

Native American Studies

INTERDISCIPLINARY PROGRAM

SCHOOL

Arts and Sciences

FACULTY

Ellis McDowell-Loudan and Dawn Van Hall (Co-Coordinators)

MINOR OFFERED

Native American Studies

CAREER POTENTIAL

- Teacher
- Counselor
- Consultant
- Journalist

DESCRIPTION

SUNY Cortland's Native American studies minor is interdisciplinary. It is designed to complement numerous academic majors. Students choosing the minor will study the history and culture of Native Americans from the perspective of several disciplines.

Cornish Hall, Room D-318
(607) 753-2485
E-mail: loudane@cortland.edu

Minor in Native American Studies [NAMS]

A. Required Courses: 15 credit hours

- ANT 102: Introduction to Cultural Anthropology *or*
- ANT 300: Human Evolution and Survival
- ANT 301: Native American Archaeology
- ANT 302: Native American Ethnology
- HIS 314: Native American History
- ENG 256: Introduction to American Indian Literature

B. Three credit hours from:

- HLH 201: Health Problems of the Underserved
- ANT/SOC 352: U.S. Ethnic Identity and Conflict
- PSY 210: Racial and Gender Stereotypes
- ANT/SOC 230: Prejudice and Discrimination

C. Electives: Three credit hours

- (selected in consultation with minor advisor)
- ANT 201: World Cultures
 - ANT 305: Archaeology of Eastern United States
 - ANT 314: Peoples of Latin America
 - ANT 315: Development Anthropology
 - ANT 400: Fieldwork in Archaeology
 - ANT 406: Contact and Culture Change
 - HIS 300: Colonial America, 1450-1750
 - HIS 309: New York State
 - HIS 325: Colonial Latin America
 - MUS 101: World Music
 - ATH 223: Art History III

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 21

Performing Arts

DEPARTMENT

SCHOOL

Arts and Sciences

FACULTY

Karen Bals Zimmerman (Chair), Thomas Hischak, Ralph Dudgeon, Cynthia Halpin, Kevin Halpin, Howard Lindh, Preston Marye, Edward Moore, David Neal, Joel Pape, Lois Pfister, Stephen Wilson

ADJUNCT FACULTY

For a listing of adjunct faculty see pages 312-315.

PROGRAM OFFERED

Bachelor of Arts in Musical Theatre

MAJOR OFFERED

Musical Theatre

Dowd Fine Arts Center, Room 216
(607) 753-2811
E-mail: zimmermank@cortland.edu
www.cortland.edu/performingarts/

MINORS OFFERED

American Musical Theatre
Music
Theatre

DESCRIPTION

The Performing Arts Department includes programs in music and theatre, each offering a minor in addition to an interdisciplinary minor in American musical theatre and a concentration in music for elementary education majors. The department offers a wide range of intellectual and performance opportunities in music, theatre and dance, which are open to beginning through advanced students from all disciplines in the College. Theoretical study is balanced with practical work to allow students to explore the creative, aesthetic and intellectual aspects of these arts. Applied music (private study), music ensembles, dramatic productions and musical theatre productions highlight the skills developed in the classroom, studio and stage.

SPECIAL FEATURES

- Newly renovated facilities including a 477-seat theatre, recital hall, lab theatre, dozens of practice rooms, choral and instrumental rehearsal halls, and dance studio
- Instruments provided by the department to participants in ensembles
- Music and Listening Library
- Production of a main-stage musical each semester
- Individual attention from a world-class faculty in a liberal arts setting
- Scholarship support in theatre and music
- Alpha Psi Omega, national dramatic society
- Touring musical and dramatic groups

Requirements

1. Degree Requirements listed on pages 38-48 of this catalog apply to the following majors.
2. Liberal Arts Requirements: B.A. – 90 credit hours

Major in Musical Theatre [MUTH]

The Bachelor of Arts in Musical Theatre provides comprehensive training in musical theatre while maintaining a firm grounding in the liberal arts. The goal is to foster flexibility and versatility in students to enable them to participate in musical theatre on a number of levels. The program's objectives are far reaching. Students will leave the program with the knowledge and confidence to participate in educational, professional or semiprofessional productions with competence and skill. Graduates are active in community and regional theatre organizations, assist and provide leadership in primary and secondary school productions and often continue their education in musical theatre in a M.F.A. or M.A. in music, theatre or musical theatre.

CAREER POTENTIAL

- Actor/singer
- Director
- Choreographer
- Theatre technician

Students must audition for admittance to the program. In addition to the College-wide requirements in writing, Quantitative Skills, foreign language and General Education, the B.A. in Musical Theatre requirements will be met by successful completion of the following courses and portfolio or project assessment:

A. Music Courses: 17 credit hours

- MUS 111: Introduction to Music Theory *or*
- MUS 201: Music Theory I (by advisement)
- MUS 164: Applied Voice (two semesters)
- MUS 264: Applied Voice (two semesters)
- MUS 180: Class Piano *or*
- MUS 160: Applied Piano (by advisement)
- MUS 222: Music History II
- MUS 249: College Singers *or*
- MUS 240: Choral Union

B. Theatre Courses: 13 credit hours

- THT 120: Acting I
- THT 162: Theatre History II
- THT 220: Acting II
- THT 240: Technical Theatre
- THT 399: Participation in Theatre (two semesters)

C. Dance Courses: Eight credit hours

Students must complete four semesters of ballet (DNC 101, 201, 301, 401); each course may, by advisement, be repeated once. The additional Dance courses listed below must also be taken:

- DNC 102: Jazz I
- DNC 103: Tap I
- DNC 302: Jazz Dance II
- DNC 203: Tap II

D. Musical Theatre Courses: 11 credit hours

- THT 361: Musical Theatre in American Culture
- THT 461: Seminar in Musical Theatre
- MUS/THT 331: Musical Theatre Performance I
- MUS/THT 430: Musical Theatre Performance II
- DNC 423: Dance for the Theatre I
- DNC 424: Dance for the Theatre II

E. ENG 204: Introduction to Dramatic Literature (fulfills the Cortland GE 6 requirement)

F. Portfolio, senior presentation, exit interview

G. Students must also complete at least six noncredit technical theatre practica (one per semester for six semesters — e.g., working backstage for productions on costumes, set painting, props, etc.). Work at previous institutions may be accepted for part of this requirement. Students must audition for all departmental theatre productions and accept roles as cast.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Minor in American Musical Theatre [AMTH]

The American theatre minor creates the opportunity for students to approach the art form from an integrated perspective. The program is designed to provide a quality experience in musical theatre in a liberal arts context. The Performing Arts Department produces a main stage musical each semester in addition to cabaret showcases and recitals which feature musical theatre repertoire.

CAREER POTENTIAL

- Actor/singer
- Director
- Arts manager
- Dancer
- Theatre technician

Required Courses: 21 credit hours

- THT 100: Introduction to Theatre Arts
- MUS 111: Introduction to Music Theory
- THT 120: Acting I
- MUS 184: Voice Class I or MUS 185: Voice Class II
- MUS 240: Choral Union *or*
- MUS 249: College Singers
- THT 361: Musical Theatre in American Culture
- THT 399: Participation in Theatre (two semesters required)
- THT 461: Seminar in American Musical Theatre
- Any two dance (DNC) classes

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 21

Minor in Music [MUS]

Note: This is a self-supporting minor and is not directly associated with the musical theatre major.

CAREER POTENTIAL

- Performer
- Graduate study
- Private music teacher

A. Required Courses: 19 credit hours
 MUS 201: Music Theory I
 MUS 202: Music Theory II
 Music History: Six credit hours
 Choose from MUS 221, 222 or 223
 Ensembles: Three credit hours
 Choose from MUS 240, 249, 256, 259
 Applied Music: Four credit hours of applied and/or class lessons

B. Elective Courses: Three credit hours
 Choose from MUS 332, 380 or 470, or MUS 221, 222 or 223 if not selected in Part A.

Enrollment in a music ensemble and applied music is recommended each semester. Class lessons are available in piano and/or voice. Individual lessons in piano, voice and instruments may be arranged.

TOTAL CREDIT HOURS REQUIRED FOR MINOR: 22

Minor in Theatre [THT]

Note: This is a self-supporting minor and is not directly associated with the musical theatre major.

SUNY Cortland's theatre program offers a solid foundation for students interested in theatre as a career or as broadening college experience. In exploring the theoretical and practical aspects of theatre, students can obtain experience in the mounting of major stage productions as well as in smaller, more innovative theatre activities. Acting, directing, technical theatre, arts management, musical theatre, theatre history and criticism are areas that students can examine.

CAREER POTENTIAL

- Actor
- Director
- Theatre technician
- Arts manager

A. Required Courses: 12 credit hours
 THT 100: Introduction to Theatre Arts
 THT 120: Acting I
 THT 240: Technical Theatre I *and*
 THT 220: Acting II *or*
 THT 341: Technical Theatre II

B. Elective courses: Six credit hours from:
 THT 161: Theatre History I
 THT 162: Theatre History II
 THT 330: Literature in Performance
 THT 470: Theatre Management

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 18

Example of the undergraduate degree in Musical Theatre over four years

First Year	Second Year
<p><i>Fall</i></p> <p>CPN 100 Foreign language MUS 111 or 201 THT 120 DNC 101 MUS 164 COR 101 Total credit hours: 16</p> <p><i>Spring</i></p> <p>CPN 101 Foreign language THT 220 DNC 201 MUS 164 GE 1 Total credit hours: 15</p>	<p><i>Fall</i></p> <p>GE 8a MUS 180 MUS 264 Foreign Language DNC 102 DNC 301 Quantitative Skills course Total credit hours: 16</p> <p><i>Spring</i></p> <p>THT 162 (GE 4) DNC 401 THT 240 MUS 264 DNC 202 Foreign language GE 8b Total credit hours: 16</p>
Third Year	Fourth Year
<p><i>Fall</i></p> <p>MUS 223 THT 361 (WI) MUS 249 DNC 103 ENG 204 (GE 6) GE 3 THT 399 Total credit hours: 15</p> <p><i>Spring</i></p> <p>DNC 203 THT 162 GE 2 GE 5 Two electives Total credit hours: 16</p>	<p><i>Fall</i></p> <p>DNC 423 THT 331 GE 7 Three electives (10 cr. hr.) Total credit hours: 15</p> <p><i>Spring</i></p> <p>DNC 424 THT 430 THT 461 (WI) Three electives Total credit hours: 15</p>

Performing Arts

COURSE DESCRIPTIONS

Dance Courses

DNC 101: Ballet I

(F) A dance technique and study course that explores the development of ballet as a base technique for professional dance in the theatre. May be repeated for one additional credit. (1 cr. hr.)

DNC 102: Jazz Dance I

(S) A dance technique and study course focused on style and syncopation of jazz dance. May be repeated for one additional credit. (1 cr. hr.)

DNC 103: Tap Dance I

(F) Exploration and development of basic tap dance technique. Exercises and combinations focus on strong rhythmic patterns and control. May be repeated for one additional credit. (1 cr. hr.)

DNC 201: Ballet II

(S) A continuation of the study and development of ballet technique, building on skills and concepts presented in Ballet I. Theoretical and practical vocabularies are expanded with more intricate and difficult combinations of steps and exercises. May be repeated for one additional credit. Prerequisite: DNC 101. (1 cr. hr.)

DNC 203: Tap Dance II

(S) Advanced styles and steps are developed. Expanded use of basic vocabulary learned in Tap I. May be repeated for one additional credit. Prerequisite: DNC 103. (1 cr. hr.)

DNC 301: Ballet III

(F) Study and development of ballet technique, building on skills and concepts presented in Ballet II. Exercises and combinations include more challenging and intricate steps. May be repeated for one additional credit. Prerequisite: DNC 201. (1 cr. hr.)

DNC 302: Jazz Dance II

(F) Intermediate Jazz dance techniques continuing the skills developed in Jazz dance I. May be repeated for one additional credit. Prerequisites: DNC 101 and DNC 102, junior standing or permission of department. (1 cr. hr.)

DNC 401: Ballet IV

(S) Study and development of ballet technique, building on skills and concepts presented in Ballet III. May be repeated for one additional credit. Prerequisite: DNC 301. (1 cr. hr.)

DNC 423: Theatre Dance I

(F) Dance techniques and styles incorporating the various forms used in musical theatre. Prerequisites: DNC 103, 202, 301. DNC 103 and 202 may be taken concurrently with DNC 423. (1 cr. hr.)

DNC 424: Theatre Dance II

(S) Continued exploration of dance as a form of dramatic expression. The synthesis and interconnection of dance, music and drama are emphasized. May be repeated for one additional credit. Prerequisite: DNC 423. (1 cr. hr.)

Music Courses

Note: Up to eight credit hours of ensemble credit may be counted toward graduation. Enrollment in a music ensemble is recommended for music minors and music concentrators.

MUS 100: Music in Western Society

(A) Significant historical periods of music covering styles, forms, composers, representative compositions, Gregorian chant through contemporary. (3 cr. hr.) ■

MUS 101: World Music

(B) Study of music cultures of the world's indigenous peoples. Shared musical ideas, social organization, common repertoires and material culture. (3 cr. hr.) ■

MUS 110: Survey of African American Music

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

MUS 111: Introduction to Music Theory

(A) Basic theory: experiences in melodic, rhythmic, harmonic expressions. (3 cr. hr.) ■

MUS 129, 229, 329, 429, 529: Special Topics in Music

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

Note: The following applied music courses are for qualified students with the consent of the department. All students taking applied music must be enrolled concurrently in at least one performing ensemble.

MUS 160, 260, 360, 460: Applied Piano

(A) Private lessons in piano. Each level may be repeated once. (2 cr. hr.) ■

MUS 162, 262, 362, 462: Applied Percussion

(A) Private lessons in percussion. Each level may be repeated once. (2 cr. hr.) ■

MUS 163, 263, 363, 463: Applied Strings

(A) Private lessons in string instruments. Each level may be repeated once. (2 cr. hr.) ■

MUS 164, 264, 364, 464: Applied Voice

(A) Private lessons in voice. Each level may be repeated once. (2 cr. hr.) ■

MUS 165, 265, 365, 465: Applied Woodwinds

(A) Private lessons in woodwind instruments. Each level may be repeated once. (2 cr. hr.) ■

MUS 166, 266, 366, 466: Applied Brass

(A) Private lessons in brass instruments. Each level may be repeated once. (2 cr. hr.) ■

MUS 180: Piano Class I

(A) Fundamental piano technique, playing of solo pieces and duets. Only students without prior piano experience admitted. (2 cr. hr.) ■

MUS 181: Piano Class II

(S) Prerequisite: MUS 180. (2 cr. hr.) ■

MUS 184: Voice Class I

(F) Fundamental voice training; a standard repertoire of songs. Class, individual performance. (2 cr. hr.) ■

MUS 185: Voice Class II

(S) Prerequisites: MUS 184, consent of instructor. (2 cr. hr.) ■

MUS 201: Music Theory I

(F) For music majors or students with prior musical experience. Written theory: scales through basic harmonizations; applied theory: ear-training through keyboard harmony. Prerequisite: Consent of department. (3 cr. hr.) ■

MUS 202: Music Theory II

(S) Continuation of MUS 201: employment of fundamental chords, progressions in harmonizing given melodies. Keyboard experience, ear-training and analysis. Prerequisite: MUS 201. (3 cr. hr.) ■

MUS 221: Music History I

(C) The earliest examples of notated music in western culture through music's stylistic transformations in the Middle Ages and Renaissance Period (AD-1600). Prerequisite: Consent of department. (3 cr. hr.) ■

MUS 222: Music History II

(C) A survey of the Baroque and Classical periods of music (1600-1825). Prerequisite: Consent of department. (3 cr. hr.) ■

MUS 223: Music History III

(F-C) Music of the 19th and 20th centuries. (3 cr. hr.) ■

MUS 240: Choral Union

(A) College-Community mixed choral group that performs major choral works. Repertoire ranges from Baroque to contemporary works. (1 cr. hr.)

MUS 249: College Singers

(A) Advanced college choir open to qualified students. Repertoire from Renaissance to 20th century, vocal training, concert tours. Consent of instructor required. (1 cr. hr.)

MUS 250: Chamber Arts Ensemble

(O) Select vocal-instrumental ensemble which performs chamber literature from all periods. Solo performance opportunities. Consent of instructor required. (1 cr. hr.)

MUS 254: Ensemble

(A) Small vocal or instrumental groups which perform wide range of ensemble literature. Consent of instructor required. (.5 cr. hr.)

MUS 256: College-Community Orchestra

(A) Symphonic organization; performs wide ranges of orchestral literature. Consent of instructor required. (1 cr. hr.)

MUS 259: Wind Ensemble

(A) Symphonic ensemble which performs wide range of wind ensemble, concert band literature. Concert tours. Consent of instructor required. (1 cr. hr.)

MUS 301: Music Theory III

(O) Continuation of MUS 202; seventh chords, secondary dominants and borrowed chords in harmonization and analysis; ear-training. Prerequisite: MUS 202. (3 cr. hr.) ■

MUS 331: Musical Theatre Performance I

(F) Synthesis of voice, acting, dance and history courses into a cohesive approach to musical theatre. Focus on song analysis, audition techniques and physical expression. Prerequisites: MUS 111, 164 or 184, DNC 201, THT 220 and 361. Also listed as THT 331. (1 cr. hr.)

MUS 332: Jazz

(O) The history of jazz in the United States, styles and structure as well as the place of this music in our culture. Prerequisite: MUS 100, 221, 222, or 223. Also listed as AAS 332. (3 cr. hr.) ■

MUS 333: Piano Literature

(O) Detailed study of style, structure, performance of important piano literature. Prerequisite: MUS 100, 221, 222, or 223. (3 cr. hr.) ■

MUS 335: Music and the Film

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

MUS 337: The Music Industry

(O) Overview of music profession and its alternative career opportunities in publishing, recording, media, etc. Prerequisite: MUS 100, 221, 222, or 223. (3 cr. hr.)

MUS 380: Conducting

(O) Basic, stylistic technique in conducting; score reading, interpretation. Opportunities for conducting vocal, instrumental groups provided. Prerequisite: MUS 201 and 202. May be taken in conjunction with Theory III. (3 cr. hr.) ■

MUS 434: Contemporary Music

(O) Development of awareness and understanding of the styles common to contemporary expression. Prerequisite: MUS 100 or 221 or 222. (3 cr. hr.) ■

MUS 470: Music and the Child

(C) Role of music in development of child through use of singing, rhythm, listening, instrumental, creative improvisations and music reading experiences. Prerequisite: MUS 111 or 201. Open only to juniors and seniors. (3 cr. hr.) ■

MUS 490, 491, 590, 591: Independent Study

(A) Individual study culminating in advanced performance or substantial project. Consent of department required. (2-8 cr. hr.)

MUS 521: Music in Western Civilization

(O) Historical perspective from Ancient Greece to modern times; relationship to other fine arts and interpreted within framework of cultural, intellectual history. Prerequisite: MUS 100, 221, 222, or 223. (3 cr. hr.) ■

MUS 522: Music in the United States

(O) Pilgrim times to present, emphasizing development of distinctive American tradition in music. Prerequisite: MUS 100, 221, 222, or 223. (3 cr. hr.) ■

MUS 523: Traditions and Trends in African American Music

(O) A general survey of African American Music, tracing the origin from colonial music of the 17th century to rap music of the present. (3 cr. hr.)

Theatre Courses

THT 100: Introduction To Theatre Arts

(A) Survey of the arts, the crafts and the organization of theatre. Theory, application and practicum. Two lectures, one two-hour lab. (3 cr. hr.) ■

THT 120: Acting I

(A) Introduction to acting techniques through exploration of stage movement, voice and diction, basic makeup, improvisation and theatre games. Practicum. (3 cr. hr.) ■

THT 121: Stage Movement

(F-C) Theatre blocking, mime, dance and stage combat. (3 cr. hr.)

THT 129, 229, 329, 429, 529: Special Topics in Theatre

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

THT 161: Theatre History I

(F) History of Western theatre from ancient times through Renaissance. (3 cr. hr.) ■

THT 162: Theatre History II

(S) History of Western Theatre from the Renaissance to present. (3 cr. hr.) ■

THT 212: Stage Movement

(C) Theatre blocking, mime, dance and stage combat. (3 cr. hr.)

THT 220: Acting II

(S-C) Continued study of acting techniques through stage movement and dance, voice and diction, character makeup and character study, Practicum. Prerequisite: THT 120. (3 cr. hr.) ■

THT 240: Technical Theatre I

(F-C) Basic scenic construction, stage structure and rigging, basic lighting, production. Practicum. (3 cr. hr.)

THT 321: Acting Shakespeare

(O) Techniques for performing Shakespearean prose and verse with an emphasis on combining the Elizabethan and modern acting traditions. Prerequisites: THT 120, 220. (3 cr. hr.)

THT 330: Literature in Performance

(O) Theory and practice of reading prose and poetry aloud. Analysis of literature with special attention to its oral aspects. (3 cr. hr.) ■

THT 331: Musical Theatre Performance I

(F) Synthesis of voice, acting, dance and history courses into a cohesive approach to musical theatre. Focus on song analysis, audition techniques and physical expression. Prerequisites: MUS 111, 164 or 184, DNC 201, THT 220 and 361. Also listed as MUS 331. (1 cr. hr.)

THT 341: Technical Theatre II

(S-C) Continuation of scenic construction, stage structure and rigging, lighting, production; introduction to sound and special effects. Practicum. Prerequisite: THT 240. (3 cr. hr.)

THT 361: Musical Theatre in American Culture

(B) The development of the American musical theatre from its European roots to the present day, with emphasis on major playwrights and composers and how their work reflected American society. (3 cr. hr.) ■

THT 399: Participation in Theatre

(A) Participation in cast or crew of a major production. For elective credit only. S, U grades assigned. (.5 cr. hr.)

THT 430: Musical Theatre Performance II

(S) Performance and scene study continuing the exploration of musical theatre techniques. Prerequisites: DNC 203, 401 and THT 331. For majors only, must have junior status. (2 cr. hr.)

THT 432: Directing I

(S-C) Techniques of play direction: script analysis, casting, rehearsing, staging. (3 cr. hr.) ■

THT 440: Independent Study, Theatre

(A) Prerequisite: Consent of department (1-4 cr. hr.)

THT 461: Seminar in Musical Theatre

(S-C) Focused study of specific composers and lyricists. Prerequisite: THT 361. (3 cr. hr.) ■

THT 470: Theatre Management

(F-C) Theoretical and practical aspects of theatre management including organizations, productions, audience development, budgeting and business practices. Practicum. Prerequisite: Consent of department. (3 cr. hr.) ■

THT 542: Puppetry for Educators

(C-M) A survey of the history and techniques of puppet performance which emphasizes the cross cultural relevance of puppets and the status of puppetry as a performing art, as well as its relationship to various narrative traditions. Individual (graduate level) research projects will examine puppetry within a pedagogical frame that targets specific content areas and suggests strategies for using puppets in a variety of ways with particular grade levels. Practicum. (3 cr. hr.) ■

Philosophy

DEPARTMENT

SCHOOL

Arts and Sciences

FACULTY

Kathryn Russell (Chair), Lawrence Ashley, Andrew Fitz-Gibbon, Mechthild Nagel

ADJUNCT FACULTY

For a listing of adjunct faculty see pages 312-315.

PROGRAMS OFFERED

Bachelor of Arts in Social Philosophy

MAJORS OFFERED

Social Philosophy

MINORS OFFERED

Social Philosophy

DESCRIPTION

Philosophy is essentially an activity, rather than a fixed set of teachings. Philosophy cultivates the capacities and appetite for self-expression and reflection, for debate and exchange of ideas, and for reflecting on and puzzling over problems of living, being human and being part of a community. Philosophy prepares one for the tasks of citizenship, for participation in political and community affairs and for responsible and intelligent engagement in public life. This department's unique major (and minor) in social philosophy is meant to instill these skills. As such, it is a valuable tool and indeed the very paradigm of a liberal arts education major.

SPECIAL FEATURES

- Unique program in social philosophy — the only one in the SUNY system
- Chance for internship in senior year
- Small department allows close interaction with faculty
- Philosophy majors frequently top all other majors in the Law School Admissions Tests (LSAT)
- Cortland students who have graduated with a philosophy degree have gone on to widely varied careers — law school, human services, journalism, graduate study in philosophy, etc.
- Philosophy majors do better than the average liberal arts students at obtaining jobs after graduation — a surprise to many people who think of philosophy as impractical.

Requirements

1. Degree Requirements listed on pages 38-48 of this catalog apply to the major.
2. Liberal Arts Requirements: 90 credit hours

Old Main, Room 138
(607) 753-2727
E-mail: nagelm@cortland.edu
www.cortland.edu/philosophy/

Major in Social Philosophy [SPHI]

CAREER POTENTIAL

- Government
- Law
- Human Services
- Education
- Social Activism
- Journalism

A. Required Courses: 15 credit hours

At least one course from the PHI 100 level

PHI 201: Ancient Social Philosophy

PHI 202: Introduction to Modern Philosophy

PHI 203: Social Ethics

PHI 499: Independent Studies**

(internship or paper expected)

B. Additional Hours in Philosophy: 18 credit hours

At least nine hours must be in courses numbered 300-level and above.

C. Courses in related areas

Nine hours selected in consultation with an advisor. At least six of these nine hours must be in courses numbered 300 level and above.

D. Other courses

May include a minor of 15-21 credit hours

**CPV 400: Cooperative Education: An Internship in Social Justice may be substituted for PHI 499 with the approval of the department chair.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Minor in Social Philosophy [SPHI]

The following courses are required for the minor in social philosophy:

Required courses: 18 credit hours

At least one course from the PHI 100 level

PHI 201: Ancient Social Philosophy *or*

PHI 202: Introduction to Modern Philosophy

At least 12 more hours in philosophy at the 200 level and above

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 18

Example of the B.A. in Social Philosophy over four years

This is just a model and does not reflect our expectations for all students.

First Year	Second Year
<p><i>Fall</i></p> <p>PHI 100 GE 1 GE 8 Foreign language 101 or elective CPN 100 or 102 COR 101 Total credit hours: 16-18</p> <p><i>Spring</i></p> <p>PHI 110 or 111 GE 2 GE 8 Foreign language 102 or elective CPN 101 or 103 Total credit hours: 16-17</p>	<p><i>Fall</i></p> <p>PHI 203 PHI 201 GE 3 GE 7 Foreign language 201 or elective Total credit hours: 15</p> <p><i>Spring</i></p> <p>PHI 202 GE 4 GE 5 MAT or elective Foreign language 202 or elective Total credit hours: 15</p>
Third Year	Fourth Year
<p><i>Fall</i></p> <p>PHI 240 PHI 271 GE 6 Elective* Elective Elective Total credit hours: 18</p> <p><i>Spring</i></p> <p>PHI 272 PHI 380 Elective Elective Elective Total credit hours: 15</p>	<p><i>Fall</i></p> <p>PHI 382 PHI 320 Elective Elective Elective Total credit hours: 15</p> <p><i>Spring</i></p> <p>PHI 499 or internship PHI 375 Elective Elective Elective* Total credit hours: 15</p>

* The generous number of electives here allows for the student to easily adopt a dual major with philosophy

Philosophy

COURSE DESCRIPTIONS

PHI 100: Introduction to Philosophy

(B) Introduction to subject matter and methods of philosophy. Readings include classical and contemporary writers on a range of philosophical topics including social and political philosophy, philosophy of religion, questions of metaphysics and epistemology, ethics and basic characteristics of rational inquiry. (3 cr. hr.) ■

PHI 110: Critical Thinking and Argumentation

(O) Exercises and principles designed to enhance critical thinking and evaluation of arguments. In addition to a focus on philosophical inquiry, classes also concentrate on daily situations such as ordinary conversations, reading newspapers and advertising. Not open to students with credit for COM 241. (3 cr. hr.) ■

PHI 111: Symbolic Logic

(O) Principles of Symbolic Logic used in determining validity or invalidity of arguments. (3 cr. hr.) ■

PHI 129, 229, 329, 429, 529: Special Topics in Philosophy

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

PHI 135: Philosophical Approaches to Contemporary Moral Problems

(A) Exploration of moral issues found in our daily lives and our special disciplines. Includes problems such as racial and sexual discrimination, abortion, capital punishment, civil disobedience, war, problems in bioethics. (3 cr. hr.) ■

PHI 140: Prejudice, Discrimination and Morality

(A) Freedom, justice and equality are examined in connection with racism and sexism. (3 cr. hr.) ■

PHI 201: Ancient Social Philosophy

(S-C) Western philosophy from its origins in Greece, emphasizing Plato and Aristotle. (3 cr. hr.) ■

PHI 202: Introduction to Modern Philosophy

(F-C) Modern western philosophy from Descartes to Kant. Prerequisite: Three hours of philosophy or consent of instructor. (3 cr. hr.) ■

PHI 203: Social Ethics

(C) Basic theories of ethics and their application to the problems of social justice. Theorists studied will include: Kant, J. S. Mill, Rawls, Nozick. Issues to be discussed may include affirmative action, political liberty and civil disobedience, and equality. (3 cr. hr.) ■

PHI 205: Prisons and Punishment

(B) A consideration of theoretical issues surrounding the concept and justification of punishment from traditional sources (Kant, Bentham, Mill) to modern critiques (Foucault). A number of special issues surrounding prison policy and practice (race, supermax, prisons, youthful offenders) are also analyzed. (3 cr. hr.) ■

PHI 235: Aesthetics and Film

(O) Theoretical issues surrounding film, including the nature of film and judgments about film, comparison of film theories and theories of film criticism, genres. Prerequisite: Three hours of philosophy or consent of instructor. Also listed as CIN 225. (3 cr. hr.) ■

PHI 240: Social and Political Philosophy

(C) Focus on the relationship between the individual and the state, and opposing conceptions of democracy, freedom and a just society. (3 cr. hr.) ■

PHI 270: Race and Racism

(C) An examination of political and philosophical issues stemming from relations of power based on “race” in the U.S. Subjects will include how the concept of “race” has been used to classify humans, designating them as inferior or superior; the notions of racial identity or race consciousness; and political philosophies addressing the problem of racial oppression. Also listed as AAS 270. (3 cr. hr.) ■

PHI 271: Philosophy of Human Nature

(B) Discussion of various existential approaches to the problem and meaning of human existence. Focus on existentialist themes such as self-consciousness, freedom, absurdity, responsibility, being and nothingness. (3 cr. hr.) ■

PHI 272: Utopias

(C) An investigation of the concept of ideal societies. The course will investigate the literary expressions of utopian sentiment, historical attempts at founding utopian communities and the philosophical implications of utopian thought. Prerequisite: Three hours of philosophy or consent of instructor. (3 cr. hr.) ■

PHI 300: Philosophical Issues

(O) Detailed study of one philosophical problem or comparative study of two or more philosophers. May be repeated as subtitle changes. Prerequisite: 200-level course in philosophy or consent of instructor. (3 cr. hr.) ■

PHI 320: Environmental Ethics

(C) A consideration of ethical issues as they arise in human interaction with the environment. Topics will include environmental racism, “speciesism,” the Gaia hypothesis and the impact of population growth on ecology. (3 cr. hr.) ■

PHI 321: Medical Ethics

(C) Consideration of ethical issues as they arise in contemporary medical practice and related health-care professions. Readings from philosophy, law and medicine. Prerequisite: Three hours of philosophy or consent of instructor. (3 cr. hr.) ■

PHI 340: Philosophy of Law

(O) Nature of law with special attention to relation of law to morality. Prerequisite: Three hours of philosophy or consent of instructor. (3 cr. hr.) ■

PHI 375: Science, Truth and Bias

(O) Examines accounts of scientific methods and the influence of social values or human interests on scientific reasoning. Contemporary challenges to the idea of objectivity will be looked at to understand knowledge claims in the natural and social sciences. Prerequisite: Three hours of philosophy or consent of instructor. (3 cr. hr.) ■

PHI 380: Feminist Social Thought

(C) Discussion of various philosophical approaches to problems of women’s oppression, like sex role stereotyping, economic discrimination and treatment in family. Comparison of political theories and strategy. (3 cr. hr.) ■

PHI 382: Marxist Philosophy

(O) Karl Marx’s thought and its implications for today. Topics will include political economic theory, alienation, sexism, racism and imperialism. Prerequisite: Three hours of philosophy or consent of instructor. (3 cr. hr.) ■

PHI 390: Contemporary Philosophical Approaches

(B) In-depth study of 20th century trends in philosophy, e.g. logical positivism, phenomenology, ordinary language philosophy, analytic philosophy, pragmatism, naturalism, postmodernism. May be repeated as subject area changes. Prerequisite: 200-level course in philosophy or consent of instructor. (3 cr. hr.) ■

PHI 399: Directed Study in Philosophy

(A) An independent directed study in social philosophy. May be repeated once for credit. Prerequisite: Permission of department. (3 cr. hr.)

PHI 400: Seminar in a Major Philosopher

(O) Detailed study of one philosopher’s works. May be repeated as subtitle changes. Prerequisite: Nine hours of philosophy or consent of instructor. (3 cr. hr.) ■

PHI 401: Topics in Contemporary Social Philosophy

(O) Examination of twentieth-century responses to ethical and social problems. Possible topics include democracy vs. anarchy, justice, rights, liberty, equality, oppression. Course may be taken more than once under different titles. Prerequisite: 300-level philosophy course or consent of instructor. (3 cr. hr.) ■

PHI 499: Independent Studies

(A) Directed research culminating in substantial paper. For majors and minors only. Prerequisite: Consent of department. (3 cr. hr.)

Physical Education

DEPARTMENT

SCHOOL

Professional Studies

FACULTY

Jerry Casciani (Chair), JoEllen Bailey, Colleen Buchanan, Shirley Cahill, Diane Craft, Tim Davis, Maha Ebeid, John Foley, Tom Fuchs, Kath Howarth, Mike Kniffin, Eric Malmberg, Steve Patrick, Tom Quinn, Jeff Walkuski, William Williams, Virginia Wright, Stephen Yang

ADJUNCT FACULTY

For a listing of adjunct faculty see pages 312-315.

Park Center, Room E-254
(607) 753-5577
www.cortland.edu/physed/

MAJORS OFFERED

Bachelor of Science in Education in Physical Education

CONCENTRATION OFFERED

Adapted Physical Education

DESCRIPTION

The purpose of the B.S.Ed. program is teacher preparation for elementary and secondary schools. Concentrations are available for students who already have an interest in a specific aspect of physical education. The program includes theory, activity courses and student teaching experiences.

SPECIAL FEATURES

- Study abroad, including study in Germany and University of Ballarat in Australia
- Student teaching at The University of the Sunshine Coast, Australia
- Coaching certification for non-physical education majors
New York State coaching certification for non-physical education majors is offered as a Web-based program, non-credit, through the Center for Educational Exchange, Van Hoesen Hall, Room A-11, (607) 753-4214.

Courses offered include:

1. Philosophy, Principles and Organization of Athletics
2. Health Sciences Applied to Coaching (Responding to Emergencies/First Aid)
3. Theory and Techniques of Coaching

Requirements

1. Degree Requirements listed on pages 38-48 of this catalog.
2. Liberal Arts Requirements: 60 credit hours.
3. In order to enter and continue to move through the following professional block sequence, students must have and must maintain at least a 2.5 grade point average in PED 201, 356, EDU 255, 256, 355, 454, 455 and 456.
4. It should be noted that students wishing to change their major to physical education will enter a competitive pool for limited slots.

Major in Physical Education [PEC]

Upon satisfactory completion of the four-year program in physical education and upon submitting evidence of having achieved a level of performance satisfactory to the Commissioner of Education on the New York State Teacher Certificate Examination, graduates receive the Bachelor of Science in Education and initial New York State teaching certification in the special field of physical education for grades K-12.

- A. General Education and Liberal Arts: Minimum of 60 credit hours
 CPN 100 or 102: Academic Writing I
 CPN 101 or 103: Academic Writing II
 PSY 101: General Psychology
 BIO 301: Anatomy and Physiology I
 BIO 302: Anatomy and Physiology II
 COM 210: Fundamentals of Public Speaking
 PSY 332: Educational Psychology
 General Education Courses (21 cr. hr.)
 Liberal Arts Electives (11 cr. hr.)
- B. Professional Block: 28 credit hours
 (2.5 grade point average required)**
 PED 201: Motor Development
 EDU 255: Basics of Effective Instruction in Physical Education
 EDU 256: Seminar for Field Experience
 EDU 355: The Physical Education Curriculum: Planning and Practice
 PED 356: Adapted Physical Education and Sport
 EDU 454: Pre-Student Teaching Conference in Physical Education
 EDU 455: Student Teaching Seminar in Physical Education
 EDU 456: Student Teaching in Physical Education
- C. Professional Education: Eight credit hours
 HLH 110: Personal and Community Health
 HLH 120: Responding to Emergencies
 EDU 470: Foundations and Organization of Modern Education

- D. Physical Education Theory: 21 credit hours
 EXS 197: History and Philosophy of Physical Education +
 EXS 287: Social Psychological Aspects of Physical Activity + *or*
 EXS 290: Social Problems and Issues in Sport and Exercise + *or*
 EXS 345: Sport and Society + *or*
 EXS 346: Sport and Exercise Psychology + *or*
 EXS 410: Ethics in Sport + *or*
 EXS 420: Sport in American Culture +
 EXS 297: Motor Behavior +
 EXS 387: Biomechanics +
 EXS 397: Exercise Physiology I +
 PED 308: Outdoor Adventure Education for Teachers
 PED 434: Statistics and Assessment in Physical Education

- E. Physical Education Activities: 13 credit hours required,
 15 credit-hour maximum
 PED 181: Adventure Activities
 PED 182: Health-Related Physical Fitness
 PED 187: Track and Field
 PED 189: Aquatics
 PED 283: Racquet Activities
 PED 284: Self-Defense and Martial Arts
 PED 285: Gymnastics Activities
 PED 288: Rhythms and Dance
 PED 366: Basketball
 PED 368: Football
 PED 371: Soccer
 PED 372: Softball
 PED 380: Skill Acquisition Concepts of Team Sports
 PED 381: Tactical Concepts of Team Sports
 Activity Electives (1 cr. hr.)

- F. Free Electives: 0-9 credit hours

A minimum of 36 hours of PED/EXS prefixes are required for graduation.

Note: Specific information regarding requirements (state examinations, identification and reporting of child abuse and maltreatment, alcohol and drug abuse education, school antiviolence education and foreign language requirements) for New York State teaching certification can be found on pages 49-50 of this catalog.

+ Counts toward liberal arts hours.

** To be accepted into the B.S.Ed. program, students must process an application portfolio and maintain a 2.5 grade point average.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 128

Major in Physical Education with a concentration in Adapted Physical Education [PEC_ADPE]

The adapted physical education concentration is designed to provide physical education majors with an opportunity to gain experience and knowledge working with children and adults with disabilities. This program prepares students in both leadership and practical skills needed to provide optimal physical education to all students. Practical experiences include but are not limited to sports and games, inclusive outdoor education, dance, aquatics and fitness programs designed specifically for the inclusion of persons with disabilities into existing lifetime fitness, recreation and leisure activity.

CAREER POTENTIAL:

- K-12 public school adapted physical education teacher
- Adapted physical education specialists for hospitals, children's centers and community-based programs
- Program director for disability sport and swim-based recreation programs
- District coordinator for adapted physical education services

- A. Required Theory and Leadership: four credit hours
 Prerequisite PED 356
 PED 447: Adapted Physical Activity and Individual Differences
 PED 444: Lab Assistant in Adapted Physical Education (for PED 447)
- B. Required Activity: two credit hours
 PED 302: Disability Sports and Games
 PED 303: Fitness Across the Lifespan and Disability
 PED 305: Dance and Individuals with Disabilities
 PED 306: Adapted Aquatics
 PED 307: Introduction to Inclusive Outdoor Education
 PED 499: Special Study in Physical Education

- C. Recommended Electives: must select a minimum of six credit hours
 ASL 101: American Sign Language
 PED 321: Movement Education
 PED 499: Special Study in Physical Education
 PSY 331: Psychology of Exceptional Children
 PSY 431: Psychology of Mental Retardation
 PSY 432: Psychology of Learning Disabilities
 PSY 433: Behavioral Disorders In Educational Settings
 REC 330: Introduction to Therapeutic Recreation
 REC 393: Diversity and Inclusive Recreation Services
 SPE 270: Introduction to Special Education
 EXS/SPM 450: Disability and Sport

Example of the B.S.Ed. in Physical Education over four years

First Year	Second Year
<p><i>Fall</i></p> <p>COR 101 CPN 100 or 102 EXS 197 PED Activities 181, 182 GE courses</p> <p>Total credit hours: 16</p> <p><i>Spring</i></p> <p>CPN 101 or 103 PED Activities 187, 189 PSY 101 GE courses</p> <p>Total credit hours: 17</p>	<p><i>Fall</i></p> <p>BIO 301 EXS 287 HLH 110 PED Activities 283, 284 GE courses</p> <p>Total credit hours: 17</p> <p><i>Spring</i></p> <p>BIO 302 COM 210 EXS 297 PED 201 PED Activity 285 GE courses</p> <p>Total credit hours: 16</p>
Third Year	Fourth Year
<p><i>Fall</i></p> <p>EDU 255 EDU 256 PED 434 PSY 332 PED Activities 288, 380 GE course</p> <p>Total credit hours: 15</p> <p><i>Spring</i></p> <p>EDU 355 PED 356 EXS 387 HLH 120 LAS elective PED Activity 381 Elective</p> <p>Total credit hours: 15</p> <p><i>Summer</i></p> <p>PED 308</p> <p>Total credit hours: 3</p>	<p><i>Fall</i></p> <p>EXS 397 PED Activities 366, 368, 371, 372 EDU 470 EDU 454 PED Activity elective Electives</p> <p>Total credit hours: 14</p> <p><i>Spring</i></p> <p>EDU 455 EDU 456</p> <p>Total credit hours: 15</p>

Physical Education

COURSE DESCRIPTIONS

General Courses for Non-Majors

Courses listed hereafter are open to students majoring in subjects other than physical education. Four credits of physical education may be applied toward graduation. Courses usually are quarter courses offered seasonally and carry one-half credit with the exception of those marked with an asterisk(*). Asterisked courses carry one credit. A \$2 fee is charged for all activities using expendable supplies.

- PED 106: Basic Swimming
- PED 137: Skating
- PED 138: Ice Hockey
- * PED 232: Scuba Level I
- * PED 245: Activities for Children
- * PED 300: Lifeguard Training
- ** PED 301: Water Safety Instructors
- PED 332: Scuba Level II

** *This course is two credits.*

Activity Program for Majors

Courses in the following list usually are quarter courses offered seasonally and carry one-half credit except those marked with an asterisk (*). Asterisked courses carry one credit.

- PED 150: Introduction to Archery (1)
- PED 152: Introduction to Bowling (2)
- PED 154: Introduction to Golf
- PED 158: Introduction to Nordic Skiing
- PED 159: Introduction to Squash
- PED 162: Introduction to Wrestling
- PED 163: Introduction to Racquetball
- PED 164: Introduction to Skating
- PED 167: Introduction to Field Hockey
- PED 170: Introduction to Lacrosse
- PED 173: Introduction to Volleyball
- PED 174: Introduction to Ice Hockey
- * PED 181: Adventure Activities
- * PED 182: Health-Related Physical Fitness
- * PED 187: Track and Field
- * PED 189: Aquatics
- PED 191: Aerobic Dance
- * PED 281: Adventure Activities II
- * PED 283: Racquet Activities
- * PED 284: Self Defense and Martial Arts

- * PED 285: Gymnastics Activities
- * PED 288: Rhythms and Dance
- PED 293: Diving
- * PED 295: Lifeguard Training
- * PED 296: Scuba Level I
- * PED 302: Disability Sports and Games
- * PED 303: Fitness Across the Lifespan and Disabilities
- * PED 304: Perceptual-Motor Activities for Individuals with Disabilities
- * PED 305: Dance and Individuals with Disabilities
- * PED 306: Adapted Aquatics
- * PED 307: Introduction to Inclusive Outdoor Education
- PED 366: Basketball
- PED 368: Football
- PED 371: Soccer
- PED 372: Softball
- PED 377: Advanced Gymnastics
- * PED 380: Skill Acquisition Concepts of Team Sports
- * PED 381: Tactical Concepts of Team Sports
- PED 392: Advanced Swimming
- PED 395: Water Safety Instructors (3)
- * PED 396: Scuba Level II

COURSE NOTES

- 1 - Students supply own arrows for PED 150.
- 2 - Bowling costs approximately \$24 for the quarter for PED 152.
- 3 - PED 395 is a two-credit course.

Varsity Team Participation

FALL SPORTS

- PED 202: Intercollegiate Cross Country: Men/Women
- PED 203: Intercollegiate Field Hockey: Women
- PED 204: Intercollegiate Football: Men
- 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 205: Intercollegiate Golf: Women
- 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

Activity Program Clinics

Primarily for teachers requiring knowledge, practical application of recent, advanced teaching techniques, analysis of individual and group activity. See Course Schedule for when clinics are offered. (2 cr. hr.)

- PED 404: Activity Clinic: Baseball
- PED 405: Activity Clinic: Basketball
- PED 406: Activity Clinic: Field Hockey
- PED 407: Activity Clinic: Football
- PED 408: Activity Clinic: Golf
- PED 409: Activity Clinic: Gymnastics
- PED 411: Activity Clinic: Ice Hockey
- PED 412: Activity Clinic: Lacrosse
- PED 413: Activity Clinic: Racquet Sports
- PED 414: Activity Clinic: Soccer
- PED 415: Activity Clinic: Softball
- PED 416: Activity Clinic: Swimming
- PED 417: Activity Clinic: Track and Field
- PED 418: Activity Clinic: Volleyball
- PED 419: Activity Clinic: Wrestling

Physical Education Courses

THEORY COURSES

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

PED 157: Orienteering Activities for Educators

(B) Introduces the broad spectrum of "orienteering" activities which use various navigational tools, map-reading skills, compass and GPS devices as a way to navigate indoor and outdoor spaces. Learning experiences are designed for educators and will cover a range of educational applications from recreational to instructive to sport/competitive. (1 cr. hr.)

PED 201: Motor Development

(A) Learn and apply basic motor development principles as observed in young children and adolescents. Introduce the terminology, principles and concepts common to motor development and introduce the concept of developmentally appropriate practice as applied to young children in physical education. Prerequisite: 2.5 cumulative grade point average. (3 cr. hr.)

PED 230: Foundations of Coaching: Principles and Theories

(B) The purpose of this course is to provide the prospective athletic coach with the basic underlying philosophies, theories and techniques for planning, organizing and managing athletic programs. In addition, knowledge of teaching skills and techniques which influence coaching effectiveness and improve performance will be emphasized. (3 cr. hr.)

PED 308: Outdoor Adventure Education for Teachers

(A) A theory based pedagogy course designed to provide an in-depth outdoor adventure education experience for undergraduate physical education majors seeking teaching certification. Required on-campus meetings, experiences and assignments are followed by a resident outdoor experience at Cortland's Outdoor Education Center at Raquette Lake, N.Y. (3 cr. hr.)

PED 315: Officiating

(O) Rules, mechanics, procedures; practice in officiating required. Prerequisite: Level one activity course or proficiency in specific activity. (2 cr. hr.)

PED 321: Movement Education

(A) Problem-centered approach to effective movement. Practice in developing, structuring problem-solving situations for children. Prerequisite: EDU 300, or EDU 255 and 256. (3 cr. hr.)

PED 349: Physical Education Practicum

(A) Opportunity to assist with managing and/or teaching physical education theory or activity classes. Students must follow suggested guidelines available in chair's office. S, U grades assigned. Prerequisite: Consent of department and instructor. (.5-1 cr. hr.)

PED 356: Adapted Physical Education and Sport

(A) Seeks to provide students with the theoretical and practical knowledge to plan and implement appropriate physical education programs for students with disabilities in integrated settings. Emphasizes the adaptation of physical education to needs of children with physical, intellectual, emotional, or sensory disabilities. Strategies for program planning and implementation include writing IEPs, activity/equipment adaptation and techniques of teaching. Prerequisite: EDU 300 or 255, 256, successful completion of EDU 256 field experience/presentation to faculty, enrollment in EDU 355 (completion or concurrent), and cumulative grade point average of 2.5. (3 cr. hr.)

PED 434: Statistics and Assessment in Physical Education

(A) Course will present statistical concepts, assessment techniques and other evaluation applications to prepare teachers, researchers and physical activity specialists to evaluate student performance in physical education instructional programs and other physical activity programs. Prerequisite: EDU 255, which may be taken concurrently. (3 cr. hr.)

PED 444: Lab Assistant

(A) Student may assist with the lab portion of one of several physical education theory classes. Responsibilities may include attending and assisting with a lab section, holding office hours, assisting with collecting research data and/or completing other tasks as assigned by the instructor. Students will enhance their knowledge and understanding of concepts covered in the associated theory course, learn additional lab techniques as well as gain valuable leadership experience. Prerequisite: Consent of instructor. (1 cr. hr.)

PED 446: Inclusion of Individuals with Disabilities in Physical Education

(B) Overview of adapted physical education as an evolving specialization and service delivery system. Embedded in this course is a presentation of definitions, scope of services, assessment, behavior management, effective teaching techniques, program planning that may affect the discipline. Prerequisite: PED 336 or 356. (3 cr. hr.)

PED 447: Adapted Physical Activity and Individual Differences

(B) Specific types of disabilities that are commonly encountered in public school settings are described in detail. Each condition is defined, characteristics are given, means of testing are suggested, and specific programming and teaching techniques are detailed. Prerequisite: PED 336 or 356. (3 cr. hr.)

PED 460: Physical Education Curriculum

(O) Principles, procedures governing development, conduct, evaluation of physical education program in elementary, secondary schools. Interpretation, articulation of state curricula; adaptations to meet local and pupil needs. Prerequisites: EDU 385, student teaching. (3 cr. hr.)

PED 499: Special Study in Physical Education

(A) Independent study/research on selected topics. Topics may include in-depth study of a particular subject area. Student will work with faculty member (project director) whose own special interests and expertise coincide most closely with chosen topic. Students must follow suggested guidelines available in department chair's office. Prerequisite: Consent of department chair and instructor. (1-3 cr. hr.)

PED 500: Project Adventure Workshop

(O) Project Adventure Workshop designed for individuals interested in developing and implementing innovative program in physical education or recreation. Participants experience such Project Adventure activities as: games, initiatives, low and high ropes course activities. (2 cr. hr.)

PED 530: Introduction to Adapted Physical Education

(F) Designed to aid educators in developing a knowledge base in many issues related to individuals with disabilities, with an emphasis on early intervention and a wellness approach to adapted physical education. Additional topics to be addressed include: laws and collaborating with an interdisciplinary team and families of individuals with disabilities. An overview of the more common disabilities is presented, as are the resource skills to acquire information on rare disabilities. Prerequisite: PED 336 or 356 or permission of instructor. (3 cr. hr.)

PED 531: Inclusive Outdoor Education

(B) This course is designed to address issues, models and strategies pertaining to the development of inclusive outdoor education programs that address all ability levels including those with physical and developmental disabilities. Not open to students who have taken REC 531. Also listed as REC 531. (3 cr. hr.)

Related Education Courses**EDU 255: Basics of Effective Instruction in Physical Education**

(A) This is an introductory course in physical education teaching methodology. The main purpose is for the student to study, practice and acquire basic teaching skills applicable to K-12 physical education instruction. The course prepares the student for required NYS field experiences and also introduces the learner to NYS standards-based instruction, curriculum and assessment. Prerequisites: PED 201 and cumulative 2.5 grade point average. (3 cr. hr.)

EDU 256: Seminar for Field Experience

(A) This course will prepare students for the 10-day post-semester field experience. S, U, grades assigned. Prerequisites: PED 201 and cumulative 2.5 grade point average. Corequisite: EDU 255. (1 cr. hr.)

EDU 355: The Physical Education Curriculum: Planning and Practice

(A) To aid students in gaining understanding, knowledge and experience in the philosophy, principles, teaching strategies and evaluative procedures with K-12 infusion. Prerequisites: EDU 255, 256, successful completion of EDU 256 field experience/presentation to faculty and cumulative grade point average of 2.5. (3 cr. hr.)

EDU 454: Pre-Student Teaching Conference in Physical Education

(A) Conducted during the semester prior to student teaching in physical education. Students will initiate the process of being placed to student teach at the elementary and secondary levels of education and receive specific information regarding the cooperating school district and teachers. Prerequisites: EDU 255 and 256; EDU 355 and PED 356, which may be taken concurrently with EDU 454; a cumulative grade point average of 2.5; and portfolio acceptance. (.5 cr. hr.)

EDU 455: Student Teaching Seminar in Physical Education

(A) Current debates relevant to national, district and specific school issues will form the basis of each meeting. Information about student teaching, professional portfolio preparation and career planning will be provided. Prerequisites: EDU 255, 256, 355, 454, PED 308 and 356; cumulative grade point average of 2.5 and portfolio acceptance. Must be taken concurrently with EDU 456. (.5 cr. hr.)

EDU 456: Student Teaching in Physical Education

(A) Full semester of supervised teaching in grades K-12. Prerequisites: EDU 255, 256, 355, 454, PED 308 and 356, cumulative grade point average of 2.5 and portfolio acceptance. Must be taken concurrently with EDU 455. (14 cr. hr.)

EDU 470: Foundations and Organization of Modern Education

(A) Principles, practices in education, physical education viewed from historical and philosophical point of view. Administration, organization of schools at federal, state, local levels; teacher rights and responsibilities. Prerequisite: EDU 300 or 255 and 256. (3 cr. hr.) ■

Physics

DEPARTMENT

SCHOOL

Arts and Sciences

FACULTY

Richard M. Wheeler (Chair), Yolanda J. Kime, Evelyn Monsay, Brice Smith

ADJUNCT FACULTY

For a listing of adjunct faculty see pages 312-315.

PROGRAMS OFFERED

Bachelor of Arts in Physics
 Bachelor of Science in Physics
 Bachelor of Science in Adolescence Education: Physics (7-12)
 Bachelor of Science in Adolescence Education: Physics and Mathematics (7-12)

MAJORS OFFERED

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

CONCENTRATIONS OFFERED

Environmental Science
 Geophysics

MINOR OFFERED

Physics

DESCRIPTION

Physics programs at SUNY Cortland provide a versatile background in the principles of physics, applied mathematics, computer skills and electronic equipment. This background is useful in many areas of technology, engineering, business, industry, government and the teaching of physics at all levels. The laws of physics are central to all branches of science, and students with physics training may readily enter such related fields as astronomy, biophysics, chemical physics, engineering, geophysics, medicine, meteorology, molecular biology and radiology.

SPECIAL FEATURES

- Physics and Engineering Club
- Undergraduate teaching experiences
- Internships
- Physics Honor Society – Sigma Pi Sigma

Bowers Hall, Room 147
(607) 753-2821
E-mail: wheeler@cortland.edu
www.cortland.edu/physics/

Requirements

1. Degree Requirements listed on pages 38-48 of this catalog apply to the following majors.
2. Liberal Arts Requirements: B.A. – 90 credit hours;
 B.S. – 75 credit hours
3. Physics majors may not take additional physics course work unless they earn a 2.0 grade point average in PHY 201 and PHY 202.

Major in Physics [PHY]

The concentration in physics is the traditional physics major found at institutions worldwide. Study includes a wide range of courses in physics and mathematics plus chemistry. This degree is necessary for those wishing to go on to graduate school and is also useful for those wishing to do technical work in a variety of disciplines.

CAREER POTENTIAL

- Graduate study in physics
- Industrial or governmental research
- Scientific advisor
- Technical support services

A. Required Courses in Physics: 39 credit hours

PHY 186: Introductory Programming
 PHY 201, 202, 203: Principles of Physics I, II and III
 PHY 357: Intermediate Physics Laboratory
 PHY 410: Modern Physics
 PHY 420: Classical Mechanics
 PHY 440: Electronics
 PHY 450: Electricity and Magnetism
 Three Physics electives taken at the 400 level or above

B. Required Related Courses: 29 credit hours

CHE 221-222: General Chemistry I and II
 MAT 135, 236, and 237: Calculus I, II and III
 MAT 425: Methods of Applied Mathematics
 MAT 430: Differential Equations
 MAT 272: Linear Algebra *or*
 MAT 446: Probability and Statistics

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Physics with a concentration in Environmental Science [PHY/ENVS]

This concentration provides depth and a diversity of study in the sciences for students with a special interest in the environment. Cortland's resources for teaching and research in this area are extensive. Special facilities at Hoxie Gorge, the Outdoor Education Center and Brauer Field Station play a role in the program.

CAREER POTENTIAL

- Environmental research
- Graduate study in environmental science
- Environmental science policy analyst
- Environmental protection specialist

A. Required Courses in Physics: 30 credit hours

PHY 186: Introductory Programming
 PHY 201, 202, 203: Principles of Physics I, II and III
 PHY 357: Intermediate Physics Laboratory
 PHY 410: Modern Physics
 PHY 420: Classical Mechanics
 PHY 440: Electronics
 PHY 450: Electricity and Magnetism

B. Required Related Courses: 54 credit hours

BIO 201-202: Biological Science I and II
 BIO 412: General Ecology
 CHE 221-222: General Chemistry I and II
 ENS 486: Seminar in Environmental Science
 ENS 487: Environmental Science Internship
 EST 100: Introduction to Environmental Studies
 GLY 261: Physical Geology
 GLY 367: Geomorphology
 GLY 371: Meteorology
 MAT 135, 236, and 237: Calculus I, II and III
 MAT 430: Differential Equations

C. Required Elective Courses: Six credit hours (may also fulfill General Education requirements). Two courses from the same department are not permitted.

ECO 105: Political Economy and Social Thought
 ECO 110: Principles of Macroeconomics
 GRY 120: Cultural Geography
 GRY 221: Social Geography
 POL 100: Introduction to American Government and Politics
 SOC 150: Introduction to Sociology

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Physics leading to the 3+2 Engineering Program [PEN]

This concentration is designed for those students wishing to go on in an engineering discipline. The student spends three years at Cortland taking all requirements for the degree in physics, then transfers to an engineering school for two years to complete the requirements for a degree in engineering. Students have transferred to such schools as SUNY College of Ceramics at Alfred,* Binghamton University, SUNY Buffalo, Clarkson University and SUNY Stony Brook.**

CAREER POTENTIAL

- Graduate work in engineering
- Professional engineer
- Technical specialist
- Construction industry

A. Required Courses in Physics: 36 credit hours

PHY 186: Introductory Programming
 PHY 201, 202, 203: Principles of Physics I, II and III

PHY 410: Modern Physics
 PHY 420: Classical Mechanics
 PHY 422: Applied Mechanics
 PHY 440: Electronics*
 PHY 450: Electricity and Magnetism
 Two Physics electives taken at the 400 level or above*

B. Required Related Courses: 26 credit hours

CHE 221-222: General Chemistry I and II
 MAT 135, 236, and 237: Calculus I, II and III
 MAT 425: Methods of Applied Mathematics
 MAT 430: Differential Equations

C. Transfer courses approved by Cortland: Typically 30 credit hours

* For those interested in the program at SUNY College of Ceramics at Alfred the two physics electives should be PHY 431 and 432: *Physical Chemistry I and II.*

** The program with SUNY Stony Brook stipulates that at least three courses be taken in a single department or area, constituting a sequence of courses developing a central theme, with the condition that at least two of these be at the 200 level or above.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Physics with a concentration in Geophysics [PHY/GEOP]

The study of geophysics includes a knowledge of the physical laws that govern the earth and a range of geology topics such as the earth's interior, crustal movements, soil composition, mineral and fossil fuel resources. Crucial to these topics are the mathematical tools needed to describe them.

CAREER POTENTIAL

- Graduate work in geophysics
- Energy exploration
- Technical specialist
- Government

A. Required Courses in Physics and Geology: 42 credit hours

GLY 261: Physical Geology
 GLY 262: Historical Geology
 GLY 301: Descriptive and Optical Mineralogy
 GLY 302: Petrology
 GLY 469: Structural Geology
 PHY 186: Introductory Programming
 PHY 201, 202, 203: Principles of Physics I, II and III
 PHY 410: Modern Physics
 PHY 420: Classical Mechanics
 PHY 450: Electricity and Magnetism

B. Required Related Courses: 26 credit hours

CHE 221-222: General Chemistry I and II
 MAT 135, 236, and 237: Calculus I, II and III
 MAT 425: Methods of Applied Mathematics
 MAT 430: Differential Equations

C. Required Elective Courses: 12 credit hours — six in physics and six in geology from the following:

GLY 367: Geomorphology
 GLY 371: Meteorology
 GLY 396: Aqueous Geochemistry
 PHY 422: Applied Mechanics
 PHY 440: Electronics
 PHY 565: Solid State Physics
 PHY 595: Geophysical Methods

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Adolescence Education: Physics (7-12) [APH]

This major leads to New York State certification to teach physics in grades 7-12.

CAREER POTENTIAL

- High school teacher
- Graduate study in higher education
- Public school administration
- Technical specialist

ACCEPTANCE TO THE PROGRAM

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

A. Required Courses in Physics: 30 credit hours

- PHY 150: Astronomy
- PHY 186: Introductory Programming
- PHY 201, 202, 203: Principles of Physics I, II and III
- PHY 357: Intermediate Physics Laboratory
- PHY 410: Modern Physics
- PHY 420: Classical Mechanics
- PHY 450: Electricity and Magnetism

B. Required Courses in Related Areas of Science and Mathematics:

- 30-31 credit hours
- MAT 135, 236, and 237: Calculus I, II and III
- MAT 430: Differential Equations
- CHE 221-222: General Chemistry I and II
- BIO 201-202: Biological Sciences I and II *or*
- GLY 261-262: Physical Geology and Historical Geology

C. Required Professional Courses: 38 credit hours

- PSY 101: General Psychology I
- PSY 232: Adolescent Psychology
- AED 391: Introduction to 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: Normal Language Development *or*
- PSY 350: Psychology of Language
- LIT 449: Literacy in the Middle and Secondary School

D. Additional Requirements 27-34 credit hours

- Composition and General Education Courses: 27 credit hours
- Foreign Language Courses: 0-6 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. Students enrolled in an adolescence education science program will not be allowed to progress through courses in the pedagogical sequence if they have not met all the criteria for admission to teacher education by the time they have completed AED 391: Introduction to Adolescence Education. The pedagogical sequence is designated by AED 391, AED 442, AED 443, AED 444 and AED 445.

F. Eligibility for Student Teaching

To be eligible for AED 445: Student Teaching: Adolescence Education - Science, 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 student must complete all program requirements before student teaching can begin with the exception of those courses allowed by the Physics Department and the adolescence education-science coordinator. Additionally, each teacher candidate will be required to submit a professional portfolio.

G. Other Requirements

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 45-46 of this catalog.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION:
B.A.: 131-139; B.S.: 125-133

Major in Adolescence Education: Physics and Mathematics (7-12) [APM]

This major leads to New York State certification to teach both physics and mathematics in grades 7-12.

CAREER POTENTIAL

- High school teacher
- Technical specialist
- Public school administration
- Graduate study in higher education

ACCEPTANCE TO THE PROGRAM

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

A. Required Courses in Physics: 30 credit hours

- PHY 150: Astronomy
- PHY/MCS 186: Introductory Programming
- PHY 201, 202, 203: Principles of Physics I, II and III
- PHY 357: Intermediate Physics Laboratory
- PHY 410: Modern Physics
- PHY 420: Classical Mechanics
- PHY 450: Electricity and Magnetism

B. Required Courses in Mathematics: 33 credit hours

- MAT 135, 236, and 237: Calculus I, II and III
- MAT 224: Discrete Mathematics
- MAT 272: Linear Algebra
- MAT 370: Algebraic Structures I
- MAT 375: Geometry I
- MAT 430: Differential Equations
- MAT 446: Introduction to Probability and Statistics
- MAT 480: History of Mathematics

C. Required Courses in Related Areas of Science: Eight credit hours

- CHE 221-222: General Chemistry I and II

D. Required Professional Courses: 38 credit hours

- AED 391: Introduction to Adolescence Education
- AED 392: Methods I: Teaching Adolescence Mathematics
- 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

- LIT 449: Literacy in the Middle and Secondary School
- PSY 101: General Psychology
- PSY 232: Adolescent Psychology
- PSY 350: Psychology of Language *or*
- SHH 300: Normal Language Development

- E. Additional Requirements: 27-34 credit hours
 Composition and General Elective Courses: 27 credit hours
 Foreign Language: 0-6 credit hours
- F. 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 D above. Students enrolled in an adolescence education science program will not be allowed to progress through courses in the pedagogical sequence if they have not met all the criteria for admission to teacher education by the time they have completed AED 391: Introduction to Adolescence Education. The pedagogical sequence is designated by AED 391, AED 392, AED 443, AED 444 and AED 445.
- G. Eligibility for Student Teaching
 To be eligible for AED 445: Student Teaching: Adolescence Education – Science, 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 D above. A student must complete all program requirements before student teaching can begin with the exception of those courses allowed by the Physics Department and the adolescence education: science coordinator. Additionally, each teacher candidate will be required to submit a professional portfolio.
- H. Other Requirements
 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 49-50 of this catalog.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION:
 B.A.: 136-149; B.S.: 136-143

Minor in Physics [PHY]

- A. Required courses:
 PHY 201, 202, 203: Principles of Physics I, II and III
 PHY 410: Modern Physics
 PHY 420: Classical Mechanics
 PHY 450: Electricity and Magnetism

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 22

Example of the bachelor's degree in Physics over four years

First Year	Second Year
<p><i>Fall</i></p> <p>CHE 221 CHE 224 MAT 135 COR 101 CPN 100 or 102 GE course</p> <p>Total credit hours: 16-17</p> <p><i>Spring</i></p> <p>PHY 201 CHE 222 MAT 236 CPN 101 or 103</p> <p>Total credit hours: 15-16</p>	<p><i>Fall</i></p> <p>PHY 202 PHY 186 MAT 237 GE course GE course</p> <p>Total credit hours: 17</p> <p><i>Spring</i></p> <p>PHY 203 MAT 430 GE course GE course Foreign language requirement</p> <p>Total credit hours: 15</p>
Third Year	Fourth Year
<p><i>Fall</i></p> <p>PHY 420 MAT 272 GE course GE course Elective</p> <p>Total credit hours: 15</p> <p><i>Spring</i></p> <p>PHY 357 PHY 450 MAT 425 Elective Elective</p> <p>Total credit hours: 15</p>	<p><i>Fall</i></p> <p>PHY 410 PHY 440 Physics elective Elective Elective</p> <p>Total credit hours: 15</p> <p><i>Spring</i></p> <p>Physics elective Physics elective Elective Elective Elective</p> <p>Total credit hours: 15</p>

Physics

COURSE DESCRIPTIONS

- PHY 100: Conceptual Foundations of Physics**
 (O) A non-laboratory examination of the physical and philosophical assumptions which undergird physics, their historical evolution, limitations, and relevance to current issues. (3 cr. hr.) ■
- PHY 105: Elementary Mechanics and Heat**
 (F) An algebra-based introduction to mechanics and heat. The methods of science and applications to diverse fields are stressed. Three lectures and one two-hour laboratory. (4 cr. hr.) ■

- PHY 106: Elementary Electricity, Light and Sound**
 (S) An algebra-based introduction to electricity, light and sound. The methods of science and applications to diverse fields are stressed. Prerequisite: PHY 105. Three lectures and one two-hour laboratory. (4 cr. hr.) ■
- PHY 129, 229, 329, 429, 529: Special Topics In Physics**
 A selected topics course which may be taken more than once as the subtitle changes. Prerequisites: Designated by department as appropriate for content and academic level of credit. (1-4 cr. hr.)
- PHY 150: Astronomy**
 (C) A survey of modern astronomy. Topics include the moon and planets, the sun and other stars, stellar structure and evolution, neutron stars, pulsars, black holes, galaxies, quasars and cosmology. Some elementary algebra is used. Several evening observing sessions using telescopes may be scheduled depending on seeing conditions. (3 cr. hr.) ■

PHY 186: Introductory Programming

(A) Simple data types, arithmetic statements, input/output statements, simple control structures and one-dimensional arrays. Also listed as MCS 186. (3 cr. hr.) ■

PHY 201: Principles of Physics I

(S) Fundamental principles of motion and dynamics using methods of calculus. Topics include motion in one, two, and three dimensions, mechanical equilibrium, momentum, energy, rotational motion and dynamics, periodic motion, gravitation, and conservation laws. Three lectures, one two-hour laboratory, and one recitation. Prerequisite: MAT 121 or 135, which may be taken concurrently. (4 cr. hr.) ■

PHY 202: Principles of Physics II

(F) Fundamental principles of electricity and magnetism using methods of calculus. Topics include static electricity, currents and simple circuits, electric and magnetic fields, energy, and magnetic materials. Three lectures, one two-hour laboratory, and one recitation. Prerequisites: PHY 201 and MAT 122 or 126 or 236 which may be taken concurrently. (4 cr. hr.) ■

PHY 203: Principles of Physics III

(S) Fundamental principles of thermodynamics, optics, and sound using methods of calculus. Topics include heat, work, and energy of thermodynamics systems, wave motion, geometrical and physical optics, and sound. Three lectures. Prerequisite: PHY 202. (3 cr. hr.) ■

PHY 357: Intermediate Physics Laboratory

(S) A laboratory experience stressing precise experimental measurement using a variety of instruments and covering various branches of physics. Two three-hour laboratories. Prerequisite: Consent of department. (3 cr. hr.) ■

PHY 410: Modern Physics

(F) A study of modern theories of the atom and their experimental bases. Topics include the special theory of relativity, origins of quantum theory, the nuclear atom of Rutherford and Bohr, the electron as a fundamental particle, quantum aspects of radiation, the wave-particle duality, atomic spectra, and x-rays. Prerequisite: PHY 202. (3 cr. hr.)

PHY 420: Classical Mechanics

(F) The study of the motion of physical bodies at the macroscopic level. Topics include the dynamics of a particle, the harmonic oscillator, motion in three dimensions, central forces, systems of particles, and rigid bodies. Prerequisites: PHY 202, MAT 430. (3 cr. hr.) ■

PHY 422: Applied Mechanics

(S-C) The study of statics and dynamics of rigid bodies. Topics include simple equilibrium, structural analysis, inertia tensors, centroids, energy and momentum, and strength of materials. Prerequisites: PHY 201 and MAT 227 or 327, which may be taken concurrently. (3 cr. hr.) ■

PHY 425: Methods of Applied Mathematics

(S-C) Mathematics needed for the study of the sciences. Topics include vector analysis, matrix operations, differential equations, functions of a complex variable, Fourier series, and integral transforms. Prerequisites: MAT 227, PHY 202. Also listed as MAT 425. (3 cr. hr.) ■

PHY 440: Electronics

(S-C) A survey of D.C. and A.C. circuits, semiconductor devices, and electronic test equipment. Two lectures, one three-hour laboratory. Prerequisite: PHY 202. Not open to students with credit for PHY 540. (3 cr. hr.) ■

PHY 450: Electricity and Magnetism

(S) A study of electromagnetic theory leading to Maxwell's equations. Topics include electrostatics and Gauss' Law, magnetostatics and Ampere's Law, fields in material media, time-dependent phenomena and Faraday's Law, and Maxwell's equations. Prerequisites: PHY 202, MAT 227 or 237. (4 cr. hr.) ■

PHY 458: 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. Not open to students with credit for PHY 558. (3 cr. hr.) ■

PHY 460: Optics

(O) A study of geometrical and physical optics. Topics include the propagation and vectorial nature of light, reflection and diffraction, lenses and aberration, coherence and interference phenomena, polarization, dispersion, the optics of solids, and lasers. Prerequisite: PHY 450. (3 cr. hr.) ■

PHY 495: Independent Study in Physics

(A) Directed study or independent research in a special topic. Prerequisites: PHY 202 or consent of department. (1-3 cr. hr.)

PHY 530: Statistical and Thermal Physics

(F) A study of the thermal properties of matter from macroscopic and molecular points of view. Topics include heat, temperature, entropy, the laws of thermodynamics, kinetic theory, ensembles and distribution functions, and classical and quantum statistics. Prerequisites: MAT 227, PHY 420. PHY 420 may be taken concurrently. (3 cr. hr.) ■

PHY 531: Physical Chemistry I

(F) Kinetic theory of gases, thermodynamics, introductory quantum chemistry, chemical bonding. Molecular spectroscopy. Prerequisites: CHE 222, and MAT 126 or 236, and PHY 202. Not open to students with credit for CHE 431. (3 cr. hr.) ■

PHY 532: Physical Chemistry II

(S) chemical kinetics, solid and liquid states, phase equilibria, properties of solutions and surface chemistry. Prerequisite: PHY 531. Not open to students with credit for CHE 432. (3 cr. hr.) ■

PHY 559: Advanced Physics Laboratory

(A) The development of additional techniques and skills in a special area of physics. May be repeated to perform different experiments. Prerequisites: PHY 202 or consent of department. (3 cr. hr.)

PHY 565: Solid State Physics

(S-C) The properties of solids. Topics include crystal structure, electronic and structural properties, the free-electron model, band theory, metals, semiconductors, superconductivity, and magnetism. Prerequisites: PHY 410, MAT 430. MAT 430 may be taken concurrently. (3 cr. hr.) ■

PHY 570: Nuclear Physics

(O) A study of elementary nuclear theory. Topics include the properties of nuclei, radioactivity, and transmutation. Prerequisite: PHY 410 and 450. (3 cr. hr.) ■

PHY 575: Introduction to Quantum Mechanics

(S-C) The study of the physical laws underlying microscopic systems. Topics include the wavelike properties of matter, the motion of wave packets, Schrodinger's equation, the solution of Schrodinger's equation in one and three dimensions, operators, expectation values, the Heisenberg uncertainty principle, the quantum harmonic oscillator, the hydrogen atom, and approximation methods. Prerequisite: MAT 430 and PHY 420. (3 cr. hr.) ■

PHY 595: Geophysical Methods

(O) Principles and instrumentation of geophysical methods used to collect and interpret data from the Earth's interior. Two lectures, one three-hour laboratory. Prerequisites: GLY 261 and either PHY 105 and 106 or 201 and 202. Also listed as GLY 595. (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

(S) The course examines history and foundations of education, especially science education; explores disciplinary models and their application to classroom management; examines tools for measurement and evaluation of performance and achievement of diverse learners; develops criteria for curriculum development and lesson planning aligned with state and national standards; examines federal and state laws governing education of students with disabilities; develops strategies for collaborating with administrators, faculty, staff, parents/guardians, and community members. Includes 25 hours of field experience in middle or secondary schools. Open only to majors who have been formally admitted to adolescence education: biology; chemistry; earth science; or physics. 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 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.)

LIT 449: Literacy in the Middle and Secondary School

(A) Methods, materials and assessment for fostering literacy at the middle and secondary levels. (3 cr. hr.)

Political Science

DEPARTMENT

SCHOOL

Arts and Sciences

FACULTY

Tom Pasquarello (Chair), Seth Asumah, Judith Best, Adrian Hull, Christopher Latimer, Mary McGuire, Robert Spitzer, Henry Steck

ADJUNCT FACULTY

For a listing of adjunct faculty see pages 312-315.

PROGRAMS OFFERED

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

MAJORS OFFERED

Political Science
 Adolescence Education: Social Studies and Political Science (7-12)

CONCENTRATIONS OFFERED

Law and Justice
 Public Administration and Public Policy

Old Main, Room 207
 (607) 753-4105
 E-mail: poldept@cortland.edu
www.cortland.edu/polsci/

MINORS OFFERED

Political Science
 Public Administration and Public Policy
 Comparative Politics and International Relations

DESCRIPTION

The Political Science Department offers a wide range of programs for students interested in understanding the political world, pursuing careers, and seeking graduate education in politics, law, policy or public administration. A political science background leads to careers in law, business, government, politics, teaching and journalism. Majors participate in special and individualized programs, including a semester in Albany or Washington, D.C. Prelaw and public administration internships are offered in cooperation with nonprofit organizations, and various state and local government offices. Majors also pursue careers in elementary or adolescence education.

SPECIAL FEATURES

- Prelaw Advising – advice on LSAT, law school selection, academic preparation and alumni speakers from the legal profession
- Internships – local and distant, e.g., Washington, Albany, London, Belize
- International opportunities – Europe with the Model European Union, or study of politics/government/policy abroad, e.g., the British Parliament, the Irish Parliament, Belize
- Advance to an M.P.A. at Binghamton University – by special arrangement with BU's Public Administration Department
- Campus Practicum Experience, e.g., participation in the Judicial Review Board, or Student Government Association
- Adolescence Education: Social Studies – a degree in political science can be the beginning of a career in high school teaching
- Distinguished, award-winning faculty

Requirements

1. Degree Requirements listed on pages 38-48 of this catalog apply to the following majors.
2. Liberal Arts Requirements: 90 credit hours

Major in Political Science [POL]

This major examines the broad range of concerns surrounding people and the power of government; it provides a strong grounding in American government, comparative/international politics and political theory.

CAREER POTENTIAL

- State or federal legislative aide
- Campaign manager
- Local, state or federal elected representative
- Journalist/reporter

A. Required Courses: Nine credit hours

- POL 100: Introduction to American Government and Politics (GE 1)
- POL 101: Introduction to World Politics (GE 3)
- POL 270: Introduction to Political Theory (GE 5)

B. Other: 27 credit hours

- Three credit hours of comparative politics *or* international relations
- Three credit hours of American government *or* political theory

21 credit hours of political science courses

At least 15 credit hours of political science credit must be numbered 300 or above.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Political Science with a concentration in Law and Justice [POL/LAJU]

This concentration examines the place of law and justice in government, with a focus on the American system. An ideal beginning for a career in law.

CAREER POTENTIAL

- Attorney
- Law enforcement
- Judge
- Representative (federal, state or local)

- A. Required Courses (political science base): Nine credit hours
 - POL 100: Introduction to American Government and Politics (GE 1)
 - POL 101: Introduction to World Politics (GE 3)
 - POL 270: Introduction to Political Theory (GE 5)

- B. Core in Law and Justice: Nine credit hours from
 - POL 202: Introduction to Law and the Judicial Process
 - POL 304: Constitutional Law
 - POL 404: Civil Liberties
 - POL 450: International Law
 - POL 470: Justice and Society: Theory and Practice

C. Elective Courses (POL): 12 credit hours from

- POL 120: Student Government Practicum (up to four credit hours)
- POL 302: Law and Politics
- POL 303: The Criminal Justice System
- POL 308: Environmental Law
- POL 312: Methods of Political Analysis
- POL 320: The Legislative Process
- POL 348: Gun Control: Crime, Law, Policy
- POL 372: American Political Thought
- POL 405: Discrimination Law
- POL 440: Law and Politics in the Administrative Process
- POL 471: Legal Theory
- POL 484: Prelaw Internship*

* *With consent of department*

Any course taken from Group B above the nine-hour requirement for that group can be applied to Group C.

- D. Any six credit hours in political science, outside of categories A, B and C.

- E. Related Areas: Nine credit hours of appropriate courses from the following areas by advisement: American history, literature, philosophy and sociology. These nine hours may not include courses taken for GE credit.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Political Science with a concentration in Public Administration and Public Policy [POL/PADM]

This concentration focuses on public agencies (their character, organization, role) and public policies (their development, implementation and evaluation). An ideal start for anyone interested in graduate school or civil service work.

CAREER POTENTIAL

- City manager
- Administrator for nonprofit organization
- Government official
- Pollster

A. Required Courses: 18 credit hours

- POL 100: Introduction to American Government and Politics
- POL 112: Introduction to Political Research
- POL 240: Introduction to Public Administration and Public Policy
- POL 270: Introduction to Political Theory
- POL 312: Methods of Political Analysis
- POL 341: Current Issues in Public Policy

- B. Internships: 3 credit hours from
 POL 480: Washington Semester
 POL 482: New York State Legislative Internship
 POL 483: Public Administration and Policy Internship
 POL 485: Field Study in Political Science
- C. Elective Courses: 15 credit hours from
 POL 242: Environmental Policy
 POL 304: Constitutional Law
 POL 308: Environmental Law
 POL 315: Evaluation Research
 POL 320: The Legislative Process
 POL 326: State and Local Government
 POL 29: Special Topics in Political Science (by advisement)
 POL 372: American Political Thought
 POL 405: Discrimination Law
 POL 420: The American Presidency
 POL 441: Comparative Public Policy
 POL 480: Washington Semester *
 POL 482: New York State Legislative Internship *
 POL 483: Public Administration and Policy Internship *
 POL 485: Field Study in Political Science

* For additional three hours beyond requirement, by advisement only with consent of the department.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Dual major in Adolescence Education: Social Studies and Political Science (7-12) [SST and POL]

This program allows students who major in political science to qualify for certification to teach adolescence education in social studies (grades 7-12). It combines a major in political science with 47-68 credit hours in additional course work and professional teacher preparation.

- A. Requirements for the political science major: 36 credit hours
 See page 244.
- 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 482: Central America and the Caribbean *or*
 GRY 484: Geography of Europe *or*
 GRY 486: Monsoon Asia
 GRY 480: United States *or*
 GRY 481: Geography of New York State
 POL 100: Introduction to American Government and Politics
 HIS 100: The World to 1500 *and*
 HIS 101: The World since 1500 *or*
 HIS 110: Western Civilization to 1715 *and*
 HIS 111: Western Civilization since 1715
 HIS 200: The United States to 1877 *and*
 HIS 201: The United States from 1877 *and*
 Three additional hours of history at the 300 level or above
 AED 310: Grammar and the Writing Process *or*
 LIT 449: Literacy in the Middle and Secondary School *or*
 LIT 549: Literacy in the Middle and Secondary School
 SHH 300: Normal Language Development *or*
 PSY 350: Psychology of Language

- C. Professional Sequence: Junior year, four credit hours
 AED 391: Introduction to Adolescence Education
 Fall semester only. A 25-hour field requirement is attached to this course.
 AED 300: Introduction to Secondary Social Studies
 Spring semester only. A 35-hour field requirement is attached to this course. Requires acceptance into the adolescence education: social studies (SST) major.
- D. Professional Sequence: Senior year, 21 credit hours*
 AED 301: Pre-practice Teaching Seminar
 Fall semester only. A 40-hour field requirement is attached to this course and must be completed in the preceding spring semester.
 Student Teaching: Spring semester only. No other courses may be taken during the student teaching semester.
 AED 400: Student Teaching I
 AED 401: Student Teaching II
 AED 402; Student Teaching Seminar

* To be eligible for student teaching, 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, at or near 90 credit hours, with 24 credit hours in the academic social science major, which must be officially declared. A student must also have an overall grade point average of 2.5, a grade point average of 2.7 in the academic social science major, and a C or better in AED 300. No student who receives a grade below a C- in any introductory course in the academic social science major will be allowed to enter student teaching until the course has been retaken and a higher grade earned. Student teaching is a capstone experience. Students who cannot graduate by the December following student teaching may not register for the AED 400, 401, 402 sequence.

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 126

Minor in Political Science [POL]

An opportunity to develop some fundamental knowledge in the areas of American government, comparative /international politics and political theory.

CAREER POTENTIAL

The minor is ideal for students interested in learning more about the nations of the world and excellent for those teaching in public schools, seeking careers abroad, or to simply better understand the world outside of America's borders.

- Campaign manager
- Journalist/reporter
- Elected representative
- Legislative aide (state or federal)

- A. Required Courses: 18 credit hours
 POL 100: Introduction to American Government and Politics
 POL 101: Introduction to World Politics

Twelve additional hours of POL courses to be decided upon with the advice of the student's advisor and with the consent of the department.

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 18

Minor in Political Science with an emphasis in Comparative Politics and International Relations [POL/CPIR]

An ideal minor for students interested in learning more about the nations of the world. Excellent for those teaching in public schools, seeking careers abroad, or to simply better understand the world outside of America's borders.

CAREER POTENTIAL

- Teacher
- Foreign service officer
- International business representative
- Journalist
- National security

A. Required Courses: Six credit hours

- POL 101: World Politics
- POL 250: International Relations

B. Courses in Comparative and International Politics:

- 12 credit hours
- POL 162: Soccer: Politics, Law and Culture
 - POL 260: Comparative Politics: Europe
 - POL 262: Comparative Politics: Asia
 - POL 264: Comparative Politics: Latin America
 - POL 290: Introduction to African Politics and Society
 - POL 350: American Foreign Policy
 - POL 362: Politics of Developing Nation States
 - POL 365: Irish Politics
 - POL 376: Asian Political Thought
 - POL 441: Comparative Public Policy
 - POL 450: International Law
 - POL 454: International Politics in Asia
 - POL 455: International Politics in Latin America
 - POL 456: International Politics in the Middle East
 - POL 461: Europe Today: People and Politics
 - POL 462: Political Culture and Behavior in Asian Societies
 - POL 463: Political Culture and Behavior in Latin American Societies
 - POL 465: Contemporary British Politics and Government

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 18

Minor in Political Science with an emphasis in Public Administration and Public Policy [POL/PADM]

This minor offers an opportunity to develop fundamental skills in the analysis of public agencies and public policies and is a key start for students interested in graduate school.

CAREER POTENTIAL

- Press secretary
- Lobbyist
- Government official
- Policy researcher

A. Required Courses: 15 credit hours

- POL 100: Introduction to American Government and Politics
- POL 112: Introduction to Political Research
- POL 240: Introduction to Public Administration and Policy
- POL 312: Methods of Political Analysis
- POL 341: Current Issues in Public Policy

B. Elective Courses: Six credit hours from

- POL 242: Environmental Policy
- POL 270: Introduction to Political Theory
- POL 304: Constitutional Law
- POL 308: Environmental Law
- POL 315: Evaluation Research

- POL 320: The Legislative Process
- POL 326: State and Local Government
- POL -29: Special Topics in Political Science (by advisement)
- POL 372: American Political Thought
- POL 405: Discrimination Law
- POL 420: The American Presidency
- POL 480: Washington Semester*
- POL 482: New York State Legislative Internship *
- POL 483: Public Administration and Policy Internship *
- POL 485: Field Study in Political Science *

* For additional three hours beyond requirement, by advisement only

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 21

Example of the B.A. in Political Science over four years

This chart is simply a model and does not reflect the expectations for all political science programs.

First Year	Second Year
<p><i>Fall</i></p> <p>CPN 100 or 102 POL 100 (GE 1) POL 101 (GE 3) COR 101 Foreign language 101 Quantitative Skills (e.g. POL 112)</p> <p>Total credit hours: 16-17</p> <p><i>Spring</i></p> <p>CPN 101 or 103 Foreign language 102 POL elective/concentration GE elective GE elective</p> <p>Total credit hours: 15-16</p>	<p><i>Fall</i></p> <p>Foreign language 201 POL elective/concentration GE elective GE elective GE elective</p> <p>Total credit hours: 15</p> <p><i>Spring</i></p> <p>Foreign language 202 GE elective GE elective POL elective/concentration POL elective/concentration Free elective/minor</p> <p>Total credit hours: 18</p>
Third Year	Fourth Year
<p><i>Fall</i></p> <p>POL 270 POL elective/concentration Free elective/minor Free elective/minor Free elective</p> <p>Total credit hours: 15</p> <p><i>Spring</i></p> <p>POL elective/concentration (WI) POL elective/concentration Free elective/minor Free elective/minor Free elective</p> <p>Total credit hours: 15</p>	<p><i>Fall</i></p> <p>POL elective/concentration POL elective/concentration Free elective/minor Free elective Free elective</p> <p>Total credit hours: 15</p> <p><i>Spring</i></p> <p>POL elective/concentration (WI) POL elective/concentration Free elective Free elective Free elective</p> <p>Total credit hours: 15</p>

See major and concentration listings above for specific requirements.

Political Science

COURSE DESCRIPTIONS

POL 100: Introduction to American Government and Politics

(A) Basic structures and functions of the American political system, including the Constitution, Presidency, Congress, courts, bureaucracy, political parties, public opinion, elections, interest groups, media and public policy. Also examines who has power. (3 cr. hr.) ■

POL 101: Introduction to World Politics

(A) Study of political systems of world by comparing and contrasting them with the U.S. and other countries. Focus includes ideologies, developed and developing nations, and contemporary problems affecting interactions of these systems. (3 cr. hr.) ■

POL 102: Foundations of Democracy

(O) Theory and practice of democratic government from ancient Greece to the present. Topics include democratic institutions, rights and liberties, and the scope and limits of democratic governance in modern nation-states. (3 cr. hr.)

POL 110: Politics and Multiculturalism

(S) Introduce students to how and why general democratic theory, key political institutions, patterns of political interaction, and 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 AAS 120. (3 cr. hr.) ■

POL 111: Politics and Film

(O) Introduces students to the connection between art and politics. Course examines overtly political films and will reveal how films which appear nonpolitical often have significant political messages. Course will use documentaries, feature films, propaganda films and explore cinematic approaches and political themes. (3 cr. hr.)

POL 112: Introduction to Political Research

(F) Introduction to basic methods of political research including literature reviews, generating and testing political hypotheses, and report writing. Material on time management, research skills and computer applications included. (3 cr. hr.)

POL 120: Student Government Practicum

(A) Participation credit. Participation in work of student government. Focus on process, issues and policy, and role of student government in a university community. May be taken up to four credit hours. Permission of instructor is required. (1 cr. hr.)

POL 121: Participation in Politics and Government

(O) Selected participation in activities related to governance and politics. Activities may be undertaken on or off campus. Permission of supervising faculty member and advisor are required. Open to all students, but majors should note restriction on number of credit hours that may be offered for the major. May be repeated. (1-3 cr. hr.)

POL 129, 229, 329, 429, 529: Special Topics in Political Science

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

POL 160: Model European Union

(O) Participation in simulation of Model European Union Study. Focus on process, issues, development of the European Union. May be taken two times only (four credit hours) toward the major and another two credit hours for elective credit. May also be taken for elective credit up to three times by majors and non-majors (six credit hours). Permission of instructor is required. (1-2 cr. hr.)

POL 162: Soccer: Politics, Law and Culture

(C) This course examines the sociopolitical and cultural developments of soccer. The connection between the world's most popular sport — soccer — and international politics will be emphasized. Through critical political theory, the role and impact of the nation state, the United States Soccer Federation (USSF), Federation Internationale de Football Association (FIFA), transnational corporations, race, gender and class will be discussed and analyzed from cross-cultural perspectives. Two field trips required for the course. Also listed as EXS 162. (3 cr. hr.)

POL 202: Introduction to Law and the Judicial Process

(B) Analysis, evaluation of main institutions, procedures affecting administration of justice under law. Course recommended for students who plan to enroll in upper division law classes (e.g. Constitutional Law, Civil Liberties.) (3 cr. hr.) ■

POL 240: Introduction to Public Administration and Public Policy

(B) Examines the formulation, administration and evaluation of public policy and programs. Includes survey of policy-making models and the politics of bureaucracy, principles of public finance and budgeting, personnel management, and organization theory. (3 cr. hr.) ■

POL 242: Environmental Policy

(O) An introduction to environmental policy in the United States. The course explores the relations between politics and the environment. Topics to be addressed include the origin and influence of grassroots public interest groups, the role of government in setting environmental agendas, and the effect of various actors on public policy. The course will include case studies of important issues such as global warming, overpopulation, ozone depletion, deforestation and water pollution. Prerequisite: POL 100 recommended. (3 cr. hr.) ■

POL 250: International Relations

(C) Basic factors underlying international relations, policy formulation, administration. Conduct of diplomacy, problems in world politics. (3 cr. hr.) ■

POL 260: Comparative Politics: Europe

(C) Introduction to constitutional structure, central political institutions, dynamics of political process of selected European nations with emphasis on contemporary period. (3 cr. hr.) ■

POL 262: Comparative Politics: Asia

(C) Comparative analysis of issues, problems of politics and institutions in Asian societies. Attention directed to political dynamics, processes in selected political systems with emphasis on contemporary period. (3 cr. hr.) ■

POL 264: Comparative Politics: Latin America

(C) Comparative analysis of issues, problems of politics and institutions in Latin America. Attention directed to political dynamics, processes in selected political systems with emphasis on contemporary period. (3 cr. hr.) ■

POL 270: Introduction to Political Theory

(F) Concepts of leading theorists from Plato to Nietzsche: development of political thought out of quarrel between the ancients and the moderns on nature of man and role of government. (3 cr. hr.) ■

POL 290: Introduction to African Politics And Society

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

POL 292: Race and Politics in America

(O) Analysis toward understanding factors, impact of race on American politics. Focus on American racial minorities, their role as pressure group, functional approach to problem of racism in this country. Also listed as AAS 292. (3 cr. hr.) ■

POL 302: Law and Politics

(C) Survey of law in the U.S., looking to different types of law, their sources and their influence on social practices. Examines a critique of law in practice, topics such as power of wealth under law, feminist views of law, legal education, legal reasoning and community participation in legal process. (3 cr. hr.) ■

POL 303: The Criminal Justice System

(C) Introduction to structure, operation and politics of criminal justice system (CJS). Basic operational details of CJS, including roles played by police, prosecutors, defense attorney, judges and community. Political dimension to definition of crime, race and sex bias in CJS, and contemporary problems in application of capital punishment. Look into white collar crime to see relationship between economics and criminal law. Also listed as CRM 303. (3 cr. hr.) ■

POL 304: Constitutional Law

(B) Principles, functions of judiciary as forum where great public issues are explored, debated, tentatively resolved. Supreme Court decisions reflecting social, political, economic conflicts in society explored in context of current controversies. (3 cr. hr.) ■

POL 308: Environmental Law

(C) Contemporary environmental law, beginning with common law doctrine on property rights, continuing on to the policies adopted by Congress and the federal judiciary since the 1960s. Further topics include the political and social contexts of environmental reform and the limits of legal innovations designed to protect the environment. (3 cr. hr.)

POL 312: Methods of Political Analysis

(S) Intermediate and advanced quantitative research methods, including exploratory data analysis, parametric tests, correlation, regression, and statistical modeling. Not open to students with credit for PSY 201, COM 201, MAT 201, ECO 221. Prerequisite: POL 112 or permission of instructor. (3 cr. hr.) ■

POL 315: Evaluation Research

(O) Research design and measurement for evaluation research. Covers statistical and computer applications as needed for class research project. (3 cr. hr.)

POL 320: The Legislative Process

(C) Structure, behavior, lawmaking process and representativeness of legislative bodies, focusing primarily on the U.S. Congress, examined. Impact of lobbying, money and other outside pressures on legislative process and policy making also examined. (3 cr. hr.) ■

POL 326: State and Local Government

(O) Structure function of state, county, municipal, special government units. (3 cr. hr.) ■

POL 330: Political Parties and Social Movements

(O) Relation between citizen and government via political parties and interest/pressure groups examined. Focus will be on electoral and group behavior, such as elections, parties, interest groups, Political Action Committees, single issue movements, etc. — to assess the realities of “popular control.” (3 cr. hr.) ■

POL 332: Elections In America

(O) Focus on electoral process, campaigns, voting behavior, election outcomes, electoral system. (3 cr. hr.) ■

POL 338: Media and Politics

(B) Focus on political interactions of electronic and print media with political system in America and elsewhere. How “Fourth Estate” shapes political images and how government manipulates the media examined. Analysis of contemporary news coverage included. Also listed as COM 338. (3 cr. hr.) ■

POL 341: Current Issues in Public Policy

(C) Analysis of current public policy issues in United States. Theories which purport to define or prescribe what public policy should be; political-administrative process by which policies are made; substantive content of policies; policy problems confronting the country. Prerequisites: POL 100, 240. (3 cr. hr.) ■

POL 342: Environmental Policy and Biodiversity

(M) Examines policies needed to protect biodiversity in the modern world, including: legal protections such as the endangered species act, ex situ conservation methods such as zoos, botanical gardens and seed banks, and parks and preserves designed to protect natural ecosystems. Combines directed independent study with field studies conducted in residence at Huntington Memorial Camp. (3 cr. hr.)

POL 345: Adirondack Park Policies and Issues

(O) Analysis of environmental and land-use policies in the largest park in the contiguous United States. Often taught at Cortland's Outdoor Education Center at Raquette Lake in the Adirondack Park. When taught at the Outdoor Education Center, students are assessed a fee for room and board. Prerequisite: Consent of department. Also listed as REC 345. (3 cr. hr.) ■

POL 347: The Politics of Education Policy

(C) An introduction to U.S. Education Policy; analyzes interaction between policy makers and education activists; examines the influence that political goals have exercised over American education development, and explores the ideology, data and goals that guide current public discourse on education policy. Prerequisite: POL 100 or POL 240. (3 cr. hr.)

POL 348: Gun Control: Crime, Law, Policy

(O) Criminological, legal, historical, policy, and political consequences of the gun issue in America. Historical and contemporary gun habits, the crime and self-defense debates, the role of the Second Amendment's “right to bear arms,” the gun culture, public attitudes, interest groups, federal gun laws, contemporary political controversies and the effectiveness of gun control measures. Also listed as CRM 348. (3 cr. hr.) ■

POL 350: American Foreign Policy

(O) Foreign policies of selected nations: analysis of national interest, international objectives of each; their successes, failures, impact on other members of international community. (3 cr. hr.) ■

POL 362: Politics of Developing Nation States

(C) Politics of development and nation building; political structures and forces examined with special attention to developing political systems of Third World including Asia, Africa, Latin America, Middle East. (3 cr. hr.) ■

POL 365: Irish Politics

(O) Development of 20th century's first successful revolution through guerrilla warfare and political action. Development of a modern political system from Civil War through continuing conflict in Northern Ireland traced. (3 cr. hr.) ■

POL 372: American Political Thought

(C) American political, social thought from European antecedents to present. Emphasis on political statesmanship: Jefferson, Lincoln, Franklin Roosevelt. (3 cr. hr.) ■

POL 376: Asian Political Thought

(O) Asian political, social thought from ancient to present. Analysis of selected philosophies, ideas on nature, man, society and state. (3 cr. hr.) ■

POL 404: Civil Liberties

(B) Selected problems in struggle for protection of persons, opinions, property from arbitrary governmental, private interference. Prerequisite: POL 100. (3 cr. hr.) ■

POL 405: Discrimination Law

(O) Current status of national and state law on discrimination, with particular emphasis on racial and gender inequalities. Topics include affirmative action, comparable worth and equal protection. Great Britain's public policies on discrimination are considered for purposes of comparison and contrast. (3 cr. hr.) ■

POL 420: The American Presidency

(C) Course focuses on dilemmas of the modern presidency: its power vs. its responsibility, the person vs. the institution, the simultaneous drives toward activism and restraint. Also the president's interaction with the rest of the government, the media, the people. Current presidential politics and policy making included. (3 cr. hr.) ■

POL 440: Law and Politics in the Administrative Process

(C) Powers, procedures, roles, techniques utilized by public officials and bureaucracies. Includes delegation of powers, nature of administrative adjudication and rule-making, judicial control over administrative determination, all enforcement processes of independent regulatory agencies, analysis of general problem of adjusting administrative process to traditional constitutional principles. Prerequisites: POL 100, 240. (3 cr. hr.) ■

POL 441: Comparative Public Policy

(O) Course will compare and contrast the way public policy issues are handled in United States and other countries, such as United Kingdom, Sweden, Cuba. Problems such countries confront frequently are similar but approaches taken to dealing with them are often distinctive. Among areas considered are economic policy, human rights policy and social welfare policy. Prerequisite: POL 240. (3 cr. hr.) ■

POL 450: International Law

(C) Principles governing relations of states: jurisdiction over land, water, airspace, outer space, persons; adjudicatory agencies; treaties, executive agreements; pacific settlements; laws of war, neutrality. Prerequisite: POL 101. (3 cr. hr.) ■

POL 454: International Politics in Asia

(O) Analysis of politics among Asian countries including war, revolutionary movements, patterns of diplomacy and relationships with non-Asian world. Prerequisite: POL 101. (3 cr. hr.) ■

POL 455: International Politics in Latin America

(C) Analysis of Latin America's international role and behavior. The inter-American system and impact of revolutionary movements. Prerequisite: POL 101. (3 cr. hr.) ■

POL 456: International Politics in the Middle East

(C) Analysis of Middle East as point of conflict between Arab and Israeli, east and west powers, oil producers and oil consumers. Prerequisite: POL 101. (3 cr. hr.) ■

POL 461: Europe Today: People and Politics

(O) Selected topics may include social and political change, parties and voting, decision-making, processes, political cleavages and institutions. May be repeated with change of topic. Prerequisite: POL 101. (3 cr. hr.) ■

POL 462: Political Culture and Behavior in Asian Societies

(O) Factors which condition patterns of orientation toward political action in Asian societies. Special attention may be given to individual Asian systems. Prerequisite: POL 101. (3 cr. hr.) ■

POL 463: Political Culture and Behavior in Latin American Societies

(C) Variables in Latin American political culture which comprise and affect political behavior and development. Prerequisite: POL 101. (3 cr. hr.) ■

POL 465: Contemporary British Politics and Government

(O) Contemporary British politics and government from 1945 to present, including Parliament, Cabinet, Constitution, party system, interest articulation, as well as the welfare state, ideological shifts, industrial relations, class and society, etc. (3 cr. hr.) ■

POL 470: Justice and Society: Theory and Practice

(C) Tensions between theory and practice; analysis of nature of justice and its implementation in society. Prerequisite: POL 270. (3 cr. hr.) ■

POL 471: Legal Theory

(C) Theoretical origins of legal justice and relation between law and politics with particular emphasis on natural law theory and positivist theory. Prerequisite: POL 270. (3 cr. hr.) ■

POL 480: Washington Semester

(A) Program for selected students conducted in Washington, D.C. involving on-the-job work experience, independent study, seminars. Prerequisite: Consent of department. (16 cr. hr.) ■

POL 482: New York State Legislative Internship

(S) Spring semester program for selected students to live and work in Albany as interns with State Legislature (Assembly and Senate). Students receive stipend of approximately \$3,000. Prerequisite: Consent of department. (15 cr. hr.) ■

POL 483: Public Administration And Policy Internship

(A) Students intern in a variety of state and local government departments and agencies. Practical field experience combined with instructor-led seminars and workshops. May be repeated once with the consent of the department. Prerequisite: junior or senior standing; previous political science course work; consent of department. Letter grading. (3 cr. hr.) ■

POL 484: Prelaw Internship

(A) Students intern in a law-related department or agency, including the Office of the District Attorney, Public Defender, County Attorney, Police or Sheriff's Department. Fieldwork experience combined with instructor-led seminars. Prerequisite: junior or senior standing; consent of the department. Letter grading. (3 cr. hr.)

POL 485: Field Study in Political Science

(A) Field study program covering off-campus experience. Prerequisite: Consent of department. H, S, U grades assigned. (1-16 cr. hr.)

POL 491: Readings in Political Science

(A) Individual readings in selected topics. May be repeated for credit with change in topic. Prerequisites: Nine hours of social science, consent of department. (3 cr. hr.)

POL 492: Seminar in Political Science

(C) Studies in depth on selected topics. May be repeated with change of subtitle. Prerequisite: Consent of department. (3 cr. hr.)

POL 500: Seminar in American Government and Politics

(O) Selected legislative, administrative, judicial aspects of public policy. May be repeated for credit when topic changes. Prerequisite: Nine hours of social science. (3 cr. hr.)

POL 523: The United States Constitution and Its Interpretation

(O) Structure, historical development of United States Constitution; currently discussed constitutional interpretations, controversies arising from such discussion. Prerequisite: Nine hours of social science. (3 cr. hr.)

POL 524: Courts, Judges and Politics

(O) Judicial interpretation as policy formulation in context of political process. Prerequisite: Nine hours of social science. (3 cr. hr.)

POL 526: Seminar in State and Local Government

(O) Selected topics, problems in state and local government. May be repeated with change of subtitle. Prerequisites: Nine hours of social science, consent of department. (3 cr. hr.)

POL 530: American Political Parties and Pressure Groups

(O) Organization, tactics, dynamics and roles. Prerequisite: Nine hours of social science. (3 cr. hr.)

POL 550: Seminar in International Relations

(O) Selected problems in international relations. May be repeated for credit when topic changes. Prerequisite: Nine hours of social science. (3 cr. hr.)

POL 560: Seminar in Comparative Politics

(O) Selected problems of comparative politics. May be repeated for credit when topic changes. Prerequisite: Nine hours of social science. (3 cr. hr.)

POL 570: Seminar in Political Theory

(O) Selected topics in political science. May be repeated for credit when topic changes. Prerequisite: Nine hours of social science. (3 cr. hr.)

POL 592: Seminar in Politics

(O) Selected problems in politics. May be repeated for credit with change of subtitle. Prerequisite: Nine hours of social science. (3 cr. hr.)

POL 593: Readings in Political Science

(O) Individual readings in selected topics. May be repeated for credit with change in topic. Prerequisites: Nine hours of social science, consent of department. (3 cr. hr.)

Related Education Courses**AED 300: Introduction to Secondary Social Studies**

(S) Introduction to social studies education on the secondary level. Includes pre-student teaching field experience of 35 hours. Open only to junior SST majors meeting all departmental requirements. Prerequisite: AED 391. (1 cr. hr.)

AED 301: Pre-Practice Teaching Seminar

(F) Integrated study of: a) introduction to methods of teaching secondary social studies; b) introduction to contemporary issues in the teaching of secondary social studies; c) preparation for specific practice teaching assignment; d) 40-hours of field experience. Open only to senior SST majors meeting all departmental requirements. Prerequisites: AED 300 and 391. (6 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 400: Student Teaching I: Adolescence Education Social Studies

(S) Full-time supervised adolescence education: social studies teaching experience in the public schools for eight weeks. This experience will be one of two school placements, at either the middle school/junior or high school level; the second experience must be at the other level. Prerequisites: AED 300, 301 and 391. Corequisites: AED 401 and 402 must be taken in the same semester. Open only to senior SST majors meeting all departmental requirements. S, U grades are assigned. (7 cr. hr.)

AED 401: Student Teaching II: Adolescence Education Social Studies

(S) Full-time supervised adolescence education: social studies teaching experience in the public schools for seven weeks. This experience will be one of two school placements, at either the middle school/junior high or high school level; the second experience must be at the other level. Prerequisites: AED 300, 301 and 391. Corequisites: AED 400 and 402 must be taken in the same semester. Open only to senior SST majors meeting all department requirements. S, U grades are assigned. (7 cr. hr.)

AED 402: Student Teaching Seminar

(S) 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 and high school level, and exploring the history and philosophy of teaching. Prerequisites: AED 300, 301 and 391. Corequisites: AED 400 and 401 must be taken in the same semester. Open only to senior SST majors meeting all departmental requirements. S, U grades are assigned. (1 cr. hr.)

Pre-Engineering

COOPERATIVE DEGREE PROGRAM FOR CHEMISTRY AND PHYSICS MAJORS

Bowers Hall, Room 133
(607) 753-2919

FACULTY

Yolanda Kime (Coordinator)

PROGRAMS OFFERED

Bachelor of Science in Chemistry and Engineering

Bachelor of Science in Physics and Engineering

MAJORS OFFERED

Chemistry/Engineering (3+2) [CEN]

Physics/Engineering (3+2) [PEN]

DESCRIPTION

SUNY Cortland participates in 3+2 engineering programs in which students spend three years on the Cortland campus majoring in chemistry or physics and then spend two years on a cooperating campus majoring in engineering. Those who complete this program receive two degrees, a Bachelor of Science in Chemistry or Physics, and a bachelor of science in a field of engineering. Schools that our students have attended include:

State University College of Ceramics at Alfred University

Ceramic Engineering

State University of New York at Binghamton

Electrical Engineering

Mechanical Engineering

State University of New York at Buffalo

Aerospace Engineering

Chemical Engineering

Civil Engineering

Electrical and Computer Engineering

Mechanical Engineering

Industrial Engineering

Case Institute of Technology, Case Western Reserve University

Engineering (Biomedical, Chemical, Civil, Computer, Electrical, Fluid and Thermal Sciences, Industrial, Mechanical and Aerospace, Metallurgy and Materials Science, Polymer Science, Systems and Control, and undesignated)

Clarkson University

Chemical Engineering (Biomedical Engineering Science, Energy Engineering, Environmental Engineering, Nuclear Engineering)

Civil and Environmental Engineering (Environmental, Surveying and Construction, Geotechnical, Structural, Transportation, Water Resources, Engineering Science)

Electrical and Computer Engineering (Communication Systems, Control Systems, Power Systems, Electronic Devices and Circuits, Engineering Science, Biomedical and Environmental Systems)

Mechanical-Industrial Engineering (Aviation, Biomechanical Engineering, Medicine and Dentistry, Engineering Science, Industrial Engineering, Environmental Engineering, Power, Urban Transportation, Manufacturing Technology)

State University of New York at Stony Brook

Electrical Engineering

Engineering Science

Mechanical Engineering

A decision to enter the 3+2 program should be made upon admission to SUNY Cortland as a freshman. Transfer students generally cannot complete the Cortland phase of the program in three years.

Pre-Environmental Science and Forestry

2+2 PROGRAM WITH SUNY COLLEGE OF ENVIRONMENTAL SCIENCE AND FORESTRY

Bowers Hall, Room 352
(607) 753-2725
E-mail: baronitj@cortland.edu

SCHOOL

Arts and Sciences

FACULTY

Timothy J. Baroni (pre-ESF Advisor)

DESCRIPTION

This program is designed for students who ultimately desire a bachelor of science in one of several different areas of environmental sciences and/or forestry, wood products engineering, paper science engineering or landscape architecture from the SUNY College of Environmental Science and Forestry (ESF) in Syracuse. After the first two years of study at SUNY Cortland, transfers to ESF may apply to a variety of ESF degree programs.

SPECIAL FEATURES

B.S. programs at SUNY College of Environmental Science and Forestry are offered in:

- Environmental and Forest Biology
- Forest Resources Management and Forest Engineering
- Chemistry
- Environmental Studies
- Landscape Architecture
- Wood Products Engineering
- Paper Science and Engineering

REQUIREMENTS

Students planning to transfer to the SUNY College of Environmental Science and Forestry should consult Cortland's pre-ESF advisor for program requirements and assistance in selecting electives, which vary according to the curriculum to be followed for the major at ESF. Students who complete the first two years in Cortland's Pre-Environmental Science and Forestry Program generally gain admission to SUNY ESF with full junior class status.

Psychology

DEPARTMENT

Old Main, Room 132
(607) 753-4219
E-mail: andersmd@cortland.edu
www.cortland.edu/psych/

SCHOOL

Arts and Sciences

FACULTY

Melvyn B. King (Chair), Margaret Anderson, David F. Berger, Michael D. Berzonsky, Raymond D. Collings, Leslie G. Eaton, David Kilpatrick, Kimberly S. Kraebel, Linda O. Lavine, John P. Lombardo, Paul D. Luyben, Michie Odle, Judith Ouellette, James Starzec, Jeffery Swartwood, Michael P. Toglia

ADJUNCT FACULTY

For a listing of adjunct faculty see pages 312-315.

PROGRAMS OFFERED

Bachelor of Arts in Psychology
Bachelor of Science in Psychology

MAJORS OFFERED

Psychology

MINORS OFFERED

Psychology
Psychology of the Exceptional Child

DESCRIPTION

The Psychology Department focuses on preprofessional preparation for a combination of research and applied work. In addition to providing a strong liberal arts focus for majors not going beyond the bachelor's degree, the program is designed to provide a solid foundation for graduate school training in psychology. Successful students graduate ready for entry-level positions helping others or to pursue master's and doctorate degrees.

Psychology majors have opportunities to work with faculty on research projects and/or develop their skills in the field, working with psychologists and agencies dedicated to helping others. The aim is to help majors attain skills that prepare them for college-level teaching, research and therapeutic intervention.

SPECIAL FEATURES

- Internships
- Exceptional Child Club
- National Honor Society: Psi Chi
- Research with faculty/conferences and publications
- Field Study
- Psychology Club
- Study abroad

PSYCHOLOGY HONORS PROGRAM

Students who have a 3.0 cumulative average and a 3.2 average in psychology courses are eligible to apply for admission to the Psychology Honors Program for those desiring to study in a particular field of psychology or who elect to pursue courses in psychology beyond those normally required for the major. With prior approval, such students may include as part of their programs 500-level graduate courses, special seminars, fieldwork, research and other independent studies.

Admission to the program normally occurs at the beginning of the junior year but may be granted at the beginning of the senior year.

Requirements

1. Degree Requirements listed on pages 38-48 of this catalog apply to the following majors.
2. Liberal Arts Requirements:
 - B.A. – 90 credit hours
 - B.S. – 75 credit hours

Major in Psychology (B.A.) * [PSY]

The major provides a broad base of understanding of psychology as a science — the methodology of the discipline, the principles and concepts in major areas, and selected areas of application. Major areas include research methods, as well as a broad range of areas represented in the four-group distribution.

* *The B.A. requires 0-12 credit hours of foreign language.*

CAREER POTENTIAL

- Academics
- Industrial psychologist
- Research
- Counselor/therapist
- School psychologist
- Human services

A. Required Courses: 15 credit hours

- PSY 101: General Psychology I
- PSY 201: Statistical Methods
- PSY 202: Experimental Psychology
- PSY 401: Research Methods in Psychology
- PSY 482: Senior Seminar in Psychology

B. Other: 18 credit hours

One course from two of the following groups and two courses from the other two groups.

Group I: Experimental Psychology

- PSY 311: Motivation *
- PSY 312: Learning and Memory *
- PSY 313: Cognitive Psychology *
- PSY 410: Psychology of Human Emotion*
- PSY 411: Behavioral Neuroscience*
- PSY 412: Sensory and Perceptual Processes *

Group II: Developmental Psychology

- PSY 231: Child Psychology
- PSY 232: Adolescent Psychology
- PSY 331: Psychology of Exceptional Children
- PSY 333: Developmental Psychology
- PSY 334: Psychology of Adulthood and Aging

Group III: Personality Psychology

- PSY 322: Theories of Personality
- PSY 421: Abnormal Psychology
- PSY 422: Social Psychology

Group IV: Applied Psychology

- PSY 341: Psychological Tests and Measurements
- PSY 342: Psychology in Organizations
- PSY 360: Applied Behavior Analysis
- PSY 420/520: Psychopharmacology
- PSY 441: Human Factors and Ergonomics
- PSY 486: Counseling Psychology
- PSY 535: Health Psychology

* *Lab course*

C. Courses in Related Areas for the Bachelor of Arts:

Six credit hours in biology from:

- BIO 110: Principles of Biology I
- BIO 111: Principles of Biology II
- BIO 201: Biological Sciences I
- BIO 202: Biological Sciences II
- BIO 210: Cellular Biology
- BIO 301: Human Anatomy and Physiology I
- BIO 302: Human Anatomy and Physiology II
- BIO 303: Microbiology and Human Disease
- BIO 304: Microbiology
- BIO 306: Human Genetics
- BIO 312: Genetics
- BIO 401: Invertebrate Zoology
- BIO 402: Biology of Vertebrates
- BIO 408: Biology of Insects
- BIO 409: Animal Behavior
- BIO 411: Ornithology
- BIO 412: General Ecology
- BIO 422: Biological Evolution
- BIO 514: Mammalian Physiology
- BIO 524: Physiological Ecology
- BIO 525: Developmental Biology
- SCI 325: Biotechnology and Human Aging

Three credit hours in sociology and three credit hours in anthropology from:

- ANT 102: Introduction to Cultural Anthropology
 - ANT 300: Human Evolution and Survival
 - SOC 150: Introduction to Sociology
- or any other undergraduate sociology/anthropology courses that have these as prerequisites.

Three credit hours in philosophy from:

- PHI 100: Introduction to Philosophy
 - PHI 375: Science, Truth and Bias
- Other philosophy courses may be substituted with the approval of the Psychology Department.

Three credit hours in mathematics from:

- MAT 111: Algebra for College Students
 - MAT 115: Elementary Functions
 - MAT 121: Calculus A
 - MAT 122: Calculus B
 - MAT 224: Discrete Mathematics
- Or any other undergraduate mathematics course that has any of these as a prerequisite

Three credit hours in computer applications:

- CAP 100: Introduction to Computer Applications

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Major in Psychology (B.S.) * [PSY]

B.S. candidates must take an additional lab course in psychology as well as six additional units of biology, chemistry, physics or mathematics.

Acceptable related courses for the B.S. requirement include:

Biology: Choose from list of biology courses on page 247.

Chemistry: 121, 122, 221, or any other undergraduate chemistry course that has any one of the above as a prerequisite

Mathematics: Choose from MAT 111, 115, 121, 122, 224 or MCS/PHY 186 or any undergraduate course that has any of the above as a prerequisite.

Physics: 100, 105, 106, 150, 201 or any undergraduate course that has any of the above as a prerequisite

* *The B.S. requires 0-3 credit hours of foreign language*

TOTAL CREDIT HOURS REQUIRED FOR GRADUATION: 124

Minor in Psychology [PSY]

A. Required Courses

PSY 101: General Psychology I

PSY 201: Statistical Methods

PSY 202: Experimental Psychology or

PSY 203: General Psychology II: Experimental Methods

B. Three credit hours selected from each of the four groups listed under the requirements for the psychology major with a B.A.

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 21

Minor in Psychology of the Exceptional Child [PSYX]

This program is open to all majors of the College.

A. Required Core Courses:

PSY 231: Child Psychology

PSY 331: Psychology of Exceptional Children

PSY 332: Educational Psychology

PSY 360: Applied Behavior Analysis I

B. Elective Courses:

PED 356: Physical Education for the Exceptional Child

PED 446: Inclusion of Individuals with Disabilities in Physical Education

PED 447: Adapted Physical Activity and Individual Differences

PSY 250: Psychological Perspectives on the History of Special Education

PSY 431: The Psychology of Mental Retardation

PSY 432: Psychology of Learning Disabilities

PSY 433: Behavior Disorders in Educational Settings

REC 330: Introduction to Therapeutic Recreation

SHH 270: Introduction to Communication Disorders

SHH 370: Articulation and Language Disorders

SHH 473: Neuropathologies of Language and Speech

PSY 400: Field Study in Psychology or other courses may be accepted for credit in the exceptional child minor with the consent of the department following the recommendation of the Exceptionality Committee.

TOTAL CREDIT HOURS REQUIRED FOR THE MINOR: 21

Example of the bachelor's degree in Psychology over four years

First Year	Second Year
<p><i>Fall</i></p> <p>PSY 101 CPN 100 or 102 COR 101 SOC 150 or ANT (GE) Foreign language* or GE CAP 100</p> <p>Total credit hours: 16-17</p> <p><i>Spring</i></p> <p>PSY (Group II) CPN 101 or 103 MAT 111 or higher SOC 150 or ANT (GE) Foreign language* or elective</p> <p>Total credit hours: 15</p>	<p><i>Fall</i></p> <p>PSY (Group III) PSY 201 BIO 110 (GE) GE course Foreign language* or elective</p> <p>Total credit hours: 16</p> <p><i>Spring</i></p> <p>PSY 202 BIO 111 GE course GE course Foreign language* or elective</p> <p>Total credit hours: 18</p>
Third Year	Fourth Year
<p><i>Fall</i></p> <p>PSY 401 PSY (Group IV) PHI elective Elective Elective</p> <p>Total credit hours: 15</p> <p><i>Spring</i></p> <p>PSY elective PSY Lab** Elective Elective Elective</p> <p>Total credit hours: 15</p>	<p><i>Fall</i></p> <p>PSY Lab** PSY elective B.S. science/math req.*** Elective Elective Elective</p> <p>Total credit hours: 18</p> <p><i>Spring</i></p> <p>PSY 482 B.S. science/math req. Elective Elective Elective</p> <p>Total credit hours: 15</p>

* *Foreign language required at intermediate level for a B.A.*

** *The B.A. requires one PSY lab; the B.S. requires two PSY labs.*

*** *The B.S. requires two science and/or math courses in addition to biology requirement in related areas.*

Psychology

COURSE DESCRIPTIONS

PSY 101: General Psychology I

(A) Introduction to scientific study of behavior emphasizing motivation, emotion, perception, learning, thinking, personality, individual differences. (3 cr. hr.) ■

PSY 129, 229, 329, 429, 529: Special Topics In Psychology

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

PSY 201: Statistical Methods

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

PSY 202: Experimental Psychology

(A) Lectures, coordinated laboratory in learning, sensation and perception, cognition, psychophysiology, motivation and other related areas. Coordinated laboratory work includes literature search, experimental design, data analysis, preparation of scientific reports. Prerequisites: PSY 101, 201. (3 cr. hr.) ■

PSY 203: General Psychology II: Experimental Methods

(A) Introductory laboratory course; experimental work in selected areas to illustrate basic research techniques. Coordinated laboratory work. Not open to psychology majors. Prerequisites: PSY 101, 201. (3 cr. hr.)

PSY 204: Research Methods I

(A) Introduction to concepts underlying scientific research. Course includes topics such as theory selection, hypothesis testing, reliability, validity, measurement and ethics in human and animal research. Prerequisites: PSY 101, 201. (3 cr. hr.)

PSY 210: Racial and Gender Role Stereotypes

(A) Focus on racial and gender role awareness and attitudes in individuals. Prejudice and discrimination against ethnic minorities and women are examined, from both historical and contemporary perspectives. Also, the causes and consequences of prejudice and discrimination are discussed. (3 cr. hr.) ■

PSY 231: Child Psychology

(A) Basic principles of child behavior, development. Prerequisite: PSY 101. (3 cr. hr.) ■

PSY 232: Adolescent Psychology

(A) Physical, intellectual, emotional, social aspects of adolescent development, adjustment. Prerequisite: PSY 101. (3 cr. hr.) ■

PSY 250: Psychological Perspectives on the History of Special Education

(O) Psychological, social, political origins of present views on care, treatment, education of people with handicapping conditions. Emphasis on people with mental retardation. Prerequisite: PSY 101. (3 cr. hr.) ■

PSY 304: Research Methods II

(A) Course consists of lectures with coordinated laboratory. Lectures include experimental and non-experimental methods in psychology. Laboratory is designed to address skills in evaluating, conducting and writing scientific reports. Prerequisites: PSY 101, 201 and 204. (3 cr. hr.)

PSY 311: Motivation

(B) Factors controlling initiation, direction, intensity of goal-directed behavior in man and animals. Selected theories, current research, coordinated laboratory work. Prerequisite: PSY 202 or 203. (3 cr. hr.) ■

PSY 312: Learning and Memory

(B) Conditions, principles of learning in man and animals. Learning theories, current research; coordinated laboratory work. Prerequisite: PSY 202 or 203. (3 cr. hr.) ■

PSY 313: Cognitive Psychology

(B) Models and theories used in the field of cognitive psychology, and research in many aspects of cognition including memory, knowledge acquisition and use, language, reasoning and problem solving, and metacognition. Prerequisite: PSY 202 or 203. (3 cr. hr.) ■

PSY 322: Theories of Personality

(B) Theories of organization, development of personality. Prerequisites: PSY 101, three additional hours in psychology. (3 cr. hr.) ■

PSY 330: Psychology of Gender Roles

(O) Survey and critical analysis of research and theory regarding behavioral and cognitive differences between the sexes. Emphasis will be placed on biological, social and cultural determinants of sex roles and their consequences. Prerequisite: PSY 101. (3 cr. hr.) ■

PSY 331: Psychology of Exceptional Children

(A) Etiology, diagnosis, facilitation and adjustment of physically handicapped, emotionally disturbed, gifted, mentally retarded children. Prerequisites: PSY 101. Recommended: PSY 231, 232, 332 or 333. (3 cr. hr.) ■

PSY 332: Educational Psychology

(A) Educational implications of psychological facts, principles, theories; human development; learning, evaluation, adjustment. Prerequisite: PSY 101. (3 cr. hr.) ■

PSY 333: Developmental Psychology

(B) Developmental processes from childhood through adulthood. Emphasis on life-span changes in cognitive, personality and social processes. Prerequisite: PSY 101. (3 cr. hr.) ■

PSY 334: Psychology of Adulthood and Aging

(B) Changes (in formal aging) in sensory and perceptual processes, in learning and cognition, in intelligence, in personality, in social relations and other selected issues in aging. Prerequisite: PSY 101 or SOC 220. (3 cr. hr.) ■

PSY 341: Psychological Tests and Measurements

(B) Theory of test construction including evaluation, standardization, interpretation; representative survey of psychological tests, measures. Prerequisites: PSY 101, 201. (3 cr. hr.) ■

PSY 342: Psychology in Organizations

(B) Psychological principles and methods applied to organizational problems. Prerequisites: PSY 101, three additional hours in psychology. (3 cr. hr.) ■

PSY 346: Sport Psychology

(O) Selected psychological, related theoretical factors influencing behavior of individuals participating in sport, physical education. Prerequisite: PSY 101. Also listed as EXS 346. (3 cr. hr.) ■

PSY 350: Psychology of Language

(O) Problems, issues, theories, research related to acquisition of language and language behavior. Not open to those having credit for SHH 300. Prerequisite: PSY 101. (3 cr. hr.) ■

PSY 360: Applied Behavior Analysis I

(B) Principles, techniques of operant conditioning and experimental analysis of behavior. Relationship to selected areas such as hyperactivity, inattentiveness, aggression, acting out and academic deficiencies. Prerequisite: Nine hours of psychology or six hours of psychology and consent of instructor. (3 cr. hr.) ■

PSY 361: Applied Behavior Analysis II

(O) Advanced study and application of the principles and procedures of behavior analysis. Use of behavioral strategies with individuals with exceptional needs concurrent with advanced course work in techniques such as task analysis, functional analysis and positive behavioral support. Prerequisites: PSY 360 and permission of instructor. (3 cr. hr.)

PSY 400: Field Study in Psychology

(A) Supervised field experience in areas or activities of applied psychology. May be repeated with consent of department. Prerequisites: Nine hours required, 15 hours recommended in psychology; consent of department. H, S, U grades assigned. (1-15 cr. hr.)

PSY 401: Research Methods in Psychology

(A) Research methodology in contemporary psychology. Designs, issues and analytic strategies relevant to experimental and nonexperimental research are emphasized. Prerequisites: PSY 101, 201 and 202. (3 cr. hr.) ■

PSY 405: History of Psychology

(O) Studies development of psychology as independent discipline and contemporary science. Begins with Greek views on nature of man, traces evolution of such views to contemporary theories of human behavior; includes interrelationship of psychology and society. Prerequisites: PSY 202 or 203 and six additional hours in psychology. (3 cr. hr.) ■

PSY 410: Psychology of Human Emotion

(B) An interdisciplinary survey of theory and research relevant to the psychological/physiological expression and experience of emotion in humans. The history of the study of emotion will be covered, as well as several theories concerning typical expressions of emotion representing a variety of psychological perspectives. Findings from psychological, sociological, anthropological and evolutionary theory concerning cross-cultural differences in the experience and expression of emotion will also be presented. Coordinated laboratory work. Prerequisite: PSY 202 or PSY 203. (3 cr. hr.)

PSY 411: Behavioral Neuroscience

(B) Nervous, endocrine systems regulating behavior; coordinated laboratory work. Prerequisites: PSY 202 or 203; or PSY 101 and 12 credit hours in biology. (3 cr. hr.)

PSY 412: Sensory and Perceptual Processes

(B) Experimental study of sensory mechanisms and perceptual phenomena; coordinated laboratory work. Prerequisite: PSY 202 or 203. (3 cr. hr.) ■

PSY 420: Psychopharmacology

(O) Biological bases of major psychiatric disorders and the medications used to treat these disorders. Neurochemical and neurological mechanisms involved in the disorders and the neurochemical mechanisms affected by psychopharmacological medications. Open only to juniors and seniors. Prerequisites: Nine hours in psychology preferably to include PSY 421. (3 cr. hr.)

PSY 421: Abnormal Psychology

(A) Characteristics, etiology, treatment of abnormal behavior patterns. Field study may be assigned. Prerequisites: PSY 101, three additional hours in psychology. (3 cr. hr.) ■

PSY 422: Social Psychology

(B) An introduction to the research and theories of social psychology — takes a scientific-based approach to the psychological processes underlying social behavior. Topics to be covered include percep-

tion of self and others, social cognition, interpersonal attraction and group processes. Not open to those having credit for EXS 287. Prerequisite: PSY 101. (3 cr. hr.) ■

PSY 431: The Psychology of Mental Retardation

(B) Broad overview of field of mental retardation with specific emphasis on major areas of research and controversy, including issues in definition, etiology, behavioral characteristics, intervention. Prerequisite: PSY 101; recommended: PSY 231, 232, 331, 332 or 333. (3 cr. hr.) ■

PSY 432: Psychology of Learning Disabilities

(B) An examination of the physical, social-emotional and cognitive characteristics of individuals with learning disabilities. Theory and application of intervention strategies are also studied. Prerequisite: PSY 101; recommended: PSY 231, 232, 331, 332 or 333. (3 cr. hr.) ■

PSY 433: Behavior Disorders in Educational Settings

(B) A study of the cognitive and social-emotional characteristics of children and youth with behavior disorders. Etiology as well as intervention techniques will be discussed. Prerequisite: PSY 101. Recommended: PSY 231, 232, 331, 332 or 333. (3 cr. hr.) ■

PSY 436: Assessment and Instruction of Learners with Special Needs

(O) Study of assessment procedures (formal and informal) typically used with exceptional children and youth as well as relationship of these procedures to educational interventions. Students will learn how to write Individualized Educational Programs, evaluations, and plan daily lessons utilizing commercial and teacher-made materials. Course is divided into four modules — overview, reading, math and conclusions, each of which has a fieldwork component. Also listed as EDU 436. (4 cr. hr.)

PSY 441: Human Factors and Ergonomics

(B) The application of empirical data about human behavior, capabilities and limitations to the design of systems, machines, tools, consumer products, and work and living environments for safe and effective human use. Prerequisite: PSY 202 or 203 and 342. (3 cr. hr.)

PSY 482: Senior Seminar in Psychology

(A) Individual study or projects on selected topics in contemporary psychology — integration, elaboration of previous course work. Open only to senior psychology majors, minors. (3 cr. hr.)

PSY 486: Counseling Psychology

(B) Survey of systems of counseling, psychotherapy; consideration of prevention theory and methods, clinical techniques, professional issues, research in therapeutic effectiveness. Prerequisite: Nine hours of psychology; PSY 421 recommended. (3 cr. hr.) ■

PSY 490: Readings in Psychology

(A) Independent reading on selected topic. Limited to topics for which no formal course is offered. Student is supervised by department member. Course may be taken only once. Prerequisites: Nine hours in psychology, consent of department. (3 cr. hr.)

PSY 491: Special Study in Psychology I

(A) Independent study or research on selected topic. May be taken for honors credit. Prerequisite: Consent of department. (3 cr. hr.)

PSY 492: Special Study in Psychology II

(A) May be taken for honors credit. Prerequisites: PSY 491, consent of department. (3 cr. hr.)

PSY 493: Senior Thesis in Psychology

(A) Investigation, written report of selected problem in major field of psychological research — supervised by a member of

department. Completed thesis to be presented at a colloquium. May be taken for honors credit. Prerequisites: PSY 491, consent of department. (3 cr. hr.)

PSY 500: Advanced Child Psychology

(O) Advanced study of principles of child behavior, development. Prerequisite: Prerequisite: PSY 231, 232, 332 or 333. (3 cr. hr.)

PSY 501: Advanced Educational Psychology

(B) Advanced study of psychological principles, theories related to education. Prerequisite: PSY 231, 232, 332 or 333. (3 cr. hr.)

PSY 505: History and Systems of Psychology

(O) Historical evaluation of theoretical concepts, issues in systematic psychology from 1700 to 1950. Prerequisites: Twelve hours in psychology, consent of department. (3 cr. hr.)

PSY 507: Statistical Designs for Experimentation

(O) Advanced statistical methods, experimental designs appropriate to univariate, multivariate problems. Prerequisite: PSY 201. (3 cr. hr.)

PSY 508: Interpretation of Advanced Statistical Techniques

(O) Interpretation of univariate and multivariate statistical techniques used in applied research; analysis of variance, multivariate analyses, nonparametric tests and test construction statistics included. Prerequisite: PSY 507. (3 cr. hr.)

PSY 509: Advanced Laboratory Methods

(O) Laboratory experience in conducting research; experimental design, apparatus construction, data analysis, reporting of results. Prerequisites: PSY 202 or 203. (3 cr. hr.)

PSY 510: Applied Research Methods

(O) Methods of empirical research for applied settings, including hypothesis formation, data collection, data interpretation and reporting of results. Prerequisite: PSY 202. (3 cr. hr.)

PSY 511: Advanced Motivation

(O) Advanced study of motivation as psychological construct in contemporary theories. Prerequisite: PSY 311. (3 cr. hr.)

PSY 512: Advanced Learning

(O) Advanced study of post-1950 theoretical, methodological approaches to learning emphasizing operant conditioning, mathematical models, hypothetico-deductive systems. Prerequisite: PSY 312. (3 cr. hr.)

PSY 513: Advanced Theories of Sensory and Perceptual Processes

(O) Advanced study of contemporary problems, issues, theories related to sensory, perceptual processes. Prerequisite: PSY 412. (3 cr. hr.)

PSY 514: Advanced Physiological Psychology

(O) Detailed analysis of anatomical, neurophysiological, biochemical correlates of selected behavior. Prerequisite: PSY 411. (3 cr. hr.)

PSY 516: Psychological Foundations of Education

(O) Theories, data, principles of psychology applied to classroom. Open only to graduate students not having child, adolescent, developmental or educational psychology. Prerequisite: Three hours of psychology. (3 cr. hr.)

PSY 520: Psychopharmacology

(O) The study of the biological bases of major psychiatric disorders and the medications used to treat these disorders. Special attention will be paid to neurochemical and neurological mechanisms involved in the disorders and the neurochemical mechanisms affected by psychopharmacological medications. Not open to students with credit for PSY 420. Prerequisite: Nine hours in psychology preferably to include PSY 421. (3 cr. hr.) ■

PSY 529: Special Topics in Psychology

(O) 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.)

PSY 532: Advanced Adolescent Psychology

(O) Advanced study of adolescent behavior, development. Prerequisite: PSY 231 or 232 or 332 or 333 or 516. (3 cr. hr.)

PSY 533: Advanced Developmental Psychology

(B) Advanced study of the developmental processes from childhood through adulthood. Emphasis on developmental changes in cognitive, personality and social processes. Prerequisites: PSY 101 and at least one of PSY 231, 232, 332, 333 or 334, or permission of the department. (3 cr. hr.)

PSY 535: Health Psychology

(O) An overview of the main topics in health psychology, including an introduction to the research, theory and methods of health psychology. This course addresses the contributions of the field to the understanding of the antecedents of health, illness (e.g., heart disease, cancer, AIDS) and related dysfunctions (e.g., substance abuse), the determinants of health promotion and maintenance, the prevention and treatment of illness, coping and to the psychology of major health problems. Prerequisite: PSY 101 or consent of department. (3 cr. hr.) ■

Recreation and Leisure Studies

DEPARTMENT SCHOOL

Professional Studies

FACULTY

Lynn Anderson (Chair), Dale Anderson, Kenneth Cohen, Wayne Stormann, Sharon Todd, Vicki Wilkins, Susan Wilson, Anderson Young

Park Center, Room E-334
(607) 753-4941
E-mail: rls@cortland.edu
www.cortland.edu/rec/

ADJUNCT FACULTY

For a listing of adjunct faculty see pages 312-315.

PROGRAMS OFFERED

Bachelor of Science in Outdoor Recreation
Bachelor of Science in Recreation
Bachelor of Science in Recreation Management
Bachelor of Science in Therapeutic Recreation