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Academic Departments,  
Programs of Study and  
Course Listings  
A-C

# 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 (7-12)
- Adolescence Education: Chemistry (7-12)
- Adolescence Education: Earth Science (7-12)
- Adolescence Education: English (7-12)
- Adolescence Education: French (7-12)
- Adolescence Education: Mathematics (7-12)
- Adolescence Education: Physics (7-12)
- Adolescence Education: Physics and Mathematics (7-12)
- Adolescence Education: Social Studies (7-12)  
(dual major required; see Social Studies)
- Adolescence Education: Spanish (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 pages 42-43 of this catalog.

Those who wish to enroll in a program leading to teacher certification must file an application to the Teacher Education Program. Contact the program coordinator/representative for details and specific degree requirements.

## Adolescence Education

### COURSE DESCRIPTIONS

#### AED 310: Grammar and the Writing Process

(A) Engagement in the various stages of the writing process while determining the appropriate role of grammar in the Language Arts Curriculum through readings and practice. Prerequisite: CPN 101 or 103; 2.75 grade point average for AEE majors; corequisite for AEE majors: AED 311. (3 cr. hr.) ■

#### AED 311: Participant-Observer Experience: Writing Process

(F) A 30-hour field experience supervised by the course instructor. Prerequisite: CPN 101 or 103; 2.75 grade point average; corequisite: AED 310. (1 cr. hr.)

#### 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 pre-service teachers. Observations and field reports from secondary classroom experiences required. Prerequisites: Admission to the adolescence education program and grade point average consistent with "good standing" status (not below 2.5). (1 cr. hr.)

#### AED 341: Introduction to English Language Arts

(F) This course brings together literature, composition, language and general material on teaching methods. Course goals include progress towards an integrated knowledge of constructivist learning theory, related teaching practices, and preparation for student teaching, as well as up-to-date approaches for working with ESL and special needs students in inclusive classrooms. Prerequisite: 2.75 ENG grade point average. (3 cr. hr.)

#### AED 385: Participant-Observer Experience

(F) Students will systematically observe the main components of the teaching and learning process in order to develop the reflective disposition needed to make wise instructional decisions, and to complete the 40 remaining hours of the pre-service fieldwork requirements. Corequisite: AED 386, 387. (1 cr. hr.)

#### AED 386: Student Teaching in English in the Middle Schools

(F) Supervised student teaching in the middle school. Corequisite: AED 385, 387. S, U grades are assigned. (7 cr. hr.)

#### AED 387: Student Teaching in English in the High School

(F) Supervised student teaching in the high school. Prerequisites: AED 441. Corequisite: AED 385, 386. S, U grades are assigned. (7 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: AED 391 or EDU 391 and MAT 224 and 227 and permission of department chair. (1-2 cr. hr.)

#### AED 400: Student Teaching

(F) Full-time supervised social studies teaching in public schools for ten weeks (6 cr. hr.)

#### AED 404: Teaching Writing

(S) 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: AED 310, 311, and 341; Combined AED and ENG grade point average of 2.75. (4 cr. hr.) ■

**AED 437: Methods of Teaching Foreign Languages in Middle/Junior and High Schools I**

(A) Prerequisites: PSY 101, and PSY 232 or 332 and AED 391 or EDU 391 (required for adolescence education majors) or INT 270. Twenty-four hours of study in the language at 300 level or above. Must be taken concurrently with AED 438. Student must receive a grade of B or better in this course as one requirement of eligibility for student teaching. (3 cr. hr.)

**AED 438: Methods of Teaching Foreign Languages in Middle/Junior and High Schools II**

(A) Prerequisites: PSY 101, and PSY 232 or 332 and AED 391 or EDU 391 (required for adolescence education majors) or INT 270. Twenty-four hours of study in the language at 300 level or above. Must be taken concurrently with AED 437. Student must receive a grade of B or better in this course as one requirement of eligibility for student teaching. (3 cr. hr.)

**AED 439: Student Teaching: Adolescence Education – Foreign Languages**

(A) Prerequisites: AED 437 and 438. 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. (14 cr. hr.)

**AED 441: Methods of Teaching Literature and Critical Literacy**

(S) Integration of the teaching of literature and critical literacy. Lesson planning, instructional strategies, and teaching with Educational standards are emphasized, as are theory and related strategies for helping students apply critical reading and writing skills to a range of literacy genres and levels of interpretation.. Prerequisite: AED 310, 311, and 341; Combined AED and ENG grade point average of 2.75. (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 twenty-five hours of field experience in middle and secondary schools. Prerequisites: PSY 232 and AED 391. (3 cr. hr.)

**AED 443: Methods II: Teaching the Sciences in the Middle and Secondary Schools**

(F) Introduction to aspects of teaching laboratory-based science to a diverse population of students through the development of a course syllabus, a comprehensive plan for laboratory safety, and lesson plans aligned with state and national learning standards and state science core curriculum guides. Twenty-five hours of field experience in middle and secondary schools. Prerequisite: AED 442; corequisite: AED 444. (3 cr. hr.)

**AED 444: Laboratory Practicum**

(F) Opportunity to work with an experienced teacher in the planning, preparation, and implementation of laboratory exercises in an introductory, college-level lab course through one-on-one and small group activities. Fulfills twenty-five hours of field experience requirement. Corequisite: AED 443. (1 cr. hr.)

**AED 445: Student Teaching: Adolescence Education — Science**

(A) Full-time supervised student teaching in two public school placements: one, eight-week placement at the seventh or eighth grade level and one, eight-week placement at the ninth, tenth, eleventh, or twelfth grade level. A discipline-specific student teaching seminar is held on campus once during the semester. Prerequisites: PSY 232; AED 443; and AED 444. See major department for eligibility criteria. S, U grades are assigned. (14 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 grade point average 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.)

# Adolescence Education: Social Studies (7-12)

Old Main, Room 212  
(607) 753-2723  
E-mail: raffertyb@cortland.edu  
www.cortland.edu/history/

## PROGRAM

### SCHOOL

Arts and Sciences

### FACULTY

Roger Sipher (Coordinator), John Shedd, Gigi Peterson

### PROGRAMS OFFERED

Bachelor of Arts in Adolescence Education: Social Studies (7-12)

### 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.

### 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 36-41 of this catalog apply to the following majors.
2. Liberal Arts Requirements: 90 credit hours

### Major in Adolescence Education: Social Studies (7-12) [SSA]

*Note: This program is currently undergoing curricular change. Check with the department for updates.*

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: 44-68 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 and Politics

HIS 100 and 101 *or* HIS 110 and 111 *and*  
HIS 200 and 201 and 3 hours at the 300 level or above  
AED 310: Grammar and the Writing Process (pending approval) *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  
SSS 303: Post-Practice Teaching Seminar

\* *To be eligible for the professional semester, a student must have declared adolescence education: social studies (7-12) 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.*

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 127

Example of the B.A. in Adolescence Education:  
Social Studies (7-12) and History over four years

First Year	Second Year
<p><i>Fall</i></p> <p>CPN 100 or 102 Foreign language Mathematics course GE (HIS 200 or POL 100)* HIS 200 or POL 100 COR 101</p> <p><i>Spring</i></p> <p>CPN 101 or 103 Foreign language GE course History 201 GE 5 – History (must be W. Civ. or World Hist.)</p>	<p><i>Fall</i></p> <p>Foreign language PSY 101 History (to complete sequence started in GE 5) History course GE 8</p> <p><i>Spring</i></p> <p>Foreign language PSY 232 or 332 GE 8 HLH 199 GE course History course</p>
Third Year	Fourth Year
<p><i>Fall</i></p> <p>GE course GRY 425 or 429 SHH 300 or PSY 350 History course History course</p> <p><i>Spring</i></p> <p>AED 310 or EDU 449 GRY 480 SSS 300 History course History course</p>	<p><i>Fall</i></p> <p>Professional Semester SSS 301 SSS 303 AED 400</p> <p><i>Spring</i></p> <p>GE course GE course ECO 105 History course History course</p>

\* 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.

# Adolescence Education: Social Studies (7-12)

## COURSE DESCRIPTIONS

### SSS 300: Introduction to Secondary Social Studies

(A) 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. (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 310: Grammar and the Writing Process

(A) Engagement in the various stages of the writing process while determining the appropriate role of grammar in the Language Arts Curriculum through readings and practice. Prerequisite: CPN 101 or 103; 2.75 grade point average for AEE majors; corequisite for AEE majors: AED 311. (3 cr. hr.) ■

### AED 400: Student Teaching

(F) Full-time supervised social studies teaching in public schools for ten weeks. (6 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.)

# African American Studies

## INTERDISCIPLINARY MAJOR

Old Main, Room 208-B  
(607) 753-2064  
E-mail: [asumahs@cortland.edu](mailto:asumahs@cortland.edu)  
[www.cortland.edu/aas](http://www.cortland.edu/aas)

### SCHOOL

Arts and Sciences

### FACULTY

Seth N. Asumah (Coordinator), William Buxton, Bernard Jackson, Ibipo Johnston-Anumonwo, Michelle Kelly, Samuel Kelley, Kassim Kone, Edward Moore, Thomas Mwanika, Mechtild Nagel, Emmanuel Nelson, Susan Rayl, Keith Smith, Paul van der Veur, Donald Wright

### PROGRAMS OFFERED

Bachelor of Arts in African American Studies  
Bachelor of Arts in Adolescence Education: Social Studies and African American Studies (7-12)

### 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 (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
- Adolescence education — social studies and African American studies career in high school teaching
- Scholarship support in African American Chorale
- Research with faculty, conferences and publication

### CAREER POTENTIAL

- Government service: national, state, local
- Journalism
- Social and family services
- Politics
- Teaching
- Business
- Community activism

### Requirements

1. Degree Requirements listed on pages 36-41 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. Twenty-seven credit 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 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 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 (7-12) [SSA and AAS]

*Note: This program is currently undergoing curricular change. Check with the department for updates.*

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: 44-68 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 3 hours at the 300 level or above

AED 310: Grammar and the Writing Process

(pending approval) *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

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: African American history; African American

literature and humanities; African American sociological,

political and community development; education and

administration of African American institutions. 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 sociopolitical 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: 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 CIN 210, PSY 210. (3 cr. hr.) ■

**AAS 225: Introduction to Africa**

(C) Introduction to African continent and people; broad outlines of history from earliest humans to present. Also listed as HIS 225. (3 cr. hr.) ■

**AAS 241: African American Chorale**

(A) College-community mixed choral group which performs a wide range of African American music such as folk, Negro spirituals, and traditional and contemporary gospel. Concert tours. Consent of department required. S, U grades are assigned. Also listed as MUS 241. (1 cr. hr.)

**AAS 251: Introduction to African American Literature**

(A) Survey of African American literature: representative novel, poetry, drama from various time periods. Prerequisite: CPN 101 or 103. Also listed as ENG 251. (3 cr. hr.) ■

**AAS 260: South Africa on 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 and CIN 260. (3 cr. hr.)

**AAS 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 PHI 270. (3 cr. hr.) ■

**AAS 290: Introduction to African Politics and Society**

(B) Insight and background to traditional, contemporary African society; orientation into aspects of African colonial administration, post-independence politics. Also listed as POL 290. (3 cr. hr.) ■

**AAS 291: Studies in African American Liberation Movements**

(C) Focus on liberation struggles of Zimbabwe (Rhodesia), South Africa, Angola, Mozambique, as well as United States. Comparative, analytical approach used. (3 cr. hr.)

**AAS 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 groups, functional approach to problem of racism in this country. Also listed as POL 292. (3 cr. hr.) ■

**AAS 304: Peoples of Africa**

(C) African ethnology; the religion, language, social, economic, political organization of cultures in Africa south of the Sahara. Prerequisites: ANT 102 or 300. Also listed as ANT 304. (3 cr. hr.) ■

**AAS 321: Africa, Human Origins to 1800**

(F) Origins, groupings of people 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. Prerequisite: HIS 100, 101, 110, 111, 150, IST 200, 210 or AAS 100. Also listed as HIS 321. (3 cr. hr.) ■

**AAS 322: Modern Africa, 1800-Present**

(S) Traditional Africa and European influences, imperialism and colonial rule; independence; problems of independent Africa. Prerequisite: HIS 100, 101, 110, 111, 150, IST 200, 210 or AAS 100. Also listed as HIS 322. (3 cr. hr.) ■

**AAS 332: Jazz**

(S) 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, 221, 222 or 223. Also listed as MUS 332. (3 cr. hr.) ■

**AAS 334: African American History to 1865**

(F) Black America from African origins to end of Civil War. Prerequisite: HIS 200, 201 or AAS 100. Also listed as HIS 312. (3 cr. hr.) ■

**AAS 336: African American History since 1865**

(S) Black America from Reconstruction period to present. Prerequisite: HIS 200, 201 or AAS 100. Also listed as HIS 313. (3 cr. hr.) ■

**AAS 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 ENG 352. (3 cr. hr.)

**AAS 353: Recent African American Writing**

(O) Black experience in America as reflected since World War II in works of outstanding African American writers: fiction, nonfiction, poetry, drama. Prerequisites: CPN 101 and 103, and AAS 251 or ENG 251. Also listed as ENG 353. (3 cr. hr.)

**AAS 361: 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. Prerequisite: SOC 100 or 150 or ANT 102. Also listed as ANT 352, SOC 352. (3 cr. hr.) ■

**AAS 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. Also listed as POL 362. (3 cr. hr.) ■

**AAS 365: Third World Literature**

(O) Representative postcolonial works of fiction in English from the Caribbean, Africa, India, the South Pacific. Prerequisite: Any English literature course at the 200 level. Also listed as ENG 365. (3 cr. hr.) ■

**AAS 376: African American Community Organizations**

(O) Ideological concepts, programs, goals of major organizations in African American community. Regular class, off-campus experiences to design more effective organizational strategies. (3 cr. hr.)

**AAS 381: History Of The Education of African Americans**

(G) Education of African Americans and relationship to African American experience. Trends, patterns of current topics. Prerequisite: Three hours in African American Studies. (3 cr. hr.) ■

**AAS 390: South Africa**

(C) Historical background to apartheid and contemporary racial conflict in South Africa, Zimbabwe and Namibia. Also listed as HIS 431. (3 cr. hr.) ■

**AAS 395: International Race Relations**

(O) Race, ethnic relations in United States, Great Britain, South Africa, Zimbabwe. Impact and nature of race issues in League of Nations, United Nations, Organization of African Unity. Prerequisite: Six hours in African American studies or political science. (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. Prerequisite: ENG 325, 326, 355 or 356. Also listed as ENG 425. (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. Prerequisites: HIS 200, 201 or AAS 100. Also listed as HIS 428. (3 cr. hr.) ■

**AAS 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. Also listed as COM 431. (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. Prerequisite: CPN 101 or 103. Also listed as CIN 432, 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. Prerequisite: CPN 101 or 103. Also listed as COM 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: CPN 101 or 103 and AAS 251 or 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 590: Seminar in African Politics and Society**  
(O) Comparative, analytical study of African sociocultural and political systems, governmental processes of new African nations. Open to seniors with six hours of appropriate course work or graduate students. (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 sociopolitical opinions and issues into public policy. Examples, comparisons drawn from African, other African American World situations. Open to seniors with six hours of appropriate course work or graduate students. (3 cr. hr.)

## Related Education Courses

**AED 400: Student Teaching**  
(F) Full-time supervised social studies teaching in public schools for ten weeks (6 cr. hr.)

**SSS 300: Introduction to Secondary Social Studies**  
(A) 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.)

# Anthropology/ Sociology

## DEPARTMENT

### SCHOOL

Arts and Sciences

### FACULTY

Jamie Dangler (Chair), Herbert Haines, Richard Kendrick, Kassim Kone, William C. Lane, Craig Little, Ellis McDowell-Loudan, William Skipper, John R. Sosa, Sharon Steadman, Stuart Traub, Anne Vittoria, Philip Walsh, Tiantian Zheng

### PROGRAMS OFFERED

Bachelor of Arts in Anthropology  
Bachelor of Arts in Adolescence Education: Social Studies and Anthropology (7-12)

### MAJORS OFFERED

Anthropology  
Adolescence Education: Social Studies and Anthropology (7-12)

### CONCENTRATIONS OFFERED

Americas Archaeology  
Applied Anthropology  
Ethnic Studies  
World Archaeology

### 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, Americas or world 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 archaeological excavations
- Archaeological fieldwork opportunities and possible paid work after ANT 400 participation
- Archaeological/ethnographic fieldwork opportunities outside the U.S.

Cornish Hall, Room D-311  
(607) 753-2726  
E-Mail: danglerj@cortland.edu  
www.cortland.edu/anthropology

- Anthropology Honors Program
- Student Referral Program
- Internships
- Teaching certification for adolescence social studies

### Requirements

1. Degree Requirements listed on pages 36-41 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 major 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: Fieldwork in Archaeology  
ANT 550: Independent Study in Anthropology (depending on the title)

Topics Courses: 6 credit hours

- ANT 230: Prejudice and Discrimination (GE 2)
- ANT 234: Anthropology of Gender (GE 2)
- ANT 251: Introduction to Language Study
- ANT 306: Folk Societies and Life Styles
- ANT 307: World Prehistory
- ANT 315: Development Anthropology
- ANT 326: Archaeology of Religion
- ANT 330: Religions of Asia
- ANT 350: Language in Society and Culture
- ANT 351: Folklore
- ANT 352: U.S. Ethnic Identity and Conflict
- ANT 400: Fieldwork in Archaeology
- ANT 404: Applied Anthropology
- ANT 406: Contact and Culture Change
- ANT 408: Culture and Personality
- ANT 409: Economic Anthropology
- ANT 410: Cultural Ecology
- ANT 415: Culture and Aging
- ANT 460: Introduction to Museum Studies
- ANT 550: Independent Study in Anthropology (depending on the title)

C. Anthropology Electives: 9 credit hours

Students fulfill these credit hours by choosing three courses listed under Culture Area Courses and Topics Courses.

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

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

### Major in Anthropology with a concentration in Applied Anthropology [ANT/APPL]

Students with an applied concentration gain an understanding of fields such as development, medical, and legal anthropology, enabling them to address problems of health, education, cultural and linguistic preservation, human rights violations, and poverty in global contexts.

#### CAREER POTENTIAL

- World Bank positions
- OXFAM positions
- International aid agency positions (e.g., U.S.A.I.D.)
- Africare posts
- Save The Children posts
- C.A.R.E. posts

A. Required Courses: 21 credit hours

- ANT 102: Introduction to Cultural Anthropology (GE 3)
- ANT 300: Human Evolution and Survival (GE 7)
- ANT 315: Development Anthropology
- ANT 404: Applied Anthropology
- ANT 406: Contact and Culture Change
- ANT 492: Anthropological Theory
- ANT 493: Anthropological Methods

B. Culture Area Courses: 6 credit hours  
(See list under "Major in Anthropology")

C. Topics Courses: 6 credit hours  
(See list under "Major in Anthropology")

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

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

### Major in Anthropology with a concentration in Americas Archaeology [ANT/AARC] or World Archaeology [ANT/WARC]

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 curator 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)

Choose either concentration:

#### I. Americas Archaeology

A. Required Courses: 24 credit hours

- ANT 102: Introduction to Cultural Anthropology (GE 3)
- ANT 300: Human Evolution (GE 7)
- ANT 301: Native American Archaeology
- ANT 305: Archaeology of the Eastern United States
- ANT 492: Anthropological Theory
- ANT 493: Anthropological Methods
- ANT 400: Fieldwork in Archaeology *or*
- ANT 460: Introduction to Museum Studies *or*
- CPV 400: Cooperative Education/internship in archaeology or related field

*Culture Area Courses: Select one from the following:*

- ANT 302: Native American Ethnology
- ANT 314: Peoples of Latin America

B. Electives: Select three from the following:

- ANT 201: World Cultures
- ANT 230: Prejudice and Discrimination (GE 2)
- ANT 234: Anthropology of Gender (GE 2)
- ANT 307: World Prehistory
- ANT 326: Archaeology of Religion
- ANT 352: US Ethnic Identity and Conflict
- ANT 400: Fieldwork in Archaeology
- ANT 406: Contact and Culture Change
- ANT 410: Cultural Ecology
- ANT 460: Introduction to Museum Studies

#### II. World Archaeology

A. Required Courses: 24 credit hours

- ANT 102: Introduction to Cultural Anthropology (GE 3)
- ANT 300: Human Evolution (GE 7)
- ANT 307: World Prehistory
- ANT 326: Archaeology of Religion
- ANT 492: Anthropological Theory
- ANT 493: Anthropological Methods
- ANT 400: Fieldwork in Archaeology *or*
- ANT 460: Introduction to Museum Studies *or*
- CPV 400: Cooperative Education/internship in archaeology or related field

*Culture Area Courses: Select one from the following:*

- ANT 304: Peoples of Africa
- ANT 310: Peoples of South and Southeast Asia
- ANT 312: Peoples of the Middle East

B. Electives: Select three from the following:

- ANT 201: World Cultures
- ANT 234: Anthropology of Gender
- ANT 306: Folk Societies
- ANT 400: Fieldwork in Archaeology
- ANT 406: Contact and Culture Change
- ANT 410: Cultural Ecology
- ANT 460: Introduction to Museum Studies *or*  
any Culture Area Course

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

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

### Major in Anthropology with a concentration in Ethnic Studies [ANT/ETHS]

Students with a concentration in ethnic studies take courses that focus on cultural and power differences and similarities among groups in global contexts. Students undertake comprehensive analyses of ethnic identity, prejudice and discrimination, and social problems related to poverty and inequality.

#### CAREER POTENTIAL

- Corporate positions in culture management
- International aid agency positions (e.g. U.S.A.I.D.)
- U.S. government/State Department positions
- Development consulting

A. Required Courses: 18 credit hours

- ANT 102: Introduction to Cultural Anthropology (GE 3)
- ANT 230: Prejudice and Discrimination (GE 2)
- ANT 300: Human Evolution and Survival (GE 7)
- ANT 352: U.S. Ethnic Identity and Conflict
- ANT 492: Anthropological Theory
- ANT 493: Anthropological Methods

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 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: Fieldwork in Archaeology
- 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 (7-12) [SSA and ANT]

*Note: This program is currently undergoing curricular change. Check with the department for updates.*

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: 44-68 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 3 hours at the 300 level or above
- AED 310: Grammar and the Writing Process  
(pending approval) *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
- 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 (GE 3)
- ANT 300: Human Evolution and Survival (GE 7)

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
  - ANT 300: Human Evolution and Survival *or*
  - ANT 307: World Prehistory
- C. Anthropology Electives: 3 credit hours
  - ANT 302: Native American Ethnology *or*
  - ANT 400: Fieldwork in Archaeology

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 15

**Example of the B.A. in Anthropology over four years**

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.

First Year	Second Year
<p><i>Fall</i></p> <p>ANT 102 (GE 3) CPN 100 or 102 Foreign language course Two GE courses COR 101</p> <p><i>Spring</i></p> <p>One anthropology course (200 or 300 level) CPN 101 or 103 Quantitative Skills course Foreign language course GE course</p>	<p><i>Fall</i></p> <p>Two anthropology courses (200-300 level) GE course Foreign language course One elective</p> <p><i>Spring</i></p> <p>One or two anthropology courses (200-300 level) GE course Foreign language course One or two electives</p>
Third Year	Fourth Year
<p><i>Fall</i></p> <p>One or two anthropology courses (300-400 level) One or two electives One or two GE courses</p> <p><i>Spring</i></p> <p>ANT 492 ANT 493 One or two GE courses</p>	<p><i>Fall</i></p> <p>Two anthropology courses (300-400 level)</p> <p><i>Spring</i></p> <p>One or two anthropology electives (300-400 level) One to four electives</p>

# 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. (3 cr. hr.) ■

**ANT 230: Prejudice and Discrimination**  
(B) Descriptive and theoretical review of the existence and effects of prejudice and discrimination worldwide context. Comparison of Western and non-Western social structure, and of dominant and subordinate relationships in the U.S. and around the world. 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. Prerequisite: CPN 101 or 103. (This course is cross-listed as ENG 201 and COM 211 and this prerequisite is required.) (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 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 300. (3 cr. hr.) ■

**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 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 through time provided. Prerequisite: ANT 102 or 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 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 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 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 socioeconomic 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 SOC 100 or 150. Also listed as SOC 315. (3 cr. hr.) ■

**ANT 326: Archaeology of Religion**

(C) Exploration of theoretical frameworks used to interpret human belief systems. Cross-cultural examination of religions in cultural contexts, using archaeology to explore their origins, and sociocultural anthropology to understand their present-day structures. Prerequisite: ANT 102 or 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 fundamentals 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 150. Also listed as SOC 330. (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." Prerequisites: ANT 102 or SOC 100 or 150. Also listed as SOC 352 and AAS 361. (3 cr. hr.) ■

**ANT 369: Population and Society**

(S) Social significance of population mass, population redistribution through births, deaths, migration. Prerequisites: SOC 100 or 150 or ANT 102. Also listed as SOC 369. (3 cr. hr.)

**ANT 400: Fieldwork 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 or 300. (3 cr. hr.) ■

**ANT 406: Contact and Culture Change**

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

**ANT 408: Culture and Personality**

(C) Comparative study of personality and structure produced in various cultures and epochs. Prerequisite: ANT 102 or 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 300. (3 cr. hr.) ■

**ANT 410: Cultural Ecology**

(C) Relationship between sociocultural and environmental factors with special attention to political, techno-economic and ideational 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 300 or SOC 100 or 150. (3 cr. hr.) ■

**ANT 455: The Individual in Communication**

(C) Relation of language to self-identity, interaction with others. Approaches from psychological anthropology and sociolinguistics. (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. (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: Junior or senior status. (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: Junior or senior status. (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: Junior or senior status. (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. Prerequisite: ANT 495. (1-6 cr. hr.) ■

**ANT 550: Independent Study in Anthropology**

(A) Individual studies in selected areas. Prerequisites: ANT 102, 300 and junior or senior status. (1-6 cr. hr.)

**Related Education Courses****AED 400: Student Teaching**

(F) Full-time supervised social studies teaching in public schools for ten weeks (6 cr. hr.)

**SSS 300: Introduction to Secondary Social Studies**

(A) 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.)

# Art and Art History

## DEPARTMENT

### SCHOOL

Arts and Sciences

### FACULTY

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

### PROGRAMS OFFERED

Bachelor of Arts in Art  
Bachelor of Arts in New Media Design

### MAJORS OFFERED

Art  
New Media Design

### 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

Dowd Fine Arts Center, Room 222  
(607) 753-4316  
E-mail: [greenea@cortland.edu](mailto:greenea@cortland.edu)  
[www.cortland.edu/art/](http://www.cortland.edu/art/)

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 36-41 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 textbooks, 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 education
- Graphic design, Web page design, environmental design
- Textile design
- Corporate art buyer
- Artists in ceramics, fiber arts, design, painting, printmaking, sculpture

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

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

Free Electives: 29-42 total credit hours

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

## Major in New Media Design [NMD]

The recently approved major in New Media Design provides in-depth exposure to the changing area of new media while at the same time maintaining a critical core of studio foundations and art history. Majors have the opportunity to work directly with digital video, digital photography, and audio and multimedia production in a technology laboratory setting. For specific information, contact the Art and Art History Department.

## 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 interests 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
- Museum practices: curator, archivist, researcher
- Art education
- Art criticism

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

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 spatial 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
- Museum practices: curator, archivist, researcher
- 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 Studio Art [ART]

### CAREER POTENTIAL

- Art education
- Graphic design, Web page design, environmental design
- Corporate art buyers
- Artists in ceramics, fiber arts, design, painting, printmaking, sculpture

### 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 B.A. in Art (Studio) over four years

First Year	Second Year
<p><i>Fall</i></p> <p>ATS 101 (GE 4) ATS 102 (GE 4) ATH 121 (GE 4) COR 101 CPN 100 or 102</p> <p><i>Spring</i></p> <p>ATS 201 ATS 202 ATH 122 (GE 4) CPN 101 or 103 GE 2 ATS 104 (GE 4)</p>	<p><i>Fall</i></p> <p>ATS 301 ATS 107 (GE 4) GE 5 GE 6 ATH 354 (WI) Foreign language 101</p> <p><i>Spring</i></p> <p>Foreign language 102 ATS 105 (GE 4) ATS 106 (GE 4) GE 7 Free elective</p>
Third Year	Fourth Year
<p><i>Fall</i></p> <p>Foreign language 201 GE 8a ATS req. concentration ATH 340 (WI) Free elective minor</p> <p><i>Spring</i></p> <p>Foreign language 202 GE 8b ATS req. concentration Free elective minor Free elective</p>	<p><i>Fall</i></p> <p>GE 3 ATT 490 Free elective minor GE 1 Free elective</p> <p><i>Spring</i></p> <p>ATT 491 ATT 470 ATS 429 Free elective Free elective Free elective</p>

# 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 223: Art History III

(C) Introduction to arts of Africa, Oceania and the Americas. (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 122. (3 cr. hr.) ■

#### ATH 320: History and Theory of Digital Arts

(C) An exploration of the artist's role in both using and analyzing the new media. A critical historical review of the impact of the digital revolution. Prerequisites: ATH 121, 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 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: ATH 121 or 122. (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 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 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, 121 or 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, 121, 122 or permission of instructor. (3 cr. hr.) ■

**ATH 344: Renaissance, Mannerism, Baroque**  
(C) Analysis of High Renaissance art in Italy, 16th-century 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, 121, 122, or permission of instructor. (3 cr. hr.) ■

**ATH 355: Rococo Through Impressionism – 18th and 19th Centuries**  
(C) Value structures in painting, sculpture, architecture in 18th and 19th centuries in relation to political and industrial revolutions, changes in class structure, religious revivals and atheism. Prerequisite: ATH 121 or 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, visibility, technology, and mass media will be considered within the chronological framework. Prerequisite: ATH 120, 121, 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 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 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, 121, 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. (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, photo mechanically 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 240: Graphic Design I**

(B) An introduction to the processes, techniques, basic terminology and concepts of the graphic design profession. Students learn to apply graphic design theory to develop aesthetic expression and effective communication. Oriented to computer aided graphic and information design. Prerequisite: ATS 202. (3 cr. hr.)

**ATS 241: Typography I**

(C) An introduction to typographic form through a series of structured investigations. Course study emphasizes basic letter-form design, vocabulary, measurement systems, computer typesetting and construction, and compositional principles used with text and display type. Prerequisite: ATS 202. (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, 102 or 107. (3 cr. hr.) ■

**ATS 330 Artist's Books**

(C) Introduction to the use of the book as an object of artistic expression. Students learn to design and apply methods of binding, box making, and print media as they produce personal statements. Historical and contemporary usage of the codex format will be explored in lectures and critiques and with visits to local collections in museums and libraries. Prerequisite: ATS 101 or 102. (3 cr. hr.) ■

**ATS 340: Graphic Design II**

(B) An extension of the Graphic Design I course, stressing three objectives: craftsmanship, composition, and concept of aesthetic form as communication. Practical design problem solving within a professionally oriented studio environment. Prerequisites: ATS 101, 240 and 241. (3 cr. hr.) ■

**ATS 342: Art and The Internet**

(C) Introduction to the history and practical application of the use of the Internet as a communicative and artistic tool. Students will learn a wide range of HTML and multimedia content authoring tools in the production of individual projects sites. Prerequisites: ATS 102 and 202. (3 cr. hr.)

**ATS 343: Multi-Media I**

(C) Introduction to time-based and interactive digital media. Audio and visual media are explored and refined into personal aesthetic statements. Prerequisites: ATS 101, 240 and 241. (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.) ■

**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 440: Portfolio Practicum**

(C) An intensive studio class open to senior-level students. This course is the final culmination of the methods and practices investigated throughout the New Media Design Program. Topics to be explored include business practices and visual portfolio presentation. Prerequisites: ATS 340 and 343. (2 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, S, U. 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

Studio West, Room 164  
(607) 753-5573  
E-mail: leey@cortland.edu

## INTERDISCIPLINARY MINOR

### SCHOOL

Arts and Sciences

### FACULTY

Yomee Lee (Coordinator)

### MINOR OFFERED

Asian Studies

### 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 course work 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 [ASIA]

### 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: Peoples 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 DESCRIPTION

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.)

# Athletics

Park Center, Room 222  
(607) 753-4953  
E-mail: tonerp@cortland.edu  
[www.cortland.edu/athletics/](http://www.cortland.edu/athletics/)

## DEPARTMENT

### SCHOOL

Professional Studies

### FACULTY

Joan Sitterly (Interim Director), Gary Babjack, Joe Brown, Brad Bruhn, Peter Cahill, Tom Cranfield, John Crawford, Larry Czarnecki, Jack Daniels, Kim Hokanson, Karen Lang, Julie Lenhart, Dan MacNeill, Michael Middleton, Jennifer Potter, Laura Ray, Lelan Rogers, Tom Spanbauer, Brian Tobin, Reggie Trotter, Mike Urtz, Cynthia Wetmore, Shawn Wilbourn, Jeannette Yeoman

### DESCRIPTION

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.

#### COURSES OFFERED

##### Fall Sports

- PED 202: Intercollegiate Cross Country: Men/Women
- PED 203: Intercollegiate Field Hockey: Women
- PED 204: Intercollegiate Football: Men
- PED 205: Intercollegiate Golf: Women
- PED 206: Intercollegiate Soccer: Men
- PED 207: Intercollegiate Soccer: Women
- PED 208: Intercollegiate Tennis: Women
- PED 209: Intercollegiate Volleyball: Women

##### Winter Sports

- PED 210: Intercollegiate Basketball: Men
- PED 211: Intercollegiate Basketball: Women
- PED 212: Intercollegiate Gymnastics: Women
- PED 213: Intercollegiate Ice Hockey: Men
- PED 214: Intercollegiate Ice Hockey: Women
- PED 215: Intercollegiate Swimming: Men/Women
- PED 216: Intercollegiate Indoor Track and Field: Men
- PED 217: Intercollegiate Indoor Track and Field: Women
- PED 218: Intercollegiate Wrestling: Men

##### Spring Sports

- PED 233: Intercollegiate Baseball: Men
- PED 234: Intercollegiate Lacrosse: Men
- PED 235: Intercollegiate Lacrosse: Women
- PED 236: Intercollegiate Softball: Women
- PED 237: Intercollegiate Outdoor Track and Field: Men
- PED 238: Intercollegiate Outdoor Track and Field: Women

# Biological Sciences

## DEPARTMENT

#### SCHOOL

Arts and Sciences

#### 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

Bachelor of Arts in Biology  
 Bachelor of Science in Biology  
 Bachelor of Science in Adolescence Education: Biology (7-12)

#### MAJORS OFFERED

Biology  
 Adolescence Education: Biology (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.

Bowers Hall, Room 240  
 (607) 753-2715  
 E-mail: [baronil@cortland.edu](mailto:baronil@cortland.edu)  
[www.cortland.edu/biology/](http://www.cortland.edu/biology/)

Together with a faculty advisor, a biology major can design a course of study suited to his/her interests, whether it is 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 36-41 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

BIO 201: Biological Sciences I  
 BIO 202: Biological Sciences II  
 BIO 210: Cellular Biology  
 BIO 312: Genetics  
 BIO 319: Biological Literature  
 BIO 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.: 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.: 62 credit hours

Composition and General Education Courses: 27 credit hours  
 Foreign Language Courses: 0-4 credit hours  
 Additional Science or Math: 10 credit hours  
 Free Elective Courses: 21-25 credit hours

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

## Major in Adolescence Education: Biology (7-12) [ABI]

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

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: 27 credit hours

CHE 221: General Chemistry I  
 CHE 222: General Chemistry II  
 CHE 301: Organic Chemistry I  
 GLY 261: Physical Geology  
 MAT 121: Calculus A *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. Professional Preparation Courses: 38 credit hours

PSY 101: General Psychology I  
 PSY 232: Adolescent Psychology  
 PSY 350: Psychology of Language *or*  
 SHH 300: Normal Language Development  
 AED 391: Introduction to Adolescence Education  
 AED 442: Methods I: Teaching the Sciences in the Middle and Secondary Schools  
 AED 443: Methods II: Teaching the Sciences in the Middle and Secondary Schools  
 AED 444: Laboratory Practicum  
 AED 445: Student Teaching: Adolescence Education – Science  
 EDU 449: Literacy in the Middle and Secondary School  
 HLH 199: Critical School Health Issues

#### D. Additional Requirements for the B.S.: 29-34 credit hours

Composition and General Education Courses: 27 credit hours  
 Foreign Language Courses: 0-7 credit hours  
 Free Elective Courses: 0-2 credit hours

#### E. Admission to the Major

Completion of 45 credit hours with at least a 2.5 grade point average overall and at least a 2.5 grade point average in each of areas A, B, and C above

#### F. Eligibility for Student Teaching

To be eligible for AED 445: Student Teaching, a minimum overall grade point average of 2.5 is required. Additionally, a minimum grade point average of 2.5 is required in each of areas A, B, and C above. A minimum of 24 credit hours in biology courses and 22 credit hours in related science and math courses is needed. BIO 201, 202, 210, 312; CHE 221, 222; GLY 261; PHY 105 or 201; PSY 101, 232; and AED 391, 442, 443, 444 must be completed before the student teaching experience. Additionally, each teacher candidate will be required to submit a professional portfolio.

#### G. Other

Specific information regarding requirements (for example, state examinations and reporting of child abuse and maltreatment) for New York State teaching certification can be found on pages 42-43 of this catalog.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

## 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 *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. 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.: 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.: 42-43 credit hours

Composition and General Education Courses: 27 credit hours  
 Foreign Language Courses: 0-4 credit hours  
 Free Elective Courses: 11-16 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. 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. 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. in biology from SUNY Cortland.

## Example of the B.S. in Biology over four years

First Year	Second Year
<p><i>Fall</i></p> <p>BIO 201 CHE 221 CHE 224 CPN 100 or 102 COR 101 Foreign language or GE course</p> <p><i>Spring</i></p> <p>BIO 202 CHE 222 CHE 225 CPN 101 Foreign language or GE course</p>	<p><i>Fall</i></p> <p>BIO 210 CHE 301 GLY 281 GE course GE course or free elective</p> <p><i>Spring</i></p> <p>BIO 312 MAT 121 GE course Free elective GE course or free elective</p>
Third Year	Fourth Year
<p><i>Fall</i></p> <p>BIO 319 PHY 105 Science or math elective GE course Free elective</p> <p><i>Spring</i></p> <p>Biology elective PHY 106 Science or math elective GE course</p>	<p><i>Fall</i></p> <p>BIO 412 Biology elective Science or math elective Free elective Free elective</p> <p><i>Spring</i></p> <p>Biology elective Biology elective GE course Free elective Free elective</p>

# Biological Sciences

## COURSE DESCRIPTIONS

**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**  
(O) 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. (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. (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. (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, C) 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. hr.) ■

**BIO 312: Genetics**

(S) Genetic, cytogenetic, 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 fieldwork. 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, urinary, reproductive, circulatory, endocrine and nervous systems. Not open to students with credit for both BIO 301 and 302. Two three-hour lecture/laboratories. Prerequisites: BIO 110 and 111 or 201 and 202. (4 cr. hr.) ■

**BIO 401: Invertebrate Zoology**

(F-O) Functional morphology, life histories and evolutionary relationships of selected invertebrate phyla. Not open to students with credit for BIO 501. 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 extinct and living vertebrate taxa. Three lectures, one three-hour laboratory. Prerequisites: BIO 110 and 111 or 201 and 202. (4 cr. hr.) ■

**BIO 405: Conservation Biology**

(S) Origin and preservation of biotic diversity, including species diversity, genetic variation, and ecosystem variety. Not open to students with credit for BIO 505. Two lectures, one three-hour laboratory/field trip. Prerequisite: 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. Not open to students with credit for BIO 508. Three lectures. Prerequisites: BIO 110-111 or 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 415: Radiation Biology**

(O) Effects of ionizing radiation on biological systems at molecule, cellular, organ and organism levels. Two lectures, one three-hour laboratory. Prerequisites: BIO 111 or 201 and 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 210, 306 or 312. (3 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 201-202. (4 cr. hr.)

**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 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**

(O) 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. Prerequisite: BIO 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 501: Advanced Invertebrate Biology**

(F-O) Structure and function, evolution, and life histories of major invertebrate phyla. Three lectures, one three-hour laboratory. Prerequisite: Four semesters of college-level biology or permission of instructor. Not open to students with credit for BIO 401. (4 cr. hr.)

**BIO 502: Comparative Functional Morphology**

(O) An examination of the principles and breadth of vertebrate functional morphology. Emphasis on the linkage of structure and function from the comparative and phylogenetic perspectives. Students may not receive credit for both BIO 402 and 502. Prerequisite: Four semesters of biology or permission of the instructor. (3 cr. hr.)

**BIO 505: Case Studies in Conservation Biology**

(M-C) Selected case studies in conservation biology, including conservation of species and genetic diversity, endangered species reintroductions, and the application of geographic information systems and computer models to the discipline. Not open to students with credit for BIO 405. Oral presentation, discussions and investigative laboratories/field trips. Prerequisites: One year of introductory biology. (3 cr. hr.)

**BIO 508: Entomology**

(C) An overview of insect biology including behavior, ecology, systematics, physiology, morphology, and the economic/medical impact of insects on human societies. Not open to students with credit for BIO 408. Prerequisites: A minimum of four semesters of biology courses or permission of the instructor. (3 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 and 111 or 201 and 202; CHE 222. (3 cr. hr.)

**BIO 514: Mammalian Physiology**

(F) Functions of mammalian organ systems, including the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. Three lectures, one three-hour laboratory. Prerequisite: A course in cell biology or equivalent or permission of instructor. (4 cr. hr.) ■

**BIO 516: Controversies in Evolutionary Biology**

(O) Advanced investigations of current areas of debate within modern evolutionary biology. Hypotheses addressed range from levels of selection to evolutionary medicine, with additional topics suggested by students. Includes critical evaluations of readings from the current literature (primary, secondary and popular). Primarily in a seminar format. Prerequisite: At least four semesters of biology courses or permission of the instructor. (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.)

**BIO 523: Field Mycology**

(M-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 macrofungi. Project and paper required. Prerequisite: Year of college-level biology. (3 cr. hr.)

**BIO 524: Physiological Ecology**  
(S-C) Physiological responses and adaptation of organisms to environmental factors. Prerequisite: Four semesters of undergraduate biology or permission of instructor. (3 cr. hr.) ■

**BIO 525: Developmental Biology**  
(S) Examination of embryology, molecular aspects of development, differentiation, regeneration and pattern formation. Three lectures, one three-hour laboratory. Prerequisite or corequisite: A course in cell biology or equivalent. (4 cr. hr.) ■

**BIO 533: Biology Seminar**  
(O) Selected topics dealing with current issues in biology. May be taken more than once as subtitle changes. Prerequisite: Consent of instructor. (1-3 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 curricula

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.)

**AED 443: Methods II: Teaching the Sciences in the Middle and Secondary Schools**

(F) Introduction to aspects of teaching laboratory-based science to a diverse population of students through the development of a course syllabus, a comprehensive plan for laboratory safety, and lesson plans aligned with state and national learning standards and state science core curriculum guides. Twenty-five hours of field experience in middle and secondary schools. Prerequisite: AED 442. Corequisite: AED 444. (3 cr. hr.)

**AED 444: Laboratory Practicum**

(A) Opportunity to work with an experienced teacher in the planning, preparation, and implementation of laboratory exercises in an introductory, college-level lab course through one-on-one and small group activities. Fulfills 25 hours of field experience requirement. Corequisite: AED 443. (1 cr. hr.)

**AED 445: Student Teaching: Adolescence Education — Science**

(A) Full-time supervised student teaching in two public school placements: one, eight-week placement at the seventh or eighth grade level and one, eight-week placement at the ninth, tenth, eleventh, or twelfth grade level. A discipline-specific student teaching seminar is held on campus once during the semester. Prerequisites: PSY 232, AED 443 and 444. See major department for eligibility criteria. S, U grades are assigned. (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.)

# Chemistry

## DEPARTMENT

### SCHOOL

Arts and Sciences

### FACULTY

Peter M. Jeffers (Chair), Matthew Gronquist, M. Gail Phillips, Arden P. Zipp

### PROGRAMS OFFERED

Bachelor of Arts in Chemistry  
Bachelor of Science in Chemistry  
Bachelor of Science in Adolescence Education: Chemistry (7-12)

### MAJORS OFFERED

Chemistry  
Adolescence Education: Chemistry (7-12)  
Chemistry leading to the 3+2 Engineering Program

### CONCENTRATION OFFERED

Environmental Science

Bowers Hall, Room 38

(607) 753-4323

E-mail: [jeffersp@cortland.edu](mailto:jeffersp@cortland.edu)

[www.cortland.edu/chemistry](http://www.cortland.edu/chemistry)

### 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 36-41 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 at 300 level 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 (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 grade point average of 2.5 and a grade point average 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  
AED 442: Methods I: Teaching the Sciences in the Middle and Secondary Schools  
AED 443: Methods II: Teaching the Sciences in the Middle and Secondary Schools  
AED 444: Laboratory Practicum  
AED 445: Student Teaching: Adolescence Education – Science  
HLH 199: Critical School Health Issues  
SHH 300 or PSY 350: Language Acquisition  
EDU 449: Literacy in the Middle and Secondary School

#### D. Additional Requirements: 28-33 credit hours

- Composition and General Education Courses: 27 credit hours  
Foreign Language Courses: 0-7 credit hours  
Free Elective Courses: 0-1 credit hours

#### E. Admission to the Major

Completion of 45 credit hours with at least a 2.5 grade point average overall and at least a 2.5 grade point average in each of areas A, B, and C above

#### F. Eligibility for Student Teaching

To be eligible for AED 445: Student Teaching, a minimum overall grade point average of 2.5 is required. Additionally, a minimum grade point average of 2.5 is required in each of areas A, B, and C above. A minimum of 24 credit hours in chemistry courses and 22 credit hours in related science and math courses is needed. CHE 221, 222, 301, 340; BIO 110/201; 111/202; PHY 201; GLY 261; MAT 121, 122; PSY 101, 232; and AED 391, 442, 443, 444 must be completed before the student teaching experience. Additionally, each teacher candidate will be required to submit a professional portfolio.

#### G. Other

Specific information regarding requirements (for example, state examinations and reporting of child abuse and maltreatment) for New York State teaching certification can be found on pages 42-43 of this catalog.

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 of science or bachelor of arts, 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 hours required to earn the degree.

#### 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, University 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, students 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 required to earn 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 bachelor's degree in Chemistry over four years

First Year	Second Year
<i>Fall</i>	<i>Fall</i>
CHE 221	CHE 301
MAT 125	MAT 227
CPN 100 or 102	PHY 201
ECO 105	HIS 110
POL 110	ENG 200
COR 101	
<i>Spring</i>	<i>Spring</i>
CHE 222	CHE 302
MAT 126	CHE 304
CPN 101	PHY 202
ANT 102	SCI 320
ATH 120	MUS 100
Third Year	Fourth Year
<i>Fall</i>	<i>Fall</i>
CHE 431	CHE 470: Adv. Lab 5/6
CHE 410	CHE 340
CHE 451	CHE 480
CHE 470: Adv. Lab 1/2	
ATS 103	
CHE 133	
<i>Spring</i>	<i>Spring</i>
CHE 432	CHE 452
CHE 411	CHE 360
CHE 470: Adv. Lab 3/4	CHE 480
ENG 204	BIO 110
PHY 150	CAP 350

# Chemistry

## COURSE DESCRIPTIONS

### CHE 121: Elementary Chemistry I

(A) Concepts underlying chemical reactions. Application of chemical processes and materials to daily life. Not open to science or math majors. Three lectures, one two-hour laboratory. (4 cr. hr.) ■

### CHE 122: Elementary Chemistry II

(S) Continuation of CHE 121. Not open to science or math majors. Prerequisite: CHE 121. (3 cr. hr.) ■

### CHE 125: Chemistry and the Environment

(O) Basic chemical principles applying to understanding modern environmental problems; food, materials, energy, pollution. Cannot be applied toward chemistry major or minor. Three lectures and/or demonstrations. (3 cr. hr.) ■

### CHE 129, 229, 329, 429, 529: Special Topics in Chemistry

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.)

### CHE 133: Glassblowing

(A) Basic skills in working solid rod and hollow tubing with a gas-oxygen torch. One demonstration, four-six hours practice per week. Not allowed for General Education science credit or minor in chemistry. (2 cr. hr.)

### CHE 190: Chemical Bases of Health and Fitness

(S) Background for understanding exercise physiology. Chemical structure of foods and tissues, biochemical synthesis, blood chemistry, energy and thermodynamics, chemical kinetics. Cannot be applied toward chemistry major or minor. Previous experience in chemistry recommended. Two lectures, one three-hour lab. (3 cr. hr.) ■

### CHE 221: General Chemistry I

(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.) ■

### CHE 222: General Chemistry II

(S) Three lectures, one three-hour laboratory. Honors laboratory section available. Prerequisite: CHE 221. (4 cr. hr.) ■

### CHE 224: Problem-Solving in General Chemistry I

(F) 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.)

### CHE 225: Problem-Solving in General Chemistry II

(S) 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.)

### CHE 301: Organic Chemistry I

(F) Organic compounds, their structure, properties, relationships, synthesis and uses. Three lectures, one three-hour laboratory. Prerequisite: CHE 221 and 222. (4 cr. hr.) ■

### CHE 302: Organic Chemistry II

(S) Three lectures. Prerequisite: CHE 301. (3 cr. hr.) ■

### CHE 304: Organic Chemistry Laboratory II

(S) Synthetic, analytical techniques in organic chemistry. Includes spectroscopy, chromatography. Prerequisite: CHE 301; pre- or corequisite CHE 302. (1 cr. hr.)

### CHE 340: Inorganic Chemistry

(S) Structures and reactivities of elements and compounds emphasizing modern theories of bonding and periodicity. Prerequisite: CHE 221-222. (3 cr. hr.) ■

### CHE 360: Introductory Radiochemistry

(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.) ■

### CHE 410: Quantitative Analysis

(F) Theory, methodology of modern chemical analysis. Volumetric, electrochemical and spectrophotometric methods. Three lectures. Prerequisite: CHE 222. (3 cr. hr.) ■

### CHE 411: Chemical Instrumentation

(S) Theory of instrumental design. Application to a variety of spectrophotometric techniques in chemistry. Three lectures. Prerequisite: CHE 222. (3 cr. hr.)

### CHE 431: Physical Chemistry I

(F) Kinetic theory of gases, thermodynamics, introductory quantum chemistry, chemical bonding. Molecular spectroscopy. Also listed as PHY 431. (3 cr. hr.) ■

### CHE 432: Physical Chemistry II

(S) Chemical kinetics, solid and liquid states, phase equilibria, properties of solutions and surface chemistry. Prerequisite: CHE 431. Also listed as PHY 432. (3 cr. hr.) ■

### 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. (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: CHE 301. (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 subtitle changes. 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 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 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.)

**AED 443: Methods II: Teaching the Sciences in the Middle and Secondary Schools**

(F) Introduction to aspects of teaching laboratory-based science to a diverse population of students through the development of a course syllabus, a comprehensive plan for laboratory safety, and lesson plans aligned with state and national learning standards and state science core curriculum guides. Twenty-five hours of field experience in middle and secondary schools. Prerequisite: AED 442. Corequisite: AED 444. (3 cr. hr.)

**AED 444: Laboratory Practicum**

(F) Opportunity to work with an experienced teacher in the planning, preparation, and implementation of laboratory exercises in an introductory, college-level lab course through one-on-one and small group activities. Fulfills twenty-five hours of field experience requirement. Corequisite: AED 443. (1 cr. hr.)

**AED 445: Student Teaching: Adolescence Education — Science**

(A) Full-time supervised student teaching in two public school placements: one, eight-week placement at the seventh or eighth grade level and one, eight-week placement at the ninth, tenth, eleventh, or twelfth grade level. A discipline-specific student teaching seminar is held on campus once during the semester. Prerequisites: PSY 232, AED 443 and 444. See major department for eligibility criteria. S, U grades are assigned. (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.)

# Childhood/Early Childhood Education

Van Hoesen Hall, Room B-134  
(607) 753-2706  
E-mail: [crandall@cortland.edu](mailto:crandall@cortland.edu)  
<http://www.cortland.edu/education>

## DEPARTMENT

### SCHOOL

Education

### FACULTY

Cynthia Benton (Interim Chair), Heather Bridge, Susana Davidenko, Virginia Dudgeon, Daniel Farsaci, Elizabeth Klein, Emilie Kudela, Andrea LaChance, Thomas Lickona, Joy Mosher, Ellen Newman, Margaret Richardson, Judith Schillo, Nancy Steeley, Gail Tooker, Kimberly Williams

**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 the department for specific degree requirements.*

### PROGRAMS OFFERED

Bachelor of Arts or Bachelor of Science in Childhood Education  
Bachelor of Arts or Bachelor of Science in Early Childhood Education  
Bachelor of Arts or Bachelor of Science in Early Childhood and Childhood Education

### MAJORS OFFERED

Childhood Education (1-6)  
Early Childhood Education (Birth-2)  
Early Childhood/Childhood Education (Birth-6)  
Special Education/Childhood Education (1-6)  
See page 141 for program description

### 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 Childhood/Early Childhood 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 Societies in Education (Phi Delta Kappa and Kappa Delta Pi)
- 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 36-41 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., students complete one year of a foreign language (7 credit hours) or its equivalent (through the 102 level). For the B.A., 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. Special education/childhood dual major students minor in psychology of exceptionality.

### ENROLLMENT IN THE MAJORS

Enrollment in the Childhood/Early Childhood Education Department 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 a department major after completing at least 30 credit hours. To be accepted as a childhood/early childhood education major, students must have a cumulative Cortland grade point average 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 Childhood/Early Childhood Education Department.

Transfers who have completed a minimum of 30 hours with a minimum grade point average of 2.5 may be admitted conditionally 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 grade point average of at least 2.5. Application to the Teacher Education Program will be required.

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 grade point average 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; if ineligible, they must reapply when eligibility is achieved.

## ADVISEMENT MANUAL

Advisement manuals for education majors are available in the Childhood/Early Childhood 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 (1-6) [CED]**

*Note: This program is currently undergoing curricular change. Check with the department for updates. In addition, more specific information will be disseminated at orientation.*

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 or 102: Academic Writing I  
 CPN 101 or 103: 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: Integrated Earth Science and Biology *and*

SCI 142: Integrated Physics and Chemistry

**B. Content Core: 31 credit hours**

ECO 105: Political Economy and Social Thought *or*

POL 100: Introduction to American Government and Politics (whichever not taken as GE 1)

ENG 302: Advanced Writing *or*

ENG 306: Advanced Writing Workshop

HIS 200: The United States to 1877

HIS 201: The United States since 1877

HLH 265: Health for the Child

INT 270: Exploring Education

MAT 102: Concepts of Elementary School Mathematics II

PED 245: Activities for Children

PSY 101: General Psychology I

PSY 231: Child Psychology *or*

PSY 332: Educational Psychology

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-2) [ECE]

*Note: This program is currently undergoing curricular change. Check with the department for updates. In addition, more specific information will be disseminated at orientation.*

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 8 years old)
- Child care provider
- Child care 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 or 102: Academic Writing I

CPN 101 or 103: 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: Integrated Earth Science and Biology *and*

SCI 142: Integrated Physics and Chemistry

### 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.

## Major in Early Childhood Education/Childhood Education (Birth-6) [ECC]

*Note: This program is currently undergoing curricular change. Check with the department for updates. In addition, more specific information will be disseminated at orientation.*

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 or 102: Academic Writing I

CPN 101 or 103: 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 is 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

Recommended:

HIS 101: The World Since 1500

*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

Recommended:

SCI 320: Science, Technology and Culture *or*

GRY 370: Will the World Provide?

*GE 8:* One life science and one earth science

SCI 141: Integrated Earth Science and Biology *and*

SCI 142: Integrated Physics and Chemistry

## 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 is 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

ECE 270: Introduction to Early Childhood Education

SPE 270: Introduction to Special Education

## C. Pedagogy Courses: 50 [+] credit hours

ECE 330: Observation and Assessment of Young Children

ECE 331: Curriculum Development I

ECE 332: Preschool Practicum

ECE 333: Children, Families, and Their Community

ECE 435: Children's Literacy Across the Curriculum

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

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.*

### Example of the B.S. in Early Childhood Education with a minor in History over four years

First Year	Second Year
<i>Fall</i>	<i>Fall</i>
COR 101	HIS 100, 101, 110 or 111
CPN 100 or 102	SCI 141
GRY 120 or 125	MAT 101
HIS 200	ENG 200, 202, 203 or 204
PSY 101	Foreign language/elective
HLH 265	
<i>Spring</i>	<i>Spring</i>
CPN 101	SCI 142
POL 100	MAT 102
GE 4	ECO 105
HIS 201	ENG 302 or 306
PSY 231	GE 7
GE 2	Foreign language/elective
Third Year	Fourth Year
<i>Fall</i>	<i>Fall</i>
ECE 270	ECE 333
PED 245	ECE 431
SPE 270	ECE 435
Minor	EDU 477
Elective	EDU 478
	EDU 400
<i>Spring</i>	<i>Spring</i>
ECE 330	ECE 490
ECE 331	ECE 491
ECE 332	ECE 492
EDU 371	
Minor	
Elective	

Example of the B.S. in Early Childhood/Childhood Education with a minor in History and only one course in foreign language over four years

First Year	Second Year
<p><i>Fall</i></p> <p>COR 101 CPN 100 or 102 GRY 120 or 125 HIS 200 PSY 101 HLH 265</p> <p><i>Spring</i></p> <p>CPN 101 or 103 POL 100 GE 4 HIS 201 PSY 231 GE 2</p>	<p><i>Fall</i></p> <p>HIS 100, 101, 110 or 111 SCI 141 MAT 101 ENG 200, 202, 203 or 204 Foreign language/elective</p> <p><i>Spring</i></p> <p>SCI 142 MAT 102 ECO 105 ENG 302 or 306 ECE 270 Minor</p>
Third Year	Fourth Year
<p><i>Fall</i></p> <p>ECE 330 ECE 331 ECE 332 ECE 333 SPE 270 GE 7</p> <p><i>Spring</i></p> <p>EDU 314 EDU 371 EDU 373 EDU 374 EDU 375 Minor</p>	<p><i>Fall</i></p> <p>EDU 372 EDU 435 EDU 477 EDU 478 EDU 400 PED 245 Minor</p> <p><i>Spring</i></p> <p>ECE 490 ECE 491 ECE 492</p>

# Childhood/Early Childhood Education

## 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. (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 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 grade point average 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, 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 grade point average 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 pre-service 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. (1 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 subtitle 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. (2 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. (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. Strategies for teaching special needs of children included. Prerequisite: 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. (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. (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. (3 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. Prerequisite: 371. (3 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. Prerequisite: EDU 371. (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 446: Individual or Independent Study**  
(A) Curriculum or other aspects of elementary education. Purpose, design of study determined by instructor-advisor. Weekly conferences. S, U grades are assigned. (1-3 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 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. Prerequisites: EDU 371 and 477 or junior standing. (3 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 or EDU 270, and SPE 270, EDU 314, 371, 372, 373, 374, 375, 430, 477 and 478; must be taken concurrently with EDU 492; no outstanding incompletes; an overall grade point average of 2.5; no grade lower than a C- in required education courses. This course may be fulfilled through the London Study Abroad Program. (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 or EDU 270, and EDU 314, 371, 372, 373, 374, 375, 430, 477, 478 and SPE 270; must be taken concurrently with EDU 492; no outstanding incompletes; an overall grade point average of 2.5; no grade lower than a C- in required education courses. This course may be fulfilled through the London Study Abroad Program. (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, SPE 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 preparation for the research they will be reading and/or conducting in future semesters. Classroom observations required throughout the semester. Undergraduates restricted. (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 M.S.T. 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 M.S.T. Program. Undergraduates restricted. (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 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. (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. (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. (3 cr. hr.)

**EDU 533: Introduction to Middle Childhood Education**

(A) Content and methods for integration of curricula for language arts, mathematics, social studies, and science in grades 5-8. Development of interdisciplinary models and assessments aligned with New York State Learning Standards for each of the disciplines and implemented through thematic team teaching and collaborative student projects, appropriate for the intermediate level. Prerequisites: EDU 441 or EDU 442 or EDU 443, or SSS 301-302. (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. (3 cr. hr.)

**EDU 551: e-Learning 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. (3 cr. hr.)

**EDU 570: 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.)

# Cinema Study

## INTERDISCIPLINARY PROGRAM

### SCHOOL

Arts and Sciences

### FACULTY

David A. Hollenback (Coordinator)

### MINORS OFFERED

Cinema Study

### DESCRIPTION

The “nonproduction” 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

# Cinema Study

## COURSE DESCRIPTIONS

**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 AAS 210, 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 235. (3 cr. hr.) ■

Dowd Fine Arts Center, Room 49  
(607) 753-5458  
E-mail: hollenback@cortland.edu

### 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 AAS 260, 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. Prerequisite: CPN 101 or 103. 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. Prerequisite: Any English literature course at the 200 level. 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. Prerequisite: Any English literature course at the 200 level. 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. (3 cr. hr.) ■

### CIN 400: Tutorial in Cinema Study

(A) Advanced study in selected areas. Prerequisites: CIN 101, 102; consent of coordinator. (3 cr. hr.)

### CIN 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. Prerequisite: CPN 101 or 103. Also listed as AAS 432 and COM 432. (3 cr. hr.) ■

### CIN 493: Foreign Films in Translation

(O) Analysis of translated texts of 12 films. Critical works on these films, subsequent viewing of films. Subtitles vary. Also listed as FLT 493. (3 cr. hr.) ■

# Communication Studies

## DEPARTMENT

### SCHOOL

Arts and Sciences

### FACULTY

Caroline Kaltefleiter (Chair), John C. Hartsock, David A. Hollenback, Samuel L. Kelley, Kathleen A. Lawrence, Thomas O. Mwanika, Syed H. Pasha, Paul R. van der Veur

### PROGRAMS OFFERED

Bachelor of Arts in Communication Studies

### MAJORS OFFERED

Communication Studies

### CONCENTRATIONS OFFERED

Electronic Communication, Journalism, Criticism and Culture, Media Production, Public Relations and Advertising, Organizational Communication, Health Communication

### 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 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
- Study abroad
- CSTV-60
- ETC.

### Requirements

1. Degree Requirements listed on pages 36-41 of this catalog apply to the following majors.
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 class work, campus media, internship and international study opportunities.

### CAREER POTENTIAL

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

Dowd Fine Arts Center, Room 224  
(607) 753-4201  
E-mail: kaltefc@cortland.edu  
www.cortland.edu/speech/

The major's 36 credit hours must be taken from the following:

- A. Required Core Courses: 21 credit hours
  - COM 100: Human Communication
  - COM 200: Communication History
  - COM 203: Introduction to Media Writing
  - COM 210: Fundamentals of Public Speaking *or*
  - COM 300: Interpersonal Communication
  - COM 301: Mass Media and Society
  - COM 304: Communication Research
  - COM 400: Communication Law and Ethics
- B. Courses in Concentration: 12 credit hours
- C. Elective in Communication Studies: 3 hours

### Major in Communication Studies with a concentration in Electronic Communication [ELCO]

Prepares students for computer-assisted media careers. Job opportunities include positions in Web design, desktop publishing, magazines, newspapers and new media sites. Preparation also includes theoretical grounding so students can play a role in shaping emerging new media.

- A. Prerequisites
  - CAP 100: Introduction to Computer Applications
  - CAP 235: Presentation Graphics
  - CAP 236: Desktop Publishing
  - CAP 237: Electronic Communication
- B. Required Courses
  - COM 110: Introduction to New Media
  - COM 350: New Communication Media
- C. Choose at least two from
  - COM 303: International Communication
  - COM 345: News Editing and Design
  - COM 349: Multi-Media Production
  - COM 412: Computer Assisted Reporting

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

### Major in Communication Studies with a concentration in Journalism [JOUR]

Prepares students for careers in journalism and related fields, as well as how to critically examine journalism practice. Job opportunities include writing, scripting, editing and producing for newspapers, magazines, radio, television, online journals and newsletters.

- A. Required Courses
  - COM 323: Intermediate News Writing and Reporting
  - COM 332: Readings in Journalism
- B. Choose at least one course from each group
  - Group A
    - COM 310: Feature and Opinion Writing
    - COM 344: Photojournalism
    - COM 345: News Editing and Design
    - COM 412: Computer-Assisted Reporting
  - Group B
    - COM 331: Issues in News
    - COM 333: Critical and Cultural Analysis in Communication Studies
    - COM 346: Advanced Journalism
    - COM 431: Communication and Prejudice
    - COM 433: Literary Journalism

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

### Major in Communication Studies with a concentration in Criticism and Culture [CRCU]

Prepares students for careers as communications critics and continued study at graduate level. Job opportunities include positions as entertainment, new and popular culture critics, columnists and editorial writers and, for those seeking upper-level degrees, academic research and teaching at the college level.

#### A. Required Courses

- COM 302: Intercultural Communication
- COM 333: Critical and Cultural Analysis in Communication Studies

#### B. Choose at least one course from each group

##### Group A

- COM 212: General Semantics
- COM 330: Semiotics and Structuralism in Communication
- COM 410: Communication and Social Change
- COM 430: Media Criticism
- COM 431: Communication and Prejudice
- COM 443: Rhetorical Theory

##### Group B

- COM 303: International Communication
- COM 432: African Americans in Television and Film
- COM 433: Literary Journalism
- COM 434: Gender Communication
- COM 436: Films of Spike Lee

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

### Major in Communication Studies with a concentration in Media Production [MEPD]

Prepares students for careers in sound and video digital production. Job opportunities include positions in broadcast radio and television, filmmaking, broadcast journalism, cable networks and corporate video production.

#### A. Required Courses

- COM 322: Intermediate Writing for Radio and Television
- COM 430: Media Criticism

#### B. Choose at least one course from each group

##### Group A

- COM 243: Studio Television Production
- COM 342: Field Television Production

##### Group B

- COM 242: Audio Production
- COM 312: Radio and Television Performance
- COM 343: Broadcast Journalism
- COM 349: Multi-Media Production

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

### Major in Communication Studies with a concentration in Public Relations and Advertising [PRAD]

Provides students for careers in public relations and advertising in both corporate settings and nonprofit organizations. This concentration provides students grounding in theory, method and application in the areas of public relations and advertising. Job opportunities in the private and public sector include public relations manager, campaign manager, advertising executive, marketing director and promotions manager.

#### A. Required Courses

- COM 421: Mass Media Advertising
- COM 422: Public Relations

#### B. Choose at least one course from each group

##### Group A

- COM 310: Feature and Opinion Writing
- COM 323: Intermediate News Writing and Reporting

##### Group B

- COM 210: Fundamentals of Public Speaking
- COM 311: Interviewing Principles and Practices
- COM 312: Media Performance

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

### Major in Communication Studies with a concentration in Organizational Communication [ORCO]

Prepares students for careers as communications professionals in both public and private organizations. Job opportunities include communications analyst, speech analyst, writer, public affairs officer, leadership/staff trainer and organizational communication designer/researcher/coordinator.

#### A. Required Courses

- COM 320: Organizational Communication
- COM 340: Small Group Communication

#### B. Choose at least one course from each group

##### Group A

- COM 212: General Semantics
- COM 311: Interviewing Principles and Practices

##### Group B

- COM 310: Feature and Opinion Writing
- COM 421: Mass Media Advertising
- COM 422: Public Relations

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

### Major in Communication Studies with a concentration in Health Communication [HECO]

Prepares students for careers as professional communicators in entry-level health positions in government, private businesses, community health services and nonprofit agencies. Job opportunities include health communications specialist/researcher/educator/coordinator/evaluator/consultant, as well as in health-related public relations.

#### A. Required Courses

- HLH 203: Community Health
- COM 450: Health Communication

#### B. Choose at least one course from each group

##### Group A

- COM 212: General Semantics
- COM 300: Interpersonal Communication
- COM 302: Intercultural Communication
- COM 303: International Communication
- COM 451: Environmental Communication
- COM 452: Risk Communication

##### Group B

- HLH 111: International Health and Culture
- HLH 201: Health Problems of the Underserved
- HLH 360: Health Administration and Planning
- HLH 394: Health Related Behavior: Formation and Change

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

*Note: No more than 18 transfer credit hours in communication studies may count toward the fulfillment of major requirements. No more than 45 communication studies credit hours (including transfer credit) may be counted toward graduation requirements.*

*Participation in newspaper, radio, or television (COM 390, COM 393, COM 394), departmental or co-op education internship during third or fourth year (COM 399 or CPV 400), and/or study abroad during junior or senior year are strongly recommended.*

### Example of the B.A. 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.

First Year	Second Year
<p><i>Fall</i></p> <p>GE 1 GE 4 COM 100 Foreign language 101 CPN 100 or 102 COR 101 (required) Total credit hours: 17</p> <p><i>Spring</i></p> <p>GE 2 GE 5 COM 200 Foreign language 102 CPN 101 or 103  Total credit hours: 15</p>	<p><i>Fall</i></p> <p>GE 8a GE 3 COM 203 (WI) Foreign language 201 COM 301  Total credit hours: 15</p> <p><i>Spring</i></p> <p>GE 6 (WI) GE 8b COM 210 Foreign language 202 CAP 100 (or equivalent) Participation course Total credit hours: 17</p>
Third Year	Fourth Year
<p><i>Fall</i></p> <p>GE 7 Quantitative skills COM 110 COM 300 CAP 235, 236, 237 (or equivalent) Participation course Total credit hours: 16</p> <p><i>Spring</i></p> <p>COM 304 COM 110 or 350 COM 303, 345, or 412 Two free electives (minor or double concentration) Participation course Total credit hours: 16</p>	<p><i>Fall</i></p> <p>Internship or Study Abroad or Learning Community  Total credit hours: 16</p> <p><i>Spring</i></p> <p>COM 400 COM 303, 345, 349, or 412 Three free electives (minor or double concentration)  Total credit hours: 15</p>

### 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 distributed as follows:

- COM 100: Human Communication
- Any three remaining core courses
- Two courses from those required in any single concentration
- One three-hour COM elective

*Note: No more than 10 transfer semester credit hours in communication studies may count toward the minor in communication studies.*

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 110: Introduction to New Media

(B) Introduction to the rapidly changing scope of new media and an examination of the technical and commercial implications of this epic change in our everyday lives. Exploration of new media from sociological, economic, and historical perspectives. Prerequisite: CAP 100. (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) Theories, message-design principles of electronic media writing; preparation of commercials, public service announcements, news stories, features, public relations copy. Prerequisite: CPN 101 or 103. (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 or 103. (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 or 103. (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. Prerequisite: CPN 101 or 103. 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. (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, nontraditional features, feature interviews, background features, editorials, columns, reviews. Prerequisite: CPN 101 or 103. (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: Radio and Television 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**

(B) 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 201 or 203. (3 cr. hr.)

**COM 323: Intermediate News Writing and Reporting**

(B) 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 202 or 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 or 103. (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 or 103 and COM 301. (3 cr. hr.)

**COM 335: Issues in Digital Culture**

(C) Ongoing developments of digital culture and its effects on society. Critical and cultural theories applied to a wide variety of practical, societal, legal, and ethical issues. Emphasis on critical thinking, research, writing, and computer skills. Prerequisite: COM 110. (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. (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. (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. (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 349: Multimedia Production**

(C) Use of multimedia production computer technology to converge multiple modes of mediated communication to teach, persuade, distribute, entertain, research, archive, or otherwise store information. Interactive software is used to guide the access and articulation of sounds, images, motions, and text used to communicate to the user. Effective preparation and practical exercises in the production of multimedia projects, making use of a wide variety of mediated communication modes, purposes, and authoring systems. Prerequisites: COM 243 or 342. (3 cr. hr.)

**COM 350: New Communication Media**

(F) Survey of emerging electronic communication media such as satellites, wireless communication, cable television and presentation programs, and their applications in business, education, and research. A review and analysis of historical development, and effects on professions, society, other cultures, and traditional communication media such as television, radio, newspaper and magazines. Study of new communication principles and practices. Prerequisites: COM 100 and CPN 101 or 103. (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. (1 cr. hr.)

**COM 391: Participation in Yearbook**

(A) Participation in yearly production of the student yearbook, *Didascaleion*. Open only to editor(s) and section editors. For elective credit only. S, U grading only. (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. (1 cr. hr.)

**COM 393: Participation in Television**

(A) Participation in the College television station, CSTV. For elective credit only. S, U grading. (1 cr. hr.)

**COM 394: Participation in Radio**

(A) Participation in the College radio station, WSUC-FM. For elective credit only. 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. (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. (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. (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: COM 202 or 203. (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 100. (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: CPN 101 or 103 and COM 301. (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. Also listed as AAS 431. (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. Prerequisite: CPN 101 or 103. Also listed as AAS 432 and CIN 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. (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. (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. Prerequisite: CPN 101 or 103. 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: CPN 101 or 103. (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: CPN 101 or 103. (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 450: Health Communication**

(F) Study and application of communication principles and strategies in formal health delivery systems; analysis of information and messages between health professionals, patient and family. Emphasis is on efficient and effective communication in health delivery. Prerequisite: COM 100. (3 cr. hr.) ■

**COM 451: Environmental Communication**

(F) Study and application of communication concepts and principles to awareness and management of the environment. A survey and analysis of the nature and sources of environmental issues and related educational programs. Topics include risk, cost-benefit analysis, experts-lay conflict, and global concerns. Emphasis is on how communication media and pressure groups set the agenda for environmental issues, influence public perception, and government policy. Prerequisites: COM 100 and EST 100. (3 cr. hr.)

**COM 452: Risk Communication**

(F) Study and application of communication concepts and principles in risk perception and management. A survey and analysis of the nature and sources of risk hazards to personal health and safety, and to the environment. Topics in risk, cost-benefit analysis, expert-lay conflict, and risk consequences. Emphasis is on risk perception, language, and management. Prerequisite: COM 100. (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. (1-6 cr. hr.)

# Computer Applications

## INTERDISCIPLINARY MINOR

Memorial Library, Room B-117  
(607) 753-2629  
E-mail: [connellm@cortland.edu](mailto:connellm@cortland.edu)  
[www.cortland.edu/cap/](http://www.cortland.edu/cap/)

### SCHOOL

Arts and Sciences

### FACULTY

Mark Connell (Coordinator), Ronald F. Conklin,  
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.

### Computer Applications Minor [CAP]

Courses in five categories totaling 18 credit hours are required for the minor in computer applications. Requirements include:

#### Category 1: Introduction to Computers (3 cr. hr.)

CAP 100: Introduction to Computer Applications or equivalent *and*

CAP 104: Computers and Society

Total credit hours required: 6

#### Category 2: Computer Programming (3 cr. hr.)

CAP 201: C Programming

CAP 204: Visual Basic

CAP 205: Object Oriented Programming

PHY 325: Programming

MCS 186: Introductory Programming

Total credit hours required: 3

#### Category 3: Beginning Software Applications (1 cr. hr.)

CAP 230: Introduction to SPSS

CAP 231: Introduction to Data Base Management

CAP 233: Computerized Information Retrieval

CAP 235: Presentation Software

CAP 236: Desktop Publishing

CAP 238: Web Page Design

Total credit hours required: 3

#### Category 4: Applied Data Analysis with Computers (1-4 cr. hr.)

CAP 328: Geographic Information Systems

Also listed as GRY 328

MGT 423: Computer Applications in Economics and Management.

GRY 400: Geographic Analysis

CHE 470: Advanced Lab

PED 434: Statistics and Assessment in Physical Education

POL 312: Methods of Political Analysis

PSY 201: Statistical Methods

MAT 201: Statistical Methods

ECO 221: Economic Statistics

COM 230: Statistical Methods

GLY 281: Data Analysis in Natural Science

EDU 430: Measurement and Evaluation in Education

Total credit hours required: 3

#### Category 5: Advanced Computer Applications (3-4 cr. hr.)

CAP 350: Database Management

ATS 207: Printmaking II

CAP 327: Computer Mapping, also listed as GRY 327

COM 345: News Editing and Design

CAP 351: Advanced Web Page Design

CAP 330: Advanced GIS Techniques, also listed as GRY 330

ECO 421: Econometrics

SPM 335: Information Technology in Sport

SPM 435: Applied Information Technology in Sport

Total credit hours required: 3

TOTAL CREDIT HOURS REQUIRED FOR MINOR: 18

# 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 111.

Lecture and laboratory required. (3 cr. hr.) ■

### CAP 104: Computers and Society

(B) Examination of the social, political, ethical, and economic implications of living in a computer-dominated world. Emphasis on assessing the impact of technology and developing an understanding of its future role. Topics include computer crime, computer and information ethics, computers and the Constitution, privacy and Artificial Intelligence. (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. Prerequisite: CAP 100. (3 cr. hr.)

**CAP 204: Visual Basic**

(C) Introduction to computer programming using the Visual Basic computer language and its integrated development environment. Topics to be studied include event-driven programming, user interface design, data validation and error handling, modular programming using the control structures of the Visual Basic language, an introduction to data structures, and file operations. Prerequisite: CAP 100. (3 cr. hr.)

**CAP 205: Object Oriented Programming**

(C) Introduction to object oriented programming and the Java programming language. Topics include object-oriented analysis and design strategies; abstract data typing, inheritance, and polymorphism; program portability and the Java virtual machine; the Java class hierarchy and Java language control structures; graphical user interface programming in Java; Internet programming and applets. Prerequisite: CAP 100. (3 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. Prerequisite: CAP 100. (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. (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. (1 cr. hr.)

**CAP 235: Presentation Software**

(O) Using the computer to create graphic representations of information and enhance print and non-print communication. Prerequisite: CAP 00 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 consent of instructor. (1 cr. hr.)

**CAP 238: Web Page Design**

(A) Skills to design and create Web pages consisting of text and graphics. Prerequisites: CAP 100. (1 cr. hr.)

**CAP 250: Computer Practicum**

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

**CAP 327: Computer Mapping**

(O) 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 GRY 327. Prerequisites: CAP 100. (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. (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. (3 cr. hr.)

**CAP 351: Advanced Web Page Design**

(B) Advanced Web page design features such as tables, frames, and forms as well as interactive applications such as animation and Javascript. Prerequisite: CAP 238. (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.) ■