100 (GE 1)</td>
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<td>CAP 235, 236, 231</td>
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<td>GRY 327</td>
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<td>GLY 171 (GE 8)</td>
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<td>MCS 186</td>
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<td>HIS 101 (GE 5)</td>
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<td>GRY 328</td>
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<td>GRY 330</td>
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<td>CAP 350</td>
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<td>GRY 400 (Quant. Skills)</td>
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<tr>
<td>ENG 200 (GE 6)</td>
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## Geography

### COURSE DESCRIPTIONS

**NOTE:** GRY 110, 120 or 125 meet the prerequisite of "introductory geography."

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRY 110: Physical Geography</td>
<td>(C) Patterns of physical elements of landscape and atmosphere, their interrelations, how they differ from place to place. (3 cr. hr.)</td>
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<tr>
<td>GRY 120: Cultural Geography</td>
<td>(A) Comparative study of cultures in their geographic setting and their response to modern world interdependence and problems of food, population, development. (3 cr. hr.)</td>
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<tr>
<td>GRY 125: Human Geography and Global Development</td>
<td>(A) A spatial study of race, class and gender relations in the context of contrasting cultures, and the role the relations play in global development — social, political and economic. (3 cr. hr.)</td>
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</tr>
<tr>
<td>GRY 129, 229, 329, 429, 529: Special Topics in Geography</td>
<td>Selected topics. May be taken more than once as subject changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)</td>
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<tr>
<td>GRY 150: Modules in Geography</td>
<td>(O) Five-week mini-courses focusing on regions, nations or geographic topics dealing with contemporary problems, issues. Three hours per week. May be repeated as topic changes. (1 cr. hr.)</td>
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<tr>
<td>GRY 215: Geography of Travel and Tourism</td>
<td>(C) The spatial analysis of international travel and tourism. The use of such geographical techniques as mapping and quantitative analysis to describe and predict the origins and destinations of the world's tourists. The study of physical and cultural landscapes as major tourism resources in countries around the world. (3 cr. hr.)</td>
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<tr>
<td>GRY 221: Social Geography</td>
<td>(B) Geographical analysis of social groups, institutions in United States. Emphasis upon spatial qualities of cultural and social assimilation process experienced by racial and ethnic minorities. (3 cr. hr.)</td>
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<tr>
<td>GRY 240: Economic Geography</td>
<td>(F) Spatial analysis of production, transportation, market destination of commodities. Introduction to the use of computer-assisted location-analysis techniques. (3 cr. hr.)</td>
<td></td>
</tr>
<tr>
<td>GRY 250: Urban Geography</td>
<td>(B) Factors in establishment, growth of urban places; analysis of function, internal patterns, hinterland interrelationships; urban land use, problems of clustered settlements. (3 cr. hr.)</td>
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</tr>
<tr>
<td>GRY 251: Cities of the World</td>
<td>(C) Geographical analysis of patterns in world urbanization, with an emphasis upon non-U.S. cities. Examination of the internal and external character of the world's major cities with a focus on urban areas as tourism resources and their role in the regional development of tourism. (3 cr. hr.)</td>
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</tr>
<tr>
<td>GRY 260: Geography and Film</td>
<td>(O) Select problems in cultural geography as exhibited through film. May be repeated with different subtitle: Social Geography of England, Comparative Cultural Geographies — India and Brazil, Race Issues in Southern Africa. (Also listed as CIN 260.) (3 cr. hr.)</td>
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<tr>
<td>GRY 270: Geopolitics</td>
<td>(C) Geographical foundations of international political phenomena; geographic factors in development and orientation of states and power blocs. Prerequisite: Introductory geography. (3 cr. hr.)</td>
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<tr>
<td>GRY 301: Science, Human Affairs and the Environment</td>
<td>(S) Examination of origins, evolution and significance of Greenhouse Theory of climate change. Investigation of other theories advanced to account for climate shifts. Evaluation of evidence suggesting a climatic warming of unprecedented magnitude is under way and that anthropogenic increase in greenhouse gases is responsible. Prerequisite: Completion of GE 8 (Natural Sciences) requirement recommended. (3 cr. hr.)</td>
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</tr>
<tr>
<td>GRY 315: Ecotourism</td>
<td>(S-C) A global and local analysis of the physical environment as a tourism development resource. An examination of such natural systems as the rain forest, ocean and desert as tourism resources and the environmental impact of tourism on the viability of these niches. Regional and local studies of the environment as a basis for tourism development will be drawn from Amazonia, East Africa, Central America, the Caribbean and North America. (Also listed as REC 315.) Prerequisite: An introductory course in geography, geology, biology, chemistry or environmental science. (3 cr. hr.)</td>
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<tr>
<td>GRY 324: Cartography and Geographic Information</td>
<td>(F) Principles and methods of spatial data collection, processing, analysis and display. Introduction to cartography, Geographic Information Systems, and Global Positioning Systems. (3 cr. hr.)</td>
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<tr>
<td>GRY 326: Computer Graphics</td>
<td>(S-C) Introduction to computer graphics. Development, use of original, commercial programming to produce two and three-dimensional images on the department's graphics terminal, plotter and line printer. Emphasis upon skills used in cartography, business and the sciences. Prerequisite: MCS 186 or CAP 200. (3 cr. hr.)</td>
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<tr>
<td>GRY 327: Computer Mapping</td>
<td>(F) Introduction to desktop computer mapping. Practical experience in using computer mapping techniques to create thematic maps that graphically display data. Database organization, manipulation and analysis for efficient production of publication quality maps for communicating spatial information. Three lectures and/or demonstrations, one two-hour laboratory. (Also listed as CAP 327.) Prerequisites: CAP 100 or CAP 110. (4 cr. hr.)</td>
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<tr>
<td>GRY 328: Geographic Information Systems</td>
<td>(S) Desktop computer-based Geographic Information System (GIS) Applications. Practical experience using GIS software to learn geographic data management, thematic mapping, basic map and database querying, as well as map creation and report writing. Three lectures and/or demonstrations, one two-hour lab. (Also listed as CAP 328.) Prerequisite: CAP 100 or CAP 110. (4 cr. hr.)</td>
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<tr>
<td>GRY 330: Advanced GIS Techniques</td>
<td>(S-C) Planning, execution and delivery of a GIS-based project, which demonstrates mastery of tools of GIS in a substantive application tailored to field of interest. (Also listed as CAP 330.) Prerequisites: GRY/CAP 327 or GRY/CAP 328. (4 cr. hr.)</td>
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</tbody>
</table>

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**Course codes:**
- A = every semester
- B = at least once per year
- C = at least once every two years
- F = fall
- M = summer
- O = occasionally
- S = spring
- W = winter
- ■ = LAS
GYR 370: Will the World Provide? A Research Experience for Elementary Education Majors
(F–C) This course provides a science, technology, and society (STS) research experience for elementary education majors. Through class, group, and individual projects, students develop and pursue a research question, investigate resources, and reach a set of comprehensive conclusions on one of the following global resource topics: air, water, minerals, agriculture, energy, forestry, fisheries, and wildlife. Prerequisites: GRY 125, GRY 120 or GRY 110 are recommended. (3 cr. hr.)

GYR 400: Geographical Analysis
(F) Application of quantitative techniques to solution of geographical problems. Included are the study of point pattern analysis, geographical sampling, areal association and ecological analysis. Three lectures, one two-hour laboratory. Prerequisite: Completion of introductory geography course and CAP 100 or CAP 110 and CAP 111. (4 cr. hr.)

GYR 415: Tourism Planning And Development
(F–C) The spatial analysis of tourism as a component of economic development. A regional comparison of the marketing of tourism resources in the developed and les developed countries of the world. Examination of the resources necessary for the development of tourism and an analysis of the economic and environmental impact on a location as a result of marketing those resources. (Also listed as REC 415.) Prerequisite: GRY 215. (3 cr. hr.)

GYR 425: Geography in the Classroom
(S–C) Application of geography's principles, themes and learning outcomes to the classroom setting. Study and application of national and New York State learning standards in geography to the K–12 classroom. Illustration of successful teaching models and evaluation instruments in geography and global studies. Prerequisites: Completion of six hours of geography. (3 cr. hr.)

GYR 440: Seminar in Geography
(S) Approaches, techniques of geographic analysis. Prerequisite: Consent of department. (3 cr. hr.)

GYR 470: Resource Geography
(C) Analysis of relationship of resources (human and natural) to man, human evaluations of geographic space and environmental quality, management of environmental quality in context of a contemporary world. Prerequisite: Introductory geography. (3 cr. hr.)

GYR 480: United States
(C) Topical, regional analysis focusing on interrelationships of cultural, economic and physical patterns and problems. Prerequisite: Three hours of geography. (3 cr. hr.)

GYR 481: Geography of New York State
(O) Human, natural resources. Prerequisite: Introductory geography. (3 cr. hr.)

GYR 482: Central America and the Caribbean
(O) Regional description and analysis of the human and physical landscape of the countries of Central America and the Caribbean. Geographical analysis of the region’s politics, culture and economy with a particular focus on the role of tourism in the development of its economy. Prerequisite: Introductory geography. (3 cr. hr.)

GYR 484: Geography of Europe
(C) Regional study: major problems of physical, cultural landscape of Europe. Industry, commerce, agriculture. Prerequisite: Introductory geography. (3 cr. hr.)

GYR 485: Africa, South of the Sahara
(C) Cultural, political factors and relationship to past and present population patterns. Prerequisite: Introductory geography. (3 cr. hr.)

GYR 486: Monsoon Asia
(S–C) Topical, regional analysis of cultural, physical environments (Japan to India). Prerequisite: Introductory geography. (3 cr. hr.)

GYR 495: Independent Study in Geography
(O) Independent research in selected geographic problems. Prerequisite: Consent of instructor. (3 cr. hr.)

GYR 499: Internship in Applied Geography
Internship with a local government agency or business. Supervised application of statistical, cartographic and locational skills. Prerequisites: GRY 401, 440; consent of department. S, U grades are assigned. (3 cr. hr.)

GYR 520: Maps in the Classroom
(B) Classroom-laboratory approach to map use for students and teachers. Formal study of map elements. Map reading, interpretation. Classroom map exercises, their design, use. (3 cr. hr.)

GYR 595: Independent Study in Geography
(O) Independent research in selected geographic problems. Prerequisite: Consent of instructor. (3 or 4 cr. hr.)

Related Education Courses

AED 400: Student Teaching I
Full-time supervised teaching in public schools for four weeks (3 cr. hr.)

AED 401: Student Teaching II
Full-time supervised teaching in public schools for four weeks. Requires satisfactory completion of AED 400 (3 cr. hr.)

SSS 300: Introduction to Secondary Social Studies
This course introduces students to unit and lesson planning, focuses on the history of American education as it relates to social studies, familiarizes students with the social studies learning standards, and makes comparisons between middle school and high school teaching. Includes 100-hour field experience. (3 cr. hr.)

SSS 301: Pre-Practice Teaching Seminar
(F) Integrated study of A.) Introduction to Secondary Education; B.) Introduction to Methods of Teaching Social Studies; C.) Introduction to Contemporary Secondary School Issues; D.) Preparation for specific practice teaching assignment. S, U grades assigned. (11 cr. hr.)

SSS 303: Post-Practice Teaching Seminar
(F) Problem approach drawing upon experience of students during practice teaching. Designed to focus on contemporary educational issues, beginning the job search and application process, teaching and learning at the middle school level and exploring the history and philosophy of teaching. S, U grades assigned. (1 cr. hr.)
Geology
DEPARTMENT

FACULTY
Robert Darling (Chair), David Barclay, Christopher Cirmo, Gayle Gleason, Christopher McRoberts

PROGRAMS OFFERED
B.A. in Geology – 124 total credit hours
B.S. in Geology – 124 total credit hours
B.A. in Adolescence Education – Earth Science (Grades 7-12) – 124 total credit hours
B.S. in Adolescence Education – Earth Science (Grades 7-12) – 124 total credit hours

MAJORS OFFERED
Geology
Adolescence Education – Earth Science

CONCENTRATIONS OFFERED
Environmental Science
Water Resources

MINORS OFFERED
Geology

DESCRIPTION
Students who major in geology may earn a bachelor of arts or a bachelor of science degree. They may complete a program of traditional geology courses, choose to concentrate in environmental science, or combine courses in the major leading to qualification for initial certification as secondary school teachers of earth science. Depending on the major or concentration, our geology graduates choose to either begin master’s level graduate studies or find employment as geologists, hydrogeologists, or high-school earth science teachers.

SPECIAL FEATURES
• Opportunities for research
• Geology Club
• Internships
• Fossil, mineral, and rock collections
• Field trips
• Brauer Field Station
• Hoxie Gorge Field Station
• Field and analytical instrumentation

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to the following majors.

2. Liberal Arts Requirements: B.A. – 90 credit hours; B.S. – 75 credit hours

Major in Geology [GLY]
Our liberal arts major in geology provides a solid foundation in the geological sciences. The program is designed to meet the current market demands for professional geologists as well as requirements of graduate programs in geology.

CAREER POTENTIAL
• Private consulting
• Research or academic scientist
• Mining and petroleum exploration
• State and federal agencies

A. Required Courses in Geology: 30-35 credit hours
GLY 261: Physical Geology
GLY 262: Historical Geology or GLY 570: Tectonics and Evolution
GLY 301: Descriptive and Optical Mineralogy
GLY 302: Petrology
GLY 363: Invertebrate Paleontology
GLY 367: Geomorphology
GLY 469: Structural Geology
GLY 471: Stratigraphy
GLY 476: Geologic Field Methods or GLY 481: Field Geology

B. Elective Courses in Geology: 1-6 credit hours from the following:
GLY 281: Data Analysis in Natural Science
GLY 292: Land Use and Planning
GLY 310: Wetlands Analysis
GLY 371: Meteorology
GLY 396: Aqueous Geochemistry
GLY 397: Physical Oceanography
GLY 400: Supplemental Field Studies
GLY 510: Hydrogeology
GLY 576: Glacial Geology

C. Courses in Related Areas: 21-22 credit hours
One year of calculus
CHE 221: General Chemistry I
CHE 222: General Chemistry II
One year sequence in biology or physics

D. Electives: 26-40 credit hours.

GE-8 requirements are satisfied by courses in the major.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124
Major in Geology with a concentration in Environmental Science [GLY/ENVS]
The major in geology with a concentration in environmental science provides a broad-based program of study designed to meet the professional and graduate school demands of environmental geoscientists.

CAREER POTENTIAL
• Environmental geoscientist  • Hydrogeologist
• Consulting geoscientist
A. Required Courses for all environmental science concentrators: 48-50 credit hours.
  BIO 110-111: Principles of Biology I and II * or
  BIO 201-202: Biological Sciences I and II
  BIO 412: General Ecology
  CHE 221-222: General Chemistry I and II
  ENS 486: Seminar in Environmental Science
  ENS 487: Environmental Science Internship
  GLY 261: Physical Geology
  GLY 367: Geomorphology
  GLY 510: Hydrogeology
  MAT 121-122: Calculus A and B **
  PHY 105: Elementary Mechanics and Heat and
  PHY 106: Elementary Electricity, Light and Sound or
  PHY 201-202: Principles of Physics I and II
* Biology majors take BIO 201-202.
** Physics majors take MAT 125-126.

B. Related Areas: Two courses from the following: 6 credit hours
Two courses from the same department are not permitted.
May also fulfill General Education requirements.
  ECO 105: Political Economy and Social Thought
  ECO 110: Principles of Macroeconomics
  GLY 120: Cultural Geography
  GRY 221: Social Geography
  POL 100: Introduction to American Government and Politics
  SOC 150: Introduction to Sociology

C. Additional Requirements for Geology Majors: 17 credit hours
  GLY 262: Historical Geology or
  GLY 570: Tectonics and Evolution
  GLY 301: Descriptive and Optical Mineralogy
  GLY 302: Petrology
  GLY 371: Meteorology
  GLY 476: Geologic Field Methods

D. Elective Courses in Geology: 7 credit hours from the following:
  GLY 281: Data Analysis in Natural Science
  GLY 292: Land Use and Planning
  GLY 310: Wetlands Analysis
  GLY 363: Invertebrate Paleontology
  GLY 396: Aqueous Geochemistry
  GLY 397: Physical Oceanography
  GLY 400: Supplemental Field Studies
  GLY 469: Structural Geology
  GLY 471: Stratigraphy
  GLY 576: Glacial Geology

E. Additional hours in mathematics or science outside the major:
  6 credit hours.

F. Electives: 0-13 credit hours.

GE-8 requirements are satisfied by courses in the major.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Geology with a concentration in Water Resources [GLY/WRES]
Students majoring in geology with a concentration in water resources are well grounded in the basics of geoscience with additional expertise in water-related sciences and policy. The program is designed for students interested in hydrogeology, watershed management, and government positions in water quality and quantity.

CAREER POTENTIAL
• Water resource specialist  • Water quality specialist
• Watershed manager  • Hydrogeologist

A. Geology major [GLY] requirements listed on previous page: 57-58 credit hours.
B. Additional courses for water resources concentrators: 25-26 credit hours.
  ENS 310: Wetlands Analysis
  BIO 512: Limnology
  GRY 327: Computer Mapping
  GLY 430: Field Hydrology *
  GLY 510: Hydrogeology *

One from the following:
  POL 242: Environmental Policy
  POL 308: Environmental Law
  ECO 335: Resource and Environmental Economics

One from the following:
  EST 100: Introduction to Environmental Studies
  ECO 110: Principles of Macroeconomics
  POL 100: Introduction to American Government and Politics
  GRY 125: Human Geography and Global Development

One from the following:
  GLY 396: Aqueous Geochemistry *
  GRY 328: Geographic Information Systems

One from the following:
  POL 242 satisfies GE 1; GRY 125 satisfies GE 3; EST 100 or
  POL 242 satisfy GE 7; courses in GLY major satisfy GE 8.

* Can not be use as elective in GLY major.

Major in Adolescence Education – Earth Science (Grades 7-12) [AES]
This major leads to New York State certification to teach earth science in grades 7-12.

CAREER POTENTIAL
• Earth science teacher (7-12)  • Naturalist/interpreter
• Science curriculum specialist  • Educational administrator

A. Required Courses in Geology: 30 credit hours
  GLY 261: Physical Geology
  GLY 262: Historical Geology or
  GLY 570: Tectonics and Evolution
  GLY 301: Descriptive and Optical Mineralogy
  GLY 302: Petrology
  GLY 371: Meteorology
  GLY 476: Geologic Field Methods

E. Additional hours in mathematics or science outside the major:
  6 credit hours.

F. Electives: 0-13 credit hours.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124
Example of the undergraduate degree in Geology over four years

Other concentrations have different four-year models.

First Year

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Spring

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Third Year

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<td>GLY 301</td>
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Spring

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Summer

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TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124
Geology

COURSE DESCRIPTIONS

Gly 118: Laboratory in Earth Science
Identification and classification of common geologic materials; use, compilation, and interpretation of topographic and weather maps; demonstrations, computations, and problem solving. Two-hour session weekly. Fulfills education program laboratory requirement. Prerequisites: Concurrent or following a non-laboratory introductory earth science/geology course. (1 cr. hr.)

Gly 129, 229, 329, 429, 529: Special Topics in Geology
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

Gly 160: Geology and the Human Environment
(A) Integrated study of physical resources, processes of land, ocean, atmosphere, in terms of man-environment relationship. Three one-hour lectures and/or demonstrations. Not open to geology majors or those having GLY 171 or 261. (3 cr. hr.)

Gly 171: Earth Science
(A) Basic concepts and principles of geology, meteorology, and oceanography. Three lectures and one two-hour laboratory per week. Not open to geography, mathematics, or science majors or to students with credit for GLY 160 or 261. (4 cr. hr.)

Gly 172: Earth History
(A) Evolution of the earth based on geologic evidence with special emphasis on the rock record of New York State. Not open to students with credit for GLY 262 or GLY 570, or majors in geography, mathematics or science. Prerequisite: GLY 171. (3 cr. hr.)

Gly 261: Physical Geology
(A) Principles of physical geology. Earth materials, intracrustal forces and products, agents of gradation and their physiographic expression. Laboratory study includes minerals, rocks, topographic and geologic maps, simple geologic structures. Three lectures, one three-hour laboratory, field trips. Primarily for science, math and geography majors. Not open to students with credit for GLY 160 or 171. (4 cr. hr.)

Gly 262: Historical Geology
(S) Historical geology; evolution of North America interpreted from stratigraphic record; evolution of life. Laboratory study of sedimentary facies, invertebrate fossils, evolution of tectonic provinces. Two lectures, one three-hour laboratory, field trips. Prerequisite: GLY 261. (3 cr. hr.)

Gly 281: Data Analysis in Natural Science
(F) Analysis and interpretation of geologic and biologic data using modern quantitative techniques with discipline-specific applications. Basis methodologies and interpretation of descriptive, comparative, and classificatory statistics. Topics include sampling, probability, univariate, and bivariate analysis. Two one-hour lectures, one two-hour laboratory. Not open to students with credit for MAT/PSY 201, ECO 221 or COM 230. (3 cr. hr.)

Gly 292: Land Use and Planning
(F) Land as a natural resource; emphasis on geologic aspects that determine natural potentialities, restrictive conditions of land and its use. Three lecture hours; field trips. (3 cr. hr.)

Gly 301: Descriptive and Optical Mineralogy
(F) Principles of physical and optical crystallography and crystal chemistry; descriptive mineralogy; identification of minerals using physical, chemical, and optical methods. Three lecture hours and three-hour laboratory; required all day field trip. Prerequisite: GLY 261; Corequisite: CHE 221. (4 cr. hr.)

Gly 302: Petrology
(S) Petrogenesis of igneous, metamorphic and sedimentary rocks; description and classification and interpretation based on hand specimens and thin-section. Three lecture hours and three-hour laboratory; required all-day field trip. Prerequisite: GLY 301. (4 cr. hr.)

Gly 310: Wetlands Analysis
(F) Investigation of the hydrology, biogeochemistry, soils, classification, delineation, and functional assessment of freshwater wetlands. Lectures, laboratory field trips and group field projects. Prerequisite: completion of GE-8 and junior status, or permission of instructor. (4 cr. hr.) (also listed as ENS 310)

Gly 363: Invertebrate Paleontology
(S) Important invertebrates in fossil record. Laboratory study of morphology, identification and preparation procedures. Two lectures, one three-hour laboratory, required field trip. Prerequisite: GLY 261. (3 cr. hr.)

Gly 367: Geomorphology
(F) Origin of land forms. Evolution of earth’s surface features and analysis. Two lectures, one three-hour laboratory, field trips. Prerequisite: GLY 261. (3 cr. hr.)

Gly 371: Meteorology
(S) Atmosphere, its phenomena; elements of weather; application to weather forecasting. Two lectures, one three-hour laboratory. Prerequisite: Six hours of mathematics or science. (3 cr. hr.)

Gly 396: Aqueous Geochemistry
(S) Detection, analysis, distribution, significance of chemical elements in soils, rocks, water, organic matter. Two one-hour lectures, one three-hour laboratory. Prerequisite: CHE 221, Corequisite: CHE 222. (4 cr. hr.)

Gly 397: Physical Oceanography
(S) Physical features of the ocean; origin of ocean basins; waves; currents and tides; shoreline processes; ocean sediments; effect on world climates and environmental problems. Three lecture hours per week. Prerequisites: Six hours of math or science. (3 cr. hr.)

Gly 400: Supplemental Field Studies
(A) Extended field study or field trips designed to complement classroom instruction. May be repeated as subtitle changes. Prerequisite: Consent of department. H, S, U grades are assigned. (1-3 cr. hr.)

Gly 430: Field Hydrology
(M) Methods used in the characterization of the quantity, quality and flow characteristics of surface, vadose zone and groundwater. Field projects with local streams, wetlands and aquifers, and field trips to active research sites in the Catskill and Adirondack region. Prerequisites: GLY 261 and junior status, or permission of instructor. (2-3 cr. hr.)

Course codes: A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter, ■ = LAS
Related Education Courses

**AED 391: Introduction to Adolescence Education**  
(A) Students will develop a coherent and comprehensive personal educational philosophy; analyze the role of education and teachers in society; demonstrate an understanding of teacher certification standards and requirements; evaluate teaching, lesson planning and implementation and cooperative skills; and develop a portfolio. The course includes 25 hours of field observation/teaching experience.  
(3 cr. hr.)

**AED 442: Methods I: Teaching the Sciences in the Middle and Secondary Schools**  
(F) This course begins with an examination of the history and foundations of education, with an emphasis on the history of science education. It then examines disciplinary models and strategies for classroom management. Students will develop tools for measurement and evaluation of performance and achievement for students with diverse abilities and interests. Students will participate in short and long-range lesson planning and curriculum development. Federal and state laws, policies and procedures for dealing with students with disabilities will be examined. Strategies for collaborating with administrators, faculty/staff, parents/guardians, and community members will be discussed. Includes 25 hours of field experience in middle and secondary schools.  
(3 cr. hr.)

**EDU 393: Student Teaching: Adolescence Education — Science**  
(A) Full semester of student teaching. Prerequisites: PSY 232 or 332, EDU 423, EDU 443. See major department for eligibility criteria. S, U grades are assigned.  
(6-14 cr. hr.)

**EDU 423: Laboratory Practicum**  
This course is designed to provide a student with the opportunity to work with an experienced teacher in the planning, preparation, and implementation of laboratory exercises in an introductory, college level lab course. Additionally, students will assist in one-on-one and in small group activities within the laboratory setting. It includes 25 hours of field experience. Corequisite: EDU 443.  
(1 cr. hr.)
EDU 443: Methods II: Teaching the Sciences in the Middle and Secondary Schools
Students will participate in the development of sample course syllabi, a comprehensive laboratory safety plan, field trip proposal, and strategies for facilitating parental/community involvement. Students will design and implement classroom demonstrations and laboratory exercises. Alignment of lesson plans with state and national learning standards and state core curriculum guides, strategies for motivation of students with diverse needs and learning styles, and development of assessment tools that parallel those of Regents examinations will be emphasized. Students will explore the uses of technology to enhance the teaching-learning environment in the science classroom. The course will conclude with a discussion of the importance of continuing self-evaluation and professional growth and development. Twenty-five hours of field experience in middle and secondary schools. Prerequisite: AED 442. Corequisite: EDU 423. (3 cr. hr.)

EDU 449: Literacy in the Middle and Secondary School
(F) Methods, materials and assessment for fostering literacy at the middle and secondary levels. (3 cr. hr.)

Health

DEPARTMENT

FACULTY
Joseph F. Governali (Chair), Christine Beyer, John Forster, Ray Goldberg, Bonni Hodges, John Leary, Jennifer Nolan, Alan Sofalvi, Donna M. Videto, Ben Wodi

PROGRAMS OFFERED
B.S. in Health Science – 124 total credit hours
B.S.Ed. in Health Education – 128 total credit hours

MAJORS OFFERED
Health Science
Health Education

CONCENTRATIONS OFFERED
Community Health Education
Environmental Health
Health Care Administration and Planning
Wellness Health Promotion
Allied Health
College Health Promotion and Prevention Services

DESCRIPTION
The health programs at Cortland provide majors with professional preparation experiences designed to help students develop skills and background required for positions in a variety of health professions and for admission into advanced degree programs. Health Department graduates work in a wide range of health and educational settings including county health departments, hospitals and other health care facilities, community health organizations, corporate and private wellness facilities, environmental agencies, schools and universities. The department combines academic coursework with out-of-class experiences that provide direct contact with health and education professionals. Such experiences include a well developed internship program and independent study opportunities.

SPECIAL FEATURES
• Internships and independent study
• Health Science honorary: chapter of Eta Sigma Gamma
• Study abroad in London, Belize, etc.
• Coursework with integrated technology and computers
• Variety of concentrations

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to the following majors.
2. Liberal Arts Requirements: 60 credit hours

Health Science Program
Health Department Requirements (13 credit hours)
BIO 301: Human Anatomy and Physiology I
BIO 302: Human Anatomy and Physiology II
BIO 303: Microbiology and Human Disease
COM 210: Fundamentals of Public Speaking

Health Education Program
Health Department Requirements (13 credit hours)
BIO 301: Human Anatomy and Physiology I
BIO 302: Human Anatomy and Physiology II
BIO 303: Microbiology and Human Disease
COM 210: Fundamentals of Public Speaking
CAP 100: Introduction to Computer Applications

Major in Health Science [HSC]
The degree program has been designed for students interested in preparing for health careers in community/public health settings. Students participate in a full semester internship experience. A number of concentrations are available to help meet specific career interests of students.

CAREER POTENTIAL
• Environmental health specialist
• Community health educator
• Health administrator
• Wellness health promotion specialist

A. Required Courses: 18 credit hours
HLH 203: Community Health
HLH 360: Health Care Administration and Planning
HLH 390: Environmental Health and Ecology
HLH 391: Epidemiology and Biostatistics
HLH 492: Chronic and Communicable Diseases
HLH 494: Needs Assessment, Program Planning and Evaluation in Health Education

B. Fieldwork: 16 credit hours (overall 2.5 GPA required)
C. Other: 15 credit hours
Students elect courses based on professional interests and the following are typical electives in this program:
HLH 111: International Health and Culture
HLH 163: The HIV Epidemic
HLH 201: Health Problems of the Underserved
HLH 210: Wellness and Health Promotion
HLH 232: Nutrition
HLH 301: Stress Management
HLH 302: Human Sexuality Education
HLH 314: Mental and Emotional Health
HLH 367: Drug Problems: Intervention and Prevention
HLH 393: Health Related Behavior: Formation and Change
HLH 493: Community Health Education

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Health Science with a concentration in Allied Health [HSC/ALLH]
The concentration is designed to provide background needed to pursue post-baccalaureate study in various allied health fields. In conjunction with the health science major, it provides students with the prerequisite coursework needed for programs in such areas as nursing, physical therapy and occupational therapy. The combination of the concentration and the major gives students coursework needed for advanced study and the preparation required for a wide variety of community/public health positions.

CAREER POTENTIAL
• Community health practitioner
• Nursing (provides prerequisites for advanced programs)
• Physical therapy (provides prerequisites for advanced programs)
• Occupational therapy (provides prerequisites for advanced programs)

A. Required Courses
Select All: 8 credit hours
BIO 201: Biological Sciences I
BIO 202: Biological Sciences II

Select Two: 6 or 8 credit hours
CHE 121: Elementary Chemistry I
CHE 122: Elementary Chemistry II or
CHE 221: General Chemistry I
CHE 222: General Chemistry II

Select Two: 8 credit hours
PHY 105: Elementary Mechanics, Heat, and Matter
PHY 106: Elementary Electricity, Light, and Sound or
PHY 201: Principles of Physics I
PHY 202: Principles of Physics II

Select One or Two: 3 or 6 credit hours
MAT 201: Statistics or
MAT 125: Calculus I or
MAT 125: Calculus I and
MAT 126: Calculus II

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Health Science with a concentration in Community Health Education [HSC/COMH]
The concentration is intended to prepare community-based health educators who can provide educational programming designed to facilitate the adoption of behaviors conducive to health maintenance and promotion. Areas of activity would include educational programming related to drug abuse, sexuality, nutrition, safety and wellness.

CAREER POTENTIAL
• Community health educator in a county health department
• Health educator in a corporate wellness facility
• Health educator for agencies such as American Cancer Society or American Red Cross
• Health educator in a teen pregnancy prevention program

A. Required courses: 27 credit hours
Select All: 15 credit hours
HLH 201: Health Problems of the Underserved
HLH 394: Health-Related Behavior: Formation and Change
HLH 493: Community Health Education
HLH 210: Wellness and Health Promotion
PSY 101: General Psychology I

Select One: 3 credit hours
PSY 332: Educational Psychology or
PSY 422: Social Psychology

Select One: 3 credit hours
SOC 315: Development Sociology or
SOC 351: The Community or
SOC 371: Sociology of Medicine

Select One: 3 credit hours
POL 100: Introduction to American Government and Politics or POL 240: Introduction to Public Administration and Public Policy

Select One: 3 credit hours
COM 300: Interpersonal Communication or
COM 302: Intercultural Communication or
COM 410: Communication in Social Change

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Health Science with a concentration in Environmental Health [HSC/ENVH]
The concentration is designed for students interested in seeking careers as environmental health specialists or public health sanitarians. Such professionals apply the principles of the natural and social sciences to the detection, evaluation, control and management of those factors in the environment which influence health. These professionals typically work in governmental agencies or industry.

CAREER POTENTIAL
• Public health sanitarian with a county health department
• Specialist with governmental agencies such as Occupational Safety and Health Administration and Environmental Protection Agency
• Environmental specialist with businesses and corporations
• Emergency management and response specialist

A. Required Courses: 28 credit hours
Select All: 14 credit hours
HLH 201: Health Problems of the Underserved
HLH 394: Health-Related Behavior: Formation and Change
HLH 493: Community Health Education
HLH 210: Wellness and Health Promotion
PSY 101: General Psychology I

Select One: 3 credit hours
PSY 332: Educational Psychology or
PSY 422: Social Psychology

Select One: 3 credit hours
SOC 315: Development Sociology or
SOC 351: The Community or
SOC 371: Sociology of Medicine

Select One: 3 credit hours
POL 100: Introduction to American Government and Politics or POL 240: Introduction to Public Administration and Public Policy

Select One: 3 credit hours
COM 300: Interpersonal Communication or
COM 302: Intercultural Communication or
COM 410: Communication in Social Change

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124
CHE 221: General Chemistry I
CHE 222: General Chemistry II

Select Two: 6 credit hours
HLH 392: Environmental Pollutants and Toxicology or HLH 393: Introduction to Occupational Safety and Health or POL 242: Environmental Policy

Select Two: 8 credit hours
PHY 201: Principles of Physics I
PHY 202: Principles of Physics II or PHY 105: Elementary Mechanics, Heat, and Matter
PHY 106: Elementary Electricity, Light, and Sound

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Health Science with a concentration in Health Care Administration and Planning [HSC/ADMN]
The concentration introduces students to some of the fundamental concepts essential to careers involving health program planning and health services administration. The courses are designed to provide students with entry level skills and prerequisite background to graduate studies in health services and management, planning and research.

CAREER POTENTIAL
• Administrator in a private community health agency
• Administrator in a voluntary health agency
• Department administrator in a health facility
• Program manager in a community health agency

A. Required Courses: 30-31 credit hours
Select All: 18 credit hours
MGT 254: Principles of Accounting I
MGT 255: Principles of Accounting II
ECO 111: Principles of Microeconomics
MGT 250: Principles of Management
HLH 201: Health Problems of the Underserved
SOC 371: Sociology of Medicine

Select One: 3 credit hours
MCS 186: Introductory Programming or CAP 100: Introduction to Computer Applications

Select One: 3 credit hours
MGT 253: Principles of Marketing or ECO 352: Finance

Select Both: 6 credit hours
POL 240: Introduction to Public Administration and Public Policy
POL 326: State and Local Government

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Health Science with a concentration in Wellness Health Promotion [HSC/WELL]
The concentration is intended to prepare health education specialists to work in a variety of private, public and worksite settings related to health promotion. Responsibilities include assessing client needs, designing health promotion programs, implementing/coordinating programs and evaluation of outcomes.

CAREER POTENTIAL
• Wellness specialist in a business or corporation
• Wellness manager in a private health promotion center
• College or school-site wellness coordinator
• Wellness coordinator in a community agency

A. Required courses: 27 credit hours
Select All: 21 credit hours
HLH 120: Responding to Emergencies
HLH 210: Wellness and Health Promotion
HLH 232: Nutrition
HLH 301: Stress Management
HLH 394: Health Related Behavior: Formation and Change
HLH 493: Community Health Education
HLH 314: Mental Health and Counseling
HLH 405: Wellness/Fitness Practicum

Select: 3 credit hours
PED 397: Exercise Physiology I

Select: 3 credit hours
MGT 250: Principles of Management

B. Fieldwork (HLH 499) — Must be in a wellness facility

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Health Education [HEC]
The degree program focuses on school health education and the preparation of health education specialists to work within school settings. Students complete a full semester of student teaching. Students can also elect a concentration in wellness health promotion or college health promotion and prevention services.

CAREER POTENTIAL
• High school health educator
• Junior high school health educator
• Prevention specialist in school district or community
• District health education coordinator

A. Required Courses: 64 credit hours
Professional Education (12 credit hours)
EDU 326: Methods and Materials of Health Education: Level I
EDU 426: Methods and Materials of Health Education: Level II
PSY 331: Psychology of Exceptional Children
Education or Psychology elective (with advisement)

Health Required (30 credit hours)
HLH 203: Community Health
HLH 210: Wellness and Health Promotion
HLH 220: Safety Education and Emergency Response
HLH 232: Nutrition
HLH 302: Human Sexuality Education
HLH 314: Mental Health and Counseling
HLH 345: Parenting Education
HLH 367: Drug Problems: Intervention and Prevention
HLH 492: Chronic and Communicable Diseases
HLH 494: Needs Assessment, Program Planning and Evaluation in Health Education
Student Teaching and Field Experiences (16 credit hours)
EDU 497: Field Experience in Health Education
EDU 498: Health Education Seminar
EDU 499: Student Teaching in Health Education

B. Other: 6 credit hours
The following are typical health electives selected by health education majors:
- HLH 111: International Health and Culture
- HLH 137: Child and Adolescent Sexual Abuse
- HLH 163: The HIV Epidemic
- HLH 201: Health Problems of the Underserved
- HLH 210: Wellness and Health Promotion
- HLH 301: Stress Management
- HLH 309: Child Abuse
- HLH 394: Health Related Behavior: Formation and Change
- HLH 493: Community Health Education
- HLH 513: Death, Bereavement and Suicide
- HLH 530: Family Life Education and the Classroom Teacher

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 128

Major in Health Education with a concentration in Wellness Health Promotion [HEC/WELL]
The concentration is intended to prepare health education specialists to work in a variety of private, public and worksite settings related to health promotion. Responsibilities include assessing client needs, designing health promotion programs, implementing/overcoordinating programs and evaluation of outcomes.

CAREER POTENTIAL
- Wellness specialist in a business or corporation
- Wellness manager in a private health promotion center
- School-site or college wellness coordinator
- Wellness coordinator in a community agency

A. Required courses: 27 credit hours
Select All: 21 credit hours
- HLH 120: Responding to Emergencies
- HLH 210: Wellness and Health Promotion
- HLH 232: Nutrition
- HLH 301: Stress Management
- HLH 314: Mental Health and Counseling
- HLH 394: Health Related Behavior: Formation and Change
- HLH 405: Wellness/Fitness Practicum
- HLH 493: Community Health Education

Select: 3 credit hours
- PED 397: Exercise Physiology I

Select: 3 credit hours
- MGT 250: Principles of Management

B. Fieldwork (HLH 499) — Must be in a wellness facility
TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 128
HLH 110: Personal and Community Health
(A) An examination of health issues and problems related to
individuals and communities. Included is an exploration of
wellness/health promotion; factors which impact health such as
culture, heritage and socioeconomic level; chronic and communi-
cable disease, including HIV/AIDS; nutrition, weight manage-
ment and fitness; safety education, including such areas as fire and
arson prevention, child abduction, abusive or dangerous environ-
ments and violence prevention/intervention; aging and death;
relationships, sexuality, reproduction and birth control; stress
management; health care delivery; and alcohol, tobacco and other
drugs prevention/intervention. Course meets all health-related
SED teacher certification requirements for non-elementary
education majors other than the child abuse identification and
reporting requirements. Not open to students with credit for
HLH 199, HLH 116. (3 cr. hr.)

HLH 111: International Health and Culture
(B) The course provides a cross-cultural analysis of the current
global health situation through comparison of factors which affect
the well-being of peoples of the world, as well as actions which are
being taken and can be taken to improve world health. A major
focus of the course involves comparing and contrasting health
problems and approaches to health improvement in various cultures
and countries. (Accepted as course for Contrasting Cultures
Category GE 3.) (3 cr. hr.)

HLH 113: Peer Health Advocacy: Sex, Drugs and the College
Student
(B) Designed to increase students’ knowledge and positive
leadership skills with regard to the topic areas of alcohol and
other drugs, sexuality and decision-making as applied to the
college population. The major focus of the course is on peer
health advocacy and the development of leadership skills. Open
to all majors, freshman and sophomores only. (3 cr. hr.)

HLH 120: Responding to Emergencies
(A) American Red Cross certification course which fulfills New
York State Education Department coaching requirements for
first aid, adult CPR and sports injury. (2 cr. hr.)

HLH 121: Introduction to Safety
(O) Modern methods of safety: traffic, home, community. (1 cr. hr.)

HLH 129, 229, 329, 429, 529: Special Topics in Health
Selected topics. May be taken more than once as subtitle
changes. Prerequisites: Designated by department as appropriate
for content and academic level of credit. (1-4 cr. hr.)

HLH 137: Child and Adolescent Sexual Abuse
(O) Course will examine topic of sexual abuse in childhood and
adolescence to acquaint students with etiology, prevalence,
identification, referral, treatment and prevention strategies.
Special emphasis will be given to roles of school administrators,
counselors, and educators in confronting issue. (1 cr. hr.)
HLH 150: Rational-Emotive Education
(O) Introduction to principles, practice of an intrapersonal conflict resolution method. Class activities demonstrate applicability of method to a wide range of situations (academic, social, etc.). H, S, U grades assigned (1 cr. hr.)

HLH 163: The HIV Epidemic
(A) Overview of the HIV epidemic and examination of factors which perpetuate it. Strategies for intervention and prevention included. (Accepted as a course for General Education Category 2 - Prejudice and Discrimination.) (3 cr. hr.) ■

HLH 199: Critical School Health Issues
(A) This course examines selected critical health issues of students and the role of schools and teachers in addressing such issues and promoting student health. Included in the course is an exploration of student health status; impact of such factors as culture, heritage and socioeconomic level on health and learning; youth risk behaviors; personal health issues related to such areas as nutrition, fitness, and emotional health; safety education, including such areas as fire and arson prevention, child abduction, abusive or dangerous environments and violence prevention/intervention; alcohol, tobacco and other drugs prevention/intervention; and skills needed to protect and promote health as related to each of the course content areas. Course meets all health-related SED teacher certification requirements other than the child abuse identification and reporting requirements. Not open to students with credit for HLH 110, HLH 265 or HLH 116. (2 cr. hr.)

HLH 200: Health Issues
(O) Current controversial health issues. Not open to health majors. H, S, U grades assigned. (3 cr. hr.)

HLH 201: Health Problems of the Underserved
(A) Examination of health problems experienced disproportionately by people lacking access to economic, political and other resources. (Accepted as a course for General Education Category 2 - Prejudice and Discrimination.) (3 cr. hr.) ■

HLH 203: Community Health
(A) Health problems facing people collectively in contemporary society. (Health majors only.) (3 cr. hr.)

HLH 210: Wellness and Health Promotion
(A, M) Overview of concept of wellness. Emphasis is on development of a wellness lifestyle with focus on self-responsibility, environmental sensitivity, nutrition, physical fitness and stress management. (3 cr. hr.)

HLH 220: Safety Education and Emergency Response
(A) Course combines safety education with background and skills required for American Red Cross “Responding to Emergencies” certification. The safety content relates to safety issues in schools and communities as well as specific concerns related to children and adolescents. Included is material on fire and arson prevention, child abduction, abusive or dangerous environments and violence prevention/intervention. Course also fulfills State Education Department coaching requirements (sports injury module) for first aid, adult CPR and sports injury. Not open to students with credit for HLH 120 or HLH 327. (3 cr. hr.)

HLH 232: Nutrition
(A) Selection of foods, health products, services as basis for healthful living; health, nutritional needs at various ages; research findings, their application. (Health majors only.) (3 cr. hr.)

HLH 255: Consumer Health
(B) Analysis of consumer health issues and practices, health products and services, quackery and consumer protection. (Health majors only.) (2 cr. hr.) ■

HLH 265: Health and the Child
(A) This course will provide the non-health major (and specifically early childhood, childhood education and special education majors) with the basic skills and knowledge necessary to work in the area of health education at the pre-school and elementary school level. Included in the course is an exploration of student health status; theories, models and approaches relevant to health education; state and national health education standards; effective health education practice; an examination of health content areas and particularly nutrition, fitness, emotional health, safety education (including fire and arson prevention, child abduction, abusive and dangerous environments and violence prevention/intervention), and alcohol, tobacco and other drugs prevention/intervention; and skills needed to protect and promote health as related to each of the course content areas. Course meets all health-related SED teacher certification requirements other than the child abuse identification and reporting requirements. (3 cr. hr.) ■

HLH 299: Statistical Concepts and Applications for Health Sciences
(O) This course is designed to introduce undergraduate health education/science majors to basic descriptive and inferential statistics that are used in health-related research. Principles of quantitative research will be presented and data management and analysis skills will be taught using the Statistical Package for the Social Sciences (SPSS). (Not open to students with credit for MAT/PSY 201, ECO 221, COM 230 or GLY 281.) Prerequisite: HLH 203; Community Health. (3 cr. hr.)

HLH 301: Stress Management
(A, M) Concept of stress with emphasis on techniques for managing stress effectively. Nature of stress, its impact on health and well-being. Methods of relaxation, stress reduction explored from personal and programmatic perspective. Experiences in self-assessment of stress areas provided. (3 cr. hr.)

HLH 302: Human Sexuality Education
(A) Human sexuality examined from perspective of personal development, human behavior, social issues, health implications. Role of education as related to development of healthy sexuality and specific sexuality issues explored. (3 cr. hr.) ■

HLH 309: Child Abuse
(B) Study of child maltreatment (neglect, physical, sexual and emotional abuse). Identification and reporting of abuse and neglect. Fulfills New York State Education Department child abuse recognition and reporting requirement for persons in teacher certification programs. (3 cr. hr.)

HLH 313: Mental and Emotional Health
(A) Mental health of individuals. Factors underlying maximum effective personality development, adjustment. (3 cr. hr.) ■

HLH 314: Mental Health and Counseling
(A) Mental health of individuals; counseling techniques used to help individuals understand and face health concerns of a physical, emotional, social nature. (Health majors only.) (3 cr. hr.)

HLH 323: Foods and Nutrition
(A) Basic course: food selection as nutritional basis for healthful living. Nutritional needs at various age levels; recent research findings; application. (3 cr. hr.)
HLH 325: Instructor's First Aid
(O) American Red Cross instructor's first aid; methods, materials in teaching of standard and advanced first aid courses. Prerequisite: American National Red Cross Responding to Emergencies or Advanced Certification. (1 cr. hr.)

HLH 327: Advanced First Aid and Safety
(O) Methods of accident prevention and safety education with American Red Cross certification in Emergency Response and CPR for the Professional Rescuer. (Health majors only.) (4 cr. hr.)

HLH 345: Parenting Education
(B) Study of parenting from the perspective of its recent history, current status, the movement toward educating for parenthood and the development of healthy children. The content includes responsible parenthood, maternal and child health, growth and development of children, raising healthy children, parenting skills and educating for parenting. (3 cr. hr.)

HLH 360: Health Care Administration and Planning
(A) Analysis of factors affecting delivery of health care; study of administrative and planning procedures. (Health majors only.) (3 cr. hr.)

HLH 367: Drug Problems: Intervention and Prevention
(A) Review of literature on health consequences of consumption of drug substances. Formulation, implementation of comprehensive educational programs designed to reduce drug misuse and abuse. (Health majors only.) (3 cr. hr.)

HLH 390: Environmental Health and Ecology
(A) Public health activities within scope of "environmental health." (Health majors only.) Prerequisite: Completion of the natural science requirements in the General Education program or consent of the department. (3 cr. hr.)

HLH 391: Epidemiology and Biostatistics
(A) Epidemiological method, statistical techniques used in study of etiology, distribution and control of disease. (Health majors only.) (3 cr. hr.)

HLH 392: Environmental Pollutants and Toxicology
(B) Study of health problems associated with toxic substances in the environment. Classification of contaminants, their behavior in the ecosystem, bioconcentration, risk assessment and management techniques will be covered. (3 cr. hr.)

HLH 393: Introduction to Occupational Safety and Health
(B) This survey course is designed to acquaint the student with fundamental principles of occupational safety and health hazard recognition, evaluation, and control in the work place. Government regulations including OSHA, NIOSH, PESH, and health-related labor-management issues will be discussed. (3 cr. hr.)

HLH 394: Health-Related Behavior: Formation and Change
(A) Analysis of factors influencing adoption and maintenance of health-conducive behaviors, and reduction in health-threatening behaviors. (3 cr. hr.)

HLH 405: Tutorial in Health
(A) Study of one or more health-related issues as determined appropriate by the tutor. For junior, senior health majors. (1-3 cr. hr.)

HLH 406: Wellness/Fitness Practicum
(A) Practical experience for students concentrating in wellness and health promotion. Provides experience in on-campus facilities and programs designed to promote well-being. Prerequisite: HLH 120, 210, PED 397. (1 cr. hr.)

HLH 430: CPR — Basic Life Support
(O) Designed to teach beginning fundamentals of basic life-support cardiopulmonary resuscitation and to enable the student to be certified as a basic life-support instructor in CPR. Classroom teaching of skills included. (1 cr. hr.)

HLH 460: Health Care Policy Issues
(C) The course emphasizes controversial issues in health care policy formulation and development. It identifies the various participants in health care policy development, their sometimes opposing views, and their role and the government’s role in addressing health care policy issues. Prerequisite: HLH 360. (3 cr. hr.)

HLH 461: Health Care Finance
(C) An analysis of health care financing in the U.S. The course investigates payment mechanisms, cost containment efforts, and the trends in third-party payments over time. The course will explore such concepts as risk sharing, cost-shifting, capitation, capital investments, strategic financial planning in a changing health care environment. Prerequisites: HLH 360 and ECO 111 or MGT 254, 255. (3 cr. hr.)

HLH 492: Chronic and Communicable Diseases
(A) Contemporary concepts of causation and control of chronic and communicable disease. Disease patterns analyzed in both individual, community environment. Causative factors, methods of intervention stressed. (Health majors only.) Prerequisite: BIO 301 and 302 or equivalent. (3 cr. hr.)

HLH 493: Community Health Education
(B) Study of unique function of community health educator in health care delivery system. Techniques used for educational intervention in community health settings stressed. Prerequisite: HLH 203. (Health majors only.) (3 cr. hr.)

HLH 494: Needs Assessment, Program Planning and Evaluation in Health Education
(A) Techniques for assessing health needs and problems; strategies for program planning and implementation; criteria and procedures for program evaluation. (Health majors only.) (3 cr. hr.)

HLH 499: Field Work in Health
(A, M) One quarter; may involve residence in any part of New York State, the United States or a foreign country at student’s expense. Prerequisites: HLH 203, 360, 390, 391, 492, 494 and eight hours of HLH electives; cumulative GPA of at least 2.5; consent of department. H, S, U grades assigned. (8 cr. hr.)

HLH 509: Drug Education for Teachers
(B) In-depth investigation into all aspects of drug scene for those who will have primary responsibility for drug education. (3 cr. hr.)

HLH 510: ProSeminar in Health Foundations
(A) An examination and update of current health content, and pedagogical principles and strategies commonly addressed by school and community health education professionals. Included are such topics as: safety education, including fire/arsen prevention, child abduction, abusive or dangerous environments and violence prevention/intervention; wellness and health promotion; factors which impact health, such as culture and socioeconomic level; chronic and communicable disease; weight management and fitness; aging and death; stress management; health care delivery; alcohol, tobacco and other drug prevention/intervention. This course meets all health-related SED requirements except for child abuse reporting and...
identification, and is linked to the topical areas outlined in the National Health Education Standards and the New York State Standards for Health, Physical Education, and Family and Consumer Science. (3 cr. hr.)

HLH 511: Global Health Problems
(B) Conditions, problems in major geographical areas. Programs of international organizations. (3 cr. hr.) ■

HLH 512: Emotions and Human Behavior
(O) Study of basic content, concepts of humanistic behavior. Emphasis upon investigation, clarification and application of current practices intended to improve emotional health and interpersonal behavior. (3 cr. hr.)

HLH 513: Death, Bereavement and Suicide
(B) Significance of death, with special emphasis on role of health educator in dealing with problems of death, suicide, bereavement. (3 cr. hr.) ■

HLH 514: Workshop in Health Sciences
(O) Workshops in specific health areas with consultants, lecturers from community organizations. Student may register for more than one workshop for two semester hours each. (2 cr. hr.)

HLH 530: Family Life Education and the Classroom Teacher
(B) This course is designed to provide the classroom teacher with the basic skills and overall knowledge necessary to teach in the area of family life, character, sexuality, and parenting education. An examination of teacher preparation, content, curricula, resources and teaching methodology will form the focus of the course. Will meet the SED requirements for child development, parenting education, sexual abuse prevention, and child abduction. (3 cr. hr.)

HLH 535: The Family in Health and Disease
(O) This course will examine the role of the family as a determinant of health and illness behavior of its members throughout the life span. The family's role in health promotion, disease prevention, disease detection, treatment and rehabilitation will be studied. Family involvement in and social support for health behavior change programs will also be addressed. (3 cr. hr.) ■

HLH 540: Moral Problems in Medicine
(O) Discussion of ethical and moral considerations in selected areas of health and medicine. Case studies and readings primarily from medical literature. Prerequisite: Three hours of philosophy or health administration. (Also listed as PHI 540.) (3 cr. hr.)

HLH 542: Health Implications of Family Violence
(O) Will examine health issues related to family violence. Etiological factors related to child abuse and neglect, spousal/partner abuse and elderly abuse will be included. Preventive and interventive community health models and violence-related legislation will be examined. Pre/corequisites: Child abuse certification course; or consent of instructor. (3 cr. hr.) ■

HLH 544: Alternative Medicine
(O) This is an introductory course in alternative, or complementary medical systems. Traditional Chinese medicine, Ayurvedic philosophies and practices, and Mayan medicine will be examined. Historical analysis of the homeopathic and naturopathic medical movements will also be included. (3 cr. hr.) ■

HLH 550: Women's Health
(B) Wide range of topics regarding women's health addressed from personal, institutional and sociocultural perspective. Examination of health problems unique to women, review of some of the political aspects of women's health care, assessment of research needed in the area of women's health included. (3 cr. hr.) ■

HLH 555: Health and Aging
(O) Examination of the aging process with focus on important health issues, problems, concerns. Areas addressed include nutrition, fitness, emotional health, sexuality and health policy. (3 cr. hr.) ■

HLH 557: Seminar in Health Sciences
(O) Studies in depth in specific areas with varied resource people. (3 cr. hr.)

HLH 560: Health and Public Policy
(B) Political aspects of health care delivery in United States; examination of forces affecting development of health policy at various governmental levels. Prerequisite: Course in community health or in American government/politics. (3 cr. hr.)

HLH 565: Elementary School Health
(O) Daily observation of pupils, unit development: coordination, integration of teaching and administrative aspects of school health. Prerequisite: HLH 110. (3 cr. hr.)

HLH 573: Safety Problems and Programs
(O) Study of accidents, causes and means of prevention. Includes planning for numerous safety programs (home, school, occupational, recreation) with educational, administrative, legal considerations. (3 cr. hr.)

HLH 590: Public Health and the Environment
(B) Explores public health impact of environmental hazards and current issues related to the environment. Important concepts in environmental epidemiology will be presented. Morbidity and mortality associated with environmental pollution will be discussed, using the public health model. Not open to students with credit for HLH 390. (3 cr. hr.) ■

HLH 591: Health, Illness and Sick-role Behaviors
(O) Factors influencing asymptomatic protective behaviors, reactions to disease symptoms, responses to treatment recommendations. (3 cr. hr.)

HLH 592: Current Issues in Community Health
(O) The course is designed to give students an overview of community health issues and practices. Students will explore current health issues, their implications for health promotion and health education practice, and potential resolutions. Current health education and health promotion planning philosophies, models and practices will be discussed. (3 cr. hr.)

HLH 599: Public Health Statistics
(F) Application of statistical methods to public health and health education problems; in-depth review of significant types of public health data, including demographic, mortality, morbidity analysis. (3 cr. hr.)
Related Education Courses

EDU 326: Methods and Materials of Health Education: Level I
(B) A study of the history and philosophy of health education will be conducted along with an examination of the current trends and movements in health and in education. Theories and principles underlying the practice of health education will be examined along with an in-depth examination of national and state health education curricula. School health education observations included. Required of health education majors. (Health education majors only) (3 cr. hr.)

EDU 426: Methods and Materials of Health Education: Level II
(B) The course is designed to provide the preservice school health educator with the basic skills necessary to work in the area of school health education. An examination of school health content, curricula, resources and teaching methodology will form the focus of the course. School health education observations included. (Health education majors only). Prerequisite: EDU 326. (3 cr. hr.)

EDU 497: Field Experience in Health Education
(B) Seminar-based course to prepare the health education student for the student teaching experience. Twenty-four hours of observations in school health education classes included. S, U grades assigned. Required of health education students. Prerequisite: Junior-level status or permission of department. (1 cr. hr.)

EDU 498: Health Education Seminar
(A) Two-week supervised seminar-based field experience involving observations and lesson planning in health education. An overall GPA of 2.5 for course work at Cortland and consent of department required. Must be taken in conjunction with EDU 499: Student Teaching in Health Education. (1 cr. hr.)

EDU 499: Student Teaching in Health Education
(A) Upon successful completion of the one credit seminar session the student moves into the college-supervised student teaching experience of 14 weeks. S, U grades are assigned. Required of health education students. Prerequisites: Completion of all health education course work, GPA 2.5, and permission of the department (7 cr. hr.)
History

DEPARTMENT

FACULTY
Sanford Gutman (Chair), Roger Sipher (Coordinator of Social Studies), Gordon Beadle, Girish Bhat, Francis Czerwinski, William Sharp, John Shedd, Kevin Sheets, Randi Storch, Judy Van Buskirk, Donald Wright, Luo Xu

PROGRAMS OFFERED
B.A. in History – 124 total credit hours
B.A. in Adolescence Education – Social Studies and History
(Grades 7-12) – 124-130 total credit hours

MAJORS OFFERED
History
Adolescence Education – Social Studies and History
(Grades 7-12)

MINORS OFFERED
History

DESCRIPTION
The History Department offers two majors, one in history and one in history combined with preparation for teaching social studies to students in grades 7-12. Both require 36 hours of history, including advanced level course work in American, European and non-Western history.

Students taking the double major in history and adolescence education – social studies will complete most of their education requirements, including student teaching, during the fall semester of their senior year in our unique Professional Semester.

Students of both majors have opportunities for interdisciplinary work in journalism, English, cinema study, education, other social sciences, and multicultural studies. History majors are encouraged to combine their studies with local internships, legislative internships in Albany, and with the College's study abroad programs.

SPECIAL FEATURES
• History Honors Society
• Internships in Albany
• Teacher certification
• History Club
• Overseas programs
• Senior seminar

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to the following majors.
2. Liberal Arts Requirements: 90 credit hours

Major in History [HIS]
There is no sub concentration in history. In addition to the required 100-level history courses in European or World History and the 200-level American history survey courses, all students must take HIS 490 (a research seminar) and at least six hours at the 300 level or above in each of the following areas: United States history, European history, non-western history (Asia, Africa, the Middle East, Latin America). Note: The bachelor of arts degree requires proficiency in a foreign language.

CAREER POTENTIAL
• Public history (museum, archives)
• College history teacher
• Professional school, such as in law or social work

A. Required Courses: 33 credit hours
   HIS 100: The World to 1500 and
   HIS 101: The World since 1500 or
   HIS 110: Western Civilization to 1715 and
   HIS 111: Western Civilization since 1715 (6 cr. hr.)
   HIS 200: The United States to 1877 and
   HIS 201: The United States since 1877 (6 cr. hr.)
   HIS 490: Seminar (3 cr. hr.)

   Europe (including Russia): 300 level or above (6 cr. hr.)
   Non-Western (Africa, Asia, Latin America, Middle East):
   300 level or above (6 cr. hr.)
   United States: 300 level or above (6 cr. hr.)

B. Three additional credit hours at the 300 level or above (3 cr. hr.)

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124
Dual major in Adolescence Education – Social Studies and History (Grades 7-12) [SSA & HIS]

This program allows students who major in history to qualify for certification to teach adolescence education in social studies (grades 7-12). It combines a major in history with a professional semester that consists of professional preparation and student teaching.

CAREER POTENTIAL

- Teaching secondary social studies
- Professional schools such as law or social work
- Public history (archival or museum work)
- Business

A. Requirements for the history major (see above)

B. Professional Preparation: 47-68 credit hours including additional social science courses

- HLH 199: Critical School Health Issues
- PSY 232: Adolescent Psychology or PSY 332: Educational Psychology
  (Note: PSY 101 is a prerequisite for PSY 232 and PSY 332).
- ECO 105: Political Economy and Social Thought
- GRY 425: Geography in the Classroom or GRY 520: Maps in the Classroom
- GRY 480: United States
- POL 100: Introduction to American Government
- ENG 306: Advanced Writing for Prospective Teachers or EDU 449: Literacy in the Middle and Secondary School
- SHH 300: Normal Language Development or PSY 350: Psychology of Language
- SSS 300: Introduction to Secondary Social Studies
  (A 100-hour field requirement is attached to this course)

C. Professional Semester: 18 credit hours

- SSS 301: Pre-Practice Teaching Seminar
- AED 400: Student Teaching I
- AED 401: Student Teaching II
- SSS 303: Post-Practice Teaching Seminar

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124-127

Minor in History [HIS]

A. Required courses: 6 credit hours

- HIS 100: The World to 1500 and
- HIS 101: The World since 1500 or
- HIS 110: Western Civilization to 1715 and
- HIS 111: Western Civilization since 1715 or
- HIS 200: The United States to 1877 and
- HIS 201: The United States since 1877

B. Additional History Courses: 12 credit hours in history, including at least 6 credit hours at the 300 level or above

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 18

Example of the undergraduate degree in History over four years

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NOTE: History majors must take at least six hours of upper-level history courses (300 level or above) in each of the following areas: United States, Europe, non-Western. Students must also complete at least three hours of Writing-Intensive (WI) course work in addition to HIS 490.
HIS 100: The World to 1500
History of humankind from emergence of Homo Sapiens, earliest forms of civilization to 16th century. Emphasis on broad lines of development and interaction among world civilizations. (3 cr. hr.) ■

HIS 101: The World since 1500
(A) Political, social, economic, cultural history of peoples of world from 16th century to present. Emphasis on broad lines of development and interaction among world civilizations. (3 cr. hr.) ■

HIS 110: Western Civilization to 1715
(A) Origins and development of Western civilization from ancient Greece to early 18th century; how Western civilization was shaped. (3 cr. hr.) ■

HIS 111: Western Civilization since 1715
(A) From about 1715 to present. Major political, social, economic, religious, intellectual developments from Enlightenment to atomic age. (3 cr. hr.) ■

HIS 129, 229, 329, 429, 529: Special Topics in History
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.) ■

HIS 150: World in the Twentieth Century
(A) Introduction to the study of history by examining the ideological, political, economic, and social forces that have shaped the modern world. It will draw widely from modern world history to illustrate the types of questions, problems and methods historians encounter in their work. (3 cr. hr.) ■

HIS 200: The United States to 1877
(A) Origin, development of American institutions, ideals from discovery of new world to close of Reconstruction period. (3 cr. hr.) ■

HIS 201: The United States since 1877
(A) Significant cultural, economic, political, social forces and problems in America from Civil War to present. (3 cr. hr.) ■

HIS 225: Introduction to Africa
(O) Introduction to African continent and people; broad outlines of history from earliest humans to present. (Also listed as AAS 225.) (3 cr. hr.) ■

HIS 300: Colonial America, 1450-1750
(F-C) The American colonial era, from pre-Columbian societies to 1750 — origins of colonization, European-Indian interaction, African-American cultures, relations with the Atlantic world. (3 cr. hr.) ■

HIS 302: Revolutionary America, 1750-1789
(S-C) Origins and consequences of the American Revolution, with emphasis on social and political changes that accompanied independence. (3 cr. hr.) ■

HIS 303: The American Republic, 1789-1840
(C) Development of American society, with emphasis on democratic culture, transformations in the home and market place, and territorial expansion. (3 cr. hr.) ■

HIS 304: The American Republic: 1840-1877
(S) United States development, 1840-1877: Manifest Destiny, sectional development and conflict, Civil War and Reconstruction. (3 cr. hr.) ■

HIS 306: The United States: 1877-1920
(C) United States development, 1877-1920; Rise of Industrialism, urban society, agricultural conflict, progressive period and World War I. (3 cr. hr.) ■

HIS 307: The United States 1920-Present
(C) United States Development. 1920-Present. Twenties, Depression, World War II, Cold War, New World Order. (3 cr. hr.) ■

HIS 309: New York State
(O) New York State society and politics, with emphasis on ethnic interaction, conflict, and accommodation between 1600 and 1900. (3 cr. hr.) ■

HIS 312: African-American History to 1865
(F) Black America from African origins to end of Civil War. (Also listed as AAS 334.) (3 cr. hr.) ■

HIS 313: African-American History Since 1865
(S) Black America from Reconstruction period to present. (Also listed as AAS 336.) (3 cr. hr.) ■

HIS 317: Women in the United States
(S-C) Survey of history of women in United States from colonial period to present. (3 cr. hr.) ■

HIS 318: The History of Women in Modern Europe
(C) Survey of women's lives in Europe from the 18th century to the present. (3 cr. hr.) ■

HIS 321: Africa, Human Origins to 1800
(F) Origins, groupings of peoples of Africa: political, social, economic evolution to 1800; Africa's contacts with ancient world, trans-Sahara and Indian Ocean trades, growth of states and empires, spread of Islam. (Also listed as AAS 321.) (3 cr. hr.) ■

HIS 322: Modern Africa, 1800-Present
(S) Traditional African and European influences, imperialism and colonial rule; independence; problems of independent Africa. (Also listed as AAS 322.) (3 cr. hr.) ■

HIS 325: Colonial Latin America
(B) Survey of Latin America through an examination of the Pre-Columbian civilizations, the European conquests and subsequent empires, the resulting ramifications and social structure, and the socioeconomic structure that formed the foundations of Modern Latin America. (3 cr. hr.) ■

HIS 326: Modern Latin America
(B) Survey of Latin America from 1821 to the present, including an examination of the political, social, and economic developments in the region and the major foreign impact that helped shape the region as it is today. (3 cr. hr.) ■

HIS 333: Russia, 850-1894
(B) Russian history and civilization; the major political, social, and economic developments from the ninth century until the late 1800s. (3 cr. hr.) ■

HIS 334: Russia Since 1894
(B) Russian history and civilization; the major political, social, and economic developments from 1894 to the present. (3 cr. hr.) ■
HIS 342: Ancient Greece
(F-C) Greece from the Bronze Age to Alexander the Great. Prerequisite: Completion of General Education requirement in History. (3 cr. hr.) ■

HIS 343: Roman History
(C) From founding of Rome to establishment of Christian Empire, emphasizing constitutional developments of republic and early empire, change to autocracy. (3 cr. hr.) ■

HIS 344: Medieval Europe: 300-1050
(F-C) Roman Empire, Christian Church, Byzantine Empire, Islamic empires, barbarian kingdoms of West and western feudal kingdoms, to 11th century. (3 cr. hr.) ■

HIS 345: Medieval Europe: 1050-1300
(S-C) Flowering of medieval civilization in 12th, 13th centuries; its gradual disintegration in 14th century. (3 cr. hr.) ■

HIS 346: Renaissance and Reformation
(C) European civilization from Renaissance to 1648. (3 cr. hr.) ■

HIS 347: Modern Europe: The French Revolution to World War I
(O) Major political, social, intellectual forces: 1789 to World War I. (3 cr. hr.) ■

HIS 348: Europe Since 1914
(B) Domestic, political, economic history of major European countries from start of World War I. (3 cr. hr.) ■

HIS 351: History and Film
(U) Use of films as historical sources and/or statements of historical work. May be repeated with different subtitles: Twentieth Century England, Twentieth Century France, Twentieth Century Germany, The U.S. in the Thirties, The Medieval World Reconstructed, Russian History and Film. (Also listed as CIN 251.) (3 cr. hr.) ■

HIS 361: Jews in the Ancient World
(O) Intellectual and political history of the Jewish people to the compilation of the Talmud in the third century. (Also listed as JST 361.) (3 cr. hr.) ■

HIS 362: Jews in the Middle Ages
(O) History of Jewish people from third century to Enlightenment. (Also listed as JST 362.) (3 cr. hr.) ■

HIS 363: Jews in the Modern World, 1789-1948
(C) European Jewry from Enlightenment to establishment of Israel as state. Topics include: Emancipation and Assimilation, East European and Russian Jews to World War I, Immigration to America, Modern Israel, Anti-Semitism and Holocaust. (Also listed as JST 363.) (3 cr. hr.) ■

HIS 383: Chinese Civilization
(C) Survey of Chinese history from the earliest times to the mid-19th century. Special attention is given to political and economic developments, changing social structure and social relations, cultural and intellectual traditions, and interactions with other nations of the world. (3 cr. hr.) ■

HIS 384: Modern China
(B) Chinese history since the mid-19th century. Emphasis on Western imperialism and the rise of nationalism and communism; the interplay between politics, society and ideas in shaping reforms and revolutions. (3 cr. hr.) ■

HIS 385: History of Japan
(C) Survey of Japanese history from the earliest times to the present with an emphasis on political and economic developments, changing social conditions, cultural and religious traditions, and foreign relations. (3 cr. hr.) ■

HIS 386: Modern Pacific Asia
(C) Survey of East and Southeast Asia since the 19th century. Topics include colonialism and nationalism; military clashes and economic conflicts; rapid developments and resulting social problems; the persistence of diverse cultural traditions; and America’s past experience in Asia. (3 cr. hr.) ■

HIS 401: U.S. Foreign Relations since 1914
(B) Growing American involvement in modern world politics. (3 cr. hr.) ■

(O) Intellectual response to industrialization and urbanization in modern America. (3 cr. hr.) ■

(F-C) Intellectual responses to complex economic, social, political problems facing America after World War II: ideas of Erich Fromm, Marshall McLuhan, C. Wright Mills and others on human freedom, the American power structure, media influence. (3 cr. hr.) ■

HIS 421: U.S. Labor and Working-Class History 1780 to Present
(C) History of U.S. workers from the beginning of U.S. industrialization to the present. Focus will be on major social, economic, political, and cultural changes in working-class life during this period and on the ways in which workers created and reacted to these changes. (3 cr. hr.)■

HIS 424: The McCarthy Era, 1945-1960
(F-C) Economic, social, political aspects of McCarthyism, with emphasis on the major investigations. (3 cr. hr.) ■

HIS 428: The Civil Rights Movement in America
(O) Origins, ideologies, activities, and results of movement to obtain civil and political rights for African Americans, 1945-1975. (Also listed as AAS 428.) Prerequisites: HIS 221 or AAS 100 or permission of instructor. (3 cr. hr.) ■

HIS 430: The Vietnam War
(O) Analysis of background of American involvement in Vietnam; examination of tactics and strategy employed in the war; impact of the war on American society. (3 cr. hr.) ■

HIS 431: South Africa
(O) Historical background to apartheid and contemporary racial conflict in South Africa, Zimbabwe, and Namibia. (Also listed as AAS 390.) (3 cr. hr.) ■

HIS 435: East Asian-American Relations
(O) The history of economic, political, cultural and diplomatic relations between East Asia and the United States since the 19th century. (3 cr. hr.) ■

HIS 440: Britain to 1688
(O) Cultural, social, political, and economic development in the British Isles from Roman times to the Glorious Revolution with special emphasis on constitutional issues and changes. (3 cr. hr.) ■

HIS 441: Britain Since 1688
(C) Political development, economic trends, social issues, and cultural factors will be emphasized in a survey of modern British beginning at the Glorious Revolution. Anglo-Irish relations and modern British feminism will also be explored. (3 cr. hr.) ■

HIS 442: Tudor-Stuart England, 1485-1714
(C) Political, social, and economic developments under the Tudors followed by the dissolution of royal government under the Stuarts culminating in the first modern political revolution. (3 cr. hr.) ■

Course codes: A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter, ■ = LAS
HIS 443: Ireland since 1660  
(B) British presence in Ireland, the Act of Union, the O’Connell and Parnell nationalist movements, independence, civil war, conflict in Ulster. (3 cr. hr.) ■

HIS 444: France, 1715-1799: The Old Regime and French Revolution  
(O) Old Regime politics, society and culture. Origins and phases of the French Revolution. (3 cr. hr.) ■

HIS 445: France 1800-1945  
(O) Political, social, cultural, economic life of France from Napoleon through WWII. Stress on modernization and its associated tensions. (3 cr. hr.) ■

HIS 447: Germany since 1815  
(C) From 1815 to present. Unification problem; domestic affairs under the monarchy; Weimar Republic; Third Reich; postwar Germanies. (3 cr. hr.) ■

HIS 448: Rise and Fall of Nazi Germany  
(B) Forces and factors leading to rise and collapse of Nazi rule. Social, economic, foreign policies; propaganda techniques. (3 cr. hr.) ■

HIS 452: War and Diplomacy: World War I  
(O) Origins, political, social and economic impact of World War I. Stress on diplomatic background, military and diplomatic events. (3 cr. hr.) ■

HIS 453: War and Diplomacy: World War II  
(O) Origins, political, social and economic impact of World War II. Emphasis on diplomatic background, military and diplomatic events. (3 cr. hr.) ■

HIS 460: The Holocaust  
(C) Extermination of European Jews and millions of other European civilians during World War II studied in human and historical perspective. Course focuses on Nazi perpetrators’ ideology of anti-Semitism and their machinery of destruction, the responses of the victims, and the action and inaction of the rest of the world. (Also listed as JST 460.) (3 cr. hr.) ■

HIS 461: Modern Israel and the Arab-Israeli Conflict  
(O) History of Zionism (Jewish nationalism) and modern Israel from the 1860s to the present. Focus on the history of Zionism and the growth of a Jewish state in Palestine; and on the history of Arab-Israeli conflict. Prerequisites: History 106 or 111 or course in world politics, geography or anthropology. (Also listed as JST 461.) (3 cr. hr.) ■

HIS 465: The Soviet Union, 1917-1953  
(C) An intensive examination of the critical period of the Russian Revolution, and the gradual building of Soviet society. (3 cr. hr.) ■

HIS 490: Seminar  
(A) Methods of historical investigation; their application to topics in selected historical periods. (3 cr. hr.) ■

HIS 491: Readings in History  
(A) Individual study in selected areas of history. Prerequisite: Consent of department. (1-3 cr. hr.)

HIS 492: Senior Tutorial  
(O) Guided reading for approved honors candidates in history in senior year. Normally followed by HIS 493. (3 cr. hr.)

HIS 493: Senior Thesis  
(O) Research seminar leading to preparation of Senior Honors Thesis. Prerequisite: HIS 492, consent of department. (3 cr. hr.)

HIS 524: Issues in 19th-Century U.S. History  
(C) Historical study of major issues in 19th-century American history with special attention to teaching materials and approaches. (3 cr. hr.)

HIS 528: Issues in the U.S. Civil Rights Movement  
(C) Origins, ideologies, activities, results, and historiographical interpretations of movement to obtain civil and political rights for African Americans, 1945-1975. (3 cr. hr.)

HIS 529, 629: Special Topics in History  
(C) Selected topics. May be taken more than once as subtitle changes. Designated by department as appropriate for content and academic level of credit. 1-4 hours.

HIS 530: Issues in African-American History  
(C) Major historical arguments and historiographical issues in African American history from African origins to the present: origins and nature of slavery, rise of Jim Crow South, urban ghetto formation, civil rights movement. Special attention to teaching materials and methods. Prerequisites: 12 hours of undergraduate or graduate work in American history, or permission of instructor. (3 cr. hr.)

HIS 531: Issues in African History  
(C) Historical and historiographical survey of peoples of Africa—human origins, population movements, spread of Islam, slave trade, colonialism, independence and underdevelopment. Special attention to teaching methods and materials. Prerequisites: At least 12 hours of course work in social studies on the graduate or undergraduate level. (3 cr. hr.)

HIS 532: Issues in European History Since 1500  
(C) Historical and historiographical study of major themes in Europe since 1500. Special attention given to teaching materials and methods. (3 cr. hr.)

HIS 533: Issues in Asian History  
(C) Historical and historiographical study of selected countries of Asia. Main themes include diversity in the past and present; continuity and change in Asian civilizations; Asia in world history; colonialism and nationalism; economic, political and social developments; and modernization and Asian identity. Special attention given to teaching materials and methods. (3 cr. hr.)

HIS 538: Teaching About Nazi Germany and the Holocaust  
(C) In depth study of Nazi Germany and Holocaust with special attention to pedagogical strategies. Prerequisite: 12 hours of History and student teaching or permission of instructor. (3 cr. hr.)

HIS 545: Issues in Women’s History  
(C) Major issues in the history of women in the United States with special attention to pedagogical strategies and materials. (3 cr. hr.)

Related Education Courses

AED 400: Student Teaching I  
Full-time supervised teaching in public schools for four weeks. (3 cr. hr.)

AED 401: Student Teaching II  
Full-time supervised teaching in public schools for four weeks. Requires satisfactory completion of AED 400 (3 cr. hr.)

SSS 300: Introduction to Secondary Social Studies  
This course introduces students to unit and lesson planning, focuses on the history of American education as it relates to social studies, familiarizes students with the social studies learning standards, and makes comparisons between middle school and high school teaching. Includes 100-hour field experience (3 cr. hr.)
Honors Program

Course Descriptions

ANT 102: Introduction to Cultural Anthropology
(A) An exploration of the subdisciplines, conceptual frameworks dealing with origins, development, diversity of human cultures. (3 cr. hr.)

AST 200: Introduction to Asia
(C) Basic knowledge and understanding of the diverse societies and cultures of Asia. Study of the geography, nations, religions, cultural traditions, economic, social, and political developments including the circumstances leading to emigration from Asian countries to the United States and the Asian-American experience. (3 cr. hr.)

EXS 290: Social Problems and Issues in Sport and Exercise
(O) Examination of social problems and issues that impact upon a variety of physical activities. Consideration of how values, prejudice, discrimination and stereotypes affect sport and exercise in ways similar to society at large. Open to non-physical education majors only. (3 cr. hr.)

GRY 221: Social Geography
(B) Geographical analysis of social groups, institutions in United States. Emphasis upon spatial qualities of cultural and social assimilation process experienced by racial and ethnic minorities. (3 cr. hr.)

INT 300: Interdisciplinary Studies: The Artist in Modern Society
Students will explore the foundations of western modern artistic expression from the Age of Enlightenment to the 20th Century. Works studied may include poetry, fiction, drama, music and art of the Romantic and Modern periods. (3 cr. hr.)
Human Services

2 + 2 CAPPING PROGRAM
(Open only to transfer students)

FACULTY
Stuart H. Traub (Coordinator)

PROGRAMS OFFERED
B.A. in Human Service Studies – 124 total credit hours
B.S. in Human Service Studies – 124 total credit hours

MAJOR OFFERED
Human Service Studies

DESCRIPTION
The Human Service Studies Program offers transfer students a “cutting edge” program of study leading to the B.A. or B.S. degree. Career opportunities abound in the field of human services. According to the Bureau of Labor Statistics, one of the most significant areas of employment growth in the next decade or so will be in human service occupations. The degree programs combine a broad liberal education in the social and behavioral sciences which builds upon prior professional educational experiences and prepares students for employment in human services or graduate study in related fields. The programs meet the needs of two-year college graduates with the A.A., A.S. or A.A.S. degree in human services who are looking for an advanced degree that will provide them with marketability in a field which will continue to grow.

SPECIAL FEATURES
- Designed for transfer students with the A.S., A.A., or A.A.S. degree in human services from articulating colleges
- SUNY Cortland will accept the course work satisfactorily completed that is specified in the articulation agreements between SUNY Cortland and the two-year SUNY community colleges
- Interdisciplinary program provides students with a body of knowledge and a perspective building upon prior professional educational experiences
- Emphasizes the multi-disciplinary nature of human services by focusing on the mastery of concepts, theory, and research from political science, psychology, health, sociology, recreation, economics, communications and philosophy

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to the following majors.
2. Liberal Arts Requirements: B.A. – 90 credit hours; B.S. – 75 credit hours

Major in Human Service Studies [HUS]
SUNY Cortland offers graduates of human services programs from selected community colleges the opportunity to obtain a bachelor’s degree in human services. The major is called a “capping” program because it enables a student who has a technical degree from a community college to gain the liberal arts and science curriculum necessary to obtain a bachelor’s degree.

CAREER POTENTIAL
• Social/case workers
• Residential counselors
• Home health aides
• Child care workers

A. Required Courses: minimum of 18 credit hours of the major in residence at SUNY Cortland selected from the following categories:

Category 1: Research and Statistical Tools – 3 credit hours from:
  - REC 407: Research and Evaluation (non-LAS)
  - SOC 493: Methods of Social Research I
  - POL 315: Evaluation Research
  - SOC 494: Methods of Social Research II
  - MAT 201/PSY 201/COM 230: Statistical Methods
  - ECO 221: Economic Statistics
  - HLH 599: Public Health Statistics (non-LAS)
  - POL 312: Methods of Political Analysis

Category 2: Public Policy – 3 credit hours from:
  - POL 341: Current Issues in Public Policy
  - SOC 430: Social Welfare Institutions
  - HLH 560: Health and Public Policy
  - ECO 105: Political Economy and Social Thought

Center for Aging and Human Services
Old Main, Room 122
(607) 753-5784
E-mail: ctragehus@cortland.edu
www.cortland.edu/humanserv/

Course codes: A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter, ■ = LAS
**Category 3: Management and Administration** – 3 credit hours from:
- POL 240: Introduction to Public Administration and Public Policy
- ECO 385: Human Resource Management
- COM 320: Organizational Communication
- MGT 250: Principles of Management
- PHI 233: Management Ethics
- REC 495: Administration of Recreation

**Category 4: Contemporary Human Service Issues** – 3 credit hours from:
- PHI 321: Medical Ethics
- PHI 540/HLH 540: Moral Problems in Medicine
- SOC 371: Sociology of Medicine
- SOC 365: Sociology of Violence
- HLH 513: Death, Bereavement and Suicide
- HLH 542: Health Implications of Family Violence

**Category 5: Theories of Human Interactions** – 3 credit hours from:
- SOC 373: Deviant Behavior
- PSY 421: Abnormal Psychology
- PSY 486: Counseling Psychology
- PSY 333: Developmental Psychology
- HLH 313: Mental and Emotional Health
- HLH 394 Health-Related Behavior: Formation and Change

**Category 6: Prejudice and Discrimination** – 3 credit hours from:
- SOC 230/ANT 230: Prejudice and Discrimination
- SOC 352/ANT 352/AAS 361: U.S. Ethnic Identity and Conflict
- ECO 325: Political Economy of Women
- ECO 326: Political Economy of Race and Class
- POL 405: Discrimination Law
- POL 110: Politics and Multiculturalism
- VAL 140: Prejudice, Discrimination and Morality
- VAL 340: Philosophical Issues in Prejudice, Discrimination and Morality
- AAS 170: Institutional Racism
- AAS 376: African American Community Organizations
- HLH 201: Health Problems of the Underserved
- PSY 210: Racial and Gender Role Stereotypes

**Category 7: Senior Seminar** – 3 credit hours
- HUS 490: Senior Seminar in Human Services
  Required of all human service studies majors.

The B.A. in human service studies requires achievement of intermediate-level proficiency in a foreign language. This may be accomplished by successfully completing course work in a foreign language through the 202 level, or by demonstrating such proficiency by exam.

B. Other: varies by degree (A.A., A.S. or A.A.S.) and transfer credits

**Total Credit Hours Required for Graduation**: 124

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**Human Services**

**Course Descriptions**

**HUS 490: Senior Seminar in Human Services**
(B) In depth study of major theoretical, empirical, policy, political and/or philosophical topics in human services. Specific topics will vary. Open to human service majors with senior status. (3 cr. hr.)

**Total Credit Hours Required for Graduation**: 124
Individualized Degree Program

Faculty
Virginia B. Levine (Coordinator)
Angela M. DeGroat (Interim Coordinator)

Programs Offered
B.A. in Individualized Degree Program – 124 total credit hours
B.S. in Individualized Degree Program – 124 total credit hours

Major Offered
Individualized Degree Program

Description
Students who wish to pursue baccalaureate study in areas that draw upon several fields of study or go beyond traditional academic majors may present a proposal for this specialized program, which is designed to meet individual interests and learning objectives. The area of concentration must be interdisciplinary and coherent, with course work which defines a conceptual theme. A traditional minor is also required. The degree plan is formulated in consultation with a faculty mentor. The program is open to all full-time and part-time students at SUNY Cortland who have been admitted to degree status.

Students who want to propose an individualized degree program should contact the program coordinator to discuss their interests and the procedures governing the application process.

Special Features
- Opportunity to design individual major program in combination with traditional minor
- Emphasis on student responsibility and motivation
- Ability to combine internships with course work

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to the following majors.
2. Liberal Arts Requirements: B.A.: 90 credit hours; B.S.: 75 credit hours

Major in Individualized Degree Program [IDP]
The Individualized Degree Program combines a traditional minor with an interdisciplinary concentration which is designed to meet the unique needs of the student. Hands-on experience is often part of the concentration.

Career Potential
The program offers a vast variety of opportunities for careers, depending upon the interests of each student. Past examples include:

- Technical theatre production
- Entertainment education
- Adolescent health issues
- Music industry

A. Required Courses: 24 credit hours minimum in concentration
B. Other: 15-24 credit hours in traditional minor
C. At least half of the area of concentration and minor taken in residence at SUNY Cortland
D. At least 45 credit hours of upper-level course work, as defined by the respective departments
E. Six credit hours of W1 courses required, at least three of which are in the concentration

Individualized Degree Program Policies
1. Proposals are due to the Individualized Degree Program Committee by the time a student has completed 78 credit hours toward graduation. (Exceptions are possible for junior-level transfer students.)
2. Deadlines for submission of proposals to committee members for review are Oct. 15, Feb. 15 and June 15 of each academic year. Students must meet with the program coordinator prior to the deadline dates.
3. The maximum number of credits of completed course work which may apply to a student’s area of concentration is nine.
4. Individualized Degree Program students may qualify for cooperative education academic field experiences if two grade point averages are met: 2.5 GPA in the area of concentration and 2.3 cumulative GPA.
5. Requests for alterations in a student’s degree plan must be made through the advisor-mentor and approved by the program coordinator.

Total Credit Hours Required for Graduation: 124

Example of the undergraduate degree in

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<td>GE course</td>
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SUNY Cortland offers a number of courses that are not connected to a single specific academic department or program. These courses cross disciplines and allow students to explore topics from multiple perspectives. The broad focus enables students to grasp complex topics from varied disciplines.

**COR 101: The Cortland Experience: A First Year Seminar**
A seminar designed to facilitate the intellectual and social integration of first-time college students into the academic community at SUNY Cortland. (1 cr. hr.)

**CPV 400: Cooperative Education**
(A) Elective work experience in public, private and/or governmental agencies. Experiences are sponsored, approved and evaluated by academic departments and are coordinated by the Internship and Volunteer Office. Credit is based on the content and duration of the experience and will be evaluated on an individual basis by the academic department involved. Prerequisites: junior or senior standing, good academic standing (see catalog definition) with no outstanding incompletes, consent of department in consultation with the Internship and Volunteer Office. Consult individual academic departments for additional prerequisites and policies. (1-16 cr. hr.)

**INT 201: Adirondack Winter Studies**
This course is designed to provide students with background knowledge and experience in the physical, cultural, historical, environmental and aesthetic elements and issues of the Adirondacks. Prerequisite: Consent of coordinator. (2 cr. hr.)

**INT 230: Sexism and Heterosexism: An Integrated Study**
(B) Integrated study of sexism and heterosexism from interdisciplinary perspective. Emphasis on gender and sexual orientation as factors upon which prejudice and discrimination are based, both in United States and other societies. (Also listed as MGS 230.) (3 cr. hr.)

**INT 270: Exploring Education**
(A) Introduction to education and teaching through the perspectives of a variety of disciplines such as psychology, history, sociology, philosophy and political science. Open to students in all major fields. (3 cr. hr.)

**INT 300: Interdisciplinary Studies: The Artist in Modern Society**
Students will explore the foundations of western modern artistic expression from the Age of Enlightenment to the 20th Century. Works studied may include poetry, fiction, drama, music and art of the Romantic and Modern periods. (3 cr. hr.)

**INT 301: Modern Western Thought**
Analysis of transformation of ideas: focus on relationship between humans and nature, and the evolution of human society in 19th and early 20th century in the West. Major attention given to the influence of Darwin, Marx and Freud and to implications of their work for the central values Western society always has claimed for itself, e.g. individual freedom, equality, reason and progress. (3 cr. hr.)

**MGS 130: Society and Sexual Orientation**
Introduction to origins and continuing consequences of the oppression of lesbian, gay, bisexual and other sexually marginalized persons. Rights and advocacy issues examined. (1 cr. hr.)

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**Course codes:** A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter, ■ = LAS
Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to the following majors described below.
2. Liberal Arts Requirements: 90 credit hours
3. Up to 15 credit hours of course work at the 300-level or above in any semester of study in an approved French or Spanish study abroad program may count towards fulfillment of major or minor requirements.
4. Students must participate in periodic assessment activities.

NOTE: FRE 318 and SPA 318 meet the General Education Category 3 requirement. FLT 399, FRE 311, 315, 316, ICC 201, SPA 313, 315, 317, meet the General Education Category 6 requirement.

Major in Adolescence Education – French (Grades 7-12) [SFR] or [ASF]
Students develop language skills and cultural awareness and acquire the pedagogical background necessary to teach French in grades 7-12 in New York State.

CAREER POTENTIAL
• Middle school teacher
• High school teacher
• French in the elementary school

A. Required French courses: 30 credit hours of FRE courses at 300-level or above.
At least 15 hours must be from the following group (courses focusing on literature and culture): FRE 307, 310, 311, 315, 316, 318, 413, 415, 417, 419, 423, 499 or 515.

B. Core Professional Education Courses: 41-42 credit hours
PSY 101: General Psychology I *
PSY 232: Adolescent Psychology * or
PSY 332: Educational Psychology *
PSY 331: Psychology of Exceptional Children * or
PSY 432: Psychology of Learning Disabilities *
AED 323: Seminar for Field Observation *
AED 391: Introduction to Adolescence Education *
EDU 449: Literacy in the Middle and Secondary Schools
EDU 471: Foundations of Modern Education
AED 437 and 438: Methods of Teaching Foreign Languages in Middle/Jr. High Schools I and II
AED 439: Student Teaching: Adolescence Education – Foreign Languages **
HLH 110: Personal and Community Health or
HLH 199: Critical School Health Issues

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

* Required prior to AED 437 and 438
** Requirements for student teaching: 2.5 GPA in required professional coursework; 2.7 GPA in major coursework; 24 credit hours of FRE courses; grade of B or better in FL Methods block; passing score
**Major in Adolescence Education – Spanish (Grades 7-12) [SSP] or [ASP]**

Students develop language skills and cultural awareness and acquire the pedagogical background necessary to teach Spanish in grades 7-12 in New York State.

**CAREER POTENTIAL**
- Middle school teacher
- High school teacher
- Spanish in the elementary school

A. **Required Spanish Courses:** 30 credit hours
   - SPA 305: Spanish Conversation and Composition
   - SPA 306: Advanced Spanish Conversation
   - SPA 307: Advanced Spanish Grammar
   - SPA 308: Advanced Spanish Composition
   - SPA 318: Hispanic Civilization (GE-3)
   - One Spanish course at 400-level (3 cr. hrs.)
   - Elective courses in Spanish at 300-level or above (12 cr. hrs.)

B. **Core Professional Education Courses:** 41-42 credit hours
   - PSY 101: General Psychology I *
   - PSY 232: Adolescent Psychology * or PSY 332: Educational Psychology *
   - PSY 331: Psychology of Exceptional Children * or PSY 432: Psychology of Learning Disabilities *
   - AED 323: Seminar for Field Observation *
   - AED 391: Introduction to Secondary Education *
   - EDU 449: Literacy in the Middle and Secondary Schools
   - EDU 471: Foundations of Modern Education
   - AED 437 and 438: Methods of Teaching Foreign Languages in Middle/Jr. High Schools I and II
   - AED 439: Student Teaching: Adolescence Education – Foreign Languages **
   - HLH 110: Personal and Community Health or HLH 199: Critical School Health Issues

* Required prior to EDU 437 and 447
** Requirements for student teaching: 2.5 GPA in required professional coursework; 2.7 GPA in major coursework; 24 credit hours of SPA courses; grade of B or better in FL Methods block; passing score on LAST. GPAs are figured with all major and/or professional courses taken to date, even if not required prior to Student Teaching.
+ French adolescence education majors are also eligible for French K-6 extension by taking ICC 324: Foreign Languages for the Elementary School.

**TOTAL CREDIT HOURS REQUIRED FOR GRADUATION:** 124

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**Major in French [FRE]**

Students develop oral and written French language and culture skills that, combined with preparation in related disciplines, lead to a wide variety of career options.

**CAREER POTENTIAL**
- International trade
- Tourism and hospitality
- International communications
- Social services
- Diplomacy, intelligence and law
- International education
- Graduate work

A. **Required Courses:** 30 credit hours at the 300 level or above.
   - At least 15 credit hours must be from the following group (courses focusing on literature and culture): FRE 307, 310, 311, 315, 316, 318, 413, 415, 417, 419, 423, 499, or 515.

   **NOTE:** Students earning a liberal arts degree without teaching certification must take FRE 499: Senior Seminar.

**TOTAL CREDIT HOURS REQUIRED FOR GRADUATION:** 124

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**Minor in French [FRE]**

Eighteen credit hours in courses numbered 300 or above are required. Up to 15 credit hours in any semester of study abroad in French in an accredited university program may count toward fulfillment of the requirement.

**TOTAL CREDIT HOURS REQUIRED FOR THE MINOR:** 18

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**Major in Spanish [SPA]**

Students develop oral and written Spanish language and culture skills that, combined with preparation in related disciplines, lead to a wide variety of career options.

**CAREER POTENTIAL**
- International trade
- Tourism and hospitality
- International communications
- Bilingual services
- Diplomacy, intelligence, and law enforcement
- Graduate work

A. **Required Courses:** 15 credit hours
   - SPA 305: Spanish Conversation and Composition
   - SPA 306: Advanced Spanish Conversation
   - SPA 307: Advanced Spanish Grammar
   - SPA 308: Advanced Spanish Composition
   - SPA 318: Hispanic Civilization (GE-3)

B. **One Spanish course at 400-level (3 credit hours)**

C. **Elective courses in Spanish at 300-level or above (12 credit hours)**

**TOTAL CREDIT HOURS REQUIRED FOR GRADUATION:** 124

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**Minor in Spanish [SPA]**

Eighteen credit hours in courses numbered 300 or above are required. Up to 15 credit hours in any semester of study abroad in Spanish in an accredited university program may count toward fulfillment of the requirement.

**TOTAL CREDIT HOURS REQUIRED FOR THE MINOR:** 18
Major in Spanish with a concentration in International Business – Mexico [SPA/IBM]

Students study international business at the Centro Bilingüe in Cuernavaca, Mexico, during their junior and senior years.

**CAREER POTENTIAL**
- International trade
- International banking

A. Required Courses at Cortland: 30 credit hours
   - SPA 305: Spanish Conversation and Composition
   - SPA 306: Advanced Spanish Conversation
   - SPA 307: Advanced Spanish Grammar
   - SPA 308: Advanced Spanish Composition
   - ECO 105: Political Economy and Social Thought
   - ECO 110: Principles of Macroeconomics
   - SPA 318: Hispanic Civilization (GE-3)
   - ECO 111: Principles of Microeconomics
   - ECO 221: Economic Statistics
   - SPA 320: Spanish for the Professions

B. Required Courses in Cuernavaca, Mexico: 62 credit hours
   - 1103: Math I
   - 1105: Computer Science I (4 cr. hr.)
   - 1207: Sociology of Administration
   - 2313: Organizational Development
   - 2420: Introduction to Accounting
   - 1208: Comm and Human Relations
   - 1209: Math II
   - 1211: Computer Science II (4 cr. hr.)
   - 2419: Introduction to Administration
   - 2421: Introduction to Law
   - 3425: Financial Administration
   - 3526: Accounting
   - 3527: Legal Issues in Marketing
   - 3528: International Economy
   - 4739: Customs Law
   - Internship (15 cr. hr.)

**TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124**

Major in Spanish with a concentration in Mexican History and Literature [SPA/MXHL]

Students study Mexican history and literature at the Centro Bilingüe in Cuernavaca, Mexico, during their junior and senior years.

**CAREER POTENTIAL**
- Non-governmental organizations
- Tourism and hospitality
- International communications
- Bilingual services
- Diplomacy, intelligence, and law enforcement

A. Required Courses at Cortland: 15 credit hours
   - SPA 305: Spanish Conversation and Composition
   - SPA 306: Advanced Spanish Conversation
   - SPA 307: Advanced Spanish Grammar
   - SPA 308: Advanced Spanish Composition
   - SPA 318: Hispanic Civilization (GE-3)

B. Required Courses in Cuernavaca, Mexico: 60 credit hours
   - 1102: Syntax I
   - 1103: WS Reading and Comp.
   - 1105: Research Methods
   - 1208: Syntax II
   - 1211: Computer Science I (4 cr. hr.)
   - 2315: Trans of Written Texts
   - 2421: Communication Theories
   - 2422: Study of Dialects

   2423: WS Oral and Written Exp.
   2317: Computer Science II (4 cr. hr.)
   3527: Mexican Literature GE-6 (4 cr. hr.)
   3528: Hispano-Amer Geography
   3529: Mexican History
   004: Literary Investigations
   3633: Art History
   4738: His Coloniz of Americas (4 cr. hr.)
   4739: Pre-Col Lat-Am History (4 cr. hr.)
   4841: Analytical Thinking (4 cr. hr.)

**TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124**

Example of the undergraduate degree in Adolescence Education – Spanish (Grades 7-12) over four years

Courses do not necessarily need to be taken in the sequence that appears below. Most students choose to complete some of their requirements through study abroad.

<table>
<thead>
<tr>
<th>First Year</th>
<th>Second Year</th>
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<tbody>
<tr>
<td><strong>Fall</strong></td>
<td><strong>Fall</strong></td>
</tr>
<tr>
<td>CPN 100</td>
<td>SPA 306</td>
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<td>GE 1</td>
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<td>GE 4</td>
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<td>COR 101</td>
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<tr>
<td>PSY 101</td>
<td>PSY 331</td>
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<tr>
<td>Foreign language</td>
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<td><strong>Spring</strong></td>
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<tr>
<td>CPN 101</td>
<td>GE 7</td>
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<td>SPA 305</td>
<td>SPA 308 WI</td>
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<td>GE 5</td>
<td>SPA 315 GE 6</td>
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<td>GE 8a</td>
<td>Math (Quantitative Skills)</td>
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<tr>
<td>PSY 232</td>
<td>EDU 449</td>
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<td></td>
<td>AED 323</td>
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<tr>
<th>Third Year</th>
<th>Fourth Year</th>
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<tr>
<td><strong>Fall</strong></td>
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<td>SPA 318 GE 3</td>
<td>AED 439</td>
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<td>AED 391</td>
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<td>SPA 316</td>
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<td>EDU 471</td>
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<td>Free elective/minor (1 cr. hr.)</td>
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<td><strong>Spring</strong></td>
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<td>SPA 320</td>
<td>SPA 422</td>
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<td>AED 437 (methods block)</td>
<td>SPA 419</td>
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<td>AED 438 (methods block)</td>
<td>Free elective/minor</td>
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<td>Free elective/minor</td>
<td>Free elective/minor</td>
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<tr>
<td>Free elective/minor (WT)</td>
<td>Free elective (1 cr. hr.)</td>
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International Communications and Culture

COURSE DESCRIPTIONS

General Courses

ICC 129, 229, 329, 429: Special Topics in International Communications and Culture
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

ICC 201: Introduction to the Literature of U.S. Latinos
(O) Selected works of drama, fiction, and poetry by U.S. authors of Latin American heritage, written primarily in English. Some knowledge of Spanish helpful, but not necessary. Prerequisite: CPN 101. (3 cr. hr.) ■

ICC 324: Foreign Languages For The Elementary School
(O) Theory, methodology, materials, classroom management and curriculum development for teaching foreign languages at the elementary school level (FLES). In-school practicum component included. Approved by NYSED for FLES certification. Prerequisite: Any 300-level FRE or SPA course. (3 cr. hr.)

ICC 325: Foreign Language Practicum in the Elementary Classroom
(O) Opportunity for advanced language students to present weekly foreign language lessons to elementary school pupils. In addition, weekly group meeting with course instructor. May be repeated for up to four credits in any one language. Prerequisite: ICC 324. (1 cr. hr.)

ICC 523: Integrating Technology in the Foreign Language Classroom
(C) Focus on learning how to use communications technologies and develop related foreign language materials with an emphasis on pedagogically sound integration of these technologies and materials in the foreign language curriculum. Technologies to be explored include: presentation software, interactive multimedia, the World Wide Web, and real-time communication. Prerequisites: Advanced grammar and composition courses in the target language, CAP 100, or CAP 101. (3 cr. hr.)

Related Education Courses

AED 323: Seminar for Field Observation
(S) Seminar for field observation in adolescence education (French and Spanish). Seminar-based course to provide a variety of field experiences for preservice teachers. Observations and field reports from secondary classroom experiences required. Prerequisites: Admission to the adolescence education program and GPA consistent with “good standing” status (not below 2.5). (1 cr. hr.)

AED 391: Introduction to Adolescence Education
(A) Students will develop a coherent and comprehensive personal educational philosophy; analyze the role of education and teachers in society; demonstrate an understanding of teacher certification standards and requirements; evaluate teaching, lesson planning and implementation and cooperative skills; and develop a portfolio. The course includes 25 hours of field observation/teaching experience. (3 cr. hr.)

AED 437: Methods of Teaching Foreign Languages in Middle/Junior High Schools I
(A) Twenty-four hours of study in the language at 300-level or above. Must be taken concurrently with EDU 447. Student must receive a grade of B or better in this course as one requirement of eligibility for student teaching. Prerequisites: PSY 101; PSY 232; EDU 391; (required for adolescence education majors) or INT 270. (3 cr. hr.)

AED 438: Methods of Teaching Foreign Languages in Middle/Junior High Schools II
(A) Twenty-four hours of study in the language at 300-level or above. Must be taken concurrently with EDU 447. Student must receive a grade of B or better in this course as one requirement of eligibility for student teaching. Prerequisites: PSY 101; PSY 232; EDU 391; (required for Adolescence Education majors) or INT 270. (3 cr. hr.)

AED 439: Student Teaching: Adolescence Education – Foreign Languages
(A) Twenty-four hours of study in the language at 300–level or above. Consent of department based on language proficiency. See major department for eligibility criteria. S, U grades are assigned. Prerequisites: PSY 101; PSY 232 or 322; PSY 331 or 432; EDU 391; EDU 437 and 447. (14 cr. hr)

EDU 449: Literacy in the Middle and Secondary School
(F) Methods, materials and assessment for fostering literacy at the middle and secondary levels. (3 cr. hr.)

EDU 471: Foundations of Modern Education
(A) Social, historical, philosophical. (3 cr. hr.) ■

Chinese Courses

CHI 101: Beginning Chinese I
(F) Introduction to the skills of listening, reading, speaking, and writing, with exposure to Chinese culture. Emphasis on developing communicative strategies in Chinese. (3 cr. hr.) ■

CHI 102: Beginning Chinese II
(S) Continuation of work begun in CHI 101. Prerequisite: CHI 101. (3 cr. hr.) ■

CHI 201: Intermediate Chinese I
(F) Continued development of the skills of listening, reading, speaking, and writing with emphasis on developing communicative strategies at the second-year level. Expanding cultural knowledge. Prerequisite: CHI 102 or equivalent. (3 cr. hr.) ■

CHI 202: Intermediate Chinese II
(S) Continuation of work undertaken in Intermediate Chinese I. Prerequisite: CHI 201 or equivalent. (3 cr. hr.) ■
Foreign Literature in English Translation

NOTE: The courses listed below do not require knowledge of a foreign language.

FLT 399: Foreign Literature In Translation
(O) Analysis of selected foreign-language literature in English translation. May be repeated as subtitle changes. Prerequisite: CPN 100. (3 cr. hr.) ■

FLT 493: Foreign Films in Translation
(C) Analysis of translated texts of 12 films. Critical works on these films, subsequent viewing of films. Subtitles vary. (Also listed as CIN 493.) (3 cr. hr.) ■

French Courses

FRE 101: Beginning French I
(A) Introduction to the skills of listening, reading, speaking, and writing, with exposure to French and Francophone culture. Emphasis on developing communicative strategies in French. (4 cr. hr.) ■

FRE 102: Beginning French II
(A) Continuation of work begun in FRE 101. Prerequisite: FRE 101 (3 cr. hr.) ■

FRE 129, 229, 329, 429, 529: Special Topics in French
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

FRE 201: Intermediate French I
(A) Continued development of the skills of listening, reading, speaking, and writing with emphasis on developing communicative strategies at the intermediate level. Expanding cultural knowledge with exposure to literature. Prerequisite: FRE 102. (3 cr. hr.) ■

FRE 202: Intermediate French II
(A) Continuation of work undertaken at the intermediate level in FRE 201. Prerequisite: FRE 201. (3 cr. hr.) ■

FRE 305: French Conversation and Composition
(C) Development of increasing listening, speaking, reading, and writing ability in French through conversational activities and role-playing. Acquisition of survival skills, tools for expressing opinions and emotions, and expanded vocabulary. Grammar review based on individual needs apparent in student writings. Prerequisite: FRE 202. (3 cr. hr.) ■

FRE 307: French Through the Media
(C) Study of the changing image of French society as portrayed in a variety of media (films, the World Wide Web, television, the press). Emphasis on oral expression, listening comprehension, and vocabulary expansion. Grammar review undertaken on an individual basis, through students’ writings. Prerequisite: FRE 202. (3 cr. hr.) ■

FRE 309: Grammatical Structure of French
(C) Morphology, grammar and syntax of present-day French, oral and written. Prerequisite: FRE 202. (3 cr. hr.) ■

FRE 310: Pratique de la Lecture
(C) Techniques of close reading, including procedures used in explication de texte. Practice in written French through compositions and journal-writing. Prerequisite: FRE 202. (3 cr. hr.) ■

FRE 311: Francophone Literatures
(O) Novels, poetry and drama in French from Canada, Africa, the French Antilles, Vietnam, etc. (places other than continental France). Introduction to the study of genre using Francophone literature as texts. Prerequisite: FRE 202. (3 cr. hr.) ■

FRE 312: La Pratique de L’Écriture
(O) Extensive writing in French on a wide range of topics explored through a variety of sample texts including electronic resources such as online government documents, radio and television materials, and various other literary and non-literary texts, both current and historical. Discussions and written assignments submitted and evaluated in French. Emphasis on clarity of expression; attention to various styles of writing (descriptive, expository, persuasive, narrative, etc.) Prerequisite: FRE 202. (3 cr. hr.) ■

FRE 315: Introduction to French Literature I
(O) Survey of literary genres, representative works: medieval period to 1700. Prerequisite: FRE 202. (3 cr. hr.) ■

FRE 316: Introduction to French Literature II
(S) From 1700 to modern times. Prerequisite: FRE 202. (3 cr. hr.) ■

FRE 318: French Civilization
(C) Modern French society, culture. Readings, discussion in French. Subtitles specify emphasis on historical background or specific contemporary topics. May be repeated as subtitle changes. Prerequisite: FRE 202. (3 cr. hr.) ■

FRE 320: French and Careers
(C) Development of technical language skills for effective communication in various fields, using authentic materials drawn from print and electronic media. Role playing and written assignments providing practice in everyday situations encountered in the tourism industry, translation and interpreting, the medical profession, banking, the business world. Prerequisites: FRE 202. (3 cr. hr.) ■

FRE 331: Practicum: Teaching Beginning French I
(O) Participation as supervised teaching assistant in all activities of Beginning French I; special responsibility for leading structured drills and conversation with small groups. Prerequisite: FRE 202. (2 cr. hr.)

FRE 332: Practicum: Teaching Beginning French II
(O) Participation as supervised teaching assistant in all activities of Beginning French II; special responsibility for leading structured drills and conversation with small groups. Prerequisite: FRE 331. (2 cr. hr.)

FRE 333: Practicum: Teaching Intermediate French I
(A) Participation as supervised teaching assistant in all activities of Intermediate French I; special responsibility for leading structured drills and conversation with small groups. Prerequisite: Any 300-level French course, consent of instructor. (2 cr. hr.)

FRE 334: Practicum: Teaching Intermediate French II
(A) Participation as supervised teaching assistant in all activities of Intermediate French II; special responsibility for leading structured drills and conversation with small groups. Prerequisite: Any 300-level French course, consent of instructor. (2 cr. hr.)

FRE 407: Commercial French
(O) Vocabulary and forms of French commercial usage. Enrolled students may register to take the exam for the certificat for proficiency in commercial French offered by the Chambre de Commerce et d’Industrie de Paris. Prerequisite: One 300-level French course, 305 or above. (3 cr. hr.) ■

FRE 413: French Literature of the Seventeenth Century
(O) Descartes, Corneille, Moliere, Racine, Pascal, La Rochefoucauld, according to subtitle. May be repeated as subtitle changes. Prerequisite: FRE 315 or 316. (3 cr. hr.) ■

FRE 415: French Literature of the Eighteenth Century
(O) Literature of the Enlightenment. Voltaire, Rousseau, Montesquieu or Diderot; the Encyclopedists, La Nouvelle Héloïse,
according to subtitle. May be repeated as subtitle changes. Prerequisite: FRE 315 or 316. (3 cr. hr.)

FRE 417: Literature of the Nineteenth Century
(O) Romanticism, realism, symbolism, naturalism. Novel from 1815 to 1850, novel from 1850 to 1900, poetry of Romantic period, symbolist poetry, drama and opera after 1850, according to subtitle. May be repeated as subtitle changes. Prerequisite: FRE 315 or 316. (3 cr. hr.)

FRE 419: Literature of the Twentieth Century
(O) Selected readings. Subtitles indicate area of study, which may be a genre, a period, a literary or philosophical movement, or a theme. May be repeated as subtitle changes. Prerequisite: FRE 315 or 316. (3 cr. hr.)

FRE 423: Themes in Literature
(O) Themes as basis for study of several works or authors, e.g., women, love, society, revolution. For students with knowledge of French, although subject may be comparative in nature if indicated by subtitle. May be repeated as subtitle changes. Prerequisite: FRE 315 or 316. (3 cr. hr.)

FRE 499: Senior Seminar
(S) Drawing on broad background senior majors have acquired in French literature, civilization and language, the seminar promotes synthetic and analytic reflection on a specific theoretical topic, e.g. Francophone culture in the Western (or non-Western) world, recent French literary theory, literature in relation to the other arts. Substantial writing in French is required. Open to French minors and students in French certification programs. Prerequisites: Senior standing. (3 cr. hr.)

FRE 503: Advanced Grammatical Structure of French
(O) Advanced work in French stylistics; special problems in morphology, grammar and syntax of present-day French, oral and written. Prerequisite: FRE 309. (3 cr. hr.)

FRE 504: Teaching French Civilization
(O) France and the modern Francophone world. In-depth study of various aspects of French and Francophone civilization, with particular focus on the development and integration of materials for use in the public school classroom. (3 cr. hr.)

FRE 505: Techniques of Translating French
(O) Career-orientated translation training: film dubbing, simultaneous translation, commercial translation, etc. May be repeated as subtitle changes. Prerequisites: FRE 309. (3 cr. hr.)

FRE 506: Teaching French Literature
(O) In-depth study of selected texts from French and Francophone literature, with particular focus on the development and integration of materials for use in the public school classroom. Prerequisites: Two literature courses at the 300 or 400 level. (3 cr. hr.)

FRE 515: Seminar in Literature
(O) Topics defined by subtitle. Knowledge of French required. Major texts read in French even when topic in comparative literature is presented. Prerequisite: Two semesters from FRE 306, 315, 316, 318. (3 cr. hr.)

FRE 517: Independent Study
(O) Individual supervised study. May be repeated; no more than six semester hours may be credited toward degree. Prerequisite: Two semesters of 300-level courses, consent of department. (1-3 cr. hr.)

German Courses
GER 101: Beginning German I
(F) Introduction to the skills of listening, reading, speaking, and writing, with exposure to German culture. Emphasis on developing communicative strategies in German. (4 cr. hr.)

GER 102: Beginning German II
(S) Continuation of work begun in GER 101. Prerequisite: GER 101 or equivalent. (3 cr. hr.)

GER 129, 229, 329, 429: Special Topics in German
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

GER 201: Intermediate German I
(F) Continued development of the skills of listening, reading, speaking, and writing with emphasis on developing communicative strategies at the intermediate level. Expanding cultural knowledge with exposure to literature. Prerequisite: GER 102 or equivalent. (3 cr. hr.)

GER 202: Intermediate German II
(S) Continuation of work undertaken at the intermediate level in GER 201. Prerequisite: GER 201 or equivalent. (3 cr. hr.)

GER 517: Independent Study
(O) Individual supervised study. May be repeated; no more than six hours may be credited toward degree. Prerequisite: Two semesters of 300-level courses and consent of department. (2-3 cr. hr.)

Spanish Courses
SPA 101: Beginning Spanish I
(A) Introduction to the skills of listening, reading, speaking, and writing, with exposure to Hispanic culture. Emphasis on developing communicative strategies in Spanish. (4 cr. hr.)

SPA 102: Beginning Spanish II
(A) Continuation of work begun in SPA 101. Prerequisite: SPA 101 or equivalent. (3 cr. hr.)

SPA 129, 229, 329, 429, 529: Special Topics in Spanish
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

SPA 201: Intermediate Spanish I
(A) Continued development of the skills of listening, reading, speaking, and writing, with emphasis on developing communicative strategies at the intermediate level. Expanding cultural knowledge with exposure to literature. Prerequisite: SPA 102 or equivalent. (3 cr. hr.)

SPA 202: Intermediate Spanish II
(A) Continuation of work undertaken at the intermediate level in SPA 201. Prerequisite: SPA 201 or equivalent. (3 cr. hr.)

SPA 301: Spanish Language Study in Mexico
(W) Study in Cuernavaca, Mexico, during the Winter Session. The course is designed for students who have completed the intermediate level of Spanish. Concentration on grammar, composition and comprehension. Prerequisite: SPA 202, consent of department. (3 cr. hr.)

Course codes: A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter, ■ = LAS
SPA 305: Spanish Conversation and Composition
(A) Oral, written Spanish beyond intermediate level. Prerequisite: SPA 202. (3 cr. hr.) ■

SPA 306: Advanced Spanish Conversation
(A) Advanced conversational practice, discussions, reports. Prerequisite: SPA 305. (3 cr. hr.) ■

SPA 307: Advanced Spanish Grammar
(A) Advanced course in syntax, composition: subtle nuances, exceptions, current idiomatic turns of the language, both oral and written. Prerequisite: SPA 202. (3 cr. hr.) ■

SPA 308: Advanced Spanish Composition
(A) Written Spanish beyond intermediate level. Emphasis on advanced structure, idiomatic expressions by means of original composition. Prerequisite: SPA 305 or semester in Spain. (3 cr. hr.) ■

SPA 313: Survey of Spanish-American Literature
(O) From colonial times to the present. Readings, writing, discussion of principal authors, works. Prerequisite: SPA 305. (3 cr. hr.) ■

SPA 315: Survey of Spanish Literature
(O) Representative works from medieval period to the present. Readings, writings, discussions, reports. Prerequisite: SPA 305. (3 cr. hr.) ■

SPA 317: Literary Types in Spanish
(O) Introduction to analysis of literature by studying various genres (prose, poetry, drama) according to subtitle. May be repeated as subtitle changes. Prerequisite: SPA 202. (3 cr. hr.) ■

SPA 318: Hispanic Civilization
(F) Extensive readings on social, historical, literary, economic development in Spain, Spanish America, according to subtitle. May be repeated as subtitle changes. Prerequisite: SPA 305. (3 cr. hr.) ■

SPA 320: Spanish for the Professions
(S) Basic course for the acquisition of technical language skills for effective communication in everyday situations related to the practice of law enforcement, education, social work, health care and welfare. Prerequisite: SPA 305. (3 cr. hr.) ■

SPA 411: The Golden Age of Spanish Literature I
(O) Extensive readings in literature of 16th century; Renaissance poetry, prose or theatre according to subtitle. May be repeated as subtitle changes. Prerequisite: SPA 308. (3 cr. hr.) ■

SPA 417: Spanish Literature of the Nineteenth Century
(O) Nineteenth century: Romanticism; Realism; Naturalism. Subtitles indicate period to be studied. May be repeated as subtitle changes. Prerequisite: SPA 308. (3 cr. hr.) ■

SPA 419: Literature of Twentieth Century Spain
(O) Subtitles indicate topics: the generation of '98; drama; prose; poetry. May be repeated as subtitle changes. Prerequisite: SPA 308. (3 cr. hr.) ■

SPA 421: Spanish Literature of the Medieval Period
(O) Middle Ages prose, lyric and narrative poetry, according to subtitle. May be repeated as subtitle changes. Prerequisite: SPA 308. (3 cr. hr.) ■

SPA 423: Themes in Literature
(O) Recurring themes appearing in works of one or several authors. Knowledge of Spanish necessary although subject studied may be compared with other literatures in translation. May be repeated as subtitle changes. Prerequisite: SPA 308. (3 cr. hr.) ■

SPA 503: The Grammatical Structure of Spanish
(O) Phonology, morphology, syntax of present day standard Spanish. Prerequisite: SPA 306. (3 cr. hr.) ■

SPA 517: Independent Study
(O) Individual supervised study. May be repeated; no more than six credit hours may be credited toward degree. Prerequisite: Two semesters of 300-level courses. (1-3 cr. hr.)
International Studies
INTERDISCIPLINARY PROGRAM

FACULTY
Sharon R. Steadman (Coordinator)

PROGRAMS OFFERED
B.A. in International Studies – 124 total credit hours
B.A. in Adolescence Education – Social Studies and International Studies (Grades 7-12) – 127 total credit hours

MAJORS OFFERED
International Studies
Adolescence Education – Social Studies and International Studies (Grades 7-12)

CONCENTRATIONS OFFERED
Area Concentrations: Africa, Asia and Pacific Basin, Europe, Latin America
Disciplinary Concentrations: Culture and Globalism, Geography, Global Economic Systems, Global Political Systems, Historical Development, International Health, Women’s Studies

MINORS OFFERED
International Studies

DESCRIPTION
The International Studies (IST) major is a unique global studies approach to understanding the international world in the context of a liberal arts education. The interdisciplinary nature of the major provides students with knowledge of the historic and contemporary development of the international system as well as the opportunity to choose the direction of their study of particular aspects of the global social, economic, and political structure from disciplinary or geographical vantage points.

Students also complete the IST major with a strong foreign language background, enabling them to begin careers in the international world immediately upon graduation.

SPECIAL FEATURES
• Wide-ranging study-abroad opportunities
• Opportunities for internship experience
• Independent study and collaborative research with faculty members
• Involvement in the Dragon Planet international Internet news magazine

CAREER POTENTIAL
• International business positions
• International law practice
• World Bank positions
• United Nations translators/posts
• World Trade Organization posts
• U.S. government/State Department positions
• Non-Government corporation and organization positions

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to the following majors.
2. Liberal Arts Requirements: 90 credit hours

The IST major’s 36 credit hours comprise a set of five core courses and a seven-course concentration chosen from the list below. The core courses orient the student to the historical processes and contemporary economic issues of the modern international system. The concentration may be geographical in nature, or be focused within a particular discipline. Alternatively, the student may choose an individualized concentration which will be interdisciplinary in nature, with course work defined by a conceptual theme or problem, or with a geographical focus not presently offered. The individualized concentration may be drawn from throughout the College’s course offerings. Note: some courses in concentrations may have prerequisites not listed.

Waivers of requirements and approval for substitution of courses may be granted only by the coordinator with the approval of the associate dean. Courses taken in a concentration may not count for a minor in the same field (e.g., a Latin American concentration cannot be combined with a Latin American minor). In order to satisfy major requirements, students may take topic courses offered in individual departments, arrange for an independent study, or complete up to six credit hours of an internship (CPV 400), with approval of the advisor, the international studies coordinator, and the associate dean.

Students majoring in international studies are required to demonstrate additional foreign language proficiency beyond the regular College language requirement. The IST language requirement may be fulfilled in one of the following ways:

a. Successfully completing 12 hours of course work in a foreign language at the 300-level or above.
b. Successfully completing one semester of study abroad in the target language; course work or other programs of study must be in the target language. Courses or other study conducted in English will not be accepted in fulfillment of this requirement.
c. Satisfying the College foreign language requirement (i.e. 13 credit hours or its equivalent) in a second foreign language. (Students whose native language is not English may be exempt from the language proficiency requirement.)
d. Earning a rating of Intermediate High on the American Council of Teachers of Foreign Language/Educational Testing Service academic scale, as determined by an oral interview with a qualified tester. Students should contact the International Communications and Culture Department for additional details.

INTERNATIONAL STUDIES CORE COURSES
IST 400: Seminar: Themes in International Studies
HIS 101: The World since 1500
ECO 105: Political Economy and Social Thought
Major in International Studies with an area concentration in Africa [IST/AFRI]
Provides an understanding of how African peoples and cultures have been affected, over time, by contacts with a much wider world.
A. Required Courses: IST Core: 15 credit hours
B. Elective Courses: 21 credit hours chosen from the following:
   ANT 304: Peoples of Africa
   ENG 365: Third World Literature
   FRE 311: Francophone Literatures
   GRY 485: Africa, South of the Sahara
   HIS 225: Introduction to Africa
   HIS 321: Africa, Human Origins to 1800
   HIS 322: Modern Africa, 1800-Present
   HIS 431: South Africa
   HIS 530: Issues in African-American History
   POL 290: Introduction to African Politics and Society
TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in International Studies with an area concentration in Asia and Pacific Basin [IST/ASIA]
Provides a broad understanding of the diverse societies and peoples of Asia, which constitute more than half of the world’s population.
A. Required Courses: IST Core: 15 credit hours
B. Elective Courses: 21 credit hours chosen from the following:
   ANT 310: Peoples of South and Southeast Asia
   ANT 312: Peoples of the Middle East
   ANT 330: Religions of Asia
   ECO 313: Economic Development of Asia
   HIS 383: Chinese Civilization
   HIS 384: Modern China
   HIS 385: History of Japan
   HIS 386: Modern Pacific Asia
   HIS 435: Sino-American Relations
   POL 262: Comparative Politics: Asia
   POL 376: Asian Political Thought
   POL 454: International Politics in Asia
   POL 462: Political Culture and Behavior in Asian Societies
TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in International Studies with an area concentration in Europe [IST/EURO]
Provides a broad understanding of the forces that have made modern Europe and are shaping its culture, its people, and its politics in the post-Cold War era.
A. Required Courses: IST Core: 15 credit hours
B. Arts and Literature Elective Courses: 3 credit hours chosen from the following:
   ATH 122: Art in the Modern World
   ENG 457: Modern Irish Fiction
   ENG 471: The Modern English Novel
   A course in German, French, or Spanish Literature (e.g., FRE 419, SPA 419 or a German literature course taken abroad) to be chosen in consultation with the student’s advisor.
C. Economics, Geography, and Political Science Elective Courses: 6 credit hours chosen from the following:
   ECO 304: Comparative Economic Systems
   GRY 484: Geography of Europe
   POL 260: Comparative Politics: Europe
   POL 461: Europe Today: People and Politics
   POL 465: Contemporary British Politics and Government
D. Foreign Language and Civilization Elective Courses: 3 credit hours chosen from the following:
   FRE 318: French Civilization
   SPA 318: Hispanic Civilization
E. History Elective Courses: 3 credit hours chosen from the following:
   HIS 111: Western Civilization since 1715
   HIS 348: Europe since 1914
F. Elective Course: 3 credit hours chosen from the following:
   HIS 333: Russia, 850-1894
   HIS 334: Russia since 1894
   HIS 129, 229, 329, 429, 529, 629: Special Topics in History
   HIS 441: Britain since 1688
   HIS 445: France, 1800-1945
G. Elective Course: Choose one course from those listed above, or from the general College curriculum with approval of advisor.
TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in International Studies with an area concentration in Latin America [IST/LAT]
Through study of the culture, economic systems, and political science of this area students gain exposure to a major player in the international scene, as well as regions within the United States.
A. Required Courses: IST Core: 15 credit hours
B. Elective Courses: 21 credit hours chosen from the following:
   ANT 314: Peoples of Latin America
   ECO 312: Economic Development in Latin America
   FLT 399: Foreign Literature in Translation
   GRY 482: Central America and the Caribbean
   HIS 325: Colonial Latin America
   HIS 326: Modern Latin America
   POL 264: Comparative Politics: Latin America
   POL 455: International Politics in Latin America
   POL 463: Political Culture and Behavior in Latin American Societies
   SPA 313: Survey of Spanish-American Literature
   SPA 318: Hispanic Civilization
   SPA 423: Themes in Literature
TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in International Studies with a disciplinary concentration in Culture and Globalism [IST/CGLO]
Students gain insight into the cultural institutions of global cultures in preparation to encounter the global issues facing present-day indigenous and migrant populations.
A. Required Courses: IST Core: 15 credit hours
B. Elective Courses: 9 credit hours chosen from the following:
   ANT 230: Prejudice and Discrimination
   ANT 315: Development Anthropology
   ANT 352: U.S. Ethnic Identity and Conflict
   ANT 404: Applied Anthropology
   ANT 406: Contact and Culture Change
   ANT 492: Anthropological Theory
   ANT 302: Native American Ethnology
   ANT 304: Peoples of Africa
TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124
Major in International Studies with a disciplinary concentration in Global Economic Systems [IST/GES]
Students will gain a strong background in economic theory and a clear understanding of key economic trends, issues and policies as they relate to globalization and the changing world economy.
A. Required Courses: IST Core: 15 credit hours
B. Elective Courses: 21 credit hours chosen from the following:
ECO 110: Principles of Macroeconomics
ECO 111: Principles of Microeconomics
ECO 300: Macroeconomic Theory
ECO 301: Economics of the Firm
ECO 304: Comparative Economic Systems
ECO 306: Comparative Approaches in Political Economy
ECO 307: Marxian Economics
ECO 311: Economic Development
ECO 312: Economics Development of Latin America
ECO 313: Economic Development of Asia
ECO 325: Political Economy of Women
ECO 326: Political Economy of Race and Class
ECO 335: Resource and Environmental Economics
ECO 383: Labor Economics
ECO 441: International Trade
ECO 443: International Finance
TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in International Studies with a disciplinary concentration in Historical Development [IST/HDEV]
Focusing on the last 500 years, this concentration traces the historical basis of the modern world system and then allows students to focus on particular regions and historical topics.
A. Required Courses: IST Core: 15 credit hours
B. Required Course: 3 credit hours:
HIS 100: The World to 1500
C. Elective Courses: 9 credit hours chosen from the following:
HIS 225: Introduction to Africa
HIS 321: Africa, Human Origins to 1800
HIS 322: Modern Africa, 1800-Present
HIS 325: Colonial Latin America
HIS 326: Modern Latin America
HIS 384: Modern China
HIS 385 History of Japan
HIS 386: Modern Pacific Asia
HIS 430: The Vietnam War
HIS 431: South Africa
HIS 435: Sino-American Relations
HIS 461: Modern Israel and the Arab-Israeli Conflict
HIS 530: Issues in African-American History
D. Elective Courses: 9 credit hours chosen from the following:
HIS 318: The History of Women in Modern Europe
HIS 333: Modern Russia, 850-1894
HIS 334: Russia, since 1894
HIS 346: Renaissance and Reformation
HIS 348: Europe since 1914
HIS 363: Jews in the Modern World, 1789-1948
HIS 441: Britain since 1688
HIS 443: Ireland since 1660
HIS 445: France, 1800-1945
HIS 460: The Holocaust
HIS 465: The Soviet Union, 1917-1953
TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in International Studies with a disciplinary concentration in International Health [IST/IHLH]
Prepares the individual for an entry level position with international agencies that deal with international health, nutrition, development, and relief issues.
A. Required Courses: IST Core: 15 credit hours
B. Required Courses: 15 credit hours:
HLH 111: International Health and Culture
HLH 203: Community Health
HLH 220: Safety Education and Emergency Response
HLH 323: Foods and Nutrition
HLH 391: Epidemiology and Biostatistics
C. Elective Courses: 3 credit hours chosen from the following:
BIO 102: Ecology and the Human Environment
HLH 390: Environmental Health and Ecology
HLH 392: Environmental Pollutants and Toxicology
D. Elective Courses: 3 credit hours chosen from the following:
HLH 110: Personal and Community Health
HLH 201: Health Problems of the Underserved
HLH 360: Health Administration and Planning
TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124
Major in International Studies with a disciplinary concentration in Global Political Systems [IST/GPS]

Students gain an understanding of both the political life of areas of the world such as Latin America, Europe, and Africa but also to the dynamics of international politics.

A. Required Courses: IST Core: 15 credit hours
B. Required Courses: 9 credit hours:
   - POL 101: Introduction to World Politics
   - POL 250: International Relations
   - POL 362: Politics of Developing Nation States
C. Elective Courses: 6 credit hours chosen from the following:
   - POL 160: Model European Union
   - POL 260: Comparative Politics: Europe
   - POL 262: Comparative Politics: Asia
   - POL 264: Comparative Politics: Latin America
   - POL 290: Introduction to African Politics and Society

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in International Studies with a disciplinary concentration in Women's Studies [IST/WST]

Students gain an expertise in global women's issues through exposure to topics concerning women's roles and status in domestic and international societies in both historical and contemporary contexts.

A. Required Courses: IST Core: 15 credit hours
B. Required Courses: 6 credit hours:
   - WST 100: Approaches to Women's Studies
   - WST 400: Colloquium in Women's Studies
C. Elective Courses: 9 credit hours chosen from the following:
   - ANT 234: Anthropology of Gender
   - ECO 325: Political Economy of Women
   - HLH 550: Women's Health
   - HIS 318: The History of Women in Modern Europe
   - PHI 380: Feminist Social Thought

D. Elective Courses: 6 credit hours chosen from the following:
   - Six credit hours chosen in consultation with student's advisor from courses in any of the following fields: anthropology, economics, health, history, political science. These courses should relate directly to the area of international/women's studies the student intends to pursue.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Dual Major in Adolescence Education – Social Studies and International Studies (Grades 7-12) [SSA & IST]

This program allows students who major in international studies to qualify for certification to teach adolescence education in social studies (grades 7-12). It combines a major in international studies with a professional semester that consists of professional preparation and student teaching.

A. Requirements for the international studies major (see above)
B. Professional Preparation: 47-68 credit hours
   - Including additional social science courses
   - HLH 199: Critical School Health Issues
   - PSY 101: General Psychology I
   - PSY 232: Adolescent Psychology or
   - PSY 332: Educational Psychology
   - ECO 105: Political Economy and Social Thought
   - GRY 425: Geography in the Classroom or
   - GRY 520: Maps in the Classroom
   - GRY 480: United States
   - POL 100: Introduction to American Government
   - HIS 100 and 101 or His 110 and 111 and
     - HIS 200 and 201 and 9 hours at the 300 level or above
   - ENG 306: Advanced Writing for Prospective Teachers or
   - EDU 449: Literacy in the Middle and Secondary School
   - SHH 300: Normal Language Development or
   - PSY 350: Psychology of Language
   - SSS 300: Introduction to Secondary Social Studies
   - (A 100-hour field requirement is attached to this course)
C. Professional Semester: 18 credit hours
   - SSS 301: Pre-Practice Teaching Seminar
   - AED 400: Student Teaching I
   - AED 401: Student Teaching II
   - SSS 303: Post-Practice Teaching Seminar

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 127

Minor in International Studies [IST]

A. Required courses: 9 credit hours:
   - IST 400: Seminar: Themes in International Studies
B. Elective Courses: 9 credit hours:
   - Foreign language beyond the 202-level – 3 credit hours
   - Electives in either an area or a disciplinary concentration – 6 credit hours

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 18
Example of the undergraduate degree in International Studies over four years

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<th>First Year</th>
<th>Second Year</th>
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International Studies

**Course Descriptions**


(F) Key ideas, themes, and selected topics are examined and analyzed related to the historical development of the modern international system. Focus on the social, political, and economic processes which combined to create the modern international system 1600-1900. Consideration of the historical bases of contemporary problems such as international inequality, role of the West in contributing to underdevelopment, international competition, war. (3 cr. hr.) ■

IST 129, 229, 329, 429, 529: Special Topics in International Studies

Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.) ■


(S) Emphasis is on the historical processes that have in the 20th century created the modern international system. Focus on major historical, political, economic, and social developments.

Special emphasis on problems of development and underdevelopment, theories of development, key areas of the world, and selected world problems. IST majors are encouraged to take IST 200 first, when possible. (3 cr. hr.) ■

IST 300: Global Journalism

(A) Introduction to using internet resources for research and writing of articles to be published in the Dragon Planet and other Internet locations. Instruction in constructing web pages and Internet journalism. Prerequisite: CPN 101. (4 cr. hr.)

IST 310: Independent Study: Selected Topics

(O) Independent study in selected topics in international studies. Prerequisite: IST 200 or 210 and permission of program chair. (1-3 cr. hr.)

IST 400: Seminar: Themes in International Studies

(B) Culminating seminar for international studies majors; particular theme of theoretical and contemporary importance (e.g., world hunger, economic inequalities, state-building and its effects, North-South relationships) addressed. Readings and discussions will reflect various concentrations within international studies program. Seminar will stress multidisciplinary team approaches to major global problems. Prerequisite: Consent of International studies coordinator. (3 cr. hr.) ■

**Related Education Courses**

AED 400: Student Teaching I

Full-time supervised teaching in public schools for four weeks (3 cr. hr.)

AED 401: Student Teaching II

Full-time supervised teaching in public schools for four weeks. Requires satisfactory completion of AED 400 (3 cr. hr.)

SSS 300: Introduction to Secondary Social Studies

This course introduces students to unit and lesson planning, focuses on the history of American education as it relates to social studies, familiarizes students with the social studies learning standards, and makes comparisons between middle school and high school teaching. Includes 100-hour field experience. (3 cr. hr.)

SSS 301: Pre-Practice Teaching Seminar

(F) Integrated study of A.) Introduction to Secondary Education; B.) Introduction to Methods of Teaching Social Studies; C.) Introduction to Contemporary Secondary School Issues; D.) Preparation for specific practice teaching assignment. S, U grades assigned. (11 cr. hr.)

SSS 303: Post-Practice Teaching Seminar

(F) Problem approach drawing upon experience of students during practice teaching. Designed to focus on current educational issues, beginning the job search and application process, teaching and learning at the middle school level and exploring the history and philosophy of teaching. S, U grades assigned. (1 cr. hr.)
Jewish Studies
INTERDISCIPLINARY MINOR

FACULTY
Henry Steck (Coordinator of Academics)
Sheila Cohen (Coordinator of Cultural Events)

MINOR OFFERED
Jewish Studies – 18 credit hours

DESCRIPTION
The Jewish studies minor is an interdisciplinary program focusing on the study of the Jewish people — their religion, history, literature, and culture. The program seeks to enhance the student's understanding of the Jewish people and the variety of their cultural experiences while also furthering the College's mission to study and combat prejudice and discrimination. The minor is designed to complement a number of academic majors. Administration and advisement for this program is conducted by the Jewish Studies Committee of the Center for Multicultural and Gender Studies.

SPECIAL FEATURES
• Overseas program in Israel

Minor in Jewish Studies [JST]
The minor in Jewish studies consists of 18 hours: nine hours in required courses and nine hours of electives. Relevant special topics courses in some departments may also be acceptable in addition to the specified courses below. With advisement from a Cortland Jewish studies advisor, students may complete all or part of the minor in an accredited summer, semester, or year academic program in Israel.

CAREER POTENTIAL
• Jewish educator
• Jewish community relations

A. Required Courses: 9 credit hours
JST 140: Basic Judaism
JST 361/HIS 361: Jews in the Ancient World
JST 363/HIS 363: Jews in the Modern World

B. Other: 9 hours from among the following. No more than six may be taken in history.
ANT 312: Peoples of the Middle East
JST 250/ENG 250: Introduction to Jewish Authors
JST 329: Special topics
JST 360: Directed Study
JST 362/HIS 362: Jews in the Middle Ages
JST 460/HIS 460: The Holocaust
JST 461/HIS 461: Modern Israel and the Arab-Israel Conflict
POL 456: International Politics of the Middle East
RLS 300: World Religions
SOC 352/ANT 352: U.S. Ethnic Identity and Conflict
SOC 475: Sociology of Religion

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 18

Jewish Studies COURSE DESCRIPTIONS

JST 140: Basic Judaism
(S) Overview of development of Judaism from its ancient roots to its modern forms. Main topics will include history of Judaism, major tenets, rituals, customs, and contemporary issues. (3 cr. hr.) ■

JST 250: Introduction to Jewish Authors
(O) Introduction to Jewish themes in American literature and in translation from the Yiddish. (Also listed as ENG 250.) (3 cr. hr.) ■

JST 129, 229, 329, 429, 529: Special Topics in Jewish Studies
(O) Selected topics in Jewish studies offered by faculty from different departments. Topics will vary from semester to semester. Prerequisite: JST 140 or JST 250 or any other Jewish studies course. (3 cr. hr.)

JST 350: Topics in Jewish Studies
(O) Selected topics in Jewish studies offered by faculty from different departments. Topics will vary from semester to semester. Prerequisite: JST 140 or any other Jewish studies course. (3 cr. hr.)

JST 360: Directed Study
(O) Directed individual study in selected areas of Jewish studies. Prerequisite: Consent of the Jewish studies coordinator and the faculty member. (1-3 cr. hr.) ■

JST 361: Jews in the Ancient World
(C) Intellectual and political history of the Jewish people to the compilation of the Talmud in the third century. Prerequisite: JST 140, any GE history course, or permission of the instructor. (Also listed as HIS 361.) (3 cr. hr.) ■

JST 362: Jews in the Middle Ages
(C) History of the Jewish people from the third century to the Enlightenment. Prerequisite: JST 140, any GE history course, or permission of the instructor. (Also listed as HIS 362.) (3 cr. hr.) ■

JST 363 Jews in the Modern World
(C) European Jewry from the Enlightenment to the establishment of Israel as a state. Topics include: emancipation and assimilation; East European and Russian Jews to World War I; immigration to America; modern Israel; anti-Semitism and the Holocaust.
Prerequisite: JST 140, any GE history course, or permission of the instructor. (Also listed as HIS 363.) (3 cr. hr.) ■

JST 460: The Holocaust
(C) Extermination of European Jews and millions of other Europeans during World War II studied in human and historical perspective. Course focuses on Nazi perpetrators’ ideology of anti-Semitism and their machinery of destruction, the responses of the victims, and the action and inaction of the rest of the world. Prerequisite: GE history course, any course in Jewish studies, or permission of the instructor. (Also listed as HIS 460.) (3 cr. hr.) ■

JST 461: Modern Israel and the Arab-Israeli Conflict
(C) History of Zionism (Jewish Nationalism) and modern Israel from the 1860s to the present. Focuses on: the history of Zionism; the growth of the Jewish state in Palestine; and the history of the Arab-Israeli conflict. Prerequisite: GE history course, any course in Jewish studies, any course in world politics, geography, or anthropology, or permission of the instructor. (Also listed as HIS 461.) (3 cr. hr.)

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**Latin American Studies**

**INTERDISCIPLINARY MINOR**

**FACULTY**
Francisco Bustamante (Coordinator)

**MINOR OFFERED**
Latin American Studies – 15 credit hours

**DESCRIPTION**
SUNY Cortland’s Latin American studies minor is interdisciplinary. It is designed to complement many academic majors. Students choosing the minor will study the history and cultural production of Latinos and Latin Americans from the perspective of several disciplines.

Administration of this program and advisement of its students is provided by the Latin American Studies Committee, a subcommittee of the Center for Multicultural and Gender Studies.

**SPECIAL FEATURES**
- Internships
- Overseas opportunities

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**Minor in Latin American Studies [LLAS]**

**CAREER POTENTIAL**
- Social services
- Education
- International communications
- Tourism
- Business – domestic and international

A. Required course: three credit hours:
   SOC 352/ANT 352: U.S. Ethnic Identity and Conflict
   (Prerequisite: SOC 150: Introduction to Sociology or ANT 102: Introduction to Cultural Anthropology)

B. Three credit hours from:
   - SPA 305: Spanish Conversation and Composition
   - SPA 306: Advanced Spanish Conversation
   - SPA 307: Advanced Spanish Grammar
   - SPA 308: Advanced Spanish Composition

C. Six credit hours from:
   - ANT 314: Peoples of Latin America
   - ECO 312: Economic Development of Latin America
   - GRY 482: Geography of Central America and the Caribbean
   - HIS 325: Colonial Latin America
   - HIS 326: Modern Latin America
   - ICC 201: Introduction to the Literature of U.S. Latinos
   - POL 264: Comparative Politics: Latin America
   - POL 455: International Politics in Latin America
   - ATH 324: Spanish and Spanish American Art
   - INT 300: Special Topics

D. Three credit hours from:
   - SPA 313: Survey of Spanish American Literature I or
   - SPA 315: Survey of Spanish Literature I or
   - SPA 318: Hispanic Civilization or
   - SPA 422: Contemporary Spanish American Literature

**TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 15**

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**Course codes:**
- A = every semester
- B = at least once per year
- C = at least once every two years
- F = fall
- M = summer
- O = occasionally
- S = spring
- W = winter
- ■ = LAS
Major in Mathematics [MAT]
The liberal arts program in mathematics provides broad background in both pure and applied mathematics. The B.S. option is more appropriate for students interested in scientific and technical applications of mathematics.

CAREER POTENTIAL
- Actuary
- Cryptologist
- Statistician

A. Required Courses: 27 credit hours
MAT 125, 126, 227, 328: Calculus I, II, III, IV
MAT 224: Discrete Mathematics
MAT 272: Linear Algebra
MAT 370: Algebraic Structures I
MAT 420: Intermediate Analysis
MCS 186: Introductory Programming

B. Additional MAT or MCS electives:
9 credit hours (B.A.), 15 credit hours (B.S.)
Both the B.A. and B.S. degree require nine hours of any MAT or MCS courses numbered 300 or above. The B.S. degree requires six additional hours of MAT or MCS courses excluding MAT 101, 102, 110, 111, 115, 201 or 499.

C. Physical Science: 0-7 credit hours (B.S. only)
Two courses must be chosen from the following:
CHE 221: General Chemistry I
CHE 222: General Chemistry II
GLY 261: Physical Geology
GLY 262: Historical Geology
PHY 150: Astronomy
PHY 201: Principles of Physics I
PHY 202: Principles of Physics II
These courses may also simultaneously satisfy the requirements for General Education Category 8, providing seven additional elective hours.

D. Foreign Language: 0-13 credit hours (B.A.), 0-7 credit hours (B.S.)

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Adolescence Education – Mathematics (Grades 7-12) [AEM]
This major leads to New York State certification to teach mathematics in grades 7-12.

CAREER POTENTIAL
- Curriculum coordinator
- Educational administrator
- Mathematics teacher, high school or junior high school

A. Required Courses: 36 credit hours
MAT 125, 126, 227, 328: Calculus I, II, III, IV
MAT 224: Discrete Mathematics
MAT 272: Linear Algebra
MAT 370: Algebraic Structures I
MAT 375: Geometry I
MAT 420: Intermediate Analysis
MAT 446: Introduction to Probability and Statistics
MCS 186: Introductory Programming
MAT elective numbered 300 or higher
B. Core in Professional Preparation: 40-41 credit hours
   AED 391: Introduction to Adolescence Education
   EDU 435: Content and Methods of Teaching Mathematics in Middle/Secondary Schools
   EDU 442: Methods of Teaching Mathematics in the Secondary School
   EDU 449: Literacy in the Middle and Secondary Schools
   EDU 471: Foundations of Modern Education
   AED 492: Field Experiences in Mathematics Teaching
   AED 493: Student Teaching – Adolescence Mathematics I
   AED 494: Student Teaching – Adolescence Mathematics II
   PSY 101: General Psychology I
   PSY 232: Adolescent Psychology
   or
   PSY 332: Educational Psychology
   PSY 350: Psychology of Language
   HLH 110: Personal and Community Health
   or
   HLH 199: Critical School Health Issues

C. Physical Science: 0-7 credit hours (B.S. only)
   Two courses must be chosen from the following:
   CHE 221-222: General Chemistry I and II
   GLY 261: Physical Geology
   GLY 262: Historical Geology
   PHY 150: Astronomy
   PHY 201: Principles of Physics I
   PHY 202: Principles of Physics II
   These courses may also simultaneously satisfy the requirements for General Education Category 8, providing 7 additional elective hours.

D. Foreign Language: 0-13 credit hours (B.A.), 0-7 credit hours (B.S.)

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Adolescence Education – Physics and Mathematics (Grades 7-12) [APM]

This major leads to New York State certification to teach both physics and mathematics in grades 7-12.

CAREER POTENTIAL
   • High school teacher
   • Technical specialist
   • Public school administration
   • Graduate study in higher education

ACCEPTANCE TO THE PROGRAM

Students will be accepted to the program after 45 credit hours have been completed. At that time students must have an overall GPA of 2.5 and a GPA of 2.5 in physics, related areas, and in the professional core courses.

A. Required Courses in Physics: 30 credit hours
   PHY 150: Astronomy
   PHY 201, 202, 203: Principles of Physics I, II, and III
   PHY 325: Programming
   PHY 357: Intermediate Physics Lab
   PHY 410: Modern Physics
   PHY 420: Classical Mechanics
   PHY 450: Electricity and Magnetism

B. Required Courses in Mathematics: 30 credit hours
   MAT 125, 126, and 227: Calculus I, II, and III
   MAT 430: Differential Equations
   MAT 224: Discrete Mathematics
   MAT 272: Linear Algebra
   MAT 370: Algebraic Structures I
   MAT 375: Geometry I
   MAT 446: Probability and Statistics
   MAT 480: History of Mathematics

C. Required Courses in Related Areas of Science: 8 credit hours
   CHE 221-222: General Chemistry I and II

D. Required Professional Courses: 38 credit hours
   PSY 101: General Psychology
   PSY 232: Adolescent Psychology
   AED 391: Introduction to Adolescence Education
   EDU 423: Laboratory Practicum
   EDU 442: Methods I: Teaching the Sciences in the Middle and Secondary Schools
   EDU 443: Methods II: Teaching the Sciences in the Middle and Secondary Schools
   EDU 449: Literacy in the Middle and Secondary Schools
   HLH 199: Critical School Health Issues
   SHH 300: Normal Language Development
   or
   PSY 350: Psychology of Language
   EDU 449: Literacy in the Middle and Secondary Schools

   *To be eligible for EDU 393: Student Teaching, a minimum GPA of 2.5 is required overall and in physics, related, and professional areas. A student must complete all program requirements before student teaching can begin with the exception of those courses allowed by the Physics Department, the Mathematics Department, and the secondary science coordinator.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION:
   B.A. – 133-146; B.S. – 133-140

Minor in Mathematics [MAT] with the concentration in Mathematics

A. Required courses:
   Twenty-four credit hours of MAT or MCS courses including MAT 125, 126, 224 (MAT 101 may not be used to fulfill this requirement).

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 24

Minor in Mathematics [MATC] with the concentration in Computer Science

A. Required courses:
   Twenty-one credit hours of MAT or MCS courses: MAT 125 or 121, MAT 126 or 122, MAT 224, MAT 272, MCS 186, MCS 287, and MCS 388.

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 21
**Computer Science Courses**

**MCS 186: Introductory Programming**
(O) Simple data types, arithmetic statements, input/output statements, simple control structures and one-dimensional arrays. (3 cr. hr.) ■

**MCS 287: Intermediate Programming**
(O) String processing, multi-dimensional arrays, records, sets, files, pointers, functions and procedures. Introduction to sorting and searching and to stacks and queues data structures. Prerequisite: MCS 186. (3 cr. hr.)

**MCS 388: Advanced Programming and Data Structures**
(O) Linear and non-linear data structures; stacks, queues and trees. Sorting, searching and recursion. Prerequisite: MCS 287. (3 cr. hr.)

**MCS 496: Readings in Computer Science**
(O) Semi-independent study directed by faculty members of the Mathematics Department. (1-3 cr. hr.)

**MCS 584: Topics in Computer Science**
(O) Topics from areas of common interest to instructor, students. May be repeated as subtitle changes. Prerequisite: Consent of department. (3 cr. hr.)

**Mathematics Courses**

**MAT 101: Concepts of Elementary School Mathematics I**
(A) Topics include sets and logic, numeration systems, number theory, rational numbers and decimals. Open only to elementary education majors (including EEDW). Not open to mathematics majors. (3 cr. hr.) ■

**MAT 102: Concepts of Elementary School Mathematics II**
(A) Topics include elementary probability, statistics, geometry and measurement. Open only to elementary education majors (including EEDW). Not open to mathematics majors. Prerequisite: MAT 101. (3 cr. hr.) ■

**MAT 105: Mathematics in Modern Society**
(B) The use of basic mathematical concepts from algebra and geometry to analyze problems in modern society. Topics may include voting systems, fair division, interpreting statistics, scheduling, routing, linear programming, population growth, patterns and symmetry. Prerequisite: Two units of Regents high school mathematics. (3 cr. hr.)

**MAT 110: The Nature of Mathematics**
(O) Emphasizes “mathematics appreciation” — what mathematicians do, how they do it. Topics: number theory; analysis — continuity, calculus; algebra — groups, rings, fields; geometry; topology; probability; computers. Content may vary, depending upon students’ and instructor’s interests. Not open to mathematics majors. Prerequisite: Three years of high school mathematics. (3 cr. hr.) ■

**MAT 111: Algebra for College Students**
(A) Course for students with inadequate preparation for MAT 115. Topics include: linear functions and linear systems, quadratic and other polynomial functions, rational functions. Additional topics to
be selected from algebra of functions, matrices and determinants. Prerequisite: Two units of Regents high school mathematics. Not open to students with credit for any higher-numbered mathematics course. (3 cr. hr.)

**MAT 115: Preparation for Calculus**
(A) Course is designed to prepare students for calculus. Topics include: exponential and logarithmic functions, trigonometry, conic sections, sequences and series. Prerequisite: MAT 111 or three units of Regents high school mathematics. Not open to students with credit for any calculus course. (3 cr. hr.)

**MAT 121: Calculus A**
(A) Introduction emphasizing techniques, applications. Not open to mathematics majors or students with credit in MAT 125. Prerequisite: MAT 115 or four years of high school mathematics. (3 cr. hr.)

**MAT 122: Calculus B**
(S) Not open to mathematics majors or students with credit in MAT 126. Prerequisite: MAT 121 or 125. (3 cr. hr.)

**MAT 125: Calculus I**
(A) Basic concepts. Theory, techniques of integration, differentiation. Not open to students with credit in MAT 121. Prerequisite: MAT 115 or four years of high school mathematics. (3 cr. hr.)

**MAT 126: Calculus II**
(A) Continuation of MAT 125. Not open to students with credit in MAT 122. Prerequisite: MAT 125 or 121. (3 cr. hr.)

**MAT 129, 229, 329, 429, 529: Special Topics in Mathematics**
Selected topics. May be taken more than once as subject changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

**MAT 201: Statistical Methods**
(A) Basic concepts of probability, descriptive and inferential statistics including central tendency, variability, correlation, regression, parametric tests. Mathematics majors may take course only as free elective. (Also listed as COM 230, PSY 201, ECO 221 or three hours of any course numbered mathematics course. (3 cr. hr.)

**MAT 224: Discrete Mathematics**
(A) An introduction to the methods of set theory, symbolic logic, combinatorics, and functions and mappings. Topics include matrix operations, techniques of proof, and applications in sequences, relations, and graph theory. (3 cr. hr.)

**MAT 227: Calculus III**
(A) Vector calculus, partial differentiation, multiple integration, differential equations. Prerequisite: MAT 126. (3 cr. hr.)

**MAT 248: Applied Finite Mathematics**
(O) Topics from finite mathematics including matrix algebra, systems of linear equations and inequalities, linear programming and other topics from combinatorics, probability and game theory. Not open to mathematics majors. Prerequisite: MAT 201 or PSY 201 or ECO 221 or COM 230 or three hours of calculus. (3 cr. hr.)

**MAT 272: Linear Algebra**
(A) Vector spaces emphasizing Euclidean n-spaces, linear systems, matrix algebra. Prerequisite: MAT 224. (3 cr. hr.)

**MAT 328: Calculus IV**
(A) Sequences, series, continuity and limit theorems. Prerequisite: MAT 227. (3 cr. hr.)

**MAT 354: Numerical Analysis I**
(O) Techniques, applications of numerical analysis. Prerequisite: MAT 227 or 122. (3 cr. hr.)

**MAT 370: Algebraic Structures I**
(A) Abstract algebra including groups, rings, fields. Prerequisite: MAT 272. (3 cr. hr.)

**MAT 375: Geometry I**
(A) Axiom systems, foundations of Euclidean geometry, projective geometry. Prerequisite: MAT 224. (3 cr. hr.)

**MAT 420: Intermediate Analysis**
(A) Basic concepts, including theory of functions, limits, integration, convergence. Prerequisites: MAT 328, 370. (3 cr. hr.)

**MAT 425: Methods of Applied Mathematics**
(S) Mathematical techniques useful in study of sciences: vector analysis, matrix algebra, functions of a complex variable, differential equations, Fourier transforms. Prerequisites: MAT 227, PHY 202. (Also listed as PHY 425.) (3 cr. hr.)

**MAT 430: Differential Equations**
(S) Linear differential equations of first and second orders; total, partial differential equations. Prerequisite: MAT 227. (3 cr. hr.)

**MAT 446: Probability and Statistics**
(A) Probability as mathematical system; discrete, continuous random variables and their distribution functions; topics in statistical inference, including estimation, hypothesis-testing. Prerequisite: MAT 227 or 122. (3 cr. hr.)

**MAT 450: Theory of Numbers**
(O) Elementary number theory; divisibility theory, congruences, residues, diophantine equations. Prerequisites: MAT 370, 122 or 126. (3 cr. hr.)

**MAT 475: Geometry II**
(O) Continuation of MAT 375; includes non-Euclidean systems. Prerequisite: MAT 375. (3 cr. hr.)

**MAT 480: History of Mathematics**
(B) Backgrounds in origins, development of mathematics in various western cultures. Prerequisites: MAT 272; 122 or 126. (3 cr. hr.)

**MAT 495: Readings in Mathematical Literature**
(O) Semi-independent study directed by member of mathematics staff. Registration by special consent only. (3 cr. hr.)

**MAT 501: Fundamental Concepts of Mathematics**
(F, M) Logic, sets, mathematical systems, relations, and techniques of proof. Prerequisite: Consent of department. (3 cr. hr.)

**MAT 502: Applied Concepts in Adolescence Mathematics**
(M, S) Applications and extensions of concepts basic to secondary school mathematics. Topics discussed include Greek mathematics; Euclidean, hyperbolic and spherical geometries; number theory and fractals. Regional applications of the aforementioned topics will be a major component of the course. Prerequisite: Consent of department. (3 cr. hr.)

**MAT 537: Complex Analysis**
(O) Introduction to integration, differentiation, series expansion of complex functions. Prerequisite: MAT 420. (3 cr. hr.)
MAT 558: Mathematical Statistics
(O) Selected topics in mathematical statistics. Prerequisite: MAT 446. (3 cr. hr.)

MAT 567: Topology I
(O) Basic concepts; point-set topology, metric spaces, topological spaces, connectedness, compactness. Prerequisite: MAT 420. (3 cr. hr.)

Related Education Courses

AED 391: Introduction to Adolescence Education
(A) Students will develop a coherent and comprehensive personal educational philosophy; analyze the role of education and teachers in society; demonstrate an understanding of teacher certification standards and requirements; evaluate teaching, lesson planning and implementation and cooperative skills; and develop a portfolio. The course includes 25 hours of field observation/teaching experience. (3 cr. hr.)

AED 399: Mathematics Practicum
(O) For students serving as tutors and providing other assistance in 100-level college mathematics courses or in mathematics classes in grades 7-12. Course may be repeated for a maximum of three credit hours. H, S, U grades are assigned. Prerequisites: EDU 391, MAT 224, MAT 227 and permission of department chair. (1-2 cr. hr.)

AED 492: Field Experiences in Mathematics Teaching
(A) Seventy-five hours of directed observation of junior or senior high mathematics teachers and other school personnel. H, S, U grades are assigned. Prerequisites: EDU 391, 435, 442, 449; HLH 110 or 199; PSY 232 or 332; MAT 224, 272, 328, 370, 375; MCS 186; and GPA of at least 2.5 both overall and in all MAT/MCS courses. (2 cr. hr.)

AED 493: Student Teaching – Adolescent Mathematics I
(A) Five weeks of full-time student teaching supervised by college faculty. H, S, U grades are assigned. Prerequisite: AED 492. (5 cr. hr.)

AED 494: Student Teaching – Adolescent Mathematics II
(A) Seven weeks of full-time student teaching supervised by college faculty. H, S, U grades are assigned. Prerequisites: AED 492 and 493. (7 cr. hr.)

AED 540: Technologies in the Adolescence Mathematics Classroom
(C) Graphing calculators as teaching tools. The Internet as a source for mathematical software packages to promote active learning. Investigation of software packages for graphing functions, geometry and calculus. Course is intended for students in the MAT and MSED programs for adolescence mathematics education, and familiarity with the adolescence mathematics curriculum is assumed. (3 cr. hr.)

EDU 435: Content and Methods of Teaching Mathematics in Middle/ Junior High School
(S) Prerequisite: INT 270. (3 cr. hr.)

EDU 442: Methods of Teaching Mathematics in the Secondary School
(A) Prerequisite: AED 391. (3 cr. hr.)

EDU 449: Literacy in the Middle and Secondary School
(F) Methods, materials and assessment for fostering literacy at the middle and secondary levels. (3 cr. hr.)

EDU 471: Foundations of Modern Education
(A) Social, historical, philosophical. (3 cr. hr.)
Military Science
CROSS-ENROLLMENT PROGRAM WITH CORNELL UNIVERSITY

Army ROTC
Army ROTC – Cornell University
Barton Hall, Ithaca, N.Y. 14853
(607) 255-4000
E-mail: armyrotc@cornell.edu

PROGRAM OVERVIEW
Army ROTC is available to SUNY Cortland students under a cross-enrollment arrangement with the Army ROTC detachment at Cornell University. Army ROTC enrollees must provide their own transportation to Cornell. Information about the program may be obtained through the Admissions Office at Cortland or by contacting the Cornell University ROTC Office at the address above.

By enrolling in the Army Reserve Officer Training program through Cornell University, men and women at SUNY Cortland are afforded opportunities to complement their study in one of the College’s academic majors with training which can lead to commissioning as second lieutenants upon their graduation. The curriculum stresses techniques of organizing, motivating and leading others, and is sufficiently flexible to be incorporated easily into the overall curriculum planned by the student. It recognizes that such disciplines as the natural sciences, the social sciences and the humanities are consistent with qualifications for officers in the active forces and reserves.

ELIGIBILITY
The Army ROTC four-year program of instruction consists of a two-year basic course, for freshmen and sophomores, and a two-year advanced course for juniors and seniors. Students may enroll in the program at any time up to and including the second semester of the sophomore year.

Military Science labs meet all day one Saturday each month and every second Thursday.

Any United States citizen who is accepted as a student at SUNY Cortland may enroll in an ROTC program as long as specific medical, academic and related requirements of the program are met.

After the first two years of the program, comprising the Basic Phase, cadets are eligible for consideration for the Advanced Phase.

When accepted for the Advanced Phase students sign a written contract with the United States government under which they agree to complete the Advanced Phase and accept a commission if tendered. At this time these students enlist in the United States Army Reserve. Until this point participants in the ROTC program incur no obligation for military service. Active or Reserve obligations follow commissioning. A number of scholarships and stipends are available to students enrolled in ROTC.

Air Force ROTC
Air Force ROTC – Cornell University
Barton Hall, Ithaca, N.Y. 14853
(607) 255-4004
E-mail: admissions@www.afrotc.cornell.edu

PROGRAM OVERVIEW
Air Force ROTC is available to SUNY Cortland students under a cross-enrollment arrangement with the Air Force ROTC detachment at Cornell University. Information about the program may be obtained through the Admissions Office at SUNY Cortland or by contacting the Cornell University ROTC Office at the address above.

The objective of the Air Force Officer Education Program is to prepare men and women for positions as officers in the United States Air Force. The program is designed to teach students about the mission and organization of the Air Force, the historical development of airpower, leadership, and management. Students study national security policy and the role of the military in a democratic society. This program includes specific courses in aerospace studies and practical leadership laboratories.

ELIGIBILITY
The Air Force Officer Education Program is open to any qualified undergraduate or graduate student enrolled in any major field of study. An applicant must be a United States citizen to become a commissioned officer. Noncitizens may enroll and will receive certificates acknowledging completion of the course but cannot receive a commission.

All applicants receive physical examinations at no cost and must meet certain physical requirements to be accepted.

All students who successfully complete the AFROTC program are awarded a baccalaureate degree, tendered a commission, and enter the Air Force as second lieutenants. Second lieutenants commissioned in nonflying categories are required to serve on active duty for four years. Pilots are required to serve on active duty for ten years after completing flying training. Navigators serve six years after completing training.
### Example of the Air Force ROTC program

Students in the Four-Year Program are required to take all courses listed below. Students in the Two-Year Program are required to take all of the courses listed for the third and fourth years. There are no prerequisites for any aerospace studies.

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</tr>
<tr>
<td>Air S 332</td>
<td>Air S 402</td>
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</tbody>
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### Air Force ROTC

#### COURSE DESCRIPTIONS

**Air S 161: The Foundations of the United States Air Force I**
- (F) This is a survey course designed to introduce students to the United States Air Force and Air Force Reserve Officer Training Corps. Featured topics include: mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities, group leadership problems, and an introduction to communication skills. Leadership Laboratory is mandatory for AFROTC cadets and complements this course by providing cadets with followership experiences. (1 credit)

**Air S 162: The Foundations of the United States Air Force II**
- (S) Continuation of Air S 161. (1 credit)

**Air S 211: The Evolution of USAF Air and Space Power I**
- (F) This course is designed to examine general aspects of air and space power through a historical perspective. Utilizing this perspective, the course covers a time period from the first balloons and dirigibles to the role of air power in Bosnia-Herzegovinia. Historical examples are provided to extrapolate the development of Air Force capabilities (competencies) and missions (functions) to demonstrate the evolution of what has become today’s USAF air and space power. Furthermore, the course examines several fundamental truths associated with war in the third dimension: e.g., Principles of War and Tenets of Air and Space Power. As a whole, this course provides the students with a knowledge-level understanding of the general element and employment of air and space power from an institutional, doctrinal, and historical perspective. In addition, students will continue to discuss the importance of the Air Force Core Values by examining operational examples and historical Air Force leaders and will continue to develop their communication skills. (1 credit)

**Air S 212: The Evolution of USAF Air and Space Power II**
- (S) Continuation of Air S 211. (1 credit)

**Air S 331: Air Force Leadership Studies I**
- (F) This course is a study of leadership, quality management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics, and communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied. A mandatory Leadership Laboratory complements this course by providing advanced leadership experiences in officer-type activities, giving students the opportunity to apply leadership and management principles of this course. (3 credits)

**Air S 332: Air Force Leadership Studies II**
- (S) Continuation of Air S 331. (3 credits)

**Air S 401: National Security Affairs/Preparation for Active Duty I**
- (F) This course examines the national security process, regional studies, advanced leadership ethics, and Air Force doctrine. Special topic of interest focuses on the military as a profession, officership, military justice, civilian control of the military, preparation for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis is given to refining communication skills. A mandatory Leadership Laboratory complements this course by providing advanced leadership experiences, giving students the opportunity to apply the leadership and management principles of this course. (3 credits)

**Air S 402: National Security Affairs/Preparation for Active Duty II**
- (S) Continuation of Air S 401. (3 credits)

### Leadership Laboratory Courses

All Air Force cadets spend two hours a week throughout the academic year in a leadership laboratory, for which no academic credit is given. Occasionally laboratories are held at times other than the normally scheduled period. All cadets are expected to participate in an evening formal dinner and to meet minimum physical fitness and weight standards each semester. Leadership lab is open to students qualified to compete for an Air Force commission.

**Air S 141-142: Initial Military Experiences**
- Introduction to the responsibilities, life, and work of an Air Force officer. Basic knowledge of drill and ceremonies, military courtesies, and the wearing of the uniform. Field trip to local military installation.

**Air S 241-242: Intermediate Military Experiences**
- Develops skills in giving commands for drill and ceremonies. Introduction to the Air Force base environment in which the Air Force officer functions. Includes a look at career areas available based on academic majors. Students participate in leadership situations through military drills and ceremonies. Field trip to a local military installation.

**Air S 341-342: Junior Officer Leadership**
- Cadets assume leadership responsibilities similar to those of a junior officer. Emphasis is on the importance of applying effective human relations skills in dealing with superiors, peers, and subordinates. Cadets also gain insight into the general structure and progression patterns common to selected Air Force officer career fields.

**Air S 441: Advanced Leadership Experiences**
- Cadets assume command leadership responsibilities to operate a military organization. Cadets apply effective leadership and managerial techniques with individuals and groups and participate in self-analysis of leadership and managerial abilities.

**Air S 442: Precommissioning Laboratory**
- Factors that facilitate transition from civilian to military life are reviewed. The need for military security, base services and activities, personal finances, travel regulations, and social obligations are introduced.

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Course codes: A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter, ■ = LAS
Native American Studies

INTERDISCIPLINARY PROGRAM

FACULTY
Ellis McDowell-Loudan (Coordinator)

MINOR OFFERED
Native American Studies – 21 credit hours

CAREER POTENTIAL
• Teacher
• Counselor
• Consultant
• Journalist

DESCRIPTION
SUNY Cortland’s Native American studies minor is interdisciplinary. It is designed to complement numerous academic majors. Students choosing the minor will study the history and culture of Native Americans from the perspective of several disciplines.

Minor in Native American Studies [NAMS]

A. Required Courses: 15 credit hours
   ANT 102: Introduction to Cultural Anthropology or
   ANT 300: Human Evolution and Survival
   ANT 301: Native American Archeology
   ANT 302: Native American Ethnology
   HIS 314: Native American History
   ENG 256: American Indian Literature

B. Three credit hours from:
   HLH 201: Health Problems of the Underserved
   SOC 352: Races and Minorities
   PSY 210: Racial and Gender Stereotypes
   ANT 230: Prejudice and Discrimination

C. Electives: 3 credit hours
   (selected in consultation with minor advisor)
   ANT 201: World Cultures
   ANT 305: Archeology of Eastern United States
   ANT 314: Peoples of Latin America
   ANT 315: Development Anthropology
   ANT 400: Field Work in Archeology
   ANT 406: Contact and Culture Change
   HIS 300: Colonial America
   HIS 309: New York State
   HIS 325: Colonial Latin America
   MUS 101: World Music
   ATH 233: Art History III

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 21
Performing Arts

Faculty
Karen Bals Zimmerman (Chair and Coordinator of Music), Thomas Hischak (Coordinator of Theatre), Ralph Dudgeon, William Esty, Cynthia Halpin, Kevin Halpin, Thomas LaChiusa, Howard Lindh, Edward Moore, David Neal, Shirley Wilson, Stephen Wilson

Program Offered
B.A. in Musical Theatre – 124 total credit hours

Major Offered
Musical Theatre

Minors Offered
American Musical Theatre
Music
Theatre

Description
The Performing Arts Department includes programs in music and theatre, each offering a minor in addition to an interdisciplinary minor in American musical theatre and a concentration in music for elementary education majors. The department offers a wide range of intellectual and performance opportunities in music and theatre which are open to beginning through advanced students from all disciplines in the College. Theoretical study is balanced with practical work to allow students to explore the creative and intellectual aspects of these arts. Applied music (private study), music ensembles, dramatic productions and musical theatre productions highlight the skills developed in the classroom, studio and stage.

Special Features
- Newly renovated facilities including a 477-seat theatre, recital hall, lab theatre, dozens of practice rooms, choral and instrumental rehearsal halls, and dance studio
- Instruments provided by the department to participants in ensembles
- Music and Listening Library
- Production of a main-stage musical each semester
- Individual attention from a world-class faculty in a liberal arts setting
- Scholarship support in theatre and music
- Alpha Psi Omega, national dramatic society
- Touring musical and dramatic groups

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to the following majors.
2. Liberal Arts Requirements: B.A. – 90 credit hours

Major in Musical Theatre [MUTH]
The Bachelor of Arts in Musical Theatre provides comprehensive training in musical theatre while maintaining a firm grounding in the liberal arts. Our goal is to foster flexibility and versatility in our students to enable them to participate in musical theatre on a number of levels. The program’s objectives are far reaching. Students will leave the program with the knowledge and confidence to participate in educational, professional or semiprofessional productions with competence and skill. Our graduates are active in community and regional theatre organizations, assist and provide leadership in primary and secondary school productions and often continue their education in musical theatre in a M.F.A. or M.A. in music, theatre or musical theatre.

Career Potential
- Actor/singer
- Director
- Choreographer
- Theatre technician

Students must audition for admittance to the program. In addition to the College-wide requirements in Writing, Quantitative Skills, Foreign Language and General Education, the B.A. in Musical Theatre requirements will be met by successful completion of the following courses and portfolio or project assessment:

A. Classroom Instruction: 21 credit hours
   THT 100: Introduction to Theatre Arts
   THT 162: Theatre History II (Renaissance to present)
   THT 240: Technical Theatre I
   MUS 111: Introduction to Music Theory or
   MUS 201 Music Theory I (by advisement)
   MUS 222: Music History II (1750-present) (WI)
   MUS/THT 261: Introduction to American Musical Theatre
   MUS/THT 461: Seminar in American Musical Theatre (WI)

B. Performance Instruction: 10 credit hours
   THT 120: Acting I
   THT 212: Stage Movement
   THT 223: Dance for the Theatre (.5 credit hours – to be taken four times)
   MUS 184 or 185: Voice Class I or II (or Applied Music)

C. Production and Performance: 5 credit hours
   MUS 240 or 249: Choral Union or College Singers or
   MUS 256 or 259: Orchestra or Wind Ensemble
   THT 399: Theatre Participation
   MUS/THT 230: Musical Theatre Performance (1 credit hour – to be taken three times)

D. Portfolio, Senior Presentation, Exit Interview

Total Credit Hours Required for Graduation: 124
Minor in American Musical Theatre [AMTH]
The American theatre minor creates the opportunity for students to approach the art form from an integrated perspective. The program is designed to provide a quality experience in musical theatre in a liberal arts context. The Performing Arts Department produces a main stage musical each semester in addition to cabaret showcases and recitals which feature musical theatre repertoire.

**CAREER POTENTIAL**
- Actor/singer
- Dancer
- Director
- Arts manager

A. Required Courses: 22 credit hours
   - THT 100: Introduction to Theatre Arts
   - MUS 111: Introduction to Music Theory
   - THT 120: Acting I
   - THT 121: Stage Movement
   - MUS 184: Voice Class I or MUS 185: Voice Class II
   - MUS/THT 261: Introduction to American Musical Theatre
   - MUS 240: Choral Union or MUS 249: College Singers
   - THT 399: Participation in Theatre
   - MUS/THT 461: Seminar in American Musical Theatre

**TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 22**

Minor in Music [MUS]
*Note: This is a self-supporting minor and is not directly associated with the new musical theatre major.*

**CAREER POTENTIAL**
- Performer
- Graduate study
- Music industry
- Private music teacher

A. Required Courses: 10 credit hours
   - MUS 100: Music in Western Society
   - MUS 111: Introduction to Music Theory
   - Four hours of Applied Music (class and/or individual lessons)

Qualified students, by advisement, may start courses in Music Theory I (201) and Music History I or II (MUS 221, 222)

B. Elective Courses: 12 credit hours
   - Six hours of courses in music theory or conducting and music history
   - Six hours of additional courses through advisement

Enrollment in a music ensemble and applied music is recommended each semester. Class lessons are available in piano and/or voice. Individual lessons in piano, voice and instruments may be arranged.

**TOTAL CREDIT HOURS REQUIRED FOR MINOR: 22**

Minor in Theatre [THT]
SUNY Cortland’s theatre program offers a solid foundation for students interested in theatre as a career or as broadening college experience. In exploring the theoretical and practical aspects of theatre, students can obtain experience in the mounting of major stage productions as well as in smaller, more innovative theatre activities. Acting, directing, technical theatre, arts management, musical theatre, theatre history and criticism are areas that students can examine.

*Note: This is a self-supporting minor and is not directly associated with the new musical theatre major.*

**CAREER POTENTIAL**
- Actor
- Director
- Theatre technician
- Arts manager

A. Required Courses: 12 credit hours
   - THT 100: Introduction to Theatre Arts
   - THT 120: Acting I
   - THT 240: Technical Theatre I
   - THT 220: Acting II or THT 341: Technical Theatre II

B. Elective courses: 6 credit hours from:
   - THT 161: Theatre History I
   - THT 162: Theatre History II
   - THT 330: Literature in Performance
   - THT 470: Theatre Management

**TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 18**
Performing Arts

COURSE DESCRIPTIONS

Music Courses

NOTE: Up to eight credit hours of ensemble credit may be counted toward graduation. Enrollment in a music ensemble is recommended for music minors and music concentrators.

MUS 100: Music in Western Society
(A) Significant historical periods of music covering styles, forms, composers, representative compositions, Gregorian chant through contemporary. (3 cr. hr.) ■

MUS 101: World Music
(F) Study of music cultures of the world’s indigenous peoples. Shared musical ideas, social organization, common repertoires and material culture. (3 cr. hr.) ■

MUS 110: Survey of African American Music
(F) A general survey of African American music tracing the origin from colonial music of the 17th century to rap music of the 20th Century. (Also listed as AAS 110.) (3 cr. hr.) ■

MUS 111: Introduction to Music Theory
(A) Basic theory: experiences in melodic, rhythmic, harmonic expressions. (3 cr. hr.) ■

MUS 129, 229, 329, 429, 529: Special Topics in Music
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.) ■

MUS 160, 260, 360, 460: Applied Piano
(A) (2 cr. hr.) ■

MUS 162, 262, 362, 462: Applied Percussion
(A) (2 cr. hr.) ■

MUS 163, 263, 363, 463: Applied Strings
(A) (2 cr. hr.) ■

MUS 164, 264, 364, 464: Applied Voice
(A) (2 cr. hr.) ■

MUS 165, 265, 365, 465: Applied Woodwinds
(A) (2 cr. hr.) ■

MUS 166, 266, 366, 466: Applied Brass
(A) (2 cr. hr.) ■

MUS 180: Piano Class I
(A) Fundamental piano technique, playing of solo pieces and duets. Only students without prior piano experience admitted. Consent of instructor required. (2 cr. hr.) ■

MUS 181: Piano Class II
(A) Consent of instructor required. (2 cr. hr.) ■
MUS 184: Voice Class I  
(A) Fundamental voice training; a standard repertoire of songs.  
Class, individual performance. Consent of instructor required.  
(2 cr. hr.) ■

MUS 185: Voice Class II  
(A) Consent of instructor required. (2 cr. hr.) ■

MUS 201: Music Theory I  
(F) For music majors or students with prior musical experience.  
Written theory: scales through basic harmonizations;  
applied theory: ear-training through keyboard harmony.  
Prerequisite: Consent of department. (3 cr. hr.) ■

MUS 202: Music Theory II  
(S) Continuation of MUS 201: employment of fundamental chords,  
progressions in harmonizing given melodies. Keyboard experience,  
ear-training and analysis. Prerequisite: MUS 201.  
(3 cr. hr.) ■

MUS 221: Music History I  
(B) The earliest examples of notated music in western culture  
through music’s stylistic transformations in the Middle Ages  
and Renaissance Period (AD-1600). Prerequisite: Consent of  
department. (3 cr. hr.) ■

MUS 222: Music History II  
(C) A survey of the Baroque and Classical periods of music  
(1600-1825). Prerequisite: Consent of department. (3 cr. hr.) ■

MUS 223: Music History III  
(F-C) Music of the 19th and 20th centuries. (3 cr. hr.) ■

MUS 230: Musical Theatre Performance  
(S) A study and practice of performing a character in a musical play,  
using techniques learned in voice class and acting class.  
Prerequisite: One semester of acting class and one semester of  
vocal training, to be determined by the instructor. (Also listed  
as THT 230.) (1 cr. hr.)

MUS 240: Choral Union  
(A) College-Community mixed choral group which performs  
major choral works. Repertoire from Baroque to 20th Century.  
(5 cr. hr.)

MUS 249: College Singers  
(A) Advanced college choir open to qualified students.  
Repertoire from Renaissance to 20th century. Vocal training —  
concert tours. Consent of instructor required. (1 cr. hr.)

MUS 250: Chamber Arts Ensemble  
(O) Select vocal-instrumental ensemble which performs  
chamber literature from all periods. Solo performance  
opportunities. Consent of instructor required. (1 cr. hr.)

MUS 254: Ensemble  
(A) Small vocal or instrumental groups which perform wide  
range of ensemble literature. Consent of instructor required.  
(5 cr. hr.)

MUS 256: College-Community Orchestra  
(A) Symphonic organization; performs wide ranges of  
orchestral literature. Consent of instructor required. (.5 cr. hr.)

MUS 259: Wind Ensemble  
(A) Symphonic ensemble which performs wide range of wind  
ensemble, concert band literature. Concert tours. Consent of  
instructor required. (1 cr. hr.)

MUS 301: Music Theory III  
(F) Continuation of MUS 202; seventh chords, secondary  
dominants and borrowed chords in harmonization and analysis;  
ear-training. Prerequisite: MUS 202. (3 cr. hr.) ■

MUS 332: Jazz  
(O) The history of jazz in the United States, styles and structure  
as well as the place of this music in our culture. Prerequisite: MUS  
100 or MUS 221 or MUS 222. (Also listed as AAS 332.)  
(3 cr. hr.) ■

MUS 333: Piano Literature  
(O) Detailed study of style, structure, performance of important  
piano literature. Prerequisite: MUS 100 or MUS 221 or MUS  
222. (3 cr. hr.) ■

MUS 335: Music and the Film  
(O) Style, historical significance, contribution of selected film  
composers through a study of their musical techniques and  
viewing of representative films. Relationship of music to  
dramatic and psychological elements of film. Prerequisite: MUS  
100 or MUS 221 or MUS 222. (Also listed as CIN 335.)  
(3 cr. hr.) ■

MUS 337: The Music Industry  
(C) Overview of music profession and its alternative career  
opportunities in publishing, recording, media, etc. Prerequisite: MUS  
100 or MUS 221 or MUS 222. (3 cr. hr.)

MUS 380: Conducting  
(O) Basic, stylistic technique in conducting; score reading,  
interpretation. Opportunities for conducting vocal, instrumental  
groups provided. Prerequisite: MUS 202. May be taken in  
junction with Theory III. (3 cr. hr.) ■

MUS 434: Contemporary Music  
(C) Development of awareness and understanding of the styles  
common to contemporary expression. Prerequisite: MUS 100 or  
201. (3 cr. hr.) ■

MUS 470: Music and the Child  
(C) Role of music in development of child through use of  
singing, rhythm, listening, instrumental, creative, improvisa-  
tions, and music reading experiences. Prerequisite: MUS 111 or  
201. (3 cr. hr.) ■

MUS 490, 491, 590, 591: Independent Study  
(A) Individual study culminating in advanced performance or  
substantial project. (Consent of department required.) (2-8 cr. hr.)

MUS 521: Music in Western Civilization  
(O) Historical perspective from Ancient Greece to modern  
times; relationship to other fine arts and interpreted within  
framework of cultural, intellectual history. Prerequisite: MUS  
100 or MUS 221 or MUS 222. (3 cr. hr.) ■

MUS 522: Music in the United States  
(O) Pilgrim times to present, emphasizing development of  
distinctive American tradition in music. Prerequisite: MUS 100  
or MUS 221 or MUS 222. (3 cr. hr.) ■

MUS 523: Traditions and Trends in African American Music  
(O) A general survey of African American Music, tracing the  
origin from colonial music of the 17th Century to rap music of  
the present. (3 cr. hr.)
Theatre Courses

THT 100: Introduction To Theatre Arts
(F) Survey of the arts, the crafts, and the organization of theatre. Theory, application, and practicum. Two lectures, one two-hour lab. (3 cr. hr.) ■

THT 120: Acting I
(A) Introduction to acting techniques through exploration of stage movement, voice and diction, basic makeup, improvisation and theatre games. Practicum. (3 cr. hr.) ■

THT 121: Stage Movement
(F-C) Theatre blocking, mime, dance, and stage combat. (3 cr. hr.)

THT 129, 229, 329, 429, 529: Special Topics in Theatre
Selected topics. May be taken more than once a subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

THT 161: Theatre History I
(F) History of Western theatre from ancient times through Renaissance. (3 cr. hr.) ■

THT 162: Theatre History II
(S) History of Western Theatre from the Renaissance to present. (3 cr. hr.) ■

THT 212: Stage Movement
(C) Theatre blocking, mime, dance and stage combat. (3 cr. hr.)

THT 220: Acting II
(S-C) Continued study of acting techniques through stage movement and dance, voice and diction, character makeup, and character study. Practicum. Prerequisite: THT 120. (3 cr. hr.) ■

THT 223: Dance for the Theatre
(B) Studio class which explores the different forms of dance used in musical theatre: jazz, tap, ballroom, modern, etc. May be repeated. (.5 cr. hr.)

THT 230: Musical Theatre Performance
(S) A study and practice of performing a character in a musical play, using techniques learned in voice class and acting class. (Also listed as MUS 230.) Prerequisites: One semester of acting class and one semester of vocal training, to be determined by the instructor. (1 cr. hr.)

THT 240: Technical Theatre I
(F-C) Basic scenic construction, stage structure and rigging, basic lighting, production. Practicum. (3 cr. hr.)

THT 261: Introduction to American Musical Theatre
(B) Survey of the musical in America from its origins to the present. Also listed as MUS 261. (3 cr. hr.) ■

THT 321: Acting Shakespeare
(O) Techniques for performing Shakespearean prose and verse with an emphasis on combining the Elizabethan and modern acting traditions. Prerequisites: THT 120, 220. (3 cr. hr.)

THT 330: Literature in Performance
(A) Theory and practice of reading prose and poetry aloud. Analysis of literature with special attention to its oral aspects. (3 cr. hr.) ■

THT 341: Technical Theatre II
(S-C) Continuation of scenic construction, stage structure and rigging, lighting, production; introduction to sound and special effects. Practicum. Prerequisite: THT 240. (3 cr. hr.)

THT 399: Participation in Theatre
(A) Participation in cast or crew of a major production. For elective credit only. S, U grades assigned. (.5 cr. hr.)

THT 432: Directing I
(S-C) Techniques of play direction: script analysis, casting, rehearsing, staging. Prerequisite: THT 100. (3 cr. hr.) ■

THT 440: Independent Study, Theatre
(A) Prerequisite: Consent of department. (1-4 cr. hr.)

THT 461: Seminar in American Musical Theatre
(S-C) Focused study of specific composers and lyricists. (3 cr. hr.) ■

THT 470: Theatre Management
(F-C) Theoretical and practical aspects of theatre management including organizations, productions, audience development, budgeting, and business practices. Practicum. Prerequisite: Consent of department. (3 cr. hr.) ■

THT 542: Puppetry for Educators
A survey of the history and techniques of puppet performance which emphasizes the cross cultural relevance of puppets and the status of puppetry as a performing art, as well as its relationship to various narrative traditions. Individual (graduate level) research projects will examine puppetry within a pedagogical frame that targets specific content areas and suggests strategies for using puppets in a variety of ways with particular grade levels. Practicum. (3 cr. hr.)

Course codes:
A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter, ■ = LAS
FACULTY
Kathryn Russell (Chair), Lawrence Ashley, Bernard Jackson, Mechthild Nagel

PROGRAMS OFFERED
B.A. in Social Philosophy – 124 total credit hours

MAJORS OFFERED
Social Philosophy

MINORS OFFERED
Social Philosophy

DESCRIPTION
Philosophy is essentially an activity, rather than a fixed set of teachings. Philosophy cultivates the capacities and appetite for self-expression and reflection, for debate and exchange of ideas, and for reflecting on and puzzling over problems of living, being human and being part of a community. Philosophy prepares one for the tasks of citizenship, for participation in political and community affairs and for responsible and intelligent engagement in public life. This department’s unique major (and minor) in social philosophy is meant to instill these skills. As such, it is a valuable tool and indeed the very paradigm of a liberal arts education major.

SPECIAL FEATURES
• Unique program in social philosophy — the only one in the SUNY system
• Chance for internship in senior year
• Small department allows close interaction with faculty
• Philosophy majors frequently top all other majors in the Law School Admissions Tests (LSAT)
• Cortland students who have graduated with a philosophy degree have gone on to widely varied careers — law school, human services, journalism, graduate study in philosophy, etc.
• Philosophy majors do better than the average liberal arts students at obtaining jobs after graduation — a surprise to many people who think of philosophy as impractical.

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to the following majors.
2. Liberal Arts Requirements: 90 credit hours

Major in Social Philosophy [SPHI]

CAREER POTENTIAL
• Governmental policy branches
• Education
• Computer Programming
• Law

A. Required Courses: 15 credit hours
  At least one course from the PHI 100 level
  PHI 201: Ancient Social Philosophy
  PHI 202: Introduction to Modern Philosophy
  PHI 203: Social Ethics
  PHI 499: Independent Studies (internship or paper expected)

B. Additional Hours in Philosophy: 18 credit hours
  At least nine hours must be in courses numbered 300-level and above.

C. Courses in related areas
  Nine hours selected in consultation with an advisor

D. Other courses
  May include a minor of 15-21 credit hours

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Minor in Social Philosophy [SPHI]
The following courses are required for the minor in social philosophy:

A. Required courses: 18 credit hours
  At least one course from the PHI 100 level
  PHI 201: Ancient Social Philosophy or
  PHI 202: Introduction to Modern Philosophy
  At least 12 more hours in philosophy at the 200 level and above

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 18
Example of the undergraduate degree in Social Philosophy over four years

<table>
<thead>
<tr>
<th>First Year</th>
<th>Second Year</th>
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<tbody>
<tr>
<td><strong>Fall</strong></td>
<td><strong>Fall</strong></td>
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<tr>
<td>PHI 100</td>
<td>PHI 229</td>
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<td>PHI 201</td>
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<td>GE 8</td>
<td>GE 3</td>
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<tr>
<td>Foreign language 101 or elective</td>
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<tr>
<td>or elective</td>
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<td>CPN 100</td>
<td>CPN 101</td>
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<tr>
<td><strong>Spring</strong></td>
<td><strong>Spring</strong></td>
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<tr>
<td>PHI 110 or 111</td>
<td>PHI 202</td>
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<tr>
<td>GE 2</td>
<td>GE 4</td>
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<tr>
<td>GE 8</td>
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<tr>
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<td>MAT or elective</td>
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<tr>
<td>or elective</td>
<td>Foreign language 202 or elective</td>
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<table>
<thead>
<tr>
<th>Third Year</th>
<th>Fourth Year</th>
</tr>
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<tbody>
<tr>
<td><strong>Fall</strong></td>
<td><strong>Fall</strong></td>
</tr>
<tr>
<td>PHI 203</td>
<td>PHI 382</td>
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<tr>
<td>PHI 235</td>
<td>PHI 320</td>
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<tr>
<td>GE 6</td>
<td>Elective</td>
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<td>Elective*</td>
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<td>Elective</td>
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<tr>
<td><strong>Spring</strong></td>
<td><strong>Spring</strong></td>
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<tr>
<td>PHI 272</td>
<td>PHI 499 or internship</td>
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<tr>
<td>PHI 380</td>
<td>PHI 271</td>
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<tr>
<td>Elective</td>
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<td>Elective</td>
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<tr>
<td>Elective*</td>
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<table>
<thead>
<tr>
<th>PHI 110: Critical Thinking and Argumentation</th>
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</thead>
<tbody>
<tr>
<td>(O) Exercises and principles designed to enhance critical thinking and evaluation of arguments. In addition to a focus on philosophical inquiry, classes also concentrate on daily situations such as ordinary conversations, reading newspapers and advertising. Not open to students with credit for COM 241. (3 cr. hr.)</td>
</tr>
</tbody>
</table>

* The generous number of electives here allows for the student to easily adopt a dual major with philosophy.

**Philosophy**

**Course Descriptions**

**PHI 100: Introduction to Philosophy**
(B) Introduction to subject matter and methods of philosophy. Readings include classical and contemporary writers on a range of philosophical topics including social and political philosophy, philosophy of religion, questions of metaphysics and epistemology, ethics, and basic characteristics of rational inquiry. (3 cr. hr.)

**PHI 111: Symbolic Logic**
(S) Principles of Symbolic Logic used in determining validity or invalidity of arguments. (3 cr. hr.)

**PHI 129, 229, 329, 429, 529: Special Topics in Philosophy**
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

**PHI 201: Ancient Social Philosophy**
(S-C) Western philosophy from its origins in Greece, emphasizing Plato and Aristotle. Prerequisite: Three hours of philosophy or consent of instructor. (3 cr. hr.)

**PHI 202: Introduction to Modern Philosophy**
(S-C) Modern western philosophy from Descartes to Kant. Prerequisite: Three hours of philosophy or consent of instructor. (3 cr. hr.)

**PHI 203: Social Ethics**
(C) Basic theories of ethics and their application to the problems of social justice. Theorists studied will include: Kant, J.S. Mill, Rawls, Nozick. Issues to be discussed may include affirmative action, political liberty and civil disobedience, and equality. (3 cr. hr.)

**PHI 210: Knowledge and Reality**
(C) Introduction to major traditions, figures, and issues in history of metaphysics and epistemology. Topics include materialism, idealism, rationalism, empiricism, naturalism, problems of truth, knowledge, general characteristics of reality. May include writers from Plato to the present. Prerequisite: Three hours of philosophy or consent of instructor. (3 cr. hr.)

**PHI 233: Management Ethics**
(O) Discussion of ethical considerations in selected areas of management. Case studies and readings. Prerequisite: VAL 330, 335 or 340 or consent of instructor. (3 cr. hr.)

**PHI 235: Aesthetics and Film**
(O) Theoretical issues surrounding film, including: the nature of film and judgments about film; comparison of film theories and theories of film criticism; genres. Prerequisite: Three hours of philosophy or consent of instructor. (Also listed as CIN 225.) (3 cr. hr.)

**PHI 240: Social and Political Philosophy**
(C) Focus on the relationship between the individual and the state, and opposing conceptions of democracy, freedom and a just society. Prerequisite: Three hours of philosophy or consent of instructor. (3 cr. hr.)

**PHI 250: American Philosophy**
(O) Survey of main movements, figures in history of philosophy in North America, including Puritanism, the American Enlightenment, Transcendentalism, Pragmatism and Naturalism. Writers include Jonathan Edwards, Franklin, Jefferson, Madison, Thoreau, Emerson, Peirce, James and Dewey. Prerequisite: Three hours of philosophy or consent of instructor. (3 cr. hr.)

**PHI 270: Race and Racism**
(C) An examination of political and philosophical issues stemming from relations of power based on “race” in the U.S. Subjects will include how the concept of “race” has been used to classify humans, designating them as inferior or superior; the notions of racial identity or race consciousness; and political philosophies addressing the problem of racial oppression. (Also listed as AAS 270.) (3 cr. hr.)

Course codes: A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter, LAS
PHI 271: Philosophy of Human Nature
(B) Discussion of various existential approaches to the problem and meaning of human existence. Focus on existen-
tialist themes such as self-consciousness, freedom, absurdity,
responsibility, being and nothingness. Prerequisite: Three
hours of philosophy or consent of instructor. (3 cr. hr.) ■

PHI 272: Utopias
(C) An investigation of the concept of ideal societies. The
course will investigate the literary expressions of utopian
sentiment, historical attempts at founding utopian communi-
ties and the philosophical implications of utopian thought.
Prerequisite: Three hours of philosophy or consent of
instructor. (3 cr. hr.) ■

PHI 300: Philosophical Issues
(O) Detailed study of one philosophical problem or compara-
tive study of two or more philosophers. May be repeated as
subtitle changes. Prerequisite: 200-level course in philosophy
or consent of instructor. (3 cr. hr.) ■

PHI 320: Environmental Ethics
(C) A consideration of ethical issues as they arise in human
interaction with the environment. Topics will include
environmental racism, “speciesism,” the Gaia hypothesis and
the impact of population growth on ecology. Prerequisite:
Three hours of philosophy or three hours of environmental
studies or consent of instructor. (3 cr. hr.) ■

PHI 321: Medical Ethics
(C) Consideration of ethical issues as they arise in contempo-
rary medical practice and related health-care professions.
Readings from philosophy, law, and medicine. Prerequisite:
Three hours of philosophy or consent of instructor. (3 cr. hr.) ■

PHI 340: Philosophy of Law
(O) Nature of law with special attention to relation of law to
morality. Prerequisite: Three hours of philosophy or consent
of instructor. (3 cr. hr.) ■

PHI 375: Science, Truth and Bias
(F-C) Examines accounts of scientific methods and the
influence of social values or human interests on scientific
reasoning. Contemporary challenges to the idea of objectivity
will be looked at to understand knowledge claims in the
natural and social sciences. Prerequisite: Three hours of
philosophy or consent of instructor. (3 cr. hr.) ■

PHI 380: Feminist Social Thought
(C) Discussion of various philosophical approaches to
problems of women’s oppression, like sex role stereotyping,
economic discrimination and treatment in family. Compari-
sion of political theories and strategy. Prerequisite: Three hours
of philosophy or consent of the instructor. (3 cr. hr.) ■

PHI 382: Marxist Philosophy
(O) An introduction to Marxism. Focus will be on Marx’s
own writings and their implications for today. Topics include
political and economic theory, alienations, history, sexism,
racism and imperialism. Prerequisite: Three hours of philos-
ophy or consent of instructor. (3 cr. hr.) ■

PHI 390: Contemporary Philosophical Approaches
(B) In-depth study of 20th century trends in philosophy e.g.
logical positivism, phenomenology, ordinary language
philosophy, analytic philosophy, pragmatism, naturalism,
postmodernism. May be repeated as subject area changes.
Prerequisite: 200-level course in philosophy or consent of
instructor. (3 cr. hr.) ■
FACULTY
Eric Malmberg (Chair), Gary Babjack, Joy Buffan, Pete Cahill, Shirley Cahill, Jerry Casciani, Diane Craft, Tim Davis, Tom Fuchs, Kath Howarth, Amy Klein, Mike Kniffin, Colleen Lewis, Raymondo Pappalardi, Colleen Quinn, Tom Quinn, Joan Sitterly, Tom Steele, Jeff Walkuski, Bill Williams

MAJORS OFFERED
B.S.Ed. in Physical Education – 128 total credit hours

CONCENTRATIONS OFFERED
Adaptive Physical Education
Elementary Physical Education
Coaching
Aquatics

DESCRIPTION
The primary purpose of the B.S.Ed. program is the preparation of teachers for elementary and secondary schools. In this program, professional preparation is enhanced by the development of concentrations that allow some specialization for those students who already have an interest in a specific aspect of physical education. The programs include theory, activity courses and student teaching experiences. Elective hours may also be used to enroll in a study abroad program or an additional student teaching experience.

SPECIAL FEATURES
• Study abroad, including study in Germany and People’s Republic of China
• The ARETE Program: as a member of this program, students take all their required physical education theory courses together. Includes a semester of study at Deutsche Sporthochschule in Cologne, Germany.

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog.
2. Liberal Arts Requirements: 60 credit hours.

Major in Physical Education [PEC]
Upon satisfactory completion of the four-year program in physical education, and upon submitting evidence of having achieved a level of performance satisfactory to the Commissioner of Education on the New York State Teacher Certificate Examination, graduates receive the degree of bachelor of science in education and an initial New York State certification in the special field of physical education.

A. General Education and Liberal Arts: 60 credit hours
   CPN 100: Academic Writing I
   CPN 101: Academic Writing II
   BIO 110: Principles of Biology I *
   BIO 111: Principles of Biology II *
   PSY 101: General Psychology
   BIO 301: Anatomy and Physiology I
   BIO 302: Anatomy and Physiology II
   COM 210: Fundamentals of Public Speaking
   PSY 332: Educational Psychology
   General Education Courses (21 cr. hr.)
   Liberal Arts Electives (11 cr. hr.)

B. Professional Education: 39 credit hours
   EDU 255: Basics of Effective Instruction in Physical Education
   EDU 256: Seminar for Field Experience
   EDU 355: The Physical Education Curriculum: Planning and Practice
   EDU 455: Student Teaching Seminar in Physical Education
   EDU 456: Student Teaching in Physical Education**
   EDU 470: Foundations of Modern Education +
   HLH 110: Personal and Community Health
   HLH 120: Responding to Emergencies
   PED 201: Motor Development
   PED 308: Outdoor Education for Teachers
   PED 356: Adapted Physical Education and Sport

C. Physical Education Theory: 18 credit hours
   EXS 197: History and Philosophy of Physical Education +
   EXS 287: Social Psychological Aspects of Physical Activity +
   EXS 297: Motor Behavior
   EXS 387: Biomechanics
   EXS 397: Exercise Physiology I
   PED 434: Measurement and Evaluation in Physical Education

D. Physical Education Activities: 13 credit hours
   PED 181: Adventure Activities
   PED 182: Health-Related Physical Fitness
   PED 187: Track and Field
   PED 189: Aquatics
   PED 283: Racket Sports
   PED 284: Self-Defense and Martial Arts
   PED 285: Gymnastics Activities
   PED 288: Rhythms and Dance
   PED 366: Basketball
   PED 368: Football
   PED 371: Soccer
   PED 372: Softball
   PED 380: Skill Acquisition Concepts of Team Sports
   PED 381: Tactical Concepts of Team Sports
   Activity Electives (1 cr. hr.)

E. Free Electives: 3 credit hours
   No more than eight hours with PED prefix

   Majors in physical education may take a concentration of 12 to 15 hours (no more than eight hours of courses with PED prefixes) in adapted physical education, aquatics, coaching or elementary physical education. (No more than 45 hours with PED prefixes may be counted toward graduation while a minimum of 36 hours of PED prefixes are required for graduation.)

   Note: Specific information regarding requirements (state examinations, identification and reporting of child abuse and maltreatment, alcohol and drug abuse education, school anti-violence education and foreign language requirements) for New York State teaching certification can be found on page 39 of this catalog.
Example of the undergraduate degree in Physical Education (B.S.Ed.) over four years

<table>
<thead>
<tr>
<th>First Year</th>
<th>Second Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall</strong></td>
<td></td>
</tr>
<tr>
<td>EXS 197</td>
<td>PED 201</td>
</tr>
<tr>
<td>BIO 110</td>
<td>BIO 301</td>
</tr>
<tr>
<td>COR 101</td>
<td>EXS 287</td>
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<tr>
<td>CPN 100</td>
<td>PED activities</td>
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<tr>
<td>PED activities</td>
<td>GE course</td>
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<td>GE course</td>
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<tr>
<td><strong>Spring</strong></td>
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<tr>
<td>CPN 101</td>
<td>PED 232</td>
</tr>
<tr>
<td>BIO 111</td>
<td>PED 245</td>
</tr>
<tr>
<td>PSY 101</td>
<td>PED 300</td>
</tr>
<tr>
<td>PED activities</td>
<td>PED 301: Water Safety Instructors (See Note #3)</td>
</tr>
<tr>
<td>GE course</td>
<td>PED 332: Scuba Level II</td>
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<thead>
<tr>
<th>Third Year</th>
<th>Fourth Year</th>
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</thead>
<tbody>
<tr>
<td><strong>Fall</strong></td>
<td></td>
</tr>
<tr>
<td>HLH 110</td>
<td>PED 150: Introduction to Archery (See Note #1)</td>
</tr>
<tr>
<td>EDU 355</td>
<td>PED 152: Introduction to Bowling (See Note #2)</td>
</tr>
<tr>
<td>EXS 387</td>
<td>PED 154: Introduction to Golf</td>
</tr>
<tr>
<td>PED 356</td>
<td>PED 158: Introduction to Nordic Skiing</td>
</tr>
<tr>
<td>PED activities</td>
<td>PED 159: Introduction to Squash</td>
</tr>
<tr>
<td>COM 210</td>
<td>PED 162: Introduction to Wrestling</td>
</tr>
<tr>
<td><strong>Spring</strong></td>
<td>PED 163: Introduction to Racquetball</td>
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<tr>
<td>PED 434</td>
<td>PED 164: Introduction to Skating</td>
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<tr>
<td>PED 308</td>
<td>PED 167: Introduction to Field Hockey</td>
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<tr>
<td>Free elective</td>
<td>PED 170: Introduction to Lacrosse</td>
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<tr>
<td>PED activities</td>
<td>PED 173: Introduction to Volleyball</td>
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<tr>
<td>GE course</td>
<td>PED 174: Introduction to Ice Hockey</td>
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<tr>
<td>PSY 332</td>
<td>* PED 181: Adventure Activities</td>
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<tr>
<td>HLH 120</td>
<td>* PED 182: Health-Related Physical Fitness</td>
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<tbody>
<tr>
<td>PED 455</td>
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<tr>
<td>PED 456</td>
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</tbody>
</table>

Note #1 - Students supply own arrows.
Note #2 - Bowling costs approximately $24 for the quarter.
Note #3 - This course is two credits.

**Activity Program for Majors**
Courses in the following list usually are quarter courses offered seasonally and carry one-half credit except those marked with an asterisk (*). Asterisked courses carry one credit.

<table>
<thead>
<tr>
<th><strong>Fall</strong></th>
<th></th>
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<tbody>
<tr>
<td>PED 106: Basic Swimming</td>
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<tr>
<td>PED 108: Diving</td>
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<tr>
<td>PED 110: Archery (See Note #1)</td>
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<tr>
<td>PED 111: Badminton</td>
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<tr>
<td>PED 112: Bowling (See Note #2)</td>
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<td>PED 114: Golf</td>
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<td>PED 115: Squash</td>
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<td>PED 118: Nordic Skiing</td>
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<td>PED 120: Tennis</td>
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<td>PED 125: Basketball</td>
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<td>PED 130: Weight Training</td>
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<td>PED 131: Volleyball</td>
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<td>PED 134: Self Defense</td>
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<td>PED 137: Skating</td>
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<td>PED 138: Ice Hockey</td>
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<td>PED 139: Aerobic Dance</td>
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<tr>
<td>PED 232: Scuba Level I</td>
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<tr>
<td>PED 245: Activities for Children</td>
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<td>PED 300: Lifeguard Training</td>
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<tr>
<td>PED 301: Water Safety Instructors (See Note #3)</td>
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<tr>
<td>PED 332: Scuba Level II</td>
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</tbody>
</table>

Note #1 - Students supply own arrows.
Note #2 - Bowling costs approximately $24 for the quarter.
Note #3 - This course is two credits.
* PED 284: Self Defense and Martial Arts  
* PED 285: Gymnastics Activities  
* PED 288: Rhythms and Dance  
* PED 293: Diving  
* PED 295: Lifeguard Training  
* PED 296: Scuba Level I  
++ PED 302: Sports and Games for Individuals with Disabilities  
++ PED 303: Fitness for Individuals with Disabilities  
++ PED 304: Perceptual-Motor Activities for Individuals with Disabilities  
++ PED 305: Dance for Individuals with Disabilities  
++ PED 306: Adapted Aquatics  
++ PED 307: Outdoor Education for Individuals with Disabilities  
PED 366: Basketball  
PED 368: Football  
PED 371: Soccer  
PED 372: Softball  
PED 377: Advanced Gymnastics  
* PED 380: Skill Acquisition Concepts of Team Sports  
* PED 381: Tactical Concepts of Team Sports  
PED 392: Advanced Swimming  
PED 395: Water Safety Instructors (See Note #3)  
* PED 396: Scuba Level II  
++ PED 356 is prerequisite

Note #1-Students supply own arrows.  
Note #2-Bowling costs approximately $24 for the quarter.  
Note #3-This course is two credits.

**Physical Education Courses**

**THEORY COURSES**

PED 129, 229, 329, 429, 529: Special Topics in Physical Education
Selected topics. may be taken more than once as subtitute changes. Prerequisites: Designated by department as approp- 

ate for content and academic level of credit. (1-4 cr. hr.)

PED 201: Motor Development
(A) Learn and apply basic motor development principles as 
observed in young children and adolescents. Introduce the 
terminology, principles and concepts common to motor 
development and introduce the concept of developmentally 
appropriate practice as applied to young children in physical 
education. (3 cr. hr.)

PED 230: Foundations of Coaching: Principles and Theories
(B) The purpose of this course is to provide the prospective 
thletic coach with the basic underlying philosophies, theories 
and techniques for planning, organizing and managing athletic programs. In addition, knowledge of teaching skills and 
techniques which influence coaching effectiveness and improve 
performance will be emphasized. (3 cr. hr.)

PED 240: Honors Seminar — Readings
(A) Comprehensive overview of the discipline of physical 
education and the research process. In-depth analysis of current 
research selected on basis of student interests. Prerequisite: 
Consent of department. (1 cr. hr.)

PED 308: Outdoor Adventure Education for Teachers
(M) PED 308 is theory based pedagogy course designed to 
provide an in-depth outdoor adventure education experience 
for undergraduate physical education majors seeking teaching 
certification. A required on-campus meeting is followed by a 
resdent outdoor experience at Cortland's outdoor education 
center at Raquette Lake, N.Y.

PED 315: Officiating
(O) Rules, mechanics, procedures; practice in officiating required. 
Prerequisite: Level one activity course or proficiency in specific activity. 
(2 cr. hr.)

PED 320: Intramurals
(O) Background, trends in intramurals; planning, organization, 
administration of intramural activities in schools, colleges. May include 
practice in conducting College intramural program. (2 cr. hr.)

PED 321: Movement Education
(A) Problem-centered approach to effective movement. Practice in 
developing, structuring problem-solving situations for children. 
Prerequisite: EDU 300. (2 cr. hr.)

PED 349: Physical Education Practicum
(A) Opportunity to assist with managing and/or teaching physical 
education theory or activity classes. Students must follow suggested 
guidelines available in chair's office. S, U grades assigned. Prerequisite: 
Consent of department and instructor. (Also listed as EXS 349) 
(1-3 cr. hr.)

PED 356: Adapted Physical Education and Sport
(A) Seeks to provide students with the theoretical and practical knowl-
edge to plan and implement appropriate physical education programs 
for students with disabilities in integrated settings. Emphasizes the 
adaptation of physical education to needs of children with physical, 
intellectual, emotional, or sensory disabilities. Strategies for program 
planning and implementation include writing IEPs, activity/equipment 
adaptation and techniques of teaching. Prerequisite: EDU 300 or EDU 
255, EDU 256 and enrollment in EDU 355 (completion or concurrent). 
(3 cr. hr.)

PED 343: Measurement and Evaluation in Physical Education
(A) Nature, purpose of measurement and assessment in physical 
education. Available tests evaluated. Practice in administration of 
pertinent tests. Lectures, laboratory. (3 cr. hr.)

PED 444: Lab Assistant
Student may assist with the lab portion of one of several physical 
education theory classes. Responsibilities may include attending and 
asisting with a lab section, holding office hours, assisting with collect-


ing research data and/or completing other tasks as assigned by the 

instructor. Students will enhance their knowledge and understanding of 

concepts covered in the associated theory course, learn additional lab 

techniques as well as gain valuable leadership experience. Prerequisite: 

Consent of instructor. (Also listed as EXS 444) (1-3 cr. hr.)

PED 446: Inclusion of Individuals with Disabilities in Physical Education
(B) Overview of adapted physical education as an evolving specialization 

and service delivery system. Embedded in this course is a presentation of 
definitions, scope of services, assessment, behavior management, 
effective teaching techniques, program planning that may affect the 
discipline. Prerequisite: PED 356. (3 cr. hr.)

PED 447: Adapted Physical Activity and Individual Differences
(B) Specific types of disabilities that are commonly encountered 
in public school settings are described in detail. Each condition is 
defined, characteristics are given, means of testing are suggested, and 
specific programming and teaching techniques are detailed. Prerequisite: PED 
356. (3 cr. hr.)

PED 460: Physical Education Curriculum
(O) Principles, procedures governing development, conduct, evaluation 
of physical education program in elementary, secondary schools. 
Interpretation, articulation of state curricula; adaptations to meet local 
and pupil needs. Prerequisite: Student teaching. (3 cr. hr.)
**PED 465: Administration of Physical Education**  
(A) Principles, functional organization, operation of programs. Staff duties, use of plant, instructional equipment, supplies. Practical problems: athletics, co-curricular activities, play days, sports days, invitation games. (3 cr. hr.)

**PED 467: Administration of Aquatic Programs**  
(C) Problems, techniques related to aquatic programs. Prerequisite: For majors, one hour of aquatic courses; for non-majors, one-half hour of aquatics. (2 cr. hr.)

**PED 480: Activity Program Clinics**  
(O) Primarily for teachers requiring knowledge, practical application of recent, advanced teaching techniques, analysis of individual and group activity. Prerequisite: Level II course for specified activity or equivalent. (See Course Schedule for when clinics are offered.) (1-2 cr. hr.)

**PED 499: Special Study in Physical Education**  
(A) Independent study/research on selected topics. Topics may include in-depth study of a particular subject area. Student will work with faculty member (project director) whose own special interests and expertise coincide most closely with chosen topic. Students must follow suggested guidelines available in department chair’s office. Prerequisite: Consent of department chair and instructor. (Also listed as EXS 499) (1-3 cr. hr.)

**PED 500: Project Adventure Workshop**  
Project Adventure Workshop designed for individuals interested in developing and implementing innovative program in physical education or recreation. Participants experience such Project Adventure activities as: games, initiatives, low and high ropes course activities. (2 cr. hr.)

**PED 530: Introduction to Adapted Physical Education**  
(F) Designed to aid educators in developing a knowledge base in many issues related to individuals with disabilities, with an emphasis on early intervention and a wellness approach to adapted physical education. Additional topics to be addressed include: laws and collaborating with an interdisciplinary team and families of individuals with disabilities. An overview of the more common disabilities is presented, as are the resource skills to acquire information on rare disabilities. Prerequisites: PED 336 or permission of instructor. (3 cr. hr.)

**PED 552: Philosophy, Principles and Organization of Athletics in Education**  
(S) Basic philosophy and principles of athletics and various regulations pertaining to athletics. Required of all non-physical education certified teachers who coach athletic teams at any level in New York State schools. Not open to students completing PED 221 or 421. Does not meet master’s degree requirements. (2 cr. hr.)

**PED 554: Biological, Sociological and Psychological Aspects of Coaching**  
(F) Introductory overview of the biological, psychological and sociological principles as they relate to the coaching of children K-12 in our society. (2 cr. hr.)

**PED 557: Elementary School Physical Education Materials**  
(S) Meets practical needs; methods, materials. Open to elementary classroom teachers, physical education majors who have not had undergraduate course of this type. (2 cr. hr.)

**PED 558: Activity Program Clinics**  
(O) Primarily for teachers requiring knowledge, practical application of recent, advanced teaching techniques, analysis of individual and group activity. (See Course Schedule for when clinics are offered.) (2 cr. hr.)

**PED 590: Areas and Facilities in Physical Education and Athletics**  
(O) Planning, developing, maintaining, evaluating facilities in relation to program needs in physical education and athletics. (3 cr. hr.)

**Related Education Courses**

**EDU 255: Basics of Effective Instruction in Physical Education**  
(A) This is an introductory course in physical education teaching methodology. The main purpose is for the student to study, practice, and acquire basic teaching skills applicable to K-12 physical education instruction. The course prepares the student for required NYS field experiences and also introduces the learner to NYS standards-based instruction, curriculum and assessment. Prerequisite: PED 201 (3 cr. hr.)

**EDU 256: Seminar for Field Experience**  
(A) This course will prepare students for field experiences which will provide the opportunity to develop and apply competencies as a beginning physical education teacher in elementary and secondary settings. Prerequisites: PED 201, Parallel registration in EDU 255. (1 cr. hr.)

**EDU 300: Physical Education for Children**  
(A) Philosophy, principles, activities, teaching strategies, evaluation procedures for children ages 4-11. (4 cr. hr.)

**EDU 301: Physical Education for Adolescents**  
Philosophy, principles, activities, teaching strategies, evaluation procedures. Prerequisite: EDU 300. (2 cr. hr.)

**EDU 355: The Physical Education Curriculum: Planning and Practice**  
(A) To aid students in gaining understanding, knowledge and experience in the philosophy, principles, teaching strategies and
evaluative procedures with K-12 infusion. Prerequisites: EDU 255, EDU 256. (3 cr. hr.)

EDU 385: Student Teaching in Physical Education
(A) Full semester of supervised teaching in grades K-12. Prerequisites: EDU 300, EDU 301, PED 356, (HLH 120 recommended); cumulative GPA of 2.50; acceptance into a B.S.E. program. (15 cr. hr.)

EDU 395: Student Teaching in Physical Education II
(A) Three to eight weeks elective full-time off-campus observation, participation, practice in special area of physical education selected by student and approved by department. Prerequisites: EDU 385. (3-8 cr. hr.)

EDU 455: Student Teaching Seminar in Physical Education
(A) Current debates relevant to national, district and specific school issues will form the basis of each meeting. Information about student teaching, professional portfolio preparation and career planning will be provided. Prerequisites: EDU 255, EDU 256, EDU 355, PED 356, cumulative GPA of 2.5, portfolio acceptance; concurrent enrollment in EDU 456. (1 cr. hr.)

EDU 456: Student Teaching in Physical Education
(A) Full semester of supervised teaching in grades K-12. Prerequisites: EDU 255, EDU 256, EDU 355, PED 356, cumulative GPA of 2.5, portfolio acceptance; concurrent enrollment in EDU 455. (14 cr. hr.)

EDU 470: Foundations and Organization of Modern Education
(A) Principles, practices in education, physical education viewed from historical and philosophical point of view. Administration, organization of schools at federal, state, local levels; teacher rights and responsibilities. Prerequisite: EDU 300 (3 cr. hr.)

Physics

FACULTY
Richard M. Wheeler (Chair), Ram P. Chaturvedi, Yolanda J. Kime, Joseph S. Onello

PROGRAMS OFFERED
B.A. in Physics – 124 total credit hours
B.S. in Physics – 124 total credit hours
B.A. in Adolescence Education – Physics (Grades 7-12) – 124-135 total credit hours
B.S. in Adolescence Education – Physics (Grades 7-12) – 124-129 total credit hours
B.A. in Adolescence Education – Physics and Mathematics (Grades 7-12) – 133-146 total credit hours
B.S. in Adolescence Education – Physics and Mathematics (Grades 7-12) – 133-140 total credit hours

MAJORS OFFERED
Physics
Physics leading to the 3+2 Engineering Program
Adolescence Education – Physics (Grades 7-12)
Adolescence Education – Physics and Mathematics (Grades 7-12)

CONCENTRATIONS OFFERED
Environmental Science
Geophysics

MINOR OFFERED
Physics

DESCRIPTION
Physics programs at SUNY Cortland provide a versatile background in the principles of physics, applied mathematics, computer skills, and electronic equipment. This background is useful in many areas of technology, engineering, business, industry, government, and the teaching of physics at all levels. The laws of physics are central to all branches of science and students with physics training may readily enter such related fields as astronomy, biophysics, chemical physics, engineering, geophysics, medicine, meteorology, molecular biology and radiology.

SPECIAL FEATURES
- Physics and Engineering Club • Undergraduate teaching experiences
- Physics Honor Society – Sigma Pi Sigma • Internships

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to the following majors.
2. Liberal Arts Requirements: B.A. – 90 credit hours; B.S. – 75 credit hours

Major in Physics [PHY]
The concentration in physics is the traditional physics major found at institutions worldwide. Study includes a wide range of courses in physics and mathematics plus chemistry. This degree is necessary for those wishing to go on to graduate school and is also useful for those wishing to do technical work in a variety of disciplines.

CAREER POTENTIAL
- Graduate study in physics • Scientific advisor
- Industrial or governmental • Technical support services research

A. Required Courses in Physics: 39 credit hours
PHY 201, 202, 203: Principles of Physics I, II, and III
PHY 325: Programming
PHY 357: Intermediate Physics Laboratory
PHY 410: Modern Physics
PHY 420: Classical Mechanics
PHY 440: Electronics
PHY 450: Electricity and Magnetism
Three Physics electives taken at the 400 level or above

B. Required Related Courses: 26 credit hours
MAT 125, 126, and 227: Calculus I, II, and III
MAT 425: Methods of Applied Mathematics
MAT 430: Differential Equations
MAT 272: Linear Algebra or
MAT 446: Probability and Statistics
CHE 221-222: General Chemistry I and II

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124
Major in Physics with a concentration in Environmental Science [PHY/ENVS]

This concentration provides depth and a diversity of study in the sciences for students with a special interest in the environment. Cortland’s resources for teaching and research in this area are extensive. Special facilities at Hoxie Gorge, Raquette Lake and the Brauer Geological Field Station play a role in the program.

CAREER POTENTIAL

- Environmental research
- Graduate study in environmental science
- Environmental science policy analyst
- Environmental protection specialist

A. Required Courses in Physics: 30 credit hours

- PHY 201, 202, 203: Principles of Physics I, II, and III
- PHY 325: Programming
- PHY 357: Intermediate Physics Laboratory
- PHY 410: Modern Physics
- PHY 420: Classical Mechanics
- PHY 440: Electronics
- PHY 450: Electricity and Magnetism

B. Required Related Courses: 49-50 credit hours

- MAT 125, 126, and 227: Calculus I, II, and III
- MAT 430: Differential Equations
- CHE 221-222: General Chemistry I and II
- BIO 110-111: Principles of Biology I and II
- BIO 201-202: Biological Science I and II
- BIO 412: General Ecology
- ENS 486: Seminar in Environmental Science
- ENS 487: Environmental Science Internship
- EST 100: Introduction to Environmental Studies
- GLY 261: Physical Geology
- GLY 367: Geomorphology
- GLY 371: Meteorology

C. Required Elective Courses: 6 credit hours (may also fulfill General Education requirements). Two courses from the same department are not permitted.

- ECO 105: Political Economy and Social Thought
- ECO 110: Principles of Macroeconomics
- GRY 120: Cultural Geography
- GRY 221: Social Geography
- POL 100: Introduction to American Government and Politics
- SOC 150: Introduction to Sociology
- Approved EST electives

Total credit hours required for graduation: 124

Major in Physics leading to the 3+2 Engineering Program [PEN]

This concentration is designed for those students wishing to go on in an engineering discipline. The student spends three years at Cortland taking all requirements for the degree in physics, then transfers to an engineering school for two years to complete the requirements for a degree in engineering. Students have transferred to such schools as SUNY College of Ceramics at Alfred,* Binghamton University, SUNY Buffalo, Clarkson University and SUNY Stony Brook.**

CAREER POTENTIAL

- Graduate work in geophysics
- Technical specialist
- Construction industry

A. Required Courses in Physics: 36 credit hours

- PHY 201, 202, 203: Principles of Physics I, II, and III
- PHY 325: Programming
- PHY 410: Modern Physics
- PHY 420: Classical Mechanics
- PHY 422: Applied Mechanics
- PHY 440: Electronics
- PHY 450: Electricity and Magnetism

Two Physics electives taken at the 400 level or above

B. Required Related Courses: 23 credit hours

- MAT 125, 126, and 227: Calculus I, II, and III
- MAT 425: Methods of Applied Mathematics
- MAT 430: Differential Equations
- CHE 221-222: General Chemistry I and II

C. Transfer courses approved by Cortland: Typically 30 credit hours

Total credit hours required for graduation: 124

* PHY 440 and one physics elective are replaced by CHE 431-432 in the program with SUNY College of Ceramics at Alfred.

** The program with SUNY Stony Brook stipulates that at least three courses be taken in a single department or area, constituting a sequence of courses developing a central theme, with the condition that at least two of these be at the 200 level or above.

Major in Physics with a concentration in Geophysics [PHY/GEOP]

The study of geophysics includes a knowledge of the physical laws that govern the earth and a range of geology topics such as the earth’s interior, crustal movements, soil composition, mineral and fossil fuel resources. Crucial to these topics are the mathematical tools needed to describe them.

CAREER POTENTIAL

- Graduate work in geophysics
- Technical specialist
- Energy exploration
- Government

A. Required Courses in Physics and Geology: 43 credit hours

- PHY 201, 202, 203: Principles of Physics I, II, and III
- PHY 325: Programming
- PHY 410: Modern Physics
- PHY 420: Classical Mechanics
- PHY 450: Electricity and Magnetism
- GLY 261: Physical Geology
- GLY 262: Historical Geology
- GLY 301: Descriptive and Optical Mineralogy
- GLY 302: Petrology
- GLY 469: Structural Geology
- GLY 476: Geologic Field Methods

B. Required Related Courses: 23 credit hours

- MAT 125, 126, and 227: Calculus I, II, and III
- MAT 425: Methods of Applied Mathematics
- MAT 430: Differential Equations
- CHE 221-222: General Chemistry I and II

C. Required Elective Courses: 9 credit hours, no more than 6 hours

- PHY 422: Applied Mechanics
- PHY 440: Electronics
- GLY 363: Invertebrate Paleontology
- GLY 367: Geomorphology
- GLY 396: Aqueous Geochemistry
- GLY 471: Stratigraphy
Major in Adolescence Education – Physics (Grades 7-12) [APH]

This major leads to New York State certification to teach physics in grades 7-12.

**CAREER POTENTIAL**
- High school teacher
- Graduate study in higher education
- Public school administration
- Technical specialist

**ACCEPTANCE TO THE PROGRAM**

Students will be accepted to the program after 45 credit hours have been completed. At that time students must have an overall GPA of 2.5 and a GPA of 2.5 in physics, in related areas, and in the professional core courses.

**A. Required Courses in Physics:** 30 credit hours

- PHY 150: Astronomy
- PHY 201, 202, 203: Principles of Physics I, II, and III
- PHY 325: Programming
- PHY 357: Intermediate Physics Laboratory
- PHY 410: Modern Physics
- PHY 420: Classical Mechanics
- PHY 450: Electricity and Magnetism

**B. Required Courses in Related Areas of Science and Mathematics:** 27 credit hours

- MAT 125, 126, and 227: Calculus I, II, and III
- MAT 430: Differential Equations
- CHE 221-222: General Chemistry I and II
- BIO 110-111: Principles of Biology I and II or GLY 261-262: Physical Geology and Historical Geology

**C. Required Professional Courses:** 38 credit hours

- PSY 101: General Psychology I
- PSY 232: Adolescent Psychology
- AED 391: Introduction to Secondary Education
- EDU 423: Laboratory Practicum
- AED 442: Methods I: Teaching the Sciences in the Middle and Secondary Schools
- EDU 443: Methods II: Teaching the Sciences in the Middle and Secondary Schools
- EDU 393: Student Teaching: Adolescence Education – Science
- HLH 199: Critical School Health Issues
- SHH 300 or PSY 350: Normal Language Development
- EDU 449: Literacy in the Middle and Secondary Schools

**TOTAL CREDIT HOURS REQUIRED FOR GRADUATION:**

B.A. – 124-135; B.S. – 124-129

* To be eligible for EDU 393: Student Teaching, a minimum GPA of 2.5 is required overall and in physics, related, and professional areas. A student must complete all program requirements before student teaching can begin with the exception of those courses allowed by the Physics Department and the secondary science coordinator.

**TOTAL CREDIT HOURS REQUIRED FOR GRADUATION:**

B.A. – 132-135; B.S. – 124-129

**Major in Adolescence Education – Physics and Mathematics (Grades 7-12) [APM]**

This major leads to New York State certification to teach both physics and mathematics in grades 7-12.

**CAREER POTENTIAL**
- High school teacher
- Graduate study in higher education
- Public school administration
- Technical specialist

**ACCEPTANCE TO THE PROGRAM**

Students will be accepted to the program after 45 credit hours have been completed. At that time students must have an overall GPA of 2.5 and a GPA of 2.5 in physics, in related areas, and in the professional core courses.

**A. Required Courses in Physics:** 30 credit hours

- PHY 150: Astronomy
- PHY 201, 202, 203: Principles of Physics I, II, and III
- PHY 325: Programming
- PHY 357: Intermediate Physics Laboratory
- PHY 410: Modern Physics
- PHY 420: Classical Mechanics
- PHY 450: Electricity and Magnetism

**B. Required Courses in Mathematics:** 30 credit hours

- MAT 125, 126, and 227: Calculus I, II, and III
- MAT 224: Discrete Mathematics
- MAT 272: Linear Algebra
- MAT 370: Algebraic Structures I
- MAT 375: Geometry I
- MAT 430: Differential Equations
- MAT 446: Introduction to Probability and Statistics
- MAT 480: History of Mathematics

**C. Required Courses in Related Areas of Science:** 8 credit hours

- CHE 221-222: General Chemistry I and II

**D. Required Professional Courses:** 38 credit hours

- PSY 101: General Psychology
- PSY 232: Adolescent Psychology
- AED 391: Introduction to Secondary Education
- EDU 423: Laboratory Practicum
- AED 442: Methods I: Teaching the Sciences in the Middle and Secondary Schools
- EDU 443: Methods II: Teaching the Sciences in the Middle and Secondary Schools
- EDU 393: Student Teaching: Adolescence Education – Science
- HLH 199: Critical School Health Issues
- SHH 300: Normal Language Development
- PSY 350: Psychology of Language
- EDU 449: Literacy in the Middle and Secondary Schools

* To be eligible for EDU 393: Student Teaching, a minimum GPA of 2.5 is required overall and in physics, related, and professional areas. A student must complete all program requirements before student teaching can begin with the exception of those courses allowed by the Physics Department, the Mathematics Department, and the secondary science coordinator.

**TOTAL CREDIT HOURS REQUIRED FOR GRADUATION:**

B.A. – 133-136; B.S. – 133-140
### Minor in Physics [PHY]

A. Required courses:
- PHY 201, 202, 203: Principles of Physics I, II, and III
- PHY 410: Modern Physics
- PHY 420: Classical Mechanics
- PHY 450: Electricity and Magnetism

**TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 21**

### Example of the undergraduate degree in Physics in four years

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<tr>
<th>First Year</th>
<th>Second Year</th>
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<tbody>
<tr>
<td><strong>Fall</strong></td>
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<tr>
<td>CHE 221</td>
<td>PHY 201</td>
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<td>MAT 125</td>
<td>MAT 227</td>
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<td>CPN 100</td>
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<td><strong>Spring</strong></td>
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<tr>
<td>CHE 222</td>
<td>PHY 202</td>
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<td>MAT 126</td>
<td>MAT 430</td>
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<td>CPN 101</td>
<td>GE course</td>
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<tr>
<td>GE course</td>
<td>Free electives</td>
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<table>
<thead>
<tr>
<th>Third Year</th>
<th>Fourth Year</th>
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<tbody>
<tr>
<td><strong>Fall</strong></td>
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<td>Free electives</td>
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<td>Free electives</td>
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</tbody>
</table>

### Physics

**COURSE DESCRIPTIONS**

#### PHY 100: Conceptual Foundations of Physics

(O) A non-laboratory examination of the physical and philosophical assumptions which undergird physics, their historical evolution, limitations, and relevance to current issues. (3 cr. hr.)

#### PHY 105: Elementary Mechanics and Heat

(F) An algebra-based introduction to mechanics and heat. The methods of science and applications to diverse fields are stressed. Three lectures and one two-hour laboratory. (4 cr. hr.)

#### PHY 106: Elementary Electricity, Light and Sound

(S) An algebra-based introduction to electricity, light and sound. The methods of science and applications to diverse fields are stressed. Prerequisite: PHY 105. Three lectures and one two-hour laboratory. (4 cr. hr.)

#### PHY 129, 229, 329, 429, 529: Special Topics In Physics

A selected topics course which may be taken more than once as the subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

#### PHY 150: Astronomy

(B) A survey of modern astronomy. Topics include the moon and planets, the sun and other stars, stellar structure and evolution, neutron stars, pulsars, black holes, galaxies, quasars and cosmology. Some elementary algebra is used. Several evening observing sessions using telescopes may be scheduled depending on seeing conditions. (3 cr. hr.)

#### PHY 201: Principles of Physics I

(F) Fundamental principles of motion and dynamics using methods of calculus. Topics include motion in one, two, and three dimensions, mechanical equilibrium, momentum, energy, rotational motion and dynamics, periodic motion, gravitation, and conservation laws. Three lectures, one two-hour laboratory, and one recitation. Corequisite: MAT 121 or MAT 125. (4 cr. hr.)

#### PHY 202: Principles of Physics II

(S) Fundamental principles of electricity and magnetism using methods of calculus. Topics include static electricity, currents and simple circuits, electric and magnetic fields, energy, and magnetic materials. Three lectures, one two-hour laboratory, and one recitation. Prerequisite: PHY 201. Corequisite: MAT 122 or MAT 126. (4 cr. hr.)

#### PHY 203: Principles of Physics III

(F) Fundamental principles of thermodynamics, optics, and sound using methods of calculus. Topics include heat, work, and energy of thermodynamics systems, wave motion, geometrical and physical optics, and sound. Three lectures. Prerequisite: PHY 202. (3 cr. hr.)

#### PHY 325: Programming

(F) A first course in computer programming. Topics include algorithm development, I/O, logical decisions, arrays, subroutines, program coding and syntax, debugging, and documentation. Program examples are taken from many disciplines. Three lectures including terminal time. (3 cr. hr.)
PHY 357: Intermediate Physics Laboratory
(S) A laboratory experience stressing precise experimental measurement using a variety of instruments and covering various branches of physics. Two three-hour laboratories. Prerequisite: Consent of department. (3 cr. hr.) ■

PHY 358: Digital Logic Systems
(O) The design of digital logic circuits using small- and medium-scale logic elements. Topics include integrated circuitry, Boolean algebra, Karnaugh mapping, flip-flops, shift registers, and memory elements. Two three-hour laboratories. Prerequisite: Consent of department. (Also listed as CAP 358.) (3 cr. hr.) ■

PHY 410: Modern Physics
(F) A study of modern theories of the atom and their experimental bases. Topics include the special theory of relativity, origins of quantum theory, the nuclear atom of Rutherford and Bohr, the electron as a fundamental particle, quantum aspects of radiation, the wave-particle duality, atomic spectra, and x-rays. Prerequisite: PHY 202. (3 cr. hr.) ■

PHY 420: Classical Mechanics
(F) The study of the motion of physical bodies at the macroscopic level. Topics include the dynamics of a particle, the harmonic oscillator, motion in three dimensions, central forces, systems of particles, and rigid bodies. Prerequisites: PHY 202, MAT 430. (3 cr. hr.) ■

PHY 422: Applied Mechanics
(S) The study of statics and dynamics of rigid bodies. Topics include simple equilibrium, structural analysis, inertia tensors, centroids, energy and momentum, and strength of materials. Prerequisite: PHY 201. Corequisite: MAT 227. (3 cr. hr.) ■

PHY 425: Methods of Applied Mathematics
(S) Mathematics needed for the study of the sciences. Topics include vector analysis, matrix operations, differential equations, functions of a complex variable, Fourier series, and integral transforms. Prerequisites: MAT 227, PHY 202. (Also listed as MAT 425.) (3 cr. hr.) ■

PHY 440: Electronics
(F) A survey of D.C. and A.C. circuits, semiconductor devices, and electronic test equipment. Two lectures, one three-hour laboratory. Prerequisite: PHY 202. (3 cr. hr.) ■

PHY 450: Electricity and Magnetism
(S) A study of electromagnetic theory leading to Maxwell’s equations. Topics include electrostatics and Gauss’ Law, magnetostatics and Ampere’s Law, fields in material media, time-dependent phenomena and Faraday’s Law, and Maxwell’s equations. Prerequisites: PHY 202, MAT 227. (4 cr. hr.) ■

PHY 460: Optics
(O) A study of geometrical and physical optics. Topics include the propagation and vectorial nature of light, reflection and diffraction, lenses and aberration, coherence and interference phenomena, polarization, dispersion, the optics of solids, and lasers. Prerequisite: PHY 450. (3 cr. hr.) ■

PHY 495: Independent Study in Physics
(A) Directed study or independent research in a special topic. Prerequisites: PHY 202 or consent of department. (1-3 cr. hr.)
range lesson planning and curriculum development. Federal and state laws, policies and procedures for dealing with students with disabilities will be examined. Strategies for collaborating with administrators, faculty/staff, parents/guardians, and community members will be discussed. Includes 25 hours of field experience in middle and secondary schools. Prerequisites: PSY 232 and EDU 391. (3 cr. hr.)

EDU 393: Student Teaching: Adolescence Education — Science
(A) Full semester of student teaching. Prerequisites: PSY 232 or 332, EDU 423, EDU 443. See major department for eligibility criteria. S, U grades are assigned. (6-14 cr. hr.)

EDU 423: Laboratory Practicum
This course is designed to provide a student with the opportunity to work with an experienced teacher in the planning, preparation, and implementation of laboratory exercises in an introductory, college level lab course. Additionally, students will assist in one-on-one and in small group activities within the laboratory setting. It includes 25 hours of field experience. Corequisite: EDU 443. (1 cr. hr.)

EDU 443: Methods II: Teaching the Sciences in the Middle and Secondary Schools
Students will participate in the development of sample course syllabi, a comprehensive laboratory safety plan, field trip proposal, and strategies for facilitating parental/community involvement. Students will design and implement classroom demonstrations and laboratory exercises. Alignment of lesson plans with state and national learning standards and state core curriculum guides, strategies for motivation of students with diverse needs and learning styles, and development of assessment tools that parallel those of Regents examinations will be emphasized. Students will explore the uses of technology to enhance the teaching-learning environment in the science classroom. The course will conclude with a discussion of the importance of continuing self-evaluation and professional growth and development. Twenty-five hours of field experience in middle and secondary schools. WI. Prerequisite: AED 442. Corequisite: EDU 423. (3 cr. hr.)

EDU 449: Literacy in the Middle and Secondary School
(F) Methods, materials and assessment for fostering literacy at the middle and secondary levels. (3 cr. hr.)
Political Science

Department

Faculty
Jerome O’Callaghan (Chair), Seth Asumah, Judith Best, Julio Fernandez, Sharon Jones, Mary McGuire, Tom Pasquarello, Ryan Petersen, David Reed, Robert Spitzer, Henry Steck

Programs Offered
- B.A. in Political Science – 124 total credit hours
- B.A. in Adolescence Education – Social Studies and Political Science (Grades 7-12) – 124 total credit hours

Majors Offered
- Political Science
- Adolescence Education – Social Studies and Political Science (Grades 7-12)

Concentrations Offered
- Law and Justice, Environmental Policy, Comparative and International Politics, Public Administration and Public Policy

Minors Offered
- Political Science, Public Administration and Public Policy

Description
The Political Science Department offers a wide range of programs for students interested in understanding the political world, pursuing careers, and seeking graduate education in politics, law, policy or public administration. A political science background leads to careers in law, business, government, politics, teaching, and journalism. Majors participate in special and individualized programs, including a semester in Albany or Washington, D.C. Pre-law and public administration internships are offered in cooperation with non-profit organizations, and various state and local government offices. Our majors also pursue careers in elementary or secondary education.

Special Features
- Pre-law Advising – advice on LSAT, law school selection, academic preparation, and alumni speakers from the legal profession
- International opportunities – visit Europe with the Model European Union, or study politics/government/policy abroad, e.g., the British Parliament, the Irish Parliament, Belize, University of Cork
- Advance to an M.P.A. at Binghamton University – by special arrangement with B.U’s Public Administration Department
- Campus Practicum Experience, e.g., participation in the Judicial Review Board, or Student Government Association
- Adolescence Education – Social Studies: a degree in political science can be the beginning of a career in high school teaching
- Retreat at Raquette Lake in Adirondacks
- Distinguished, award-winning faculty

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to the following majors.
2. Liberal Arts Requirements: 90 credit hours

Major in Political Science [POL]
This major examines the broad range of concerns surrounding people and the power of government; it provides a strong grounding in American government, comparative/international politics, and political theory.

Career Potential
- Campaign manager • Legislative aide (state or federal)
- Elected representative (local, state or federal) • Journalist/reporter

A. Required Courses: 9 credit hours
- POL 100: Introduction to American Government and Politics (GE-1)
- POL 101: Introduction to World Politics (GE-3)
- POL 270: Introduction to Political Theory (GE-5)

B. Other: 27 credit hours
- 3 credit hours of Comparative Politics or International Relations
- 3 credit hours of American Government or Political Theory
- 21 credit hours of Political Science courses
- (At least 15 credit hours of POL credit must be numbered 300 or above.)

Total Credit Hours Required for Graduation: 124

Major in Political Science with a concentration in Law and Justice [POL/LAJU]
This concentration examines the place of law and justice in government, with a focus on the American system. An ideal beginning for a career in law.

Career Potential
- Attorney • Judge
- Law enforcement • Representative (federal, state or local)

A. Required courses (Political Science Base) – 9 credit hours:
- POL 100: Introduction to American Government and Politics (GE-1)
- POL 101: Introduction to World Politics (GE-3)
- POL 270: Introduction to Political Theory (GE-5)

B. Core in Law and Justice – 9 credit hours from:
- POL 202: Introduction to Law and the Judicial Process
- POL 304: Constitutional Law
- POL 404: Civil Liberties
- POL 450: International Law
- POL 470: Justice and Society: Theory and Practice

C. Elective Courses (POL) — 12 credit hours from:
- POL 120: Student Government Practicum (up to 4 credit hours)
- POL 302: Law and Politics
- POL 303: The Criminal Justice System
POL 308: Environmental Law
POL 312: Methods of Political Analysis
POL 320: The Legislative Process
POL 372: American Political Thought
POL 405: Discrimination Law
POL 440: Law and Politics in the Administrative Process
POL 471: Legal Theory
POL 484: Pre-Law Internship*

* With consent of department

Any course taken from Group B above the 9-hour requirement for that group can be applied to Group C.

D. Any 6 credit hours in political science, outside of categories A, B and C.

E. Related areas – 9 credit hours of appropriate courses from the following areas by advisement: American history, literature, philosophy and sociology. These 9 hours may not include courses taken for GE credit.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Political Science with a concentration in Environmental Policy [POL/ENVP]

This concentration combines a rich liberal education with a strong preparation for a career in one of the emerging environmental professions. Included are opportunities for field work and practical internships.

CAREER POTENTIAL

• Policy researcher/analyst
• Consultant
• Lobbyist
• Environmental manager

A. Required Courses: 24 credit hours
POL 100: Introduction to American Government and Politics
POL 101: Introduction to World Politics
POL 112: Introduction to Political Research
POL 270: Introduction to Political Theory
POL 240: Introduction to Public Administration and Public Policy
POL 242: Environmental Policy
POL 308: Environmental Law
POL 312: Methods of Political Analysis

B. Elective courses: 9 credit hours
POL 315: Evaluation Research
POL 341: Current Issues in Public Policy
POL 342: Environmental Policy and Biodiversity
POL 441: Comparative Public Policy
POL 450: International Law
POL —: Internship *
POL 345: Adirondack Policies and Issues

(33 POL credit hours required: minimum of 15 credit hours at 300 level or above)

* Students may fulfill this option up to 6 credit hours with POL 483 by advisement only. Students are encouraged to explore internships at the state (POL 482, New York State Legislative Internship) national (Cortland’s Washington Internship — POL 480), or international (e.g., Belize field work internship) level. Students may also wish to design an internship with an appropriate government agency or environmental not-for-profit group elsewhere.

C. Courses in related areas: 15 credit hours

(i) Required Courses: 6 credit hours
EST 100: Introduction to Environmental Studies
ENS 486: Seminar in Environmental Science

(ii) Environmental electives: 9 hours total with a minimum of three hours in each of the following categories:

a) Environmental Sciences (* = General Education courses)
   * BIO 102: Ecology and Human Environment
   * GLY 160: Geology and Human Environment
   * CHE 125: Chemistry and the Environment
   * GRY 292: Land Use and Planning
   * SCI 304: Plants and People
   * BIO 307: Field Natural History
   * SCI 320: Science, Technology and Culture
   * SCI 330: Science and the Public
   * SCI 350: Science in the Social World

b) Social Science/Humanities (* = General Education courses)
   * GRY 110: Physical Geography
   * REC 310: Wilderness and American Culture
   * GRY 301: Science, Human Affairs and the Environment
   * GRY 328: Geographic Information Systems
   * REC 402: Management of Recreation Resources
   * ANT 410: Cultural Ecology
   * ECO 335: Resource and Environmental Economics
   * GRY 470: Resource Geography

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Political Science with a concentration in Comparative and International Politics [POL/CINP]

An ideal program for students interested in international careers or for teaching in the public schools. Best suited to those interested in global political and economic issues.

CAREER POTENTIAL

• Journalist
• International business representative
• Foreign service officer
• Lobbyist

A. Required Courses: 12 credit hours
POL 101: Introduction to World Politics
POL 250: International Relations
POL 270: Introduction to Political Theory
POL 362: Politics of Developing Nation States

B. Elective Courses: 18 credit hours
1.) 9 credit hours from:
   POL 260: Comparative Politics: Europe
   POL 262: Comparative Politics: Asia
   POL 264: Comparative Politics: Latin America
   POL 290: Introduction to African Politics and Society

2.) 9 credit hours from:
   POL 160: Model European Union (Participation)
   POL -29: Special Topics in Political Science *
   POL 312: Methods of Political Analysis
   POL 350: American Foreign Policy
   POL 365: Irish Politics
   POL 376: Asian Political Thought
   POL 441: Comparative Public Policy
   POL 450: International Law
   POL 454: International Politics in Asia
   POL 455: International Politics in Latin America
   POL 456: International Politics in the Middle East
   POL 461: Europe Today: People and Politics
POL 462: Political Culture and Behavior in Asian Societies
POL 463: Political Culture and Behavior in Latin American Societies
POL 465: Contemporary British Politics and Government
POL —: Internship/Field Study (POL 480, 483, 484, 485) **

* Only with permission of the advisor and only when the subject matter is appropriate.
** Approval of advisor and department.

C. Courses in Related Areas: 6 credit hours *
   AAS 395: International Race Relations
   ANT 201: World Cultures
   ANT 310: Peoples of South and Southeast Asia
   ANT 312: Peoples of the Middle East
   ANT 314: Peoples of Latin America
   ECO 304: Comparative Economic Systems
   ECO 311: Economic Development
   ECO 312: Economic Development of Latin America
   ECO 313: Economic Development of Asia
   GRY 270: Geopolitics
   HIS 321: Africa, Human Origins to 1800
   HIS 334: Russia since 1894
   HIS 348: Europe since 1914
   HIS 384: Modern China
   HIS 430: The Vietnam War
   HIS 435: Sino-American Relations
   SOC 366: Sociology of International Conflict

* Other courses may be added with permission of advisor.

D. Foreign Language: 0-13 credit hours
   Students must complete the regular College language requirement of 0-13 hours of college level language study or equivalent. In addition students must demonstrate proficiency in one of the following ways:
   a) successfully completing 12 hours of course work in the student’s initial foreign language at the 300-level or above.
   b) successfully completing one semester of study abroad in the student’s target language (at least 12 hrs of credit). Courses taught in English during study abroad will not be accepted to fulfill this requirement.
   c) satisfy the College language requirement (0-13 hrs or its equivalent) in a second foreign language. (Students whose native language is not English may be exempt from the language proficiency requirement.)
   d) earning a rating of Intermediate High on the American Council of Teachers of Foreign Language/Educational Testing Service (ACTFL/ETS) academic scale, as determined by an oral examination by a qualified tester. Students should contact the International Communications and Culture Department for additional details.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

**Major in Political Science with a concentration in Public Administration and Public Policy [POL/PADM]**

This concentration focuses on public agencies (their character, organization, role) and public policies (their development, implementation, and evaluation). An ideal start for anyone interested in graduate school or civil service work.

CAREER POTENTIAL
- City manager
- Administrator for non-profit organization
- Government official
- Pollster

A. Required Courses: 18 credit hours
   POL 100: Introduction to American Government and Politics
   POL 112: Introduction to Political Research
   POL 240: Introduction to Public Administration and Public Policy
   POL 270: Introduction to Political Theory
   POL 312: Methods of Political Analysis
   POL 341: Current Issues in Public Policy

B. Internships: 3 credit hours from
   POL 480: Washington Semester
   POL 482: New York State Legislative Internship
   POL 483: Public Administration and Policy Internship
   POL 485: Field Study in Political Science

C. Elective Courses: 15 credit hours from
   POL 242: Environmental Policy
   POL 304: Constitutional Law
   POL 308: Environmental Law
   POL 315: Evaluation Research
   POL 320: The Legislative Process
   POL 326: State and Local Government
   POL 329: Special Topics in Political Science (by advisement)
   POL 372: American Political Thought
   POL 405: Discrimination Law
   POL 420: The American Presidency
   POL 441: Comparative Public Policy
   POL 480: Washington Semester *
   POL 482: New York State Legislative Internship *
   POL 483: Public Administration and Policy Internship *
   POL 485: Field Study in Political Science *

* for additional three hours beyond requirement, by advisement only with consent of the department

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

**Dual major in Adolescence Education – Social Studies and Political Science (Grades 7-12) [SSA & POL]**

This program allows students who major in political science to qualify for certification to teach adolescence education in social studies (grades 7-12). It combines a major in political science with a professional semester that consists of professional preparation and student teaching.

A. Requirements for the political science major: 36 credit hours (see above)

B. Professional Preparation: 47-68 credit hours
   (Including additional social science courses)
   HLH 199: Critical School Health Issues
   PSY 101: General Psychology I
   PSY 232: Adolescent Psychology I or
   PSY 332: Educational Psychology
   ECO 105: Political Economy and Social Thought
GRY 425: Geography in the Classroom or GRY 520: Maps in the Classroom
GRY 480: United States
POL 100: Introduction to American Government
HIS 100 and 101 or His 110 and 111 and
HIS 200 and 201 and 9 hours at the 300 level or above
ENG 306: Advanced Writing for Prospective Teachers or EDU 449: Literacy in the Middle and Secondary School
SFH 300: Normal Language Development or
PSY 350: Psychology of Language
SSS 300: Introduction to Secondary Social Studies
(A 100-hour field requirement is attached to this course)

C. Professional Semester: 18 credit hours
   SSS 301: Pre-Practice Teaching Seminar
   AED 400: Student Teaching I
   AED 401: Student Teaching II
   SSS 303: Post-Practice Teaching Seminar

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Minor in Political Science [POL]
An opportunity to develop some fundamental knowledge in the areas of American government, comparative/international politics, and political theory.

CAREER POTENTIAL
• Campaign manager
• Elected representative
• Legislative aide (state or federal)
• Journalist/reporter (local, state or federal)
A. Required Courses: 18 credit hours
   POL 100: Introduction to American Government and Politics
   POL 101: Introduction to World Politics
   Twelve additional hours of POL courses to be decided upon with the advice of the student’s adviser and with the consent of the department

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 18

Minor in Political Science with an emphasis in Public Administration and Public Policy [POL/PADM]
An opportunity to develop fundamental skills in the analysis of public agencies and public policies. A key start for students interested in graduate school.

CAREER POTENTIAL
• Press secretary
• Lobbyist
• Government official
• Policy researcher
A. Required Courses: 15 credit hours
   POL 100: Introduction to American Government and Politics
   POL 112: Introduction to Political Research
   POL 240: Introduction to Public Administration and Policy
   POL 312: Methods of Political Analysis
   POL 341: Current Issues in Public Policy
B. Elective Courses: 6 credit hours from
   POL 242: Environmental Policy
   POL 270: Introduction to Political Theory
   POL 304: Constitutional Law
   POL 308: Environmental Law
   POL 315: Evaluation Research
   POL 320: The Legislative Process
   POL 326: State and Local Government

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 21

Example of the undergraduate degree in Political Science over four years
This chart is simply a model, and does not reflect the expectations for all political science programs.

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<th>First Year</th>
<th>Second Year</th>
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<td>Fall</td>
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<td>CPN 100</td>
<td>Foreign language 201</td>
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<td>POL 100 (GE 1)</td>
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<td>POL 101 (GE 3)</td>
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<td>COR 101</td>
<td>GE elective</td>
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<td>Foreign language 101</td>
<td>GE elective</td>
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<td>Quant. Skills (e.g. POL 112)</td>
<td>GE elective</td>
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<tr>
<td>Spring</td>
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<tr>
<td>CPN 101</td>
<td>Foreign language 202</td>
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<tr>
<td>Foreign language 102</td>
<td>GE elective</td>
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<td>POL elec./conc.</td>
<td>GE elective</td>
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<td>GE elective</td>
<td>POL elec./conc.</td>
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<tr>
<td>GE elective</td>
<td>POL elec./conc.</td>
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<td>Free elective/minor</td>
<td>Free elective/minor</td>
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<td>Fall</td>
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<td>POL elec./conc.</td>
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<th>Fourth Year</th>
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<td>Fall</td>
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<td>POL elec./conc.</td>
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<td>POL elec./conc.</td>
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<td>Free elective/minor</td>
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<td>Free elective</td>
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<th>Spring</th>
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<tr>
<td>POL elec./conc. (WI)</td>
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<td>POL elec./conc.</td>
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<td>Free elective/minor</td>
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<td>Free elective</td>
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* elec. = elective; conc. = course required for a concentration.

See major and concentration listings above for specific requirements.
Political Science

COURSE DESCRIPTIONS

POL 100: Introduction to American Government and Politics
(A) Basic structures and functions of American political system, including the Constitution, Presidency, Congress, courts, bureaucracy, political parties, public opinion, elections, interest groups, media and public policy. Also examines who has power. (3 cr. hr.)

POL 101: Introduction to World Politics
(A) Study of political systems of world by comparing and contrasting them with the U.S. and other countries. Focus includes ideologies, developed and developing nations, and contemporary problems affecting interactions of these systems. (3 cr. hr.)

POL 110: Politics and Multiculturalism
(S) Introduce students to how and why general democratic theory, key political institutions, patterns of political interaction, and socio-political attitudes in the American polity and throughout the world generate or attempt to eliminate injustice, prejudice and discrimination. Problems of racism, sexism, classism, ageism, ableism, religious-ethnic conflicts, and prospects for a “just” society will be examined through the lens of post-modernist political theory. (Also listed as AAS 120.) (3 cr. hr.)

POL 111: Politics and Film
(C) Introduces students to the connection between art and politics. Course examines overtly political films and will reveal how films which appear nonpolitical often have significant political messages. Course will use documentaries, feature films, propaganda films and explore cinematic approaches and political themes. (3 cr. hr.)

POL 112: Introduction to Political Research
(B) Introduction to basic methods of political research including literature reviews, generating and testing political hypotheses, and report writing. Material on time management, research skills, and computer applications included. (3 cr. hr.)

POL 120: Student Government Practicum
(A) Participation credit. Participation in work of student government. Focus on process, issues and policy, and role of student government in a university community. May be taken up to four credit hours. Permission of instructor is required. (1 cr. hr.)

POL 121: Participation in Politics and Government
(O) Selected participation in activities related to governance and politics. Activities may be undertaken on or off campus. Permission of supervising faculty member and adviser are required. Open to all students, but majors should note restriction on number of credit hours that may be offered for the major. May be repeated. (1-3 cr. hr.)

POL 129, 229, 329, 429, 529: Special Topics in Political Science
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

POL 160: Model European Union
(C) Participation in simulation of Model European Union Study. Focus on process, issues, development of the European Union. May be taken two times only (four credit hours) toward the major and another two credit hours for elective credit. May also be taken for elective credit up to three times by majors and non-majors (six credit hours). Permission of instructor is required. (1-2 cr. hr.)

POL 202: Introduction to Law and the Judicial Process
(F) Analysis, evaluation of main institutions, procedures affecting administration of justice under law. Course recommended for students who plan to enroll in upper division law classes (e.g. Constitutional Law, Civil Liberties.) (3 cr. hr.)

POL 240: Introduction to Public Administration and Public Policy
(A) Examines the formulation, administration and evaluation of public policy and programs. Includes survey of policy-making models and the politics of bureaucracy, principles of public finance and budgeting, personnel management, and organization theory. (3 cr. hr.)

POL 242: Environmental Policy
(B) An introduction to environmental policy in the United States. The course explores the relations between politics and the environment. Topics to be addressed include the origin and influence of grassroots public interest groups, the role of government in setting environmental agendas, and the effect of various actors on public policy. The course will include case studies of important issues such as global warming, overpopulation, ozone depletion, deforestation, and water pollution. Prerequisite: POL 100 recommended. (3 cr. hr.)

POL 250: International Relations
(C) Basic factors underlying international relations, policy formulation, administration. Conduct of diplomacy, problems in world politics. (3 cr. hr.)

POL 260: Comparative Politics: Europe
(C) Introduction to constitutional structure, central political institutions, dynamics of political process of selected European nations with emphasis on contemporary period. (3 cr. hr.)

POL 262: Comparative Politics: Asia
(C) Comparative analysis of issues, problems of politics and institutions in Asian societies. Attention directed to political dynamics, processes in selected political systems with emphasis on contemporary period. (3 cr. hr.)

POL 264: Comparative Politics: Latin America
(C) Comparative analysis of issues, problems of politics and institutions in Latin America. Attention directed to political dynamics, processes in selected political systems with emphasis on contemporary period. (3 cr. hr.)

POL 270: Introduction to Political Theory
(B) Concepts of leading theorists from Plato to Nietzsche: development of political thought out of quarrel between the ancients and the moderns on nature of man and role of government. (3 cr. hr.)

POL 290: Introduction to African Politics And Society
(B) Insight, background to traditional, contemporary African society; orientation into aspects of African colonial administration, post independence politics. (Also listed as AAS 290.) (3 cr. hr.)

POL 292: Race and Politics in America
(B) Analysis toward understanding factors, impact of race on American politics. Focus on American racial minorities, their role as pressure group, functional approach to problem of racism in this country. (Also listed as AAS 292.) (3 cr. hr.)

POL 302: Law and Politics
(C) Survey of law in the U.S., looking to different types of law, their sources, and their influence on social practices. Examines a critique of law in practice, topics such as power of wealth under law, feminist views of law, legal education, legal reasoning and community participation in legal process. (3 cr. hr.)

POL 303: The Criminal Justice System
(C) Introduction to structure, operation and politics of criminal justice system (CJS). Basic operational details of CJS, including roles played by police, prosecutors, defense attorney, judges, and community. Political dimension to definition of crime, race and sex
bias in CJS, and contemporary problems in application of capital punishment. Look into white collar crime to see relationship between economics and criminal law. (3 cr. hr.) ■

POL 304: Constitutional Law
(F) Principles, functions of judiciary as forum where great public issues are explored, debated, tentatively resolved. Supreme Court decisions reflecting social, political, economic conflicts in society explored in context of current controversies. (3 cr. hr.) ■

POL 308: Environmental Law
(C) Contemporary environmental law, beginning with common law doctrine on property rights, continuing on to the policies adopted by Congress and the federal judiciary since the 1960s. Further topics include the political and social contexts of environmental reform and the limits of legal innovations designed to protect the environment. (3 cr. hr.) ■

POL 312: Methods of Political Analysis
(F) Intermediate and advanced quantitative research methods, including exploratory data analysis, parametric tests, correlation, regression, and statistical modeling. Not open to students with credit for PSY 201, COM 201, MAT 201, ECO 221. Prerequisite: POL 112 or permission of instructor. (3 cr. hr.) ■

POL 315: Evaluation Research
(O) Research design and measurement for evaluation research. Covers statistical and computer applications as needed for class research project. (3 cr. hr.) ■

POL 320: The Legislative Process
(C) Structure, behavior, lawmaking process and representativeness of legislative bodies, focusing primarily on the U.S. Congress. Examined. Impact of lobbying, money and other outside pressures on legislative process and policy making also examined. (3 cr. hr.) ■

POL 326: State and Local Government
(S-C) Structure function of state, county, municipal, special government units. (3 cr. hr.) ■

POL 330: Political Parties and Social Movements
(C) Relation between citizen and government via political parties and interest/pressure groups examined. Focus will be on electoral and group behavior, such as elections, parties, interest groups, Political Action Committees, single issue movements, etc. — to assess the realities of “popular control.” (3 cr. hr.) ■

POL 332: Elections In America
(C) Focus on electoral process, campaigns, voting behavior, election outcomes, electoral system. (3 cr. hr.) ■

POL 338: Media and Politics
(O) Focus on political interactions of electronic and print media with political system in America and elsewhere. How “Fourth Estate” shapes political images and how government manipulates the media examined. Analysis of contemporary news coverage included. (Also listed as COM 338.) (3 cr. hr.) ■

POL 341: Current Issues in Public Policy
(B) Analysis of current public policy issues in United States. Theories which purport to define or prescribe what public policy should be; political-administrative process by which policies are made; substantive content of policies; policy problems confronting the country. Prerequisites: POL 100, 240. (3 cr. hr.) ■

POL 342: Environmental Policy and Biodiversity
(M) Examines policies needed to protect biodiversity in the modern world, including: legal protections such as the endangered species act, ex situ conservation methods such as zoos, botanical gardens and seed banks, and parks and reserves designed to protect natural ecosystems. Combines directed independent study with field studies conducted in residence at the Huntington Outdoor Education Center. (3 cr. hr.) ■

POL 345: Adirondack Park Policies and Issues
(C) Analysis of environmental and land-use policies in the largest park in the contiguous United States. Often taught at Cortland’s Outdoor Education Center at Raquette Lake in the Adirondack Park. When taught at the Outdoor Education Center, students are assessed a fee for room and board. Prerequisite: Consent of department. (Also listed as REC 345.) (3 cr. hr.) ■

POL 350: American Foreign Policy
(C) Foreign policies of selected nations: analysis of national interest, international objectives of each; their successes, failures, impact on other members of international community. (3 cr. hr.) ■

POL 362: Politics of Developing Nation States
(C) Politics of development and nation building: political structures and forces examined with special attention to developing political systems of Third World including Asia, Africa, Latin America, Middle East. (3 cr. hr.) ■

POL 365: Irish Politics
(C) Development of 20th century’s first successful revolution through guerrilla warfare and political action. Development of a modern political system from Civil War through continuing conflict in Northern Ireland traced. (3 cr. hr.) ■

POL 372: American Political Thought
(A) Selected problems in struggle for protection of persons, opinions, property from arbitrary governmental, private interference. Prerequisite: POL 100. (3 cr. hr.) ■

POL 404: Civil Liberties
(B) Selected problems in struggle for protection of persons, opinions, property from arbitrary governmental, private interference. Prerequisite: POL 100. (3 cr. hr.) ■

POL 405: Discrimination Law
(C) Current status of national and state law on discrimination, with particular emphasis on racial and gender inequalities. Topics include affirmative action, comparable worth and equal protection. Great Britain’s public policies on discrimination are considered for purposes of comparison and contrast. (3 cr. hr.) ■

POL 420: The American Presidency
(C) Course focuses on dilemmas of the modern presidency: its power vs. its responsibility, the person vs. the institution, the simultaneous drives toward activism and restraint. Also the president’s interaction with the rest of the government, the media, the people. Current presidential politics and policy making included. (3 cr. hr.) ■

POL 440: Law and Politics in the Administrative Process
(C) Powers, procedures, roles, techniques utilized by public officials and bureaucracies. Includes delegation of powers, nature of administrative adjudication and rule-making, judicial control over administrative determination, all enforcement processes of independent regulatory agencies, analysis of general problem of adjusting administrative process to traditional constitutional principles. Prerequisites: POL 100, 240. (3 cr. hr.) ■
POL 441: Comparative Public Policy  
(C) Course will compare and contrast the way public policy issues are handled in United States and other countries, such as United Kingdom, Sweden, Cuba. Problems such countries confront frequently are similar but approaches taken to dealing with them are often distinctive. Among areas considered are economic policy, human rights policy and social welfare policy. Prerequisite: POL 240. (3 cr. hr.)

POL 450: International Law  
(C) Principles governing relations of states: jurisdiction over land, water, airspace, outer space, persons; adjudicatory agencies; treaties, executive agreements; pacific settlements; laws of war, neutrality. Prerequisite: POL 101. (3 cr. hr.)

POL 454: International Politics in Asia  
(C) Analysis of politics among Asian countries including war, revolutionary movements, patterns of diplomacy and relationships with non-Asian world. Prerequisite: POL 101. (3 cr. hr.)

POL 455: International Politics in Latin America  
(C) Analysis of Latin America's international role and behavior. The inter-American system and impact of revolutionary movements. Prerequisite: POL 101. (3 cr. hr.)

POL 456: International Politics in the Middle East  
(C) Analysis of Middle East as point of conflict between Arab and Israeli, east and west powers, oil producers and oil consumers. Prerequisite: POL 101. (3 cr. hr.)

POL 461: Europe Today: People and Politics  
(C) Selected topics may include social and political change, parties and voting, decision-making, processes, political cleavages and institutions. May be repeated with change of topic. Prerequisite: POL 101. (3 cr. hr.)

POL 462: Political Culture and Behavior in Asian Societies  
(C) Factors which condition patterns of orientation toward political action in Asian societies. Special attention may be given to individual Asian systems. Prerequisite: POL 101. (3 cr. hr.)

POL 463: Political Culture and Behavior in Latin American Societies  
(C) Variables in Latin American political culture which comprise and affect political behavior and development. Prerequisite: POL 101. (3 cr. hr.)

POL 465: Contemporary British Politics and Government  
(C) Contemporary British politics and government from 1945 to present, including Parliament, Cabinet, Constitution, party system, interest articulation, as well as the welfare state, ideological shifts, industrial relations, class and society, etc. (3 cr. hr.)

POL 470: Justice and Society: Theory and Practice  
(C) Tensions between theory and practice; analysis of nature of justice and its implementation in society. Prerequisite: POL 270. (3 cr. hr.)

POL 471: Legal Theory  
(C) Theoretical origins of legal justice and relation between law and politics with particular emphasis on natural law theory and positivist theory. Prerequisite: POL 270. (3 cr. hr.)

POL 480: Washington Semester  
(A) Program for selected students conducted in Washington, D.C. involving on-the-job work experience, independent study, seminars. Prerequisite: Consent of department. (16 cr. hr.)

POL 482: New York State Legislative Internship  
(S) Spring semester program for selected students to live and work in Albany as interns with State Legislature (Assembly and Senate). Students receive stipend of approximately $3,000. Prerequisite: Consent of department. (15 cr. hr.)

POL 483: Public Administration And Policy Internship  
(A) Students intern in variety of state and local government departments and agencies. Practical field experience combined with instructor-led seminars and workshops. May be repeated once with the consent of the department. Prerequisite: junior or senior standing; previous political science course work; consent of department. Letter grading. (3 cr. hr.)

POL 484: Pre-law Internship  
(A) Students intern in a law-related department or agency, including the Office of the District Attorney, Public Defender, County Attorney, Police or Sheriff's Department. Field work experience combined with instructor-led seminars. Prerequisite: junior or senior standing; consent of the department. Letter grading. (3 cr. hr.)

POL 485: Field Study in Political Science  
(A) Field study program covering off-campus experience. Prerequisite: Consent of department. H, S, U grades assigned. (1-16 cr. hr.)

POL 491: Readings in Political Science  
(O) Selected topics in political science. May be repeated for credit when topic changes. Prerequisite: Nine hours of social science, consent of department. (3 cr. hr.)

POL 492: Seminar in Political Science  
(C) Studies in depth on selected topics. May be repeated with change of subtitle. Prerequisite: Consent of department. (3 cr. hr.)

POL 500: Seminar in American Government and Politics  
(O) Selected legislative, administrative, judicial aspects of public policy. May be repeated for credit when topic changes. Prerequisite: Nine hours of social science. (3 cr. hr.)

POL 523: The United States Constitution and Its Interpretation  
(F) Structure, historical development of United States Constitution: currently discussed constitutional interpretations, controversies arising from such discussion. Prerequisite: Nine hours of social science. (3 cr. hr.)

POL 524: Courts, Judges and Politics  
(S-C) Judicial interpretation as policy formulation in context of political process. Prerequisite: Nine hours of social science. (3 cr. hr.)

POL 526: Seminar in State and Local Government  
(S-C) Selected topics, problems in state and local government. May be repeated with change of subtitle. Prerequisites: Nine hours of social science, consent of department. (3 cr. hr.)

POL 530: American Political Parties and Pressure Groups  
(O) Organization, tactics, dynamics and roles. Prerequisite: Nine hours of social science. (3 cr. hr.)

POL 550: Seminar in International Relations  
(O) Selected problems in international relations. May be repeated for credit when topic changes. Prerequisite: Nine hours of social science. (3 cr. hr.)

POL 560: Seminar in Comparative Politics  
(O) Selected problems of comparative politics. May be repeated for credit when topic changes. Prerequisite: Nine hours of social science. (3 cr. hr.)

POL 570: Seminar in Political Theory  
(O) Selected topics in political science. May be repeated for credit when topic changes. Prerequisite: Nine hours of social science. (3 cr. hr.)
POL 592: Seminar in Politics
(O) Selected problems in politics. May be repeated for credit with change of subtitle. Prerequisite: Nine hours of social science. (3 cr. hr.)

POL 593: Readings in Political Science
(O) Individual readings in selected topics. May be repeated for credit with change of topic. Prerequisites: Nine hours of social science, consent of department. (3 cr. hr.)

Related Education Courses

AED 400: Student Teaching I
Full-time supervised teaching in public schools for four weeks (3 cr. hr.)

AED 401: Student Teaching II
Full-time supervised teaching in public schools for four weeks. Requires satisfactory completion of AED 400 (3 cr. hr.)

SSS 300: Introduction to Secondary Social Studies
This course introduces students to unit and lesson planning, focuses on the history of American education as it relates to social studies, familiarizes students with the social studies learning standards, and makes comparisons between middle school and high school teaching. Includes 100-hour field experience (3 cr. hr.)

SSS 301: Pre-Practice Teaching Seminar
(F) Integrated study of A.) Introduction to Secondary Education; B.) Introduction to Methods of Teaching Social Studies; C.) Introduction to Contemporary Secondary School Issues; D.) Preparation for specific practice teaching assignment. S, U grades assigned. (11 cr. hr.)

SSS 303: Post-Practice Teaching Seminar
(F) Problem approach drawing upon experience of students during practice teaching. Designed to focus on contemporary educational issues, beginning the job search and application process, teaching and learning at the middle school level and exploring the history and philosophy of teaching. S, U grades assigned. (1 cr. hr.)

Pre-Engineering
COOPERATIVE DEGREE PROGRAM FOR CHEMISTRY AND PHYSICS MAJORS

FACULTY
Peter Jeffers (Coordinator)

PROGRAMS OFFERED
B.S. in Chemistry and Engineering
B.S. in Physics and Engineering

MAJORS OFFERED
Chemistry/Engineering (3+2) [CEN]
Physics/Engineering (3+2) [PEN]

DESCRIPTION
SUNY Cortland participates in cooperative 3+2 engineering programs in which students spend three years on the Cortland campus majoring in chemistry or physics and then spend two years on a cooperating campus majoring in engineering. Those who complete this program receive two degrees, a Bachelor of Science in Chemistry or Physics, and a bachelor of science in a field of engineering. The cooperating campuses are:

State University College of Ceramics at Alfred University
Ceramic Engineering

State University of New York at Binghamton
Electrical Engineering
Mechanical Engineering

State University of New York at Buffalo
Aerospace Engineering
Chemical Engineering
Civil Engineering
Electrical and Computer Engineering
Mechanical Engineering
Industrial Engineering

Case Institute of Technology, Case Western Reserve University
Engineering (Biomedical, Chemical, Civil, Computer, Electrical, Fluid and Thermal Sciences, Industrial, Mechanical and Aerospace, Metallurgy and Materials Science, Polymer Science, Systems and Control, and undesignated)

Clarkson University
Chemical Engineering (Biomedical Engineering Science, Energy Engineering, Environmental Engineering, Nuclear Engineering)
Civil and Environmental Engineering (Environmental, Surveying and Construction, Geotechnical, Structural, Transportation, Water Resources, Engineering Science)
Electrical and Computer Engineering (Communication Systems, Control Systems, Power Systems, Electronic Devices and Circuits, Engineering Science, Biomedical and Environmental Systems)

State University Center at Stony Brook
Electrical Engineering
Engineering Science
Mechanical Engineering

A decision to enter the 3+2 program should be made upon admission to SUNY Cortland as a freshman. Transfer students generally cannot complete the Cortland phase of the program in three years.
Pre-Environmental Science and Forestry

2+2 PROGRAM WITH SUNY COLLEGE OF ENVIRONMENTAL SCIENCE AND FORESTRY

FACULTY
Timothy J. Baroni (pre-ESF Advisor)

DESCRIPTION
This program is designed for students who ultimately desire a bachelor of science degree in one of several different areas of environmental sciences and/or forestry, wood products engineering, paper science engineering or landscape architecture from the SUNY College of Environmental Science and Forestry (ESF) in Syracuse. After the first two years of study at SUNY College at Cortland, transfers to ESF may apply to a variety of ESF degree programs. These degree programs are outlined below.

SPECIAL FEATURES
B.S. degree programs at SUNY College of Environmental Science and Forestry are offered in:

• Environmental and Forest Biology
• Forest Resources Management and Forest Engineering
• Chemistry
• Environmental Studies
• Landscape Architecture
• Wood Products Engineering
• Paper Science Engineering

REQUIREMENTS
Students planning to transfer to the SUNY College of Environmental Science and Forestry should consult Cortland’s pre-ESF advisor for program requirements and assistance in selecting electives, which vary according to the curriculum to be followed for the major at ESF. Students who complete the first two years in Cortland’s Pre-Environmental Science and Forestry Program generally gain admission to SUNY ESF with full junior class status.

Bowers Hall, Room 352
(607) 753-2725
E-mail: baronitj@cortland.edu
ibs.cortland.edu/esf.htm
Psychology

DEPARTMENT

FACULTY
Margaret Anderson (Chair), David F. Berger, Michael D. Berzonsky, William Hopkins, Melvyn B. King, Linda O. Lavine, Robert Lehr, John P. Lombardo, Paul D. Luyben, Elizabeth Meinz, Judith Ouellette, Cornelia Rea, James Starzec, Jeffery Swartwood, Michie O. Swartwood, Michael P. Toglia

PROGRAMS OFFERED
B.A. in Psychology – 124 total credit hours
B.S. in Psychology – 124 total credit hours

MAJORS OFFERED
Psychology

CONCENTRATIONS OFFERED
Psychology (Elementary Education)

MINORS OFFERED
Psychology
Psychology of the Exceptional Child

DESCRIPTION
The Psychology Department focuses on preprofessional preparation for a combination of research and applied work. In addition to providing a strong liberal arts focus for majors not going beyond the bachelor's degree, the program is designed to provide a solid foundation for graduate school training in psychology. Successful students graduate ready for entry-level positions helping others or to pursue master's and doctorate degrees. Psychology majors have opportunities to work with faculty on research projects, and/or develop their skills in the field, working with psychologists and agencies dedicated to helping others. Our aim is to help our majors attain skills that prepare them for college-level teaching, research and therapeutic intervention.

SPECIAL FEATURES
• Fall retreat to Raquette Lake
• Field Study
• Psychology Club
• National Honor Society: Psi Chi
• Research with faculty/ conferences and publications

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to the following majors.
2. Liberal Arts Requirements: B.A. – 90 credit hours; B.S. – 75 credit hours

Major in Psychology (B.A.) * [PSY]
The major provides a broad base of understanding of psychology as a science — the methodology of the discipline, the principles and concepts in major areas, and selected areas of application. Major areas include research methods, as well as a broad range of areas represented in our four group distribution.

* The B.A. requires 0-13 credit hours of foreign language.

CAREER POTENTIAL
• Academics
• Industrial psychologist
• Research

• Counselor/therapist
• School psychologist
• Human Services

A. Required Courses: 15 credit hours

PSY 101: General Psychology I
PSY 201: Statistical Methods
PSY 202: Experimental Psychology
PSY 401: Research Methods in Psychology
PSY 482: Senior Seminar in Psychology

B. Other: 18 credit hours
One course from two of the following groups and two courses from the two others groups.

* Lab course

Group I: Experimental Psychology
PSY 311: Motivation *
PSY 312: Learning and Memory *
PSY 313: Cognitive Psychology *
PSY 411: Physiological Psychology *
PSY 412: Sensory and Perceptual Processes *

Group II: Developmental Psychology
PSY 231: Child Psychology
PSY 232: Adolescent Psychology
PSY 331: Psychology of Exceptional Children
PSY 333: Developmental Psychology
PSY 334: Psychology of Adulthood and Aging

Group III: Personality Psychology
PSY 322: Theories of Personality
PSY 421: Abnormal Psychology
PSY 422: Social Psychology

Group IV: Applied Psychology
PSY 341: Psychological Tests and Measurements
PSY 342: Psychology in Organizations
PSY 441: Human Factors and Ergonomics *
PSY 486: Counseling Psychology

C. Courses in Related Areas for the Bachelor of Arts Degree:
1. Six credit hours in biology from:
   BIO 110: Principles of Biology I
   BIO 111: Principles of Biology II
   BIO 202: Biological Sciences II
   BIO 210: Cellular Biology
   BIO 301: Human Anatomy and Physiology I
BIO 302: Human Anatomy and Physiology II
BIO 303: Microbiology and Human Disease
BIO 304: Microbiology
BIO 306: Human Genetics
BIO 312: Genetics
BIO 325: Biology of Human Aging
BIO 401: Invertebrate Zoology
BIO 402: Biology of Vertebrates
BIO 408: Biology of Insects
BIO 409: Animal Behavior
BIO 411: Ornithology
BIO 412: General Ecology
BIO 414: Mammalian Physiology
BIO 422: Biological Evolution
BIO 424: Physiological Ecology
BIO 425: Developmental Biology

2. Three credit hours in sociology and three credit hours in anthropology from:
   - SOC 150: Introduction to Sociology
   - ANT 102: Introduction to Cultural Anthropology
   - ANT 300: Human Evolution and Survival
   or any other undergraduate sociology/anthropology courses that have these as prerequisites.

3. Three credit hours in philosophy from:
   - PHI 100: Introduction to Philosophy
   - PHI 202: Introduction to Modern Philosophy
   - PHI 210: Knowledge and Reality
   - PHI 375: Science, Truth and Bias
   Other philosophy courses may be substituted with the approval of the Psychology Department.

4. Three credit hours in mathematics from:
   - MAT 111: Algebra for College Students
   - MAT 115: Preparation for Calculus
   - MAT 121: Calculus A
   - MAT 122: Calculus B
   - MAT 125: Calculus I
   - MAT 126: Calculus II
   - MAT 224: Discrete Mathematics
   Or any other undergraduate mathematics course that has any of these as a prerequisite

5. Three credit hours in computer applications:
   - CAP 100: Introduction to Computer Applications

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Minor in Psychology [PSY]
A. Required courses
   - PSY 101: General Psychology I
   - PSY 201: Statistical Methods
   - PSY 202: Experimental Psychology or
   - PSY 203: General Psychology II: Experimental Methods

B. Three semester hours selected from each of the four groups listed under the requirements for the psychology major with a B.A. degree

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 21

Minor in Psychology of the Exceptional Child [PSYX]
A. Required Core Courses:
   - PSY 231: Child Psychology
   - PSY 331: Psychology of Exceptional Children
   - PSY 332: Educational Psychology
   - PSY 360: Applied Behavior Analysis I

B. Elective Courses:
   - PSY 250: Psychological Perspectives on the History of Special Education
   - PSY 400: Field Study in Psychology
   - PSY 431: The Psychology of Mental Retardation
   - PSY 432: Psychology of Learning Disabilities
   - PSY 433: Behavior Disorders in Educational Settings
   - REC 393: Recreation for Persons with Disabilities
   - SHH 270: Introduction to Communication Disorders
   - SHH 370: Articulation and Language Disorders
   - SHH 473: Neuropathologies of Language and Speech
   - PED 336: Physical Education for the Exceptional Child
   - PED 446: Inclusion of Individuals with Disabilities in Physical Education
   - PED 447: Adapted Physical Activity and Individual Differences
   - PED 565: Perceptual Motor Development

* Other courses may be selected through prior advisement and with approval of the Psychology Department's Exceptional Child Committee

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 21

Major in Psychology (B.S.) * [PSY]
B.S. candidates must take an additional lab course in psychology as well as six additional units of biology, chemistry, physics or mathematics.

Acceptable related areas courses for the B.S. requirement include:
   - Biology: Same as above
   - Chemistry: 121, 122, 221, or any other undergraduate chemistry course that has any of the above as a prerequisite
   - Math: Same as above for the B.A. degree or MCS 186
   - Physics: 100, 105, 106, 150, 201 or any undergraduate course that has any of the above as prerequisite

* The B.S. requires 0-7 credit hours of foreign language

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124
**Example of the undergraduate degree in Psychology over four years**

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<th>First Year</th>
<th>Second Year</th>
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<tr>
<td><strong>Fall</strong></td>
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<tr>
<td>PSY 101</td>
<td>PSY (Group III)</td>
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<tr>
<td>CPN 100</td>
<td>PSY 201</td>
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<tr>
<td>COR 101</td>
<td>BIO 110 (GE)</td>
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<td>SOC 150 or ANT (GE)</td>
<td>GE course</td>
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<tr>
<td>Foreign language* or GE CAP 100</td>
<td>Foreign language* or elective</td>
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<td><strong>Spring</strong></td>
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<tr>
<td>PSY (Group II)</td>
<td>PSY 202</td>
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<tr>
<td>CPN 101</td>
<td>BIO 111</td>
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<td>MAT 111 or higher</td>
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<td>Foreign Language or elective</td>
<td>Foreign language* or elective</td>
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<th>Third Year</th>
<th>Fourth Year</th>
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<tbody>
<tr>
<td><strong>Fall</strong></td>
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<td>PSY</td>
<td>PSY Lab**</td>
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<tr>
<td>PSY (Group IV)</td>
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<td>PHI</td>
<td>B.S. science/math req.***</td>
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<td>Elective</td>
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<td>PSY Lab**</td>
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* Foreign Language required at intermediate level for B.A. degree

** B.A. degree requires one PSY lab, the B.S. degree requires two PSY labs

***B.S. degree requires two science and/or math courses in addition to biology requirement in related areas.

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**Course Descriptions**

**PSY 101: General Psychology I**
(A) Introduction to scientific study of behavior emphasizing motivation, emotion, perception, learning, thinking, personality, individual differences. (3 cr. hr.) ■

**PSY 129, 229, 329, 429, 529: Special Topics in Psychology**
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

**PSY 201: Statistical Methods**
(A) Basic concepts of probability, descriptive and inferential statistics including central tendency, variability, correlation; analysis of variance and parametric tests. Mathematics majors may take course only as free elective. (Also listed as MAT 201, COM 230, ECO 221.) (3 cr. hr.) ■

**PSY 202: Experimental Psychology**
(A) Lectures, coordinated laboratory in learning, sensation and perception, psychophysics, related areas. Laboratory includes literature search, experimental design, data analysis preparation of scientific reports. Coordinated laboratory work. Prerequisite: PSY 101, 201. (3 cr. hr.) ■

**PSY 203: General Psychology II: Experimental Methods**
(A) Introductory laboratory course; experimental work in selected areas to illustrate basic research techniques. Coordinated laboratory work. Not open to psychology majors. Prerequisite: PSY 101, 201. (3 cr. hr.)

**PSY 210: Racial and Gender Role Stereotypes**
(A) Focus on racial and gender role awareness and attitudes in individuals. Prejudice and discrimination against ethnic minorities and women are examined, from both historical and contemporary perspectives. Also, the causes and consequences of prejudice and discrimination are discussed. (3 cr. hr.) ■

**PSY 231: Motivation**
(B) Factors controlling initiation, direction, intensity of goal-directed behavior in man and animals. Selected theories, current research; coordinated laboratory work. Prerequisite: PSY 202 or 203; Recommended: PSY 312 . (3 cr. hr.) ■

**PSY 232: Adolescent Psychology**
(A) Physical, intellectual, emotional, social aspects of adolescent development, adjustment. Not open for credit to students who have taken PSY 333. Prerequisite: PSY 101. (3 cr. hr.) ■

**PSY 250: Psychological Perspectives on the History of Special Education**
(O) Psychological, social, political origins of present views on care, treatment, education of people with handicapping conditions. Emphasis on people with mental retardation. Prerequisite: PSY 101. (3 cr. hr.) ■

**PSY 311: Motivation**
(B) Factors controlling initiation, direction, intensity of goal-directed behavior in man and animals. Selected theories, current research; coordinated laboratory work. Prerequisite: PSY 202 or 203; Recommended: PSY 312 . (3 cr. hr.) ■

**PSY 312: Learning and Memory**
(B) Conditions, principles of learning in man and animals. Learning theories, current research; coordinated laboratory work. Prerequisite: PSY 202 or 203. (3 cr. hr.) ■
PSY 313: Cognitive Psychology  
(B) Models and theories used in the field of cognitive psychology, and research in many aspects of cognition including memory, knowledge acquisition and use, language, reasoning and problem solving, and metacognition. Prerequisite: PSY 202 or 203. (3 cr. hr.) ■

PSY 322: Theories of Personality  
(B) Theories of organization, development of personality. Prerequisites: PSY 101, three additional hours in psychology. (3 cr. hr.) ■

PSY 330: Psychology of Gender Roles  
(O) Survey and critical analysis of research and theory regarding behavioral and cognitive differences between the sexes. Emphasis will be placed on biological, social and cultural determinants of sex roles and their consequences. Prerequisite: PSY 101. (3 cr. hr.) ■

PSY 331: Psychology of Exceptional Children  
(A) Etiology, diagnosis, facilitation and adjustment of physically handicapped, emotionally disturbed, gifted, mentally retarded children. Prerequisites: PSY 101, PSY 231, 232, 332 or 333 recommended. (3 cr. hr.) ■

PSY 332: Educational Psychology  
(A) Educational implications of psychological facts, principles, theories; human development; learning, evaluation, adjustment. Prerequisite: PSY 101. (3 cr. hr.) ■

PSY 333: Developmental Psychology  
(B) Developmental processes from childhood through adulthood. Emphasis on life-span changes in cognitive, personality and social processes. Prerequisite: PSY 101. (3 cr. hr.) ■

PSY 334: Psychology of Adulthood and Aging  
(B) Changes (in formal aging) in sensory and perceptual processes, in learning and cognition, in intelligence, in personality, in social relations; and other selected problems in aging. Prerequisite: PSY 101. (3 cr. hr.) ■

PSY 341: Psychological Tests and Measurements  
(B) Theory of test construction including evaluation, standardization, interpretation; representative survey of psychological tests, measures. Prerequisites: PSY 101, 201. (3 cr. hr.) ■

PSY 342: Psychology in Organizations  
(B) Psychological principles and methods applied to organizational problems. Prerequisites: PSY 101, three additional hours in psychology. (3 cr. hr.) ■

PSY 346: Sport Psychology  
(O) Selected psychological, related theoretical factors influencing behavior of individuals participating in sport, physical education. Prerequisite: PSY 101. (Also listed as EXS 346.) (3 cr. hr.) ■

PSY 350: Psychology of Language  
(O) Problems, issues, theories, research related to acquisition of language and language behavior. Not open to those having credit for SHH 300. Prerequisite: PSY 101. (3 cr. hr.) ■

PSY 360: Applied Behavior Analysis I  
(A) Principles, techniques of operant conditioning and experimental analysis of behavior. Relationship to selected areas such as hyperactivity, inattentiveness, aggression, acting out and academic deficiencies. Prerequisite: Nine hours of psychology or six hours of psychology and consent of instructor. (3 cr. hr.) ■

PSY 361: Applied Behavior Analysis II  
(O) Advanced study and application of the principles and procedures of behavior analysis. Use of behavioral strategies with individuals with exceptional needs concurrent with advanced coursework in techniques such as task analysis, functional analysis and positive behavioral support. Prerequisites: PSY 360 and permission of instructor. (3 cr. hr.)

PSY 362: Social Psychology  
(B) Individual behavior as function of interaction with social groups, social institutions. Not open to those having credit for PED 287. Prerequisite: PSY 101. (3 cr. hr.) ■

PSY 363: The Psychology of Mental Retardation  
(A) Broad overview of field of mental retardation with specific emphasis on major areas of research and controversy, including issues in definition, etiology, behavioral characteristics, intervention. Prerequisite: PSY 101. Recommended: PSY 231, 232, 331, 332 or 333. (3 cr. hr.) ■

PSY 432: Psychology of Learning Disabilities  
(A) An examination of the physical, social-emotional and cognitive characteristics of learning disabled individuals. Theory and application of intervention strategies are also studied. Prerequisite: PSY 101. Recommended: PSY 231, 232, 331, 332 or 333. (3 cr. hr.) ■

PSY 433: Behavior Disorders in Educational Settings  
(A) A study of the cognitive and social-emotional characteristics of children and youth with behavior disorders. Etiology as well as intervention techniques will be discussed. Prerequisites: PSY 101; PSY 231, 232, 331, 332 or 333 recommended. (3 cr. hr.) ■

PSY 436: Assessment and Instruction of Learners with Special Needs  
(O) Study of assessment procedures (formal and informal) typically used with exceptional children and youth as well as relationship of these procedures to educational interventions. Students will learn how to write Individualized Educational Programs, evaluations, and plan daily lessons utilizing commercial and teacher-made materials. Course is divided into four modules — overview, reading, math
and conclusions, each of which has a field work component. (Also listed as EDU 436.) (4 cr. hr.)

**PSY 441: Human Factors and Ergonomics**
(B) The application of empirical data about human behavior, capabilities and limitations to the design of systems, machines, tools, consumer products, and work and living environments for safe and effective human use. Coordinated laboratory work. Prerequisite: PSY 202, 203, or 342. (3 cr. hr.)

**PSY 482: Senior Seminar in Psychology**
(A) Individual study or projects on selected topics in contemporary psychology — integration, elaboration of previous course work. Open only to senior psychology majors, minors. (3 cr. hr.)

**PSY 486: Counseling Psychology**
(B) Survey of systems of counseling, psychotherapy; consideration of prevention theory and methods, clinical techniques, professional issues, research in therapeutic effectiveness. Prerequisite: Nine hours of psychology; PSY 421 recommended. (3 cr. hr.)

**PSY 490: Readings in Psychology**
(A) Independent reading on selected topic. Limited to topics for which no formal course is offered. Student is supervised by department member. Course may be taken only once. Prerequisites: Nine hours in psychology, consent of department. (3 cr. hr.)

**PSY 491: Special Study in Psychology I**
(A) Independent study or research on selected topic. May be taken for honors credit. Prerequisite: Consent of department. (3 cr. hr.)

**PSY 492: Special Study in Psychology II**
(A) May be taken for honors credit. Prerequisites: PSY 491, consent of department. (3 cr. hr.)

**PSY 493: Senior Thesis in Psychology**
(A) Investigation, written report of selected problem in major field of psychological research — supervised by a member of department. Completed thesis to be presented at a colloquium. May be taken for honors credit. Prerequisites: PSY 491, consent of department. (3 cr. hr.)

**PSY 500: Advanced Child Psychology**
(O) Advanced study of principles of child behavior, development. Prerequisite: PSY 231 or 232 or 332 or 333 or 516. (3 cr. hr.)

**PSY 501: Advanced Educational Psychology**
(B) Advanced study of psychological principles, theories related to education. Prerequisite: PSY 231 or 232 or 332 or 333 or 516. (3 cr. hr.)

**PSY 505: History and Systems of Psychology**
(O) Historical evaluation of theoretical concepts, issues in systematic psychology from 1700 to 1950. Prerequisites: Twelve hours in psychology, consent of department. (3 cr. hr.)

**PSY 507: Statistical Designs for Experimentation**
(O) Advanced statistical methods, experimental designs appropriate to univariate, multivariate problems. Prerequisite: PSY 201. (3 cr. hr.)

**PSY 508: Interpretation of Advanced Statistical Techniques**
(O) Interpretation of univariate and multivariate statistical techniques used in applied research; analysis of variance, multivariate analyses, nonparametric tests and test construction statistics included. Prerequisite: PSY 507. (3 cr. hr.)

**PSY 509: Advanced Laboratory Methods**
(O) Laboratory experience in conducting research; experimental design, apparatus construction, data analysis, reporting of results. Prerequisites: PSY 202 or 203. (3 cr. hr.)

**PSY 510: Applied Research Methods**
(O) Methods of empirical research for applied settings, including hypothesis formation, data collection, data interpretation and reporting of results. Prerequisite: PSY 202. (3 cr. hr.)

**PSY 511: Advanced Motivation**
(O) Advanced study of motivation as psychological construct in contemporary theories. Prerequisite: PSY 311. (3 cr. hr.)

**PSY 512: Advanced Learning**
(O) Advanced study of post-1950 theoretical, methodological approaches to learning emphasizing operant conditioning, mathematical models, hypothetico-deductive systems. Prerequisite: PSY 312. (3 cr. hr.)

**PSY 513: Advanced Theories of Sensory and Perceptual Processes**
(O) Advanced study of contemporary problems, issues, theories related to sensory, perceptual processes. Prerequisite: PSY 412. (3 cr. hr.)

**PSY 514: Advanced Physiological Psychology**
(O) Detailed analysis of anatomical, neurophysiological, biochemical correlates of selected behavior. Prerequisite: PSY 411. (3 cr. hr.)

**PSY 516: Psychological Foundations of Education**
(O) Theories, data, principles of psychology applied to classroom. Open only to graduate students not having child, adolescent, developmental or educational psychology. Prerequisite: Three hours of psychology. (3 cr. hr.)

**PSY 532: Advanced Adolescent Psychology**
(O) Advanced study of adolescent behavior, development. Prerequisite: PSY 231 or 232 or 332 or 333 or 516. (3 cr. hr.)

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Course codes: A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter, ■ = LAS
Recreation and Leisure Studies

DEPARTMENT

FACULTY
Lynn Anderson (Chair), Dale Anderson, Margaret Arnold, Wayne Stormann, Sharon Todd, Vicki Wilkins, Susan Wilson, Anderson Young

PROGRAMS OFFERED
B.S. in Recreation – 124 total credit hours

MAJORS OFFERED
Recreation

CONCENTRATIONS OFFERED
Management of Leisure Services
Therapeutic Recreation
Leisure/Recreation Program Delivery
Outdoor Recreation Management and Education
Emphasis: Outdoor Leadership
Emphasis: Natural Resource Recreation Management
Emphasis: Camp Management
Emphasis: Environmental and Cultural Interpretation

DESCRIPTION
The Recreation and Leisure Studies Department at SUNY Cortland is the most comprehensive professional preparation program of its kind in New York State. Established in 1948 and fully accredited by the National Recreation and Park Association, the department is also one of the oldest and most highly respected programs in the United States. Many of the most distinguished scholars and professionals in the recreation field began their careers by studying here. The curriculum prepares students for a wide variety of career opportunities in outdoor recreation, therapeutic recreation, recreation management, and recreation programming and leadership in a wide variety of settings and agencies. See the department web page for an in-depth description of degree offerings.

SPECIAL FEATURES
• Very bright job market for recreation graduates, as predicted by the U.S. Department of Labor
• High employment rate (over 95 percent) of our graduates
• Nationally and internationally recognized faculty committed to students
• Internship experience
• The Annual Cortland Recreation Conference – one of the premier recreation conferences in the northeast
• Outdoor Education Center in the Adirondacks
• Opportunities for International Study
• Suggested minors in Environmental and Outdoor Education (see Environmental and Outdoor Education) and Tourism Development (see Geography Department)
• Cortland College Recreation Association and Rho Phi Lambda, the national honorary for recreation students
• Numerous scholarships for recreation majors

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to the following majors.
2. Liberal Arts Requirements: 60 credit hours

Major in Recreation [REC]
The major in recreation prepares students for a variety of career opportunities. Because all people seek recreation services in a spectrum of agencies and settings, this degree provides a foundation in liberal arts, leadership, human relations and management skills. This degree is accredited by the National Recreation and Park Association and the American Association of Leisure and Recreation.

CAREER POTENTIAL
• Parks and recreation director
• YWCA/YMCA director
• Activity director
• Camp director

A. Required Courses: 34 credit hours
   EDU 271: Foundations of Recreation
   REC 303: Community Recreation
   EDU 328: Programming and Leadership
   REC 360: Camp Counseling and Outdoor Education
   REC 370: Outdoor Education Practicum
   REC 393: Recreation for Persons with Disabilities
   REC 402: Management of Recreation Resources
   REC 407: Evaluation and Research
   REC 470: Senior Seminar
   REC 495: Administration of Recreation
   REC electives

B. Internship: 15 credit hours
   EDU 475: Internship in Recreation Education (Prerequisite is a New York State Child Abuse Recognition and Reporting Certificate.)

C. Other: 38 credit hours
   CAP 100: Introduction to Computer Applications
   COM 210: Fundamentals of Public Speaking
   HLH 120: Responding to Emergencies
   Activity Requirement (2-6 credit hours of recreation activities [at least two different activities])
   Liberal Arts and Free Electives (24-28 credit hours)

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124
Major in Recreation with a concentration in Management of Leisure Services [REC/MGLS]

Management of Leisure Services combines advanced level study in leisure services management and administration with supporting management science courses in the Economics Department. The concentration prepares students to work at management level positions in the diverse field of parks and recreation. This concentration is accredited by the National Recreation and Park Association and the American Association for Leisure and Recreation.

**CAREER POTENTIAL**
- Parks and recreation director
- Recreation administrator
- State park manager
- Commercial recreation manager (e.g., ski areas, resorts, sport and fitness facilities)

A. Required Courses: 28 credit hours
   - EDU 271: Foundations of Recreation
   - REC 303: Community Recreation
   - EDU 328: Programming and Leadership
   - REC 360: Camp Counseling and Outdoor Education
   - REC 370: Outdoor Education Practice
   - REC 393: Recreation for Persons with Disabilities
   - REC 402: Management of Recreation Resources
   - REC 407: Evaluation and Research
   - REC 470: Senior Seminar
   - REC 495: Administration of Recreation

B. Internship: 15 credit hours
   - EDU 475: Internship in Recreation Education (Prerequisite is a New York State Child Abuse Recognition and Reporting Certificate.)

C. Concentration in Management of Leisure Services: 24 credit hours
   - REC 344: Commercial Recreation Management
   - REC 509: Human Resource Management in Leisure Services
   - REC 546: Legal Aspects of Recreation and Park Services
   - ECO 111: Principles of Microeconomics
   - ECO 352: Finance
   - MGT 250: Principles of Management or
   - POL 240: Introduction to Public Administration
   - MGT 253: Principles of Marketing
   - MGT 254: Principles of Accounting

D. Other: 20 credit hours
   - CAP 100: Introduction to Computer Applications
   - COM 210: Fundamentals of Public Speaking
   - HLH 120: Responding to Emergencies
   - Activity Requirement (2-6 credit hours of recreation activities [at least two different activities])
   - Liberal Arts and Free Electives (6-10 credit hours)

**TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124**

Major in Recreation with a concentration in Therapeutic Recreation [REC/TR]

Therapeutic recreation services are provided to individuals with disabilities and other diverse needs in a variety of settings, from hospitals, to group homes, to human service centers. Advanced level study in therapeutic recreation, rehabilitation, and human services allows graduates of this concentration to qualify to sit for the national certification examination to become a Certified Therapeutic Recreation Specialist. This concentration is accredited by the National Recreation and Park Association and the American Association for Leisure and Recreation.

**CAREER POTENTIAL**
- Therapeutic recreation specialist in health care facilities such as rehabilitation hospitals and psychiatric centers
- Therapeutic recreation specialist in long-term care facilities
- Therapeutic recreation manager
- Integration or inclusion specialist in community parks and recreation departments or nonprofit agencies

A. Required Courses: 28 credit hours
   - EDU 271: Foundations of Recreation
   - REC 303: Community Recreation
   - EDU 328: Programming and Leadership
   - REC 360: Camp Counseling and Outdoor Education
   - REC 370: Outdoor Education Practicum
   - REC 393: Recreation for Persons with Disabilities
   - REC 402: Management of Recreation Resources
   - REC 407: Evaluation and Research
   - REC 470: Senior Seminar
   - REC 495: Administration of Recreation

B. Internship: 15 credit hours
   - EDU 475: Internship in Recreation Education (Prerequisite is a New York State Child Abuse Recognition and Reporting Certificate.)

C. Concentration in Therapeutic Recreation: 27 credit hours
   - REC 330: Introduction to Therapeutic Recreation
   - REC 530: Therapeutic Recreation Techniques and Procedures
   - REC 535: Therapeutic Recreation Program Design
   - EDU 515: Leisure Education
   - BIO 301: Human Anatomy and Physiology I or BIO 302: Human Anatomy and Physiology II
   - PSY 101: General Psychology I
   - PSY 333: Developmental Psychology
   - PSY 421: Abnormal Psychology
   - Support course in human services by advisement

D. Other: 17 credit hours
   - CAP 100: Introduction to Computer Applications
   - COM 210: Fundamentals of Public Speaking
   - HLH 120: Responding to Emergencies
   - Activity Requirement (2-6 credit hours of recreation activities [at least two different activities])
   - Liberal Arts and Free Electives (3-7 credit hours)

**TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124**
Major in Recreation with a concentration in Leisure/Recreation Program Delivery (REC/LRPD)

The Leisure/Recreation Program Delivery concentration builds on the core curriculum in recreation programming, adding in-depth knowledge and skills in leadership, supervision, event planning, human growth and development, and social behavior. Students can choose a curriculum focused on working with youth or with older adults. This concentration is accredited by the National Recreation and Park Association and the American Association for Leisure and Recreation.

CAREER POTENTIAL

- Campus recreation director
- Boys and Girls Club director
- After school or teen center program director
- Retirement community activity director

A. Required Courses: 28 credit hours

EDU 271: Foundations of Recreation
REC 303: Community Recreation
EDU 328: Programming and Leadership
REC 360: Camp Counseling and Outdoor Education
REC 370: Outdoor Education Practicum
REC 393: Recreation for Persons with Disabilities
REC 402: Management of Recreation Resources
REC 407: Evaluation and Research
REC 470: Senior Seminar
REC 495: Administration of Recreation

B. Internship: 15 credit hours

EDU 475: Internship in Recreation Education (Prerequisite is a New York State Child Abuse Recognition and Reporting Certificate.)

C. Concentration in Leisure/Recreation Program Delivery: 24-25 credit hours:

Advanced Administration and Supervision Area: 3 credit hours from the following:
REC 503: Campus Recreation Programming and Administration
REC 509: Human Resource Management in Leisure Services
REC 546: Legal Aspects in Recreation and Park Services
REC 560: Camp and Outdoor Program Administration

Human Development Area: 3 credit hours from the following:
PSY 231: Child Psychology
PSY 232: Adolescent Psychology
PSY 333: Developmental Psychology
PSY 334: Psychology of Adulthood and Aging

Social Behavior Area:
PSY 422: Social Psychology and

3 credit hours from the following:
EDU 525: Teaching the Inner City Child
REC 508: Leisure Services for Older Adults
SOC 220: Introduction to Social Gerontology
SOC 373: Deviant Behavior
SOC 425: Sociology of Aging and Life Course
SOC/REC 455: Sociology of Leisure
SOC 462: Juvenile Delinquency
SOC 464: Corrections
SOC 470: Sociology of the Family

Wellness/Healthy Lifestyles Area: 3-4 credit hours from the following:
HLH 110: Personal and Community Health
HLH 116: Workshop in Drug Studies
HLH 137: Child and Adolescent Sexual Abuse
HLH 150: Rational-Emotive Education
HLH 210: Wellness and Health Promotion
HLH 301: Stress Management
HLH 313: Mental and Emotional Health

D. Other: 19-20 credit hours

CAP 100: Introduction to Computer Applications
COM 210: Fundamentals of Public Speaking
HLH 120: Responding to Emergencies
Activity Requirement (2-6 credit hours of recreation activities [at least two different activities])
Liberal Arts and Free Electives (5-10 credit hours)

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Recreation with a concentration in Outdoor Recreation Management and Education (REC/ORME)

The Outdoor Recreation Management and Education concentration allows students to focus in on different aspects of the outdoor recreation field. Outdoor leadership, natural resource recreation management, camp management, and environmental and cultural interpretation are designated emphases in this concentration. This concentration is not open to students with a minor in environmental and outdoor education.

CAREER POTENTIAL

- Outdoor leader in a variety of agencies from Outward Bound to campus outdoor programs to camps
- Camp director
- State or national park manager
- Outdoor educator or interpretation specialist with nature centers, parks, and other environmental agencies

A. Required Courses: 28 credit hours

EDU 271: Foundations of Recreation
REC 303: Community Recreation
EDU 328: Programming and Leadership
REC 360: Camp Counseling and Outdoor Education
REC 370: Outdoor Education Practicum
REC 393: Recreation for Persons with Disabilities
REC 402: Management of Recreation Resources
REC 407: Evaluation and Research
REC 470: Senior Seminar
REC 495: Administration of Recreation

B. Internship: 15 credit hours

EDU 475: Internship in Recreation Education (Prerequisite is a New York State Child Abuse Recognition and Reporting Certificate.)

C. Core in Outdoor Recreation Management and Education (required in all emphases): 12-13 credit hours:

1. Natural Environment Area: 3 credit hours from the following:
   BIO 307: Field Natural History or
   BIO 310: Field Biology

2. Ecology Area: 3 credit hours from the following:
   BIO 102: Ecology and the Human Environment or
   BIO 412: General Ecology or
CHE 125: Chemistry and the Environment or
GLY 160: Geology and the Human Environment or
GRY 110: Physical Geography

3. Environmental Attitudes and Literacy Area: 3 credit hours
   from the following:
   EST 100: Introduction to Environmental Studies or
   REC 310: Wilderness and American Culture

4. Environmental Teaching Area: 3 credit hours from the following:
   REC 569: Environmental and Cultural Interpretation or
   EDU 462: Environmental and Outdoor Education

D. One of the following Emphases: 12-13 credit hours
   - **Outdoor Leadership Emphasis**
     REC 379: Outdoor Recreation Activities
     Outdoor recreation activity courses, by advisement (3 cr. hr.)
     REC 574: Outdoor Pursuits Education and Leadership
     REC 560: Camp and Outdoor Program Administration
   - **Natural Resource Recreation Management Emphasis**
     REC 541: Site and Facilities Planning
     GLY 292: Land Use and Planning
     GRY 328: Geographic Information Systems
     POL 308: Environmental Law or
     REC 345: Adirondack Park Policies and Issues or
     a policy course approved by the department
   - **Camp Management Emphasis**
     EDU 515: Leisure Education
     REC 509: Human Resource Management in Leisure Services
     REC 560: Camp and Outdoor Program Administration
     REC 541: Site and Facilities Planning or
     REC 546: Legal Aspects of Recreation and Park Services
   - **Environmental and Cultural Interpretation Emphasis**
     REC 569: Environmental and Cultural Interpretation or
     EDU 462: Environmental and Outdoor Education
     (whichever is not taken in the core)
     EST 100: Introduction to Environmental Studies or
     REC 310: Wilderness and American Culture
     (whichever is not taken in the core)
     REC 560: Camp and Outdoor Program Administration
     Elective in interpretation, by advisement

E. Other: 18-20 credit hours
   CAP 100: Introduction to Computer Applications
   COM 210: Fundamentals of Public Speaking
   HLH 120: Responding to Emergencies (Outdoor Leadership
     Emphasis can substitute Wilderness First Responder certification)
   Activity Requirement (2-6 credit hours of recreation
   activities [at least two different activities])
   Liberal Arts and Free Electives (4-10 credit hours)

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

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**Example of the undergraduate degree in Recreation over four years**

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**TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124**
Recreation and Leisure Studies

COURSE DESCRIPTIONS

Note: Some recreation courses have an EDU prefix and are listed after the REC prefix courses.

REC 129, 229, 329, 429, 529: Special Topics in Recreation and Leisure Studies
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

REC 303: Community Recreation
(S) Recreation in community agencies. History, organization, personnel, programming, finances, areas, facilities. Field trips may be required. (3 cr. hr.)

REC 307: Outdoor Education for Persons with Disabilities
(O) Overview of philosophy, principles, strategies, and practices of outdoor education in working with persons with disabilities. Course typically includes practical experience at the SUNY Cortland Outdoor Education Center at Raquette Lake. Not open to students with credit for PED 307. Prerequisite: Permission of instructor.

REC 310: Wilderness and American Culture
(F) History of ideas and attitudes about wilderness as expressed in the art, literature, philosophy, and politics of American culture. Emphasis on developing views of wilderness, nature, and environment that are historically and philosophically grounded. (3 cr. hr.)

REC 315: Ecotourism
(S-C) A global and local analysis of the physical environment as a tourism development resource. An examination of such natural systems as the rain forest, ocean and desert as tourism resources and the environmental impact of tourism on the viability of these riches. Regional and local studies of the environment as a basis for tourism development will be drawn from Amazonia, East Africa, Central America, the Caribbean, and North America. (Also listed as GRY 315.) Prerequisite: a course in geography, geology, biology, chemistry or environmental science. (3 cr. hr.)

REC 330: Introduction to Therapeutic Recreation
(A) History and philosophical development of therapeutic recreation. Examination of the needs, characteristics, abilities of people with disabilities; role of therapeutic recreation in enhancing quality of life. (3 cr. hr.)

REC 344: Commercial Recreation Management
(F) Study of commercial recreation as major component of the leisure service delivery system. Analysis of development potential of different types of recreation enterprises including resources, location, risks, sources of financing, pricing, managerial requirements, marketing, sources of technical assistance. (3 cr. hr.)

REC 345: Adirondack Park Policies and Issues
(O) Analysis of environmental and land-use policies in the largest park in the contiguous United States. Often taught at Cortland’s Outdoor Education Center at Raquette Lake in the Adirondack Park. When taught at the Outdoor Education Center, students are assessed a fee for room and board. Permission of instructor required to register. (Also listed as POL 345.) (3 cr. hr.)

REC 360: Camp Counseling and Outdoor Education
(S) Methods, techniques of camp counseling, programming. Knowledge, methods, practices for education in, about, and for the outdoors. Often includes lab, field trips. (3 cr. hr.)

REC 370: Outdoor Education Practicum
(S-M) Outdoor living skills and environmental appreciation. Techniques and practices of outdoor education, organized camping, and backcountry travel. Summer session at Raquette Lake. Participants are assessed a practicum fee. Corequisite: REC 360. (2 cr. hr.)

REC 379: Outdoor Recreation Activities
(F) Knowledge, skill, techniques, policies and procedures related to selected outdoor recreation activities. Prerequisite: Consent of instructor. (3 cr. hr.)

REC 393: Recreation for Persons with Disabilities
(S) Resource management principles, practices, policies, and programs for operation of wide spectrum of public and private recreation areas and facilities. (3 cr. hr.)

REC 407: Evaluation and Research
(A) Introduction to statistical concepts and tools in design, evaluation of recreational programs, services. Presentation of measurement, instrumentation, and research methodology emphasizing interpretation and application in the field. (3 cr. hr.)

REC 415: Tourism Planning and Development
(F-C) The spatial analysis of tourism as a component of economic development. A regional comparison of the marketing of tourism resources in the developed and less developed countries of the world. Examination of the resources necessary for the development of tourism and an analysis of the economic and environmental impact on a location as a result of marketing those resources. (Also listed as GRY 415.) Prerequisite: GRY 215. (3 cr. hr.)

REC 427: Special Events Planning I
(S) The goal of this course is to provide students with the opportunity to explore the growing phenomenon of special events. REC 427 (Special Events Planning I) is a prerequisite to REC 428 (Special Events Planning II) and is considered to be an advanced recreation programming course which focuses on special events planning. Students will be introduced to topic areas such as social and cultural phenomenon of special events, marketing, planning, securing sponsorships, research and targeting, and marketing and publicity. (1 cr. hr.)
REC 428: Special Events Planning II  
(F) This course focuses on advanced recreation programming for special events. Content areas include publicizing, targeting audiences, implementation, impact assessment, and evaluation of special events. Application of conceptual and practical procedures will include the Annual Cortland Recreation Conference during the fall semester. This special event attracts over 400 students and practitioners in the field of recreation, leisure, and park services. Prerequisite: REC 427. (2 cr. hr.)

REC 455: The Sociology of Leisure  
(O) History, growth of leisure. Contemporary problems of mass leisure; relation to work, politics, economics and such basic human institutions as family, church, community. Prerequisite: SOC 150. (Also listed as SOC 455.) (3 cr. hr.)

REC 462: Environmental and Outdoor Education  
(S) History, development, and trends in environmental and outdoor education. Curriculum development for fostering an environmentally literate citizenry and techniques for successfully utilizing the out-of-doors as a teaching medium. Field trips and outdoor laboratory experiences. (3 cr. hr.)

REC 470: Senior Seminar  
(A) Development and analysis of internship and career goals, exploration of characteristics of the profession in relation to personal and professional goals, including a focus on professional ethics, continued professional development, and development of supervision skills in the context of issues and trends in the field. Professional field experience required. Prerequisite: Students must have senior standing during the semester course is taken. (2 cr. hr.).

REC 473: Camp Leadership  
(M) Advanced theory practicum in administration, leadership, programming at the College Outdoor Education Center. Prerequisite: Consent of instructor. (2 cr. hr.)

REC 495: Administration of Recreation  
(F) Procedures, practices, policies in administration of recreation. Legislation, torts and contracts, managing authorities, budgets, records and reports, public relations, personnel practices. (3 cr. hr.)

REC 503: Campus Recreation Program and Administration  
(O) Design, coordination, delivery, and management of leisure, arts, and recreation programs and services for the campus community. Topics include programming principles, types of programs, interoffice/provider coordination, publicity, budgeting, supervision, evaluation, facilities, equipment management, and auxiliary services (3 cr. hr.)

REC 508: Leisure Services for Older Adults  
(C) Intensive study of problems associated with aging; implications for health, recreation. Recreational needs, programs; physical and emotional health; sociological, psychological, educational, economic factors pertinent to aging. (3 cr. hr.)

REC 509: Human Resource Management in Leisure Services  
(S) Contemporary issues and related administrative practices associated with managing human resources in leisure services. Examining concepts, principles, and objectives of personnel supervision, including functions, processes, identification and application of methods and techniques. (3 cr. hr.)

REC 530: Therapeutic Recreation Techniques and Procedures  
(S) Techniques and procedures relevant to the therapeutic recreation process including activity analysis, assessment, and documentation. Lab is required. Prerequisite: REC 330 or consent of instructor. (3 cr. hr.)

REC 531: Inclusive Outdoor Education  
This course is designed to address issues, models, and strategies pertaining to the development of inclusive outdoor education programs that address all ability levels including those with physical and developmental disabilities. (Also listed as PED 531). Not open to students with credit for PED 531. (3 cr. hr.)

REC 535: Therapeutic Recreation Program Design  
(F) Design of comprehensive and specific programs in therapeutic recreation settings; therapeutic approaches and facilitation techniques; examination of related professional trends and issues. Prerequisite: REC 530. (3 cr. hr.)

REC 538: Administration of Therapeutic Recreation  
(C) In-depth examination of issues related to administration of therapeutic recreation in clinical and community settings. Prerequisite: REC 330 or equivalent. (3 cr. hr.)

REC 541: Site and Facilities Planning  
(O) Design of recreation areas and facilities; feasibility studies, site selection, environmental impact, accessibility, planning, and development. Prerequisite: Consent of instructor. (3 cr. hr.)

REC 544: Commercial Recreation Management  
(F) The study of commercial recreation as a major component of understanding leisure service delivery systems. Analysis of the development potential of different types of recreation enterprises including resources, location, risks, sources of financing, pricing, managerial requirements, marketing, and sources of technical assistance. (3 cr. hr.)

REC 545: Adirondack Park Policies and Issues  
(A) Analysis of environmental and land-use policies in the largest park in the contiguous United States. Often taught at Cortland’s Outdoor Education Center at Raquette Lake in the Adirondack Park. When taught at the Outdoor Education Center, students are assessed fee for room and board. Prerequisites: Permission of instructor required to register. (Not open to students with credit for REC 345 or POL 345.) (3 cr. hr.)

REC 546: Legal Aspects of Recreation and Park Services  
(F) Study of the body of law governing recreation and park management. (3 cr. hr.)

REC 560: Camp and Outdoor Program Administration  
(F) Detailed analysis of administrative problems in establishment, operation of resident and day camps and other outdoor, challenge, or environmental education programs and centers. Research literature, current problems for camp, program, and center directors. Prerequisite: Both REC 360 and 370, or graduate status or consent of department. (3 cr. hr.)

REC 569: Environmental and Cultural Interpretation  
(C) Investigation of concepts and principles of environmental and cultural interpretation. Methods, techniques, resources used to design and prepare interpretive media, such as displays, materials, multimedia productions, trails, and facilities in an increasingly multicultural society. Field trips and outdoor laboratory experiences. Prerequisite: Consent of instructor for non-majors. (3 cr. hr.)

REC 574: Outdoor Pursuits Education and Leadership  
(F) The understanding and application of the process of teaching, learning, and leading outdoor pursuits. Program theory, instructional design, leadership techniques, and safety management principles associated with the conduct of outdoor pursuits and adventure education programs. Prerequisites: REC 379, REC 370, PED 308 or graduate status. (3 cr. hr.)

Course codes: A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter. ■ = LAS
Religious Studies

COURSE DESCRIPTIONS

RLS 300: World Religions
(B) Introduction to variety of ways for understanding religion and religious experience through examination of some major world religions, their origins, historical development, contemporary manifestations. (3 cr. hr.)

RLS 129, 229, 329, 429: Special Topics in the Study of Religion
(B) This course will focus on specialized religious topics, within one or several religious traditions. (1-3 cr. hr.)

Cortland International Program in Recreation
The following titles are among the recreation and leisure courses offered at the University of North London (UNL) through Cortland's Study Abroad Program. These may be substituted for certain major requirements. A wide range of courses in other subjects is also available at UNL.

The Leisure and Tourism Environment
Public Policy: Leisure and Tourism
Human Resource Management
Organization Management and Design
Destination Marketing
Leisure Planning and Development
Museums and Heritage

The following titles are among the outdoor education and tourism courses offered at St. Martin's University through Cortland's Study Abroad Program. These may be substituted for certain major requirements. A wide range of courses in other subjects is also available at St. Martin's.

Therapeutic and Residential Applications of Outdoor Adventure
Generic Outdoor Skills
Environmental Education
Nature Conservation and Management
Expedition Organisation
Tourism Policy and Planning
Leisure and Recreation Policy and Issues

Related Education Courses

EDU 271: Foundations of Recreation
(A) History, theory, philosophy of play and recreation; implications for individuals, groups in changing society. Required of all recreation majors. (3 cr. hr.)

EDU 328: Programming and Leadership
(F) Programming and leadership principles for educational, leisure, and other human services settings. Involves practical experiences in the community. (3 cr. hr.)

EDU 462: Environmental and Outdoor Education
(S) History, development, and trends in environmental and outdoor education. Curriculum development for fostering an environmentally literate citizenry and techniques for successfully utilizing the out-of-doors as a teaching medium. Field trips and outdoor laboratory experiences. For education majors and those having consent of instructor. (Also listed as REC 462.) (3 cr. hr.)

EDU 475: Internship in Recreation Education
Fourteen weeks of supervised full-time internship experience: municipal, school, community, commercial, corporate, youth-serving agency, park and forest, medical/clinical, camp. Work done in communities, agencies designated by College. Prerequisites: REC 470, approval of internship coordinator, cumulative GPA of at least 2.5 in the major and 2.0 overall. Consult department advisement manual for specific prerequisites and policies. S, U grades are assigned. (15 cr. hr.)

EDU 515: Leisure Education
(A) Introduction to philosophy, principles, and techniques of leisure education. Implications for curriculum development in various settings and leisure service delivery systems. (3 cr. hr.)

EDU 568: Environmental and Outdoor Education
(S) Development of program material for various age, grade levels in public schools. Policies, procedures, practices in supervision, administration of outdoor education. Prerequisite: Consent of instructor. (3 cr. hr.)

Cortland International Program in Recreation
The following titles are among the recreation and leisure courses offered at the University of North London (UNL) through Cortland's Study Abroad Program. These may be substituted for certain major requirements. A wide range of courses in other subjects is also available at UNL.

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Therapeutic and Residential Applications of Outdoor Adventure
Generic Outdoor Skills
Environmental Education
Nature Conservation and Management
Expedition Organisation
Tourism Policy and Planning
Leisure and Recreation Policy and Issues
SCIENCE COURSE DESCRIPTIONS

SCI 129, 229, 329: Special Topics in Science
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

SCI 141: Integrated Earth Science and Biology
(A) An interdisciplinary course for elementary education majors. Course utilizes a student-centered, hands-on approach to develop basic concepts of Earth science and biology. Emphasis is on the construction of meaningful mental models which can be applied to every day science of biology, astronomy, meteorology and geology. Two two-hour lectures, one two-hour lab. (4 cr. hr.)

SCI 142: Integrated Physics and Chemistry
(F) Activity-based, discussion-oriented science course for childhood education majors, involving experiments and problem-solving activities in areas typically classified as chemistry and physics. Gives students insight into some of the basic aspects of nature, helps develop a better understanding of science, and improves ability to teach these ideas. (3 cr. hr.)

SCI 180: Natural Hazards and Disasters
(F) Study of the interaction between society and natural hazards such as hurricanes, floods, earthquakes and volcanoes. Consideration of both the physical operation and impacts of these phenomena, and how humans evaluate and respond to these threats to their lives and property. Emphasis on current events and recent natural disasters. (3 cr. hrs.)

SCI 300: Science and Its Social Context
(B) Philosophical discussion about the nature of scientific knowledge and the relation between science and society. Will consider the impact powerful social groups have on science and how the scientist's non-scientific attitudes might influence her/his work. (3 cr. hr.)

SCI 304: Plants and People
(A) Historical and present-day relationships between plants and people. Major topics include: photosynthesis and the evolution of life; the Green Revolution; drugs and medicines obtained from plants; plant diseases and ecological relationships; plants providing food and beverages. Three lectures. (3 cr. hr.)

SCI 310: Nuclear Weapons and Arms Control
(A) Overview of atomic and nuclear weapons, arms control agreements, basic scientific principles, fission and fusion reactions, general effects of nuclear war with emphasis on health and genetic effects, climatic effects, including nuclear winter. (3 cr. hr.)

SCI 320: Science, Technology and Culture
Relationship between scientific and technological developments and social changes throughout history. (3 cr. hr.)

SCI 325: Biotechnology and Human Aging
(F) Biological perspectives on aging in cells, humans and societies including how past, present and future biotechnological advances may have a major impact on our society. (3 cr. hr.)

SCI 330: Science and the Public
(F) Conceptual aspects of science and selected scientific issues discussed in context of how people perceive science and scientists and how they respond to and affect scientific developments. Three one-hour discussion sessions. Prerequisite: Completion of course requirements in English Composition; completion of GE category 8 (Natural Sciences) courses recommended. (3 cr. hr.)

SCI 340: Science and Technology in the United States
Scientific and technological developments in U.S. and their impact on American society from Colonial period to present will be discussed. (3 cr. hr.)

SCI 350: Science in the Social World
(C) Modern scientific progress and its bearing upon human society. (3 cr. hr.)

SCI 360: Science and Technology in Medicine
(O) Development of medical science and technology throughout history. (3 cr. hr.)
Social Studies (Grades 7-12) — Adolescence Education

PROGRAM

FACULTY
Roger Sipher (Coordinator)

PROGRAMS OFFERED
B.A. in Adolescence Education — Social Studies (Grades 7-12) — 127 total credit hours
Post-baccalaureate Certification in Adolescence Education — Social Studies (Grades 7-12) — 18 total credit hours

MAJORS OFFERED
Adolescence Education — Social Studies, combined with one of the following dual majors: African American studies, anthropology, economics, geography, history, international studies, political science or sociology.

DESCRIPTION
Undergraduate students wanting to teach social studies at the secondary level (grades 7-12) will combine one of the social science majors (see above) with 47-68 credit hours in additional course work in the social sciences and professional teacher preparation.

The professional preparation culminates in an innovative professional semester leading to qualification for initial certification in social studies. The advantage to this program is that students complete both an academic major in one of the social sciences and certification in social studies.

Students who already have a bachelor of arts degree or a bachelor of science degree in a related major or a relevant interdisciplinary major and who wish to teach social studies at the middle school or high school level may participate in the social studies professional semester described below. This program only confers undergraduate or non-degree credit and is intended for students without provisional certification.

SPECIAL FEATURES
• Teacher certification
• Overseas programs
• Major clubs and honor societies
• B.A. in a social science major

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to the following majors.
2. Liberal Arts Requirements: 90 credit hours

Major in Adolescence Education — Social Studies (Grades 7-12) [SSA]
The central feature of the professional part of this program is a single professional semester, offered only in the fall, for all secondary social studies majors and ordinarily taken in the student’s senior year.

A. Required Courses: 33-36 credit hours
   Social science major (See requirements for relevant majors elsewhere in the catalog.)

B. Professional Preparation: 47-68 credit hours
   (Including additional social science courses)
   HLH 199: Critical School Health Issues
   PSY 232: Adolescent Psychology * or
   PSY 332: Educational Psychology *
   ECO 105: Political Economy and Social Thought
   GRY 425: Geography in the Classroom or
   GRY 429: Special Topics
   GRY 480: United States
   POL 100: Introduction to American Government
   ^ HIS 100 and 101 or His 110 and 111 or
   HIS 200 and 201 and 9 hours at the 300 level or above
   ENG 306: Advanced Writing for Prospective Teachers or
   EDU 449: Literacy in the Middle and Secondary School
   SHH 300: Normal Language Development or
   PSY 350: Psychology of Language
   SSS 300: Introduction to Secondary Social Studies
   (A 100-hour field requirement is attached to this course)

   * Prerequisite at Cortland is PSY 101

C. Professional Semester: 18 credit hours **
   SSS 301: Pre-Practice Teaching Seminar
   AED 400: Student Teaching
   SSS 303: Post-Practice Teaching Seminar

   ** To be eligible for the professional semester, a student must have declared adolescence education — social studies as a major by the beginning of the second semester of the junior year and must have senior status, normally 90 hours, with 24 hours in the academic major. A student must also have an overall average of 2.5, an average of 2.7 in the major, and a C or better in SSS 300. No student who receives a grade below a C- in any introductory course in the social science major will be allowed to enter the Professional Semester until the course has been retaken and a higher grade earned.

   ^ The history courses listed are a requirement for students who choose not to concentrate in history.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 127
Post-baccalaureate Certification in Adolescence Education – Social Studies (Grades 7-12)

**Requirements**

Requirements for entry into the program and the Professional Semester are a bachelor of arts or bachelor of science degree with a major in one of the aforementioned social sciences, satisfactory background in a foreign language and in the special developmental and educational needs of adolescents through young adults, sufficient to meet the Commissioner of Education’s regulations. A grade point average of 2.7 (on a 4.0 scale) in the academic major and a personal interview with a member of the secondary social studies staff are also required for consideration. Satisfactory completion of this program leads to qualification for provisional certification in secondary social studies.

**Professional Semester**

- SSS 301: Pre-Practice Teaching Seminar (11 cr. hr.)
- AED 400: Student Teaching I (3 cr. hr.)
- AED 401: Student Teaching II (3 cr. hr.)
- SSS 303: Post-Practice Teaching Seminar (1 cr. hr.)

**Total Credit Hours Required for the Program:** 18

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Social Studies (Grades 7-12)—Adolescence Education

**Course Descriptions**

**SSS 300: Introduction to Secondary Social Studies**
This course introduces students to unit and lesson planning, focuses on the history of American education as it relates to social studies, familiarizes students with the social studies learning standards, and makes comparisons between middle school and high school teaching. Includes 100-hour field experience (3 cr. hr.)

**SSS 301: Pre-Practice Teaching Seminar**
(F) Integrated study of A.) Introduction to Secondary Education; B.) Introduction to Methods of Teaching Social Studies; C.) Introduction to Contemporary Secondary School Issues; D.) Preparation for specific practice teaching assignment. S, U grades assigned. (11 cr. hr.)

**SSS 303: Post-Practice Teaching Seminar**
(F) Problem approach drawing upon experience of students during practice teaching. Designed to focus on contemporary educational issues, beginning the job search and application process, teaching and learning at the middle school level and exploring the history and philosophy of teaching. S, U grades assigned. (1 cr. hr.)

**Related Education Courses**

- **AED 400: Student Teaching**
  Full-time supervised teaching in public schools for ten weeks. (6 cr. hr.)

- **EDU 544: Methods of Teaching Social Studies in Secondary Schools**
  (O) (3 cr. hr.)

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**Example of the undergraduate degree in Adolescence Education – Social Studies and History over four years**

### First Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
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</thead>
<tbody>
<tr>
<td>CPN 100</td>
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</tr>
<tr>
<td>Foreign language</td>
<td>Foreign language</td>
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<tr>
<td>Mathematics course</td>
<td>GE course</td>
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<tr>
<td>GE (HIS 200 or POL 100)*</td>
<td>History 201</td>
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<tr>
<td>HIS 200 or POL 100</td>
<td>GE 5 – History (must be W. Civ. or World Hist.)</td>
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### Second Year

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Foreign language</td>
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<tr>
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<td>History (to complete sequence started in GE 5)</td>
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<tr>
<td>History course</td>
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<tr>
<td>GE 8</td>
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### Third Year

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<tbody>
<tr>
<td>GE course</td>
<td>ENG 306 or EDU 449</td>
</tr>
<tr>
<td>GRY 425 or 429</td>
<td>GRY 480</td>
</tr>
<tr>
<td>SHH 300 or PSY 350</td>
<td>SSS 300</td>
</tr>
<tr>
<td>History course</td>
<td>History course</td>
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</table>

### Fourth Year

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</thead>
<tbody>
<tr>
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<td>GE course</td>
</tr>
<tr>
<td>SSS 301</td>
<td>GE course</td>
</tr>
<tr>
<td>SSS 303</td>
<td>ECO 105</td>
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<tr>
<td>AED 400</td>
<td>History course</td>
</tr>
<tr>
<td>AED 401</td>
<td>History course</td>
</tr>
</tbody>
</table>

* Those with U.S. Regents grade under 85 must take HIS 200 for GE 1 credit. Those with U.S. Regents grade 85 or over must take a non-history GE 1 course.
Sociology/Anthropology

DEPARTMENT

FACULTY
Craig B. Little (Chair), John Alt, Ilyas Ba-Yunus, Jamie Dangler, Nicolas Gavrielides, Herbert Haines, Harjinder Jassal, Richard Kendrick, Devereaux Kennedy, Kassim Kone, William B. Lane, Ellis McDowell-Loudan, John R. Sosa, Sharon Steadman, Stuart Traub, Anne Vittoria

PROGRAMS OFFERED
B.A. in Sociology – 124 total credit hours
B.A. in Adolescence Education – Social Studies and Sociology (Grades 7-12) – 124 total credit hours

MAJORS OFFERED
Sociology
Adolescence Education – Social Studies and Sociology (Grades 7-12)

CONCENTRATIONS OFFERED
Criminology, Social Gerontology

MINORS OFFERED
Sociology
Social Gerontology

DESCRIPTION
The sociology program offers a curriculum designed to help students develop their analytical skills and ability to understand conceptual and theoretical material. Courses encourage students to think creatively and flexibly and to broaden their perspectives on the world around them. Sociology majors acquire an educational background that is useful in careers relating to counseling, gerontology, human services, law, law enforcement, probation work, public administration, management and international relations. The major also prepares students for a variety of careers in the private and public sectors that require an understanding of race and ethnic relations, cross-cultural settings, contemporary social problems, and demographic and social transformations in contemporary society. Students are encouraged to take pre-career internships and research experiences for academic credit. Students who are interested in teaching may combine study in the sociology major with professional courses leading to a qualification for provisional certification in secondary social studies.

SPECIAL FEATURES
• Internships
• Study abroad opportunities
• Exchange program with Griffith University, Australia
• National honor society in sociology (Alpha Kappa Delta)
• National honor society in gerontology (Sigma Phi Omega)
• Sociology/Anthropology Club
• Teaching certification for adolescence social studies

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to all sociology majors.
2. Liberal Arts Requirements – 90 credit hours

Major in Sociology [SOC]
The sociology major provides students with a broad degree of flexibility in choosing a career after graduation, the opportunity to explore careers in the human services, public administration and management, and a general background for graduate work in the social sciences, public policy, law and social work. In a rapidly changing world, students who major in sociology obtain a solid liberal arts education that fosters versatility in the world of work and good citizenship.

CAREER POTENTIAL
• Social work
• Consulting
• International relations
• Health care
• Business
• Government agencies
• Public service
• Human services

A. Required Courses: 12 credit hours
SOC 150: Introduction to Sociology [GE 1]
SOC 492: Sociological Theory
SOC 493: Methods of Social Research I
SOC 494: Methods of Social Research II [QS]

B. Category Courses: 12 credit hours
3 credit hours from Category A
3 credit hours from Category B
3 credit hours from Category C
3 credit hours from Category D

All sociology majors must have at least one course from each of the four categories (A,B,C, D) from the list that follows. Whether or not more than one course is taken from any single category will depend on the student’s personal preferences or declared concentration. Special courses not listed within a category are occasionally taught with a topics (TP) designation (SOC 129, 229, 329 or 429) and may fulfill one of these categories. Category designations for such courses are posted by the department each semester.

Category A – Social Institutions
SOC 330: Religions of Asia
SOC 340: Environmental Sociology
SOC 371: Sociology of Medicine
SOC 375: Sociology of Law
SOC 405: Social Breakdown in the United States
SOC 430: Social Welfare Institutions
SOC 455: Sociology of Leisure
SOC 470: Sociology of the Family
SOC 475: Sociology of Religion
SOC 487: Sociology of Education

Category B – Social Organization
SOC 303: Crime Waves and Culture Wars
SOC 351: The Community
SOC 352: U.S. Ethnic Identity and Conflict
SOC 355: Gender and the Life Course
SOC 369: Population and Society
SOC 385: Sociology of Work
SOC 401: Sociology of Sex and Gender
SOC 420: Issues in Gerontology
SOC 451: Social Stratification
SOC 461: Urban Sociology

Category C – Social Processes
SOC 160: Social Change in the Modern World [GE 5]
SOC 220: Introduction to Social Gerontology
SOC 315: Development Sociology
SOC 350: Civil Society [GE 5]
SOC 360: Self and Society
SOC 366: Sociology of International Conflict
SOC 425: Sociology of Aging and the Life Course
SOC 486: Collective Behavior

Category D – Social Problems and Deviance
SOC 230: Prejudice and Discrimination [GE 2]
SOC 333: The Police
SOC 365: Sociology of Violence
SOC 380: White-Collar Crime
SOC 462: Juvenile Delinquency
SOC 463: Criminology
SOC 464: Corrections
SOC 485: Capital Punishment
C. Sociology Electives: 12 credit hours
Options for fulfilling these credit hours include courses from any of the four categories (A, B, C, D), three credit hours of internship (CPV 400), and/or one anthropology course at the 300- or 400-level (excluding ANT 300).

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Sociology with a concentration in Criminology [SOC/CRIM]
The criminology concentration is especially relevant to students considering a career in law enforcement and human service related agencies such as the federal, state, and local police, correctional institutions, security organizations, and judicial organizations. The program includes opportunities to earn academic credit for internship experiences with community police, court and probation agencies, juvenile detention centers, and other agencies involved in criminal justice and reform.

CAREER POTENTIAL
• Law enforcement
• Youth counseling
• Private security
• Correctional institutions

A. Required Courses: 24 credit hours
SOC 150: Introduction to Sociology [GE 1]
SOC 373: Deviant Behavior
SOC 463: Criminology
SOC 464: Corrections
SOC 492: Sociological Theory
SOC 493: Methods of Social Research I
SOC 494: Methods of Social Research II [QS]

One additional course chosen from the following:
SOC 303: Crime Waves and Culture Wars (covers Category B)
SOC 333: The Police
SOC 365: Sociology of Violence
SOC 375: Sociology of Law (covers Category A)
SOC 380: White-Collar Crime
SOC 462: Juvenile Delinquency
SOC 485: Capital Punishment

B. Category Courses: 6-9 credit hours
(See list under Major in Sociology)
3 credit hours from Category A (unless SOC 375 is chosen as the additional criminology course)
3 credit hours from Category B (unless SOC 303 is chosen as the additional criminology course)
3 credit hours from Category C

C. Sociology Electives: 3-6 credit hours
Options for fulfilling these credit hours include courses from any of the four categories (A, B, C, D), three credit hours of internship (CPV 400), and/or one anthropology course at the 300- or 400-level (excluding ANT 300).

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Sociology with a concentration in Social Gerontology [SOC/SGRT]
This concentration introduces majors to the theoretical, research, policy, and practical issues relevant to careers that involve working with the aged, developing or administering government programs aimed at older people, creating social policy on aging, and acting as a gerontological consultant in the business and public sectors.

CAREER POTENTIAL
• Gerontological research
• Gerontological specialist
• Public administration
• Geriatric nutrition and recreation
• Geriatric social work

A. Required Courses: 24 credit hours
SOC 150: Introduction to Sociology [GE 1]
SOC 220: Introduction to Social Gerontology (covers Category C)
PSY 334: Psychology of Adulthood and Aging
SOC 425: Sociology of Aging and the Life Course (covers Category C)
SOC 430: Social Welfare Institutions (covers Category A)
SOC 492: Sociological Theory
SOC 493: Methods of Social Research I
SOC 494: Methods of Social Research II [QS]

B. Category Courses: 6 credit hours
(See list under Major in Sociology)
3 credit hours from Category B
3 credit hours from Category D

C. Sociology Electives: 6 credit hours
Options for fulfilling these credit hours include courses from any of the four categories (A, B, C, D), three credit hours of internship (CPV 400), and/or one anthropology course at the 300- or 400-level (excluding ANT 300).

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124
Dual major in Adolescence Education – Social Studies and Sociology (Grades 7-12) [SSA & SOC]
This program allows students who major in sociology to qualify for certification to teach adolescence education in social studies (grades 7-12). It combines a major in sociology with a professional semester that consists of professional preparation and student teaching.

A. Requirements for the sociology major: 36 credit hours (see above)

B. Professional Preparation: 47-68 credit hours
   (Including additional social science courses)
   HLH 199: Critical School Health Issues
   PSY 101: General Psychology I
   PSY 232: Adolescent Psychology or
   PSY 332: Educational Psychology
   ECO 105: Political Economy and Social Thought
   GRY 425: Geography in the Classroom or
   GRY 520: Maps in the Classroom
   GRY 480: United States
   POL 100: Introduction to American Government
   HIS 100 and 101 or His 110 and 111 and
   HIS 200 and 201 and 9 hours at the 300 level or above
   ENG 306: Advanced Writing for Prospective Teachers or
   EDU 449: Literacy in the Middle and Secondary School
   SHH 300: Normal Language Development or
   PSY 350: Psychology of Language
   SSS 300: Introduction to Secondary Social Studies
   (A 100-hour field requirement is attached to this course)

C. Professional Semester: 18 credit hours
   SSS 301: Pre-Practice Teaching Seminar
   AED 400: Student Teaching I
   AED 401: Student Teaching II
   SSS 303: Post-Practice Teaching Seminar

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Minor in Sociology [SOC]
A. Required Courses: 3 credit hours
   SOC 150: Introduction to Sociology [GE1]

B. Sociology Electives: 15 credit hours
   Options for fulfilling these credit hours include choosing courses from any of the four categories (A, B, C, D), three credit hours of internship (CPV 400), and/or one anthropology course at the 300- or 400-level (excluding ANT 300).

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 18

Minor in Social Gerontology [SGRT]
This minor is open to students in any major other than sociology. Majors in sociology can declare a concentration in social gerontology.

A. Required Courses: 15 credit hours
   SOC 150: Introduction to Sociology
   SOC 220: Introduction to Gerontology
   SCI 325: Biotechnology and Human Aging
   PSY 334: Psychology of Adulthood and Aging
   SOC 425: Sociology of Aging and the Life Course

B. Elective Courses: 6 credit hours
   Choose two of the following:
   ANT 415: Culture and Aging
   CPV 400: Internship or Field Placement
   HLH 513: Death, Bereavement and Suicide
   HLH 555: Health and Aging
   REC 508: Leisure Services for Older Adults
   SOC 355: Gender and the Life Course
   SOC 420: Issues in Social Gerontology
   SOC 430: Social Welfare Institutions

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 21

Example of the undergraduate degree in Sociology over four years
(Note: Based on freshman admission and 15 credits per semester. More than 15 credits will have to be taken in one or more semesters in order to reach the required 124 credits for graduation)

<table>
<thead>
<tr>
<th>First Year</th>
<th>Second Year</th>
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<tr>
<td><strong>Fall</strong></td>
<td><strong>Fall</strong></td>
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<tr>
<td>SOC 150 [GE 1]</td>
<td>Two sociology courses (200- or 300-level)</td>
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<td>Foreign language course</td>
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<td>CPN 101</td>
<td>Two sociology courses (200- or 300-level)</td>
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<td>One sociology course</td>
<td>Foreign language course</td>
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<td>Foreign language course</td>
<td>GE course</td>
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<td>Two GE courses</td>
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<td>Quantitative Skills course</td>
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<th>Third Year</th>
<th>Fourth Year</th>
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<td><strong>Fall</strong></td>
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<tr>
<td>Two sociology courses (500- or 400 level)</td>
<td>Two sociology courses</td>
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<td>GE course</td>
<td>Three electives</td>
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<td><strong>Spring</strong></td>
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<tr>
<td>Two sociology courses (300- or 400-level)</td>
<td>One sociology course</td>
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<tr>
<td>GE course</td>
<td>Four electives</td>
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<td>Two electives</td>
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SOC 100: American Society
(A) This course examines the historical development of American society with reference to changing notions of freedom and equality as they are embedded in the social institutions of polity, work, religion and the family. (3 cr. hrs.)

SOC 129, 229, 329, 429, 529: Special Topics in Sociology
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

SOC 150: Introduction to Sociology
(A) Social structure, institutions, processes and major social forces. Emphasis on American society. (3 cr. hr.)

SOC 160: Social Change in the Modern World
(B) Examines the ways in which three major events have shaped the modern world and the symbols, images and words with which we attempt to understand that world. The course looks at the effects of the French Revolution of 1789, the Russian Revolution of 1917, and the fall of Communism in Eastern Europe and Russia, not just as the extraordinary events they were in and of themselves but in terms of the enduring impact of these events on the modern world and the way we understand it. (3 cr. hr.) Category C.

SOC 220: Introduction to Social Gerontology
(F) Introduces theories, concepts, research and applied aspects of the study of aging in American society. Topic areas include: social and institutional issues related to family, work and retirement and the economy, minority groups, biomedical, psychological, demographic and public policy perspectives on aging. (3 cr. hr.) Category C.

SOC 230: Prejudice and Discrimination
(B) Descriptive and theoretical review of the existence and effects of prejudice and discrimination in world-wide context. Comparison of Western and non-Western social structure, and of dominant and subordinate relationships in the U.S. and around the world. Prerequisite: Introductory course in social science. (Also listed as ANT 230.) (3 cr. hr.) Category C.

SOC 303: Crime Waves and Culture Wars
(B) Looks at three crucial periods in American history: 1820-1860, the period directly preceding the Civil War which was also marked by large scale Irish immigration; 1890-1920, the so-called “Progressive” period in American history, also marked by large scale immigration primarily from southern and eastern Europe; 1964-present, “the Sixties” and their aftermath, also marked by the social effects of the “Great Migration” of African-Americans out of the rural South into the urban North. The course examines the value and culture conflicts that defined these periods and the role the then widespread popular perception that crime and deviance were out of control played in focusing these conflicts on the perceived shortcomings of the then most recent immigrant or migrant group. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category B.

SOC 315: Development Sociology
(O) Anthropologists’ and development sociologists’ specific roles in economic development, public health, other projects involving cross-cultural planned change. Concepts of socio-economic change emphasizing classic case studies of applied anthropology and sociology; modern roles in project planning, design, instrumentation and evaluation. Social scientists’ responsibilities in understanding recipient culture, in encouraging participatory approaches to development as part of interdisciplinary development project team emphasized. (Also listed as ANT 315.) Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category C.

SOC 330: Religions of Asia
(B) General introduction to the basic and enduring structures of the major religions of Asia with attention to the fundamentals of history, cultural aspects (sacred objects or places, beliefs, values, symbols, and rituals), social organization, and present day position. (Also listed as ANT 330.) Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category C.

SOC 333: The Police
(C) Provides students with a critical understanding of history of law enforcement, the police, and policing in the United States. Will focus on four major issues related to policing: the history and role of the police in America; learning police work and becoming a police officer; issues and problems in policing; and current issues and trends in policing. Social science research on the police and policing will be the basis for studying and analyzing this aspect of the criminal justice system. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category D.

SOC 340: Environmental Sociology
(C) Analysis of household, workplace, local, and global environmental issues with emphasis on the interplay of cultural, social, political, and economic factors in the development of and response to environmental problems. Topics covered include the effects of toxic substances on ecosystems, human health and safety risks, consumption patterns and their relation to environmental problems, and the political and economic factors in the assessment of workplace and environmental risks, social stratification and environmental risks, citizen activism and social movements around environmental issues. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category A.

SOC 350: Civil Society
(C) The course begins with an examination of the historical development of and the social and psychological underpinnings of civility. It then describes the ideas and the practices of civil society in liberal modern societies from the eighteenth century to the present. The course concludes by examining the character of civility and of civil society in the contemporary United States in light of recent changes in the market economy, the democratic state, publics, and the social realm of familial, communal and associational ties. (3 cr. hr.) Category C.
SOC 351: The Community
(C) Structure, functioning of human community in defined areal units: neighborhood, town, city, region, international region. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category B. ■

SOC 352: U.S. Ethnic Identity and Conflict
(B) Social histories of major U.S. ethnic groups are contrasted in terms of both cultural identity and social structural differences. Anthropological and sociological data, theories and interpretations of internal U.S. cultural and power differences are presented to analyze and challenge the concepts of "race" and "minority." (Also listed as ANT 352, AAS 361.) Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category B. ■

SOC 355: Gender and the Life Course
(B) Theoretically and practically examines the interlocking forces of gender and age within the context of society and the constraints of social structure, from a life course perspective. Topical areas will include the social construction of age and gender; structural inequalities that result in ageism and sexism across the life course; male and female experiences of aging that interact with gender to give rise to changed gender roles and relationships into later life. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) ■

SOC 360: Self and Society
(B) Theories of structure, function of self in society dealing primarily with the American case. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category C. ■

SOC 365: Sociology of Violence
(B) Physical violence as interpersonal, cultural, societal, political phenomenon. Topics include the learning of aggression, the social organization and rationalization of various forms of violence, the experiences of victims, and the prospects for reducing current levels of violent conflict. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) ■

SOC 366: Sociology of International Conflict
(S) General theories of social conflict used to provide theoretical framework for understanding and analyzing complexities of international conflicts and ways which conflicts emerge, are waged, and end. General theories of social conflict are applied to one or more case studies of recent international conflicts. Portion of course devoted to discussing ways which international conflict can be resolved non-violently – through negotiation and mediation – and the limits of our knowledge about non-violent approaches. Prerequisite: One of the following: ANT 102, GRY 120, GRY 125, HIS 106, HIS 111; IST 200; POL 100, POL 101, SOC 150. (3 cr. hr.) Category C. ■

SOC 369: Population and Society
(S) Social significance of population mass, population redistribution through births, deaths, migration. Prerequisite: SOC 100 or SOC 150 or ANT 102. Also listed as ANT 369. (3 cr. hr.) Category B. ■

SOC 371: Sociology of Medicine
(O) Sociological examination of illness, treatment of disease, medical politics and medical policy. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category A. ■

SOC 373: Deviant Behavior
(A) A critical examination of sociological theories of deviance and social control (functionalism, anomie, social disorganization, differential association, labeling, conflict, and others as appropriate) and their application to behavior that elicits social disapproval. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category D. ■

SOC 375: Sociology of Law
(B) Law is analyzed with respect to its functions as a means of social control and its relationships with other social institutions. Topics include an interdisciplinary survey of jurisprudence, the natural law approach versus legal and cultural realism, law as a source of crime, the administration of justice, and law in non-Western cultures. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category A. ■

SOC 380: White-Collar Crime
(B) Surveys the broad range of white-collar crimes from employee embezzlement to corporate pollution law violations. Includes extensive coverage of the theories proposed to explain white-collar crimes, the methodologies used to study white-collar wrongdoing, and a review of the strategies proposed to control white-collar crimes. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category D. ■

SOC 385: Sociology of Work
(B) Social organization of work in modern society, with particular emphasis on the U.S. occupational structure in the United States and to the consequences they have had for family life, class structure, politics, and America’s place in the international economy. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category B. ■

SOC 400: Field Practicum
(A) Supervised experience in a social agency. Open to sociology-anthropology majors only. Only three credit hours will count for the major requirement; the other three will be credited as electives. Prerequisites: Nine hours of sociology, consent of department. H, S, U grades assigned. (3-6 cr. hr.)

SOC 401: Sociology of Sex and Gender
(C) Theoretical, empirical examination of male and female experiences of inequality in social institutions; changing sex roles; gender socialization, and the interaction of biology and culture. A comparative perspective is used and theoretical differences between sex and gender are investigated sociologically. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category B. ■

SOC 405: Social Breakdown in the United States
Examination of key social problems that result from the deterioration of trust, mutual aid, informal social control, social obligation, and institutional authority; an analysis of those forces, especially the capitalist market and the welfare state, which weaken the social bases of enduring relations and moral competence; and an assessment of various strategies for revitalizing the social contexts within which people learn to care for the fates of others. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category B. ■

SOC 420: Issues in Gerontology
(O) Selected topics in gerontology. May be repeated as subtitle changes. Prerequisite: SOC 220. (3 cr. hr.) Category B. ■

SOC 425: Sociology of Aging and the Life Course
(S) Analysis of sociological and social psychological processes associated with the adult life span. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category C. ■
SOC 430: Social Welfare Institutions
(C) Sociological study of process of institutionalization of welfare. Focus is on American society with some comparative analysis with other industrialized societies. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category A. ■

SOC 451: Social Stratification
(O) Theories, structures, function, trends of social class, social mobility in industrial, nonindustrial societies. Dynamics of caste, caste system in Asian and other nations. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category B. ■

SOC 455: The Sociology of Leisure
(O) History of leisure; contemporary problems of mass leisure and relation to work, politics, economics, other social institutions. Prerequisite: SOC 150. (Also listed as REC 455.) (3 cr. hr.) Category A. ■

SOC 461: Urban Sociology
(O) Structure, function, quality of urban life from early city to contemporary American megalopolis. Analysis of change, resultant problems. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category B. ■

SOC 462: Juvenile Delinquency
(B) Historical development of juvenile court; theoretical interpretations of delinquency; modern trends in prevention, treatment. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category D. ■

SOC 463: Criminology
(B) Sociological study of crime and its consequences; the etiology, extent, and nature of crime in society. The focus of attention is on an historical and contemporary examination of the nature, role, and causes of crime and the relationship between crime and social control. Topics include explanations for crime, typologies of crime, criminal statistics, criminal law, and how pragmatic agencies of the justice system – the police and courts – operate to prevent, detect, manage, and influence crime in society. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category D. ■

SOC 464: Corrections
(B) Course takes a long range historical approach to correctional ideas and institutions in the United States and Europe. Focus is on the development of institutions and ideas for “correcting” dependent poverty, criminality, delinquency and mental illness. Course also examines the changing relationship between correctional institutions and other economic and social institutions. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category D. ■

SOC 465: Political Sociology
(O) Analysis, interpretation of social power, socio-economic bases of political behavior with reference to participation in politics, political consequences of social mobility and political socialization. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category A. ■

SOC 470: Sociology of the Family
(B) Comparative perspective of the family as a social institution, focusing on analysis of historical and cross-cultural variations within American society, with some comparative analysis of other societies. Topics covered include demographic changes; changes in family functions; relationship of the family to other social institutions; contemporary family issues and problems. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category A. ■

SOC 475: Sociology of Religion
(C) Comparative religious systems, institutions; functions, role of religion and church in society. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category A. ■

SOC 485: Capital Punishment
(C) Deals with the death penalty as an element of American criminal justice policy. Topics include the development of the modern system of capital punishment; the responsibilities and experiences of attorneys, jurors, prison personnel and others in its implementation; the social network of death row; and empirical research on deterrence, sentencing disparities by race, the death penalty’s fiscal impact, the estimated probability of miscarriages of justice, and other issues in the current policy debate. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category D. ■

SOC 486: Collective Behavior
(C) Elementary forms, mechanisms of collective dynamics; crowd, public, mass; fads, fashions, social movements in contemporary society. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category C. ■

SOC 487: Sociology of Education
(C) Ideas, approaches, research of sociologists in their study of public schools, higher education. Prerequisite: SOC 100 or SOC 150 or ANT 102. (3 cr. hr.) Category A. ■

SOC 492: Sociological Theory
(A) Sociological theory as an appreciation and a critique of modernity; the classical tradition as formulated by Marx, Durkheim, Weber, and others, such as Simmel and Mead; the relevance of this tradition to the understanding of both contemporary sociological theory and the promises and discontents of contemporary modern societies. Prerequisites: Nine hours of sociology, junior standing. (3 cr. hr.) ■

SOC 493: Methods of Social Research I
(A) Introduction to methods of social research. Provides students with basic understanding of how to conduct and evaluate scientific research in the social sciences. Course topics consist of the major steps in design and execution of social research from definition of the problem and formulation of hypotheses to interpretation of results and preparation of final report. Course provides suitable background for pursuing more advanced courses in research. Prerequisites: Nine hours of sociology, junior standing. (3 cr. hr.) ■

SOC 494: Methods of Social Research II
(A) Analysis, interpretation of data including statistical methods: measures of central tendency, dispersion, frequency distributions, measures of association and selected inferential statistics. Both computation of statistics and computer applications for statistics are included: coordinated laboratory work. Prerequisites: SOC 493 or the equivalent and junior standing. (3 cr. hr.) ■

SOC 498: Seminar in Sociology
(A) Theoretical, empirical analysis of a general sociological problem and its implications for development of the discipline. May be repeated as subtitle changes. Prerequisite: Nine hours of sociology. (3 cr. hr.) ■

SOC 596: Independent Study in Sociology
(A) Individual study in selected areas. Prerequisites: Fifteen hours of sociology, consent of department. (3-8 cr. hr.)
Related Education Courses

AED 400: Student Teaching I
Full-time supervised teaching in public schools for four weeks (3 cr. hr.)

AED 401: Student Teaching II
Full-time supervised teaching in public schools for four weeks. Requires satisfactory completion of AED 400 (3 cr. hr.)

SSS 300: Introduction to Secondary Social Studies
This course introduces students to unit and lesson planning, focuses on the history of American education as it relates to social studies, familiarizes students with the social studies learning standards, and makes comparisons between middle school and high school teaching. Includes 100-hour field experience (3 cr. hr.)

SSS 301: Pre-Practice Teaching Seminar
(F) Integrated study of A.) Introduction to Secondary Education; B.) Introduction to Methods of Teaching Social Studies; C.) Introduction to Contemporary Secondary School Issues; D.) Preparation for specific practice teaching assignment. S, U grades assigned. (11 cr. hr.)

SSS 303: Post-Practice Teaching Seminar
(F) Problem approach drawing upon experience of students during practice teaching. Designed to focus on contemporary educational issues, beginning the job search and application process, teaching and learning at the middle school level and exploring the history and philosophy of teaching. S, U grades assigned. (1 cr. hr.)

Speech Pathology and Audiology

DEPARTMENT

FACULTY
Regina B. Grantham (Chair), Mary Emm, Heather Forsythe, Eileen Gravani, Michael Pitcher

PROGRAMS OFFERED
B.S. in Speech Pathology and Audiology – 124 total credit hours
B.S. in Speech and Hearing Science – 124 total credit hours

MAJORS OFFERED
Speech Pathology and Audiology – certification major
Speech and Hearing Science – non-certification major

MINORS OFFERED
Speech and Hearing Science

DESCRIPTION
The Speech Pathology and Audiology Department provides a solid, well rounded education with emphasis on speech language pathology and audiology, including: theoretical foundations of normal communication; theoretical and research-based information on communication disorders; educational principles; experiential/active learning; technological aspects; and multicultural issues.

The programs develop critical thinking and problem-solving skills that assist students in applying theoretical knowledge to the clinical setting. The department’s pre-professional program includes clinical experiences and opportunities for the completion of requirements for initial certification in New York State as a Teacher of Students with Speech and Language Disabilities, as well as the development of competencies to pursue further study at the graduate level.

SPECIAL FEATURES
• provides an excellent background to pursue graduate study
• integrates theory and research with clinical practice
• clinical practicum opportunities (on campus, student teaching)
• caring, mentoring faculty dedicated to teaching cutting edge theory and clinical methods as well as being involved in research, scholarship and professional standard setting
• individual class meetings and the Speech and Hearing Club
• Center for Speech and Hearing Disorders (provides clinical experience for students as well as a service to the community)
• independent study experience is available and encouraged
• opportunity to study abroad in Venezuela and other sites.

Requirements
1. Degree Requirements listed on pages 31-39 of this catalog apply to all speech pathology and audiology majors.
2. Liberal Arts Requirements: 60 credit hours
3. Two years of a foreign language or completion of 202 level

SUNY Cortland students and transfer students below junior status wishing to major in speech pathology and audiology may apply for admission to one of the majors after the completion of at least 12 credit hours at Cortland with a cumulative grade point average (GPA) of 2.7 or better.

Transfer students with junior level or higher standing will be allowed to declare one of the speech pathology and audiology majors upon admission to the College.

Students are expected to maintain a 2.7 overall GPA and a 2.7 GPA in speech pathology and audiology courses to continue to take courses in the certification and non-certification majors. If students fail to maintain the required GPA, they will not be allowed to continue to take courses in the major.
Major in the Certification in Speech Pathology and Audiology [CSP]

This program is a combination of academic courses and clinical experiences. It leads to qualification for the initial certificate as Teacher of Students with Speech and Language Disabilities.

**CAREER POTENTIAL**

- Teacher of Students with Speech and Language Disabilities
- Graduate school (speech-language pathology; teacher of the deaf; audiology; education; special education)
- Substitute teacher
- With master's degree, can work in hospitals, clinics, rehabilitation centers, universities, private practice and industry (some states such as New York also require a license)

**A. Speech Pathology and Audiology Courses: 36 credit hours**

- SHH 270: Introduction to Communication Disorders
- SHH 280: Phonetics
- SHH 281: Speech Science
- SHH 300: Normal Language Development
- SHH 360: Teaching Children with Limited English Proficiency
- SHH 370: Articulation and Language Disorders
- SHH 371: Fluency and Voice
- SHH 383: Basic Audiology
- SHH 473: Neuropathologies of Language and Speech
- SHH 475: Technology in Communication Disorders
- SHH 477: Diagnostic Procedures: Introduction to Assessment in Speech-Language Pathology
- SHH 480: Clinical Practicum I
- SHH 481: Clinical Practicum II
- SHH 483: Aural Rehabilitation

**B. Professional Preparation: 29-30 credit hours**

- PSY 101: General Psychology I
- PSY 332: Educational Psychology
- PSY ___: Psychology elective in normal development
- EDU 488: Student Teaching in Speech, Language and Hearing
- EDU 496: Organization of Speech, Language, Hearing Programs in the Schools
- ENG 201: Introduction to Language Study
- HLH 199: Critical School Health Issues or
- HLH 110: Personal and Community Health

**TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124**

**Major in Speech and Hearing Science [SHS]**

This major prepares students for graduate study in speech-language pathology, audiology, education, teacher of the deaf, or special education.

**CAREER POTENTIAL**

- Graduate school
- Substitute teacher
- With master's degree in speech-language pathology and/or audiology, can work in hospitals, clinics, rehabilitation centers, universities, private practice and industry. (Some states, such as New York, also require a license.)

**A. Speech Pathology and Audiology Courses: 32 credit hours**

- SHH 270: Introduction to Communication Disorders
- SHH 280: Phonetics
- SHH 281: Speech Science
- SHH 300: Normal Language Development
- SHH 370: Articulation and Language Disorders
- SHH 371: Fluency and Voice
- SHH 383: Basic Audiology
- SHH 473: Neuropathologies of Language and Speech
- SHH 477: Diagnostic Procedures: Introduction to Assessment in Speech-Language Pathology
- SHH 480: Clinical Practicum I
- SHH 483: Aural Rehabilitation

**B. Non-Departmental Requirements: 12 credit hours**

- PSY 101: General Psychology I
- PSY ___: Elective
- MAT/PSY 201: Statistical Methods or
- CAP 100: Introduction to Computer Applications
- ENG 201: Introduction to Language Study

**TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124**

**Minor in Speech and Hearing Science [SHS]**

**A. Required Courses: 18 credit hours**

- SHH 270: Introduction to Communication Disorders
- SHH 280: Phonetics or
- SHH 281: Speech Science
- SHH 300: Normal Language Development
- SHH 370: Articulation and Language Disorders
- SHH 383: Basic Audiology

One course from the following:
- SHH 371: Fluency and Voice
- SHH 473: Neuropathologies of Language and Speech
- SHH 483: Aural Rehabilitation

**TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 18**
Speech Pathology
and Audiology

COURSE DESCRIPTIONS

SHH 129, 229, 329, 429, 529: Special Topics in Speech Pathology and Audiology
Selected topics. May be taken more than once as subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)

SHH 270: Introduction to Communication Disorders
(A) The basic processes of speech, language and hearing and the nature of communication disorders are discussed in terms of multidisciplinary approaches used in identification and intervention. Includes disorders of: language, learning, articulation, phonology, cognition, behavior, motor, voice, fluency, and hearing. An overview of the professions of Speech-Language Pathology and Audiology is presented. (3 cr. hr.)

SHH 280: Phonetics
(A) Nature of spoken language explored with respect to phonology, articulatory and clinical phonetics, and transcription using the International Phonetic Alphabet and diacritic markers. Includes information on phonological development and disorders, phonological awareness and dialect. (3 cr. hr.)

SHH 281: Speech Science
(B) Anatomy and physiology of the speech mechanism and nervous system; an overview of the acoustics and the acoustic nature of speech. (3 cr. hr.)

SHH 300: Normal Language Development
(A) Course of language development in typical children explored from infancy to late adolescence with cultural and socioeconomic issues addressed. Includes semantic, syntactic, morphological, phonological, and pragmatic aspects. Emphasis placed on language and pre-literacy in toddler and preschool years, and school-age language and literacy. Neurological, theoretical, and applied issues addressed. Not open to those having credit for PSY 350. (3 cr. hr.)

SHH 360: Articulation and Language Disorders
(A) Disorders of articulation/phonology and language are explored within a multicultural framework of normal patterns of acquisition and use. Includes behavioral disorders, learning disabilities, delayed or limited cognitive development, safety and accessibility issues of people with disabilities, physical, cognitive, and affective character-
istics of persons with disabilities and the impact of culture and social economic status. Papers requiring research using word-processing and Internet access are required. Prerequisites: SHH 280 and 300. (3 cr. h.)

SHH 371: Fluency and Voice (S) Fluency disorders and phonatory/resonance disorders (theories, characteristics, etiologies and clinical management) will be presented. Physical, cognitive, and affective attributes of fluency/voice disorders will be discussed. Prerequisite: SHH 281. (3 cr. h.)

SHH 383: Basic Audiology (F) Anatomy, physiology, pathology and audiological assessment of the hearing mechanism. Prerequisite: SHH 281 or permission of the department. (3 cr. h.)

SHH 470: Studies in Speech Pathology (O) Selected area. May be repeated as subtitle changes. Prerequisite: Consent of department. (1-3 cr. h.)

SHH 473: Neuropathologies of Language and Speech (F) Speech and language disorders resulting from neuropathologies – an overview of neurology, etiologies, assessment and treatment. Physical, cognitive, and affective attributes of these disorders are discussed. A case study including Internet accessing and other technology is required and critiqued. Prerequisites: SHH 281, 300, 370. (3 cr. h.)

SHH 475: Technology in Communication Disorders (A) Principles and techniques of case management, including Internet accessing and other technology is required and critiqued. Prerequisites: SHH 281, 300, 370. (3 cr. h.)

SHH 477: Diagnostic Procedures: Introduction to Assessment in Speech-Language Pathology (A) Historical, social and legal foundation for establishing and maintaining speech-language-hearing services within the curricula of different school settings. Emphasis on legal and professional concerns including eligibility issues for the Individualized Family Service Plans, curriculum planning, instructional planning and strategies, working within a multi-disciplinary team, behavior management, classroom management, and self-analysis of skills. Prerequisites: SHH 371, SHH 383, SHH 480, SHH 481, EDU 496; cumulative GPA of 2.7 and GPA in SHH courses of 2.7. Consent of department. (6 cr. h.)

Related Education Courses

EDU 388: Student Teaching: Speech, Language, Hearing (A) An introduction to the types of technology used in the practice of speech-language pathology and audiology: Augmentative communication, computer applications, classroom FM systems and assistive devices for the hearing impaired. Prerequisite: SHH 480. (1 cr. h.)

EDU 488: Student Teaching in Speech, Language, and Hearing (A) Full-time speech and language assessment and intervention in school settings under College supervision. Related seminars are included in the course. This experience includes: task analysis, formal and informal assessment, development of Individualized Educational Programs and Individualized Family Service Plans, curriculum planning, instructional planning and strategies, working within a multi-disciplinary team, behavior management, classroom management, and self-analysis of skills. Prerequisites: SHH 371, SHH 383, SHH 480, SHH 481, EDU 496; cumulative GPA of 2.7 and GPA in SHH courses of 2.7. Consent of department. (12 cr. h.)

Achieve passing score on the SPAA Competency Examination (see department academic advisement manual for further information). (2 cr. h.)

SHH 483: Aural Rehabilitation (S) The management principles of hearing impairment are considered across age groups: Auditory perception, speech perception, auditory training, speech reading and psycho-social issues. The nature and accessibility of personal and educational amplification systems and assistive devices are discussed. Case studies are reviewed and critiqued. Prerequisites: SHH 270, 370, 383. (3 cr. h.)

Related Education Courses

EDU 388: Student Teaching: Speech, Language, Hearing (A) Full-time speech, language, hearing therapy in school setting under College supervision. Prerequisites: SHH 371, 383, 480, 481, EDU 496; cumulative GPA of 2.7 and GPA in SHH courses of 2.7. Consent of department. (6 cr. h.)

EDU 488: Student Teaching in Speech, Language, and Hearing (A) Full-time speech and language assessment and intervention in school settings under College supervision. Related seminars are included in the course. This experience includes: task analysis, formal and informal assessment, development of Individualized Educational Programs and Individualized Family Service Plans, curriculum planning, instructional planning and strategies, working within a multi-disciplinary team, behavior management, classroom management, and self-analysis of skills. Prerequisites: SHH 371, SHH 383, SHH 480, SHH 481, EDU 496; cumulative GPA of 2.7 and GPA in SHH courses of 2.7. Consent of department. (12 cr. h.)

EDU 496: Organization of Speech, Language, Hearing Programs in the Schools (A) Historical, social and legal foundation for establishing and providing speech/language/hearing services within the curricula of different school settings. Emphasis on legal and professional concerns including eligibility issues for the Individualized Family Service Plan and Individualized Education Plan; the impact of language based learning disabilities on classroom performance, particularly reading and writing, curricular development and instructional planning strategies for various populations, differentiated instruction within the classroom, classroom/behavioral management and the role of ASHA in the schools. Applying concepts to specific cases and employing collaboration with parents and other school based professionals are addressed. Prerequisites: SHH 270, 280, 370, 371, 383, 480, 481. (3 cr. h.)
Urban Studies
INTERDISCIPLINARY MINOR

FACULTY
Mark Prus (Coordinator)

MINOR OFFERED
Urban Studies

CAREER POTENTIAL
• Urban planner
• Transportation analyst
• Consultant
• City manager

DESCRIPTION
The interdisciplinary minor in urban studies draws on the resources of the economics, geography, political science and sociology-anthropology departments and may be combined with many of the majors offered by the College. Advisement of students majoring in departments cooperating in urban studies is the responsibility of the urban studies staff members of the respective departments. Students majoring in other departments are advised by advisers assigned from the urban studies staff.

Minor in Urban Studies [URB]
A. Required courses total 12 credit hours (prerequisites for these courses must be taken without credit toward the urban studies minor):
   - ECO 393: Urban Economics (prerequisites are ECO 110, 111)
   - GRY 250: Urban Geography
   - POL 326: State and Local Government
   - SOC 461: Urban Sociology (prerequisite is SOC 150)

B. Elective courses total six credit hours and are to be taken for minor credit upon advisement only. They may be taken from the following list of courses, or from outside the cooperating departments with written permission of the adviser. Such electives may be chosen specifically to emphasize general content, planning, techniques, empirical analysis, or whatever focus is desired by the student and adviser. POL 485 and SOC 400 provide field experiences which would be worthwhile electives for the urban studies minor.
   - ECO 383: Labor Economics or ECO 494: Regional Economics
   - GRY 324: Cartography and Geographic Information or GRY 440: Seminar in Geography or GRY 470: Resource Geography or GRY 429: Topics (as appropriate)
   - POL 240: Introduction to Public Administration and Public Policy or
   - POL 292: Race and Politics in America or
   - POL 485: Field Study in Political Science or
   - POL 492: Seminar in Political Science or
   - POL 526: Seminar in State and Local Government
   - SOC 351: The Community or
   - SOC 352: U.S. Ethnic Identity and Conflict or
   - SOC 373: Deviant Behavior or
   - SOC 400: Field Practicum or
   - SOC 498: Seminar in Sociology

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 18
Women’s Studies
INTERDISCIPLINARY MINOR

FACULTY
Kathleen A. Lawrence (Coordinator)

MINORS OFFERED
Women’s Studies

CAREER POTENTIAL
• Teacher
• Journalist
• Counselor
• Lobbyist

DESCRIPTION
The Women’s Studies minor is interdisciplinary and is designed to complement many academic majors. Administration of this program and advisement for its students is conducted by the Women’s Studies Committee, a subcommittee of the Multicultural and Gender Studies Council. Students completing the minor will be exposed to scholarship focusing on women’s role and status in society in both historical and contemporary contexts. The minor helps students prepare for numerous careers that are enhanced by an understanding of sex roles and relations between men and women in society.

Minor in Women’s Studies [WST]

A. Required Courses: 9 credit hours
- WST 100: Approaches to Women’s Studies
- WST 400: Colloquium in Women’s Studies

One course from the following:
- COM 432: African Americans in Television and Film
- ENG 250: Introduction to Jewish Authors
- AAS 251/ENG 251: Introduction to African American Literature
- ENG 421: Afro-American Autobiography
- GRY 485: Africa, South of the Sahara
- AAS 334/HIS 312: African American History I
- AAS 336/HIS 313: African American History II
- AAS 321/HIS 321: Africa, Human Origins to 1800
- AAS 322/HIS 322: Modern Africa, 1800-Present
- HIS 363: Jews in the Modern World, 1789-1948
- HIS 460: The Holocaust

Other courses that address experiences related to ethnicity or social groups in the minority in the U.S. may be used to fulfill this category with permission of the program coordinator.

B. Other: 9 credit hours. Three courses from at least two of the following categories:

1. Theoretical Perspectives:
- PHI 380: Feminist Social Thought

Any course that deals with theoretical issues underlying the study of women may be used to fulfill this category, with the permission of the program coordinator.

2. Women in Society:
- ECO 325: Political Economy of Women
- HLH 550: Women’s Health
- POL 405: Discrimination Law
- PSY 330: Psychology of Sex Roles
- SOC 401: Sociology of Sex and Gender
- SOC 470: Sociology of the Family

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 18

Course codes: A = every semester, B = at least once per year, C = at least once every two years, F = fall, M = summer, O = occasionally, S = spring, W = winter, ■ = LAS

Women’s Studies

WST 100: Approaches to Women’s Studies
(O) A survey of women’s studies that emphasizes the integration of the various approaches to the area. Topics will include: analysis of patriarchy and gender and their influence on family, work and public policy; the history of women and the women’s movement; sexuality and sex roles; connections among gender, race and class. Satisfies requirement for women’s studies minor. (3 cr. hr.) ■

WST 200: Women and U.S. Institutions
(O) Examines the structure of U.S. Institutions and their power dynamics as they relate to women. Considerable attention will be paid to the major “gender-defining” institutions, such as education, law, government, the labor market, media, religion, medicine, and the family. Relationships among these institutions that define policy regarding women will be discussed. Focus on contemporary U.S. society. Satisfies requirement in women’s studies minor. (3 cr. hr.)

WST 400: Colloquium in Women’s Studies
(O) Individual study or projects on selected topics in women’s studies — integration and elaboration of previous course work in women’s studies. Satisfies requirement for women’s studies minor. Prerequisite: WST 100 (3 cr. hr.)

WST 552: Gender Issues in Education
(F) Seminar integrating recent scholarship on women and women’s ways of knowing into a broader study of gender issues in education including socialization of men and women through education; socialization of women and men teachers and administrators and the costs and benefits of these structures for men and women. The course will focus upon application of these issues to policy and practice in education today. Prerequisite: Junior, senior or graduate level; education methods course. Consent of instructor. (Also listed as EDU 552.) (3 cr. hr.)
Center for Advancement of Technology in Education (CATE)

FACULTY
Terrence J. McGovern (Director)

MISSION OF THE CENTER
The mission of the Center for Advancement of Technology in Education (CATE) is to promote and facilitate the integration of technology into the curriculum and to educate faculty and students in the theory and practice of current and emerging instructional technologies.

FUNCTIONS OF THE CENTER
• To recommend priorities to the College with respect to technology and the College mission.
• To promote discussion among faculty and professional staff regarding software and hardware technology needs.

Center for Aging and Human Services

FACULTY
Anne K. Vittoria (Director)

MISSION OF THE CENTER
The Center for Aging and Human Services has a multidisciplinary focus and seeks: to be a leader in, and supporter of, creative teaching and the development of an academically sound, theoretically strong gerontology curriculum and human services curriculum; to be an innovator in responding to substantive directions of change in the gerontological field and human services field in research and research-related activities; to develop and cultivate dynamic sites, physically and socially, where a community of thinkers and doers recognize older adults as partners, and truly learn about, as well as from, older persons; and to be an active and steadfast advocate, in word and deed, politically and socially, for the aged population and disenfranchised, oppressed persons in general.

The Center reports to the dean of arts and sciences, and is governed by a 16-member council of faculty, students, agency directors and leaders in the field of aging.

FUNCTIONS OF THE CENTER
• Coordination of the current gerontology programs, including the concentration in social gerontology and the minor in social gerontology. For a detailed description of the current programs, see the sociology/anthropology section in this catalog.
• Continued development, coordination and management of the B.A. and B.S. in human services, open to transfer students who have completed appropriate degree programs at cooperating community colleges. See page 146 of this catalog.
• To pro-actively expedite and facilitate the College’s activities in instructional technology including distance learning; technology instruction and support; classroom instructional technology activities; and the Computer Applications Program (see page 82 of this catalog).

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Old Main, Room 122
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www.cortland.edu/humanserv/

CAREER INFORMATION
SUNY Cortland offers an interdisciplinary minor in computer applications for students to develop skills and knowledge useful in professional development and the workplace. The minor is designed to complement any academic major and focuses on the development of technology applications within various academic disciplines. Students completing the minor will have been exposed to a variety of computers and software applications as tools in a variety of “real world” environments, and will have had experiences in solving problems in their respective disciplines.

CAREER INFORMATION
Career opportunities are outstanding in both gerontology and human services. Many students continue on to graduate school in a variety of areas, including administration in aging, aging services, research on aging, public policy development and education.

Typical employment areas, in both the public and private sectors, include social work, long-term care, service coordination, counseling, business and management, research and policy, health care, speech pathology, recreation and leisure studies and education, secondary and college levels.
Center for International Education

Faculty
Christopher Malone (Director)

Mission of the Center
The Center for International Education has been established to provide an integrated framework for the College’s many international activities. Its mission is to promote, coordinate, and initiate programs and events which further international education within the campus environment and in the Cortland community.

The Center reports to the dean of the School of Professional Studies and is governed by a board that includes membership from various College-wide units that address different aspects of international study.

Functions of the Center
• Help develop and enhance the College’s existing curricular offerings and programs with an international focus.
• Work closely with the College’s Study Abroad Program, the International Studies Program, the International Communications and Culture Department, and the Project for Eastern and Central Europe.
• Develop new international programs for the College and funding proposals for that purpose.
• Work with the Admissions Office and the Enrollment Management Office to attract and retain students involved in the College’s international course offerings and programs.
• Assist the International Student Association and aid the international student advisor and the director of Whitaker Hall in enriching the educational experience of the College’s international students.
• Initiate, promote and coordinate international events and activities of interest to the campus as well as to Cortland and the surrounding community.

Study Abroad
The International Programs Office administers the College’s many opportunities for study abroad. See page 293 of this catalog.

The International Studies Program
The International Studies Program is an interdisciplinary program in which students study the modern world as a whole rather than any one country or society within it. The program has special appeal for students interested in foreign languages, study abroad, and global studies. See page 157 of this catalog.

International Communications and Culture Department
This department offers opportunities for the study of foreign languages, foreign literatures and foreign cultures. Liberal arts majors and minors in French and Spanish are administered through this department. Students who incorporate education courses into their programs may qualify for professional certification as teachers. The department also offers courses in Arabic, Chinese and German, and participates in interdisciplinary programs in cinema study and international study. See page 150 of this catalog.

The Project for Eastern and Central Europe (PECE)
The Project for Eastern and Central Europe fosters and develops affiliations and working relationships between SUNY Cortland and universities in Eastern and Central Europe. PECE sponsors conferences for this purpose as well as student and faculty exchanges. PECE is dedicated to fostering shared knowledge, cooperation, and mutual understanding among the peoples of Eastern and Central Europe and those in the United States.

The Kenya Project
With the aid of a grant from the federal government, SUNY Cortland and the University of Nairobi are working together to improve access to and quality of post-secondary education in Kenya using the U.S. community college model.

Whitaker International Hall
Whitaker Hall is a student residence hall containing a number of designated single and double rooms, many with a private bath. Whitaker Hall has a decidedly international atmosphere. Students from around the world live in Whitaker with American students. Preference is given to Cortland students who would like to live with a roommate from another country. World culture nights and evenings of global awareness featuring talks, games, music and food are a regular part of Whitaker’s special programming. Through its satellite system residents can view television programming from around the world.

Global Ambassadors (International Student Organization)
Open to all Cortland students, the purpose of the Global Ambassadors is to provide a link between American students and those from other countries. Travel, activities and programs sponsored by the club foster an atmosphere in which students from other countries can learn about American life and culture while American students learn about the life and culture of the other countries.
Center for Multicultural and Gender Studies

FACULTY
Co-directors: Mechthild Nagel, Bill Buxton

MISSION OF THE CENTER
The Center for Multicultural and Gender Studies is comprised of several programs overseen by individual coordinators. The primary goal of the Multicultural and Gender Studies (MCGS) Council is to support the College’s mission statement by helping students “develop an ability to function within a pluralistic society, with respect for human diversity.”

Specifically, all of our programs endeavor to educate students to appreciate cultural diversity in all of its various forms by designing courses addressing issues of race, ethnicity, class, gender, religious and sexual orientation. A further goal of the programs is to produce students who are well informed and conversant about the dichotomy between the dominant culture and marginalized groups in society. This endeavor is supported by the College-wide General Education requirements in prejudice and discrimination initiated by the Council. In addition to curriculum, the Center takes a leadership role in faculty development, student support, sponsorship of cultural events and other activities related to multicultural and gender studies. Our mission is to promote and support scholarship and teaching that enhances our understanding of the experiences and contributions of under-represented groups and women. Congruent with this mission is our effort to work toward improving the campus climate for these same groups so that their experiences and cultures are studied, valued, and understood.

FUNCTIONS OF THE CENTER
The Center for Multicultural and Gender Studies functions “as the unit of the College with responsibility for curriculum, research, faculty development, cultural events, student support, and other activities related to multicultural and gender studies.”

Formed in 1985, the Center’s foremost objective is to help create a climate that promotes understanding of and appreciation for human difference. The Center reflects an inclusive multicultural model where “culture” is broadly defined and multicultural education is thought to encompass factors such as race, ethnicity, gender, class, and sexual orientation.

The Center’s central operating assumption is that all oppressed groups share a similar — though not identical — body of experiences that promotes a common bond. While the separate identities of groups must be acknowledged and respected, the Center strongly endorses the need for these groups to work collectively in pursuing social justice.

The agenda of the Center is truly multifaceted. Through its curriculum programs, the Center emphasizes the intellectual and artistic contributions of groups that traditionally have been under-represented in higher education as well as the historical and often institutionalized obstacles these groups have had to overcome. Through its work with other College units, the Center also strives to positively influence the extracurricular campus environment.

The Center offers a major and minor in African American studies and minors in Jewish studies, Latin American studies, Native American studies and Women’s studies. It also oversees curriculum programs in these areas. In addition, Native American concerns and Lesbian and Gay studies offer courses but no minor as yet. Elementary education majors may choose a concentration in multicultural and gender studies in fulfilling their degree requirements. Students who study in these areas are encouraged to think critically and write thoughtfully about the historic, social, economic and political conditions that affect all people living in a culturally diverse society.

African American Studies
The African American Studies Program is the oldest of the ethnic studies programs at SUNY Cortland.

Administration of the African American Studies Program and advisement of its students is provided by the coordinator and the African American Studies Committee, a subcommittee of the Center for Multicultural and Gender Studies.

For more information, see page 49 of this catalog.

Asian Studies
The Asian studies minor is an interdisciplinary program designed to serve the needs of students majoring in any subject area who desire more knowledge regarding Asia and Asian American concerns.

Administration of the Asian Studies Program and advisement of its students is provided by the Asian Studies Committee, a subcommittee of the Center for Multicultural and Gender Studies.

For more information, see page 64 of this catalog.

Jewish Studies
The Jewish Studies Program explores the cultural and religious experiences of the Jewish people from their beginnings to the present. At SUNY Cortland, Jewish studies attempts to shed light on the difficult choices all non-dominant groups face with regard to acculturation and assimilation.

Administration of the Jewish Studies Program and advisement of its students is provided by the Jewish Studies Committee, a subcommittee of the Center for Multicultural and Gender Studies.

For more information, see page 126 of this catalog.

Latin American Studies
The Latin American studies offers a minor designed to complement many academic majors. Students choosing the minor will study the history and cultural production of Latin Americans from the perspective of several disciplines.

Administration of the Latin American Studies Program and advisement of its students is provided by the Latin American Studies Committee, a subcommittee of the Center for Multicultural and Gender Studies.

For more information, see page 162 of this catalog.

Native American Studies
The most recent interdisciplinary and multicultural studies program to be developed at SUNY Cortland, Native American studies offers a minor designed to complement many academic majors. Students choosing this minor will study the Native American cultures from the perspectives offered by several disciplines.

Administration of the Native American Studies Program and advisement of its students is provided by the coordinator and the Native American Concerns Committee, a subcommittee of the Center for Multicultural and Gender Studies. For more information, see page 171 of this catalog.
Women's Studies
The study of women, their challenges, and their experiences was introduced in 1988 to the SUNY Cortland curriculum. With interdisciplinary courses in such areas as African American studies, English, health, and sociology, the Women's studies minor is designed to complement all academic majors.

Administration of the Women's Studies Program and advisement of its students is provided by the Women's Studies Committee, a subcommittee of the Center for Multicultural and Gender Studies.

For more information, see page 225 of this catalog.