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ACCREDITATIONS

Buffalo State is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104; (215) 662-5606. The Commission on Higher Education is an institutional accrediting agency recognized by the U.S. secretary of education and the Commission on Recognition of Postsecondary Accreditation. Buffalo State also is accredited by the Board of Regents, University of the State of New York. In addition, the following professional organizations have determined that Buffalo State programs meet their accreditation requirements:

Academy of Nutrition and Dietetics, Accreditation Council for Education in Nutrition and Dietetics (ACEND)*

Accreditation Association for Ambulatory Health Care (Weigel Health Center)

Accreditation Commission for Programs in Hospitality Administration (ACPHA)

Accrediting Council on Education in Journalism and Mass Communications (ACEJMC)

American Association of Museums (Burchfield Penney Art Center)

American Speech-Language-Hearing Association Council on Academic Accreditation (ASHA)

Council for Interior Design Accreditation (CIDA)

Council on Social Work Education (CSWE)

Engineering Technology Accreditation Commission (ETAC)**

International Association of Counseling Services (Counseling Center)

National Association of Industrial Technology (NAIT)

National Association of Schools of Art and Design (NASAD)

National Association of Schools of Music (NASM)

National Association of Schools of Theatre (NAST)

National Council for Accreditation of Teacher Education (NCATE)***

*The Didactic Program in Dietetics at Buffalo State is accredited by the Accreditation Council for Education in Nutrition and Dietetics of the Academy of Nutrition and Dietetics, 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995, (312) 899-0040 ext 5400. http://www.eatright.org/ACEND


***The professional education programs at Buffalo State are accredited by the National Council for Accreditation of Teacher Education, 1010 Massachusetts Avenue, NW, Suite 500, Washington, DC 20036, (202) 466-7496. The accreditation includes the initial teacher preparation and advanced levels of professional education offered at the college. Accreditation papers may be reviewed in the Provost’s Office, Cleveland Hall 519.

Honor Societies

Alpha Kappa Delta
Sociology

Alpha Sigma Lambda
Adult Students

Epsilon Pi Tau
Career and Technical Education

Kappa Delta Pi
Education

Omicron Delta Epsilon
Economics

Phi Alpha Theta
History

Phi Delta Kappa
Education

Phi Upsilon Omicron
Nutrition and Food Science

Pi Delta Phi
French

Pi Sigma Alpha
Political Science

Psi Chi
Psychology

Sigma Delta Pi
Spanish

Sigma Pi Sigma
Physics
A Place to Learn, Grow, and Prepare for Your Future

Students find that Buffalo State provides the best of both worlds—a suburban-like campus in a vibrant, metropolitan neighborhood. The stimulating intellectual and cultural environment offers many informal social and recreational opportunities. The focus is on academics, with an emphasis on applied, marketable skills grounded in a strong liberal arts education. Buffalo State is large enough to offer a tremendous variety of educational programs, yet small enough to offer personal attention in small classes.

Excellent, Comprehensive Academic Offerings

Buffalo State’s 166 major and minor undergraduate programs include several unavailable at any other State University of New York (SUNY) institution: communication design, creative studies, fashion and textile technology, fibers, forensic chemistry, metals/jewelry, urban and regional analysis and planning, and wood/furniture design. The college’s visual arts program is one of the largest and most comprehensive within SUNY. Building on its historical foundation as a teachers college, Buffalo State continues to earn national recognition for the quality of its teacher-preparation programs.

Quality Learning Environment

Buffalo State fosters a learning environment that focuses on advancing each student’s potential. With one faculty member for every 17 students, students interact directly with qualified, committed instructors—four out of five hold the highest degrees in their fields.

Support programs assist students through mentoring, tutorials, workshops, and independent learning experiences. Honors curricula provide enrichment opportunities for advanced students. Campus resources address the specific needs of minority students, students with disabilities, and adult learners.

Diverse Student Body

Buffalo State’s 11,000-plus students represent the largest and most diverse student body of the SUNY colleges. The college enrolls significant proportions of nontraditional (adult), first-generation, and disadvantaged students with demonstrated potential.

Hands-on Career Preparation

Buffalo State and the Western New York community offer plenty of convenient opportunities for students to “learn by doing” through internships with local organizations.

Students gain valuable skills through involvement with applied research and community service programs sponsored by campus centers.

Students preparing to be teachers are involved in classrooms early in their academic careers, and they learn in a variety of educational settings—urban, rural, and suburban. Undergraduate students are encouraged to engage in original research, with assistance from faculty mentors.

Those who wish to learn by experiencing distant places and cultures can earn college credit by participating in a variety of study abroad and national student exchange opportunities.

Convenient, Attractive Campus

The college’s park-like setting features landscaped green space and outdoor gathering spots, along with an eclectic mix of modern and traditional architecture. With 38 buildings on one campus, every destination is within easy walking distance. Forming a "town square" for the college community, four core buildings, including E. H. Butler Library and the Campbell Student Union, are situated around a central, open quadrangle.

Vibrant, Metropolitan Neighborhood

Home to the Burchfield Penney Art Center and the Performing Arts Center at Rockwell Hall, Buffalo State’s campus is a featured attraction of Buffalo’s Elmwood Museum District. Nationally recognized cultural and recreational amenities are within easy walking distance, including the Albright-Knox Art Gallery and the historic 367-acre Delaware Park. Distinctive shops and restaurants help give "the Elmwood strip" its characteristic flavor.

Buffalo and Beyond

Buffalo State students enjoy all the advantages of living in New York State’s second-largest metropolitan area. Downtown Buffalo features national touring productions at Shea’s Performing Arts Center, AAA minor-league baseball at Coca-Cola Park, Sabres hockey and major concerts at HSBC Arena, and trendy night life along Chippewa Street. Niagara Falls—one of the world’s most visited natural wonders—is a half-hour away; cosmopolitan Toronto, Canada’s largest city, is about a two-hour drive from campus.

The State University of New York

As a comprehensive public university, the State University of New York provides a meaningful educational
experience to the broadest spectrum of learners. More than 414,000 students are pursuing traditional study in classrooms and laboratories or are working at home, at their own pace, through such innovative institutions as the SUNY Learning Network and Empire State College.

The Covenant

Buffalo State Is Committed to Providing:

**Superb Teaching Faculty**
Buffalo State faculty members are:
- Dedicated teachers.
- Nationally renowned scholars who bring the latest research to the classroom.
- Degreed professionals, not teaching assistants.
- Among the best in SUNY—more than 50 have received the SUNY Chancellor’s Award for Excellence.

**Innovative and Relevant Programs**
- The Intellectual Foundations or core curriculum ensures that students have a broad-based education.
- The professional curriculum—the academic major—prepares students for career success.
- Accredited professional programs.*
- State-of-the-art technologies, facilities, and library.

**An Excellent Learning Environment**
- The only SUNY campus in a major metropolitan area, offering exceptional cultural and recreational opportunities—all within walking distance.
- A dynamic and diverse faculty, staff, and student body.
- Strong student support and academic services, delivered by a committed professional staff.
- Outstanding library, with a strong technical and computing infrastructure.

The Buffalo State Student Is Committed to:

**First and Foremost, Being a Student**
Academics is the driving, paramount goal of student life. It means a dedication to study and being fully prepared for classroom, laboratory, or studio.

**Making Progress Toward a Degree**
Advance through your program at the expected pace, whether you are a full-time, part-time, day, or evening student.

**Graduating**
*Copies of accreditation papers are on file and may be viewed upon request.

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**Oath of Matriculation**
As a new student to Buffalo State, being now admitted to the rite of matriculation in baccalaureate studies, I do pledge to be an exemplary learner; to place the highest value on my intellectual, personal, and professional growth; and to respect learning and knowledge.

My priority is to be an educated person, to make significant progress in my program of study, and to graduate. As a student at Buffalo State, I will conduct myself with dignity, honesty, and civility, respecting the views and diverse backgrounds of my teachers and peers, enhancing the quality of life of my community, and promoting the welfare and esteemed reputation of Buffalo State. This I pledge to myself.
Academic Opportunities Cluster
University College
South Wing 510, (716) 878-3093

Muriel A. Howard Honors Program
The Muriel A. Howard Honors Program, a special admissions program, rewards students with opportunities for applied internships, scholarships, and research. Participants engage in special seminars and have access to their own residence hall and lounge.

Campus Academy for the Scholarship of Teaching and Learning (CASTL)
Buffalo State is a participant in the Teaching Academy Campus Program, designed to foster a network of campuses that provides the structure and support for promoting the scholarship of teaching and learning. Both faculty and staff benefit from the research conducted at Buffalo State. The work of faculty who study the improvement of college teaching is reflected in relevant, meaningful learning experiences for students.

Academic Standards and Intervention
University College
Twin Rise 100, (716) 878-5222

Academic Intervention
South Wing 110, (716) 878-3734
The Academic Intervention program provides guidance and support to undeclared students who have been placed on academic warning (GPA below 2.0 after a student's first semester at Buffalo State) or on academic probation (GPA below 2.0 after a student's second or later semester at Buffalo State).

Academic Standards Office
The Academic Standards Office assists in upholding the academic policies of Buffalo State and maintaining the academic integrity of the college. The office provides assistance to students in interpreting academic policies and compliance standards that may affect their academic status or financial aid eligibility. Faculty and staff are encouraged to contact the Academic Standards Office for assistance in resolving academic appeals and probationary student issues.

Barnes & Noble at Buffalo State Bookstore
Campbell Student Union, (716) 878-5509
http://buffalostate.bncollege.com
The bookstore carries a wide range of merchandise, including textbook rental, new, used, and digital textbooks; trade books; special-order books; emblematic clothing; art, school, and office supplies; greeting cards; gifts; and computer supplies. The store features a Starbucks Cafe with computers and wireless access. The store accepts cash, personal checks, credit cards, and Bengal Bucks. A bookstore deferment program is available. The bookstore is a service of Barnes & Noble College Bookstores Inc.

Burchfield Penney Art Center at Buffalo State
(716) 878-6011
www.burchfieldpenney.org
In November 2008, the new Burchfield Penney Art Center opened to the public. The $33 million structure is the first new art museum to be built in Buffalo in more than a century and is the first "green" art museum in New York State. The museum is home to more than 7,800 works by more than 600 artists from Western New York, including the largest public collection of works by Charles E. Burchfield. The Burchfield Penney is accredited by the American Association of Museums. General admission to the Burchfield Penney is free to faculty, staff, and students of Buffalo State. Gallery hours are Tuesday, Wednesday, Friday, and Saturday from 10:00 a.m. to 5:00 p.m., Thursday from 10:00 a.m. to 9:00 p.m., and Sunday from 1:00 to 5:00 p.m. The Museum Store, offering one-of-a-kind gifts by Western New York artisans and merchandise celebrating Burchfield, is open during gallery hours.

Campbell Student Union
Student Life Office
Campbell Student Union 400, (716) 878-4631
www.buffalostate.edu/studentlife
The Campbell Student Union is located in the center of campus and houses an exciting blend of student services, activities, and recreation. The Barnes & Noble Bookstore, USG Game Room, and Campbell Student Union Information Center are located in this facility, as are the offices of the Dean of Students, the Associate Vice President for Campus Life, Campus Dining Services, United Students Government (USG), the International
Student Affairs Office, and the Student Life Office. The campus radio station, WBNY-FM 91.3, makes its home here, along with 19 other student organization offices. The Student Union offers a variety of newly renovated, state-of-the-art programming space for the campus community, along with several informal lounge, café, and study areas, and the new state-of-the-art Residential and Retail dining facilities.

Campus Dining Services
Campbell Student Union 223, (716) 878-5214
www.buffalostate.edu/offices/dining

Buffalo State Dining understands and caters to the unique needs and expectations of today's college students. We ensure each student's dining experience is distinctive, memorable and satisfying. We nourish students with great food, healthy menu options and stimulate their minds by meeting and exceeding their expectations. Buffalo State Dining offers many dining locations throughout campus, which include an all-you-care-to-eat dining hall, Argo Tea, Cafe' Oh-Lo, and a food court containing nine concepts including Subway, Salsarita's, SPOT coffee, fresh juice bar, grill, made-to-order salads and Italian, Jamaican and Asian cuisine.

The Buffalo State Child Care Center is open to the children of Buffalo State students, faculty, and staff. The Center is also open to children of community members. Accredited by the National Association for the Education of Young Children (NAEYC) and licensed by the New York State Office of Children and Family Services, the Center accepts children between the ages of 6 weeks and 5 years on a first-come, first-served basis. A summer school-age program is also available for children (up to age 12). The Center is committed to providing developmentally appropriate programs in a safe, predictable environment, where children can develop socially, emotionally, cognitively, and physically.

CEURE—the Center for Excellence in Urban and Rural Education—is committed to the enhancement of high-need urban and rural schools through the recruitment, retention, and continuing education of highly qualified teachers, as well as the support of reform efforts and research about effective schools. To support educational reform and school improvement, CEURE partners with schools, community groups, foundations, and other institutions of higher education across Western New York.

CEURE offers a variety of programs and services to school partners and campus colleagues. Partnerships are developed in conjunction with our undergraduate and graduate teacher-education programs, and include such collaborative efforts as:

- specialized staff-development programs for teachers and administrators;
- alternative certification opportunities for high-need subject-area teachers;
- internship opportunities;
- future and nascent teacher mentorship and support programs;
- school partnership projects that employ teacher-education majors as tutors;
- grant submission and program implementation.

Child Care Center (Buffalo State Child Care Center)
Campus West, (716) 878-5335
www.buffalostate.edu/offices/bscchild

The Buffalo State Child Care Center is open to the children of Buffalo State students, faculty, and staff. The Center is also open to children of community members. Accredited by the National Association for the Education of Young Children (NAEYC) and licensed by the New York State Office of Children and Family Services, the Center accepts children between the ages of 6 weeks and 5 years on a first-come, first-served basis. A summer school-age program is also available for children (up to age 12). The Center is committed to providing developmentally appropriate programs in a safe, predictable environment, where children can develop socially, emotionally, cognitively, and physically.

College Writing Program
South Wing 130, (716) 878-5451
www.buffalostate.edu/writingprogram

The College Writing Program provides oversight for the writing courses required of all Buffalo State students, CWP 101 and CWP 102, as well as the non-credit-bearing CWP 099, which is sometimes required to prepare students for those writing courses. The College Writing Program also provides support for the Intellectual Foundations Writing Across the Curriculum requirement.

Computing and Technology Services
Twin Rise 206, (716) 878-4611
www.buffalostate.edu/cts http://www.buffalostate.edu/cts
Computing and Technology Services supports computing hardware, software, and networking for instruction, research, and administrative activities on campus. There are many public and department-specific networked labs as well as wireless access available across campus. Labs are equipped with up-to-date computers and a variety of standard and curriculum-specific state-of-the-art software to support the educational needs of the campus. Campus computing- and technology-related questions can be directed to the Computing Help Desk, chd@buffalostate.edu, located in E. H. Butler Library. Visit the CTS website www.buffalostate.edu/cts for additional information and supporting materials.

Continuing Professional Studies
Cleveland Hall 210, (716) 878-5907
www.buffalostate.edu/continuingstudies

Continuing Professional Studies is responsible for recruitment, admissions, and advisement of adult student cohorts at Buffalo State College on and off campus. These students typically seek degree completion opportunities using experiential learning options. These options include CLEP and course by contract. Continuing Professional Studies enrolls students in the nontraditional adult student degree, Individualized Studies undergraduate degree, as a part of this option. INS300W portfolio assessment is offered as an opportunity to earn up to 30 credits for learning from life experiences.

Continuing Professional Studies manages online programming and development, coordination of Summer Session, January Term, the Veterans Services/Certification Office, Individualized Studies, Evening and Weekend programs for adult students, conference planning, and non-credit programming.

Counseling Center
Weigel Health Center, Second Floor, (716) 878-4436

The Counseling Center provides professional psychological services to students experiencing developmental or situational difficulties that may interfere with their ability to take advantage of the educational opportunities at Buffalo State. The staff includes licensed psychologists, licensed clinical social workers, a case manager, and a part-time psychiatrist. Information shared in counseling is confidential and is protected to the full extent of the law.

For more information and resources, visit the Counseling Center website http://www.buffalostate.edu/depts/counsel.

Dean of Students and Student Judicial Affairs
Campbell Student Union 306, (716) 878-4618

The Dean of Students Office, www.buffalostate.edu/deanofstudents, and the Student Judicial Affairs Office provide leadership for defining and promoting campus wide expectations for student conduct and behavior. These are expressed in the Compact for a Civil and Caring Academic Community

http://www.buffalostate.edu/deanofstudents/x577.xml, a set of principles that describes how those who live, study, and work together as members of our college community should treat each other: with civility and respect, with care and concern, and with a commitment to the academic purpose for which Buffalo State exists. The compact is meant to foster conversation, interaction, and reflection on behavior as a way to promote understanding of self and others in the context of a shared community. Use of the compact is encouraged to help promote the expectations arising from its premise that Buffalo State is and should be a civil and caring academic community.

The dean of students works closely with students and student groups to further their intellectual, emotional, and social development. The dean serves as an advocate for the rights of students; offers individual student support; provides programs, services, and co-curricular opportunities; and contributes to policy development. The dean's office sponsors the Violence Intervention and Victim Advocacy

http://www.buffalostate.edu/deanofstudents/viva.xml (VIVA) program to assist victims of sexual violence and assault and helps ensure compliance with victim rights under Title IX of the Civil Rights Act. The dean also provides parents with information about college policies and procedures, along with referrals for assistance to both on- and off-campus resources.

The dean convenes a Students of Concern Care Team http://www.buffalostate.edu/deanofstudents/x618.xml to respond whenever a student's behavior appears troubled or disturbed, creating cause for concern. The Care Team will investigate reports and determine appropriate action or referral. Emergency concerns must be directed to University Police at (716) 878-6333. The Care Team works closely with faculty to provide awareness and support for dealing with students in difficulty in a compassionate and humane manner while ensuring safety for the campus community.

The Code of Students' Rights, Freedoms, and Responsibilities
http://www.buffalostate.edu/studentaffairs/x527.xml is Buffalo State's code of student conduct. The code is administered by the Student Judicial Affairs Office to provide students with a due process review of any complaints made by or against them. Hearing boards composed of students, faculty, and staff consider evidence and issue findings to respond to disciplinary violations.

Disability Services Office
South Wing 120, (716) 878-4500

Buffalo State ensures access to its academic programs, services, and activities on campus to otherwise qualified individuals with disabilities in accordance with guidelines established by the Rehabilitation Act of 1973, Section 504, and by the Americans with Disabilities Amendment Act of 2009. Disability Services http://www.buffalostate.edu/disabilityservices provides advocacy and coordinates appropriate accommodations for students with disabilities. To receive services, students should contact Disability Services and provide appropriate
disability-related documentation. If you believe you may have an undiagnosed disability, please feel free to contact the office and you will be referred to the correct resource.

If you are in need of academic tutoring, please contact the Academic Skills Center
http://academicsupport.buffalostate.edu/academic-skills-center.

Educational Opportunity Program
University College
South Wing 710, (716) 878-4225
www.buffalostate.edu/eop
The Arthur O. Eve Educational Opportunity Program (EOP) was established in 1967 to fulfill New York State’s commitment to access to higher education. The program is for students of all racial and ethnic backgrounds who have the talent and ability to succeed in college but have been placed at a disadvantage for access by financial and academic circumstances. See EOP admission 17 for more information.

First-Year and Academic Support Programs

Academic Advisement Center
South Wing 110, (716) 878-5223
http://academicsupport.buffalostate.edu/academic-advisement-center
The Academic Advisement Center assists students in making the academic and personal choices that help them identify and accomplish their educational, professional, and personal goals. The Academic Advisement Center serves all Buffalo State students, but regards undeclared students as its primary constituency.

Academic Skills Center
South Wing 330, (716) 878-4041
http://academicsupport.buffalostate.edu/academic-skills-center http://academicsupport.buffalostate.edu/academic-skills-center
The Academic Skills Center provides free tutoring and workshops for all Buffalo State students seeking supplemental instruction in their courses. Its team of professional tutors is ready to address questions regarding both coursework and scholarship. Tutors meet with students one-on-one or in small groups, handling an array of subjects that include business, humanities, languages, math, science, statistics, and writing.

Academic Support Programs
South Wing 310, (716) 878-5303
http://academicsupport.buffalostate.edu
The Academic Support Programs unit offers services that are designed to help ensure successful study at Buffalo State. Units include the Academic Advisement Center, the Academic Skills Center, Collegiate Science and Technology Entry Program (C-STEP), developmental college success courses, and Credit for Experiential Learning.

Collegiate Science and Technology Entry (C-STEP) Program
South Wing 220A, (716) 878-4197
http://academicsupport.buffalostate.edu/collegiate-science-and-technology-entry-program-cstep
The Collegiate Science and Technology Entry Program (C-STEP) seeks to increase access to careers in science and technology for academically superior students who are economically disadvantaged or members of groups traditionally underrepresented in higher education.

Credit for Experiential Learning
South Wing 310B, (716) 878-5303
Buffalo State recognizes college-level experiential learning and regards such potential academic credit as similar to transfer credit. Students demonstrate that their experiential learning is comparable to specific Buffalo State credit-bearing courses. Such equivalence can be demonstrated through the course-challenge process or through portfolio preparation. Both options are ultimately reviewed by the appropriate academic department. Students may receive as many as 30 credit hours through experiential learning review. Any credit awarded will be recorded as credit (cr) on students’ transcripts, rather than by letter grade. Credit for experiential learning is limited to matriculated students at Buffalo State.

First-Year Programs
Twin Rise 100, (716) 878-5906
www.buffalostate.edu/firstyearprograms
Buffalo State offers several courses and programs designed to help new students refine and strengthen academic skills that will serve as a basis for success. UNC 100, UNC 111, UNC 120, and UNC 150 offer entering students access to small classes.

Learning Communities
Twin Rise 100, (716) 878-5906
www.buffalostate.edu/firstyearprograms
Learning Communities (LC) provide a cluster of courses that incoming first-year students take in common around a central theme or concept. These courses fulfill Intellectual Foundations general education requirements. In addition, LC students who are campus residents live in a shared residential area. All LC students—residential and commuter—have access to their own gathering places with computers and kitchens. They meet with other students, faculty, and professional staff members at special LC events.

Great Lakes Center
Science Building 261 and Porter Avenue, Buffalo, (716) 878-4329
www.buffalostate.edu/greatlakescenter
The Great Lakes Center brings together more than 25 affiliated faculty from eight academic departments at
Buffalo State to conduct research in aquatic ecology, fisheries, environmental toxicology and chemistry, urban ecology, watershed dynamics, and environmental education.

The center consists of a complex of laboratories on the main campus and an aquatic research laboratory on the 4.5-acre site at the junction of Lake Erie and the Niagara River. The Great Lakes Center also maintains two 28-foot vessels, a 25-foot heavy lifting work boat, several Boston Whalers, an electrofishing boat, johnboats, and a number of smaller boats for near-shore work, as well as a variety of sampling instruments.

Instructional Design Office
Instructional Resources
Bulger Communication Center 113, (716) 878-3877
www.buffalostate.edu/offices/ir/E-Learning
http://www.buffalostate.edu/offices/ir/E-Learning

The Instructional Design Office provides support for the design and development of online and hybrid courses. The office can assist faculty in identifying appropriate online resources for use in such courses. The office coordinates training for the current campus-supported course management system, ANGEL, and trainings provided by the SUNY Learning Network. The office also serves students by providing assistance with ANGEL and will assist students in locating online courses within the SUNY system.

Intellectual Foundations
University College
Twin Rise 100, (716) 878-5906
www.buffalostate.edu/intellectualfoundations

The Intellectual Foundations program is the general education program at Buffalo State. Serving as the college's liberal arts curriculum since fall 2006, the Intellectual Foundations program promotes an understanding of the continuity of human history, the depth of inherited knowledge, the validity of diverse modes of inquiry, the value of artistic expression, and the richness of our collective experience. Its purpose is to develop the skills and habits of the mind required for a life of intellectual curiosity and civic engagement.

International and Exchange Programs
University College
South Wing 410, (716) 878-4620
www.buffalostate.edu/universitycollege

Center for China Studies
South Wing 430D, (716) 878-6328
www.buffalostate.edu/centers/cccc

The Center for China Studies promotes and coordinates research, scholarly exchanges, academic programs, and economic development with China. Center activities advance the intellectual, personal, and professional growth of students, faculty, staff, and the general community by providing an international perspective regarding China in the context of an ever-changing and diverse world.

International Education Office
South Wing 410B, (716) 878-4620
www.buffalostate.edu/studyabroad

International study is available in more than 50 countries overseas through Buffalo State and SUNY-sponsored programs. The International Education Office coordinates Buffalo State-sponsored international study in Australia, Canada, China, England, Italy, the Netherlands, Puerto Rico, Romania, and Spain. Faculty and staff may develop short-term study sessions in other countries as well.

International Graduate Programs for Educators
South Wing 430, (716) 878-6832
www.buffalostate.edu/ilsc

International Graduate Programs for Educators fosters lifelong academic, intellectual, and personal success through the promotion and dissemination of research, information, publications, and other resources focusing on learning, teaching, and productivity styles. The center delivers overseas master’s, graduate, and professional development programs taught by faculty members in the Computer Information Systems, Creative Studies, Educational Foundations, and Elementary Education and Reading departments. The program’s office is an affiliated center of the International Learning Styles Network.

International Student Affairs Office
Campbell Student Union 400, (716) 878-5331
www.buffalostate.edu/internationalstudentaffairs

Various services are available to international students through the International Student Affairs Office, including academic advisement and personal counseling. In addition, the office helps students regarding visas, work permits, and regulations of the Department of Homeland Security. A one-day international orientation program is provided for new international students at the beginning of each semester. The office distributes numerous publications, including Information for New Students from Abroad, International Student/Scholar Orientation Guidebook, Directory of Faculty and Staff with International Qualifications, Guide to Businesses and Attractions in Western New York, and Newsletter International. The office also administers English-language competency and placement exams. International Student Affairs coordinates the American Host Family and International Friendship programs, pairing international students with American families. It coordinates a Global Perspectives program in the Western New York community, an English Conversation program, a Residence Hall Peer Mentor program, a Faculty/Staff Resource program, and the college’s International Alumni program. The office organizes international cultural events, workshops, and seminars throughout the year on campus.

Global Studies (minor program)
South Wing 420B, (716) 878-6116
The global studies minor is designed to provide students with an international perspective, encouraging the study of issues based around international themes, as well as the advanced study of another language.

Special Programs Office
South Wing 420, (716) 878-4328
The Special Programs Office administers National Student Exchange and the Visiting Student Program.

National Student Exchange
South Wing 420
www.nse.org
National Student Exchange is designed to expand the scope and variety of academic, social, and cultural experiences available to students. It enables qualified students to spend a semester or a year at one of more than 200 colleges and universities in the United States, its territories, and Canada. The program, organized through the National Student Exchange Consortium, provides an inexpensive means of studying in another state by paying tuition at Buffalo State or at the host school at the resident rate. To be eligible, a student must be in good academic standing and have a minimum GPA of 2.5.

Visiting Student Program
Buffalo State students may attend participating colleges and universities for a semester or a year and transfer credit hours to Buffalo State. Students should consult with their academic advisers about institutions that best meet their educational goals. Departmental approval is required as part of the application process, which is coordinated by the Special Programs Office. Deadlines are May 1 for the fall semester and November 1 for the spring semester. There is no visiting student status during the summer.

Library (E. H. Butler Library)
(716) 878-6300
library.buffalostate.edu http://library.buffalostate.edu
E. H. Butler Library is committed to supporting the scholarship, research, and creativity of the Buffalo State academic community with more than a million research materials, including more than 670,000 printed books, a growing number of electronic books, and access to full-text articles from thousands of periodicals.

Butler Library’s Information Commons brings together important services to help you successfully complete your academic projects. Librarians are available at the Research Help Desk to provide expert research assistance. The Writing Help Center, a partnership with the College Writing Program, is available to assist students with writing and composition of all kinds. The Application Support Desk is the central point of service for software-related assistance and Equipment Loan. Computing Help Desk staff members provide technical assistance with campus computers, printers, and network issues.

Computer labs are located on the first floor of the library, and wireless access is available throughout the library building. StudyQuad and QuietQuad, open 24 hours a day during the fall and spring semesters, feature computers with a variety of software applications, an assistive technology room, quiet study space, and group study rooms.

Our specialized collections include the Curriculum Materials Lab, which contains books for children and adolescents, and textbooks for elementary and secondary grades; Archives/Special Collections, which houses the official and historical documents of the college dating from the 1860s to the present; Media Services, which houses non-book items; and the Creative Studies Library, a noncirculating collection that supports the International Center for Studies in Creativity at Buffalo State.

The Bengal ID Card Office provides support in all areas of operation relating to the official card used for dining, printing, vending machines, and library services. The Academic Advisement Center has established an auxiliary office in the library to provide academic advisement for undeclared students and advisement assistance for all Buffalo State students.

E. H. Butler Library’s lobby is a popular place for study breaks. The café offers gourmet coffees and teas, as well as a variety of snacks. The lobby also features monthly exhibits and works of art from our permanent collection.

Orientation and New Student Programs Office
Porter Hall 14J, (716) 878-5336
http://orientation.buffalostate.edu/

First-year and transfer students actively engage in the enriching educational experiences offered at Buffalo State during their orientation session. Interacting with faculty, confirming course schedules, learning about student services, and a variety of social activities are included in orientation. First-year students meet on campus for a three-day orientation program the week before classes begin. Transfer students receive academic advisement throughout the summer, and come to campus for a one-day program the week before classes begin to become acquainted with Buffalo State. Both orientation programs offer an opportunity to form relationships with faculty, staff, upper-class students, and incoming peers inside and outside academic majors. Attendance is mandatory and a program fee is required. Parent/family member programs are offered as an optional program, and run concurrently with the new student orientations.

Performing Arts Center
Rockwell Hall 210, (716) 878-3032
Box Office: (716) 878-3005
www.buffalostate.edu/pac
The Performing Arts Center (PAC) at Rockwell Hall is an 856-seat multipurpose theater that enhances the cultural vitality of the campus and Western New York community. The PAC hosts a variety of events each year. Lectures, concerts, musicals, and more highlight the annual calendar of more than 150 events. The Great Performers Series showcases world-class artists from a wide range of performance genres. The Artsplorations Series offers...
Western New York schoolchildren the opportunity to attend a live theater performance. The Buffalo State Music Department presents more than 50 concerts each year at the PAC, featuring the Philharmonia, Wind and Jazz Ensembles, Chamber Music Ensembles, and Choral presentations.

Pre-Law Advisement
School of Natural and Social Sciences, Dean’s Office Classroom Building A113, (716) 878-6674
School of Natural and Social Sciences http://www., http://www.buffalostate.edu/naturalandsocialsciences/x461.xml

Buffalo State provides pre-law advisement to assist students who plan to attend law school. Faculty members knowledgeable of the legal profession are available for consultation on such matters as recommended undergraduate courses, LSATs, and law school admissions practices. Students interested in pre-law advisement should contact the chair of the Pre-Law Advisement Committee early in their Buffalo State studies for consultation and a copy of the pre-law handbook.

Pre-Medical and Pre-Health Professional Advisement
School of Natural and Social Sciences, Dean’s Office Classroom Building A113, (716) 878-6674
School of Natural and Social Sciences http://www., http://www.buffalostate.edu/naturalandsocialsciences/x461.xml

Health professions schools require a strong undergraduate preparation in the sciences. Buffalo State offers all the courses (biology, chemistry, mathematics, and physics) required for admission to medical, dental, osteopathic, veterinary, optometry, podiatry, chiropractic, and other health professions schools. Individual schools have their own requirements, and Buffalo State offers a course of study that should meet the requirements of any health professions school. The entrance examinations for medical, dental, and other health professions schools test for mastery of material from these courses.

It is very important that students who are interested in the health professions contact the pre-health adviser as soon as possible (freshman or sophomore year) to begin the advisement process and to plan the application process. The pre-health professions adviser and the Pre-Health Advisory Committee assist students who are interested in entering one of the health professions by providing advice about the application process and preparing supporting materials for students’ applications.

Reserve Officer Training Corps
U.S. Army Reserve Officer Training Corps (ROTC) classes are offered at Buffalo State through Niagara University. Military science classes are 1 credit hour each semester and are intended to introduce students to Army leadership principles and basic military concepts. A 2-credit-hour military lab also is available to Buffalo State students. The lab meets once a week at either Niagara University or the University at Buffalo South Campus. Military science classes are offered free of charge to all interested, and no commitment or obligation is required. Students may enroll in any of these courses during the Buffalo State registration period. Contact Major Peter B. Wilson at (716) 286-8235.

Residence Life Office (On-Campus Housing)
Porter Hall, (716) 878-3000 www.buffalostate.edu/residencelife

A variety of on-campus housing options are available at Buffalo State, including traditional-style housing (Neumann, Perry, Porter, and Cassetty halls) for first-year students; suite-style facilities (Towers 1-4, North Wing) for sophomores, juniors, seniors, and international students; and fully furnished apartments (Moore Complex and the Student Apartment Complex) for sophomores, juniors and seniors. Several units in Moore Complex are designated for students with dependent children (under the age of 18). Other housing options include honors student housing, Native American, Diversity, Music and Theater suites. Year-round housing is provided for students with dependent children (Moore Complex), international students, and students enrolled in summer classes on a space-available basis. All residence halls are smoke free. The residence hall staff guides students in their living environment, promotes student health and safety, and provides encouragement, support, and assistance when needed.

Buffalo State Housing Residency Requirement
All full-time students are required to live on campus until they have earned junior-level standing (completion of 60 credit hours). Students who are married, single parents, veterans, age 21 or older, or commuting from the home of a parent or relative (aunt, uncle, brother, sister, etc.) within a 35-mile radius of the Buffalo State campus are exempt from this policy. Verification is required for students who wish to apply for an exemption from this requirement; contact the Residence Life Office.

Parking Information for Freshmen and Sophomore Resident Students
Freshmen (first-year college students) and sophomore (second-year college students) who reside in Buffalo State residence halls are not permitted to register or park a vehicle on campus. All students, regardless of level (including freshmen and sophomore), who reside off campus may register a vehicle for on-campus parking.

Pre-college credits, advanced placement credits, CLEP credits, and similar credits are not relevant to this regulation. Any credit awarded for coursework taken prior to high school graduation or during the summer does not change student status as it relates to being a first- or second-year college student.

Students entering their third year (i.e., fifth semester) at Buffalo State are eligible to register a vehicle on campus even if they have not completed enough credits to obtain junior standing. They are no longer considered first- or
second-year college students. Students who begin as sophomores in the spring semester of an academic year are permitted to register a vehicle on campus for the coming fall semester, even though they may not have accumulated sufficient credits to attain junior standing.

Exceptions to Freshmen and Sophomore Parking Rules
Exceptions to parking registration rules for resident freshmen and sophomores will be considered for the following reasons:

Medical: Requires a letter from a licensed physician indicating a legitimate medical need. This letter should explain in detail the nature of the problem, the reason(s) for the student to have ready access to his/her own transportation, and the time frame being projected for this need.

Employment: Freshmen and sophomores are strongly encouraged to find employment either on campus or in the local community. Appeals for employment purposes should include a signed letter on company letterhead from the employer stating days and hours of employment. Letter must include employer’s telephone number. A current payroll stub may also be required.

Academic: Requires a legitimate written justification from a faculty member stating the reason for exception; a description of approved off-campus credit-bearing program must be included.

Other exceptional circumstances will be considered by the Parking Appeals Committee. Requests for exceptions to this policy are to be submitted in writing by the student to Director of Parking Services, Buffalo State College, 1300 Elmwood Avenue, Buffalo, NY 14222. Requests will be reviewed by the Parking Appeals Committee. Decisions of this board are final and not subject to further appeal.

All waivers to this policy will be issued for a specific period of time as determined by the committee. If a student who has been issued a waiver to this policy receives a violation to the campus parking policy, the waiver will be revoked.

Speech-Language-Hearing Clinic
Caudell Hall, (716) 878-3530
www.buffalostate.edu/speech

The Speech-Language-Hearing Clinic provides speech, language, and hearing services to individuals of all ages. Services are provided by graduate students in the Speech-Language Pathology Department under the direct supervision of faculty and professional staff members who are licensed by New York State and hold the Certificate of Clinical Competence from the American Speech-Language-Hearing Association.

State-of-the-art equipment aids clinic staff in the diagnosis and remediation of a variety of disorders, including articulation and phonological disorders; language impairments in children; aphasia; hearing, voice, and fluency disorders; and traumatic brain injury. The staff also works with people who wish to modify their accents. Services are free to Buffalo State students.

The Buffalo State Speech-Language-Hearing Clinic does not discriminate in the delivery of clinical services on the basis of race or ethnicity, gender, age, religion, national origin, sexual orientation, or disability.

Student Government (United Students Government)
Campbell Student Union 402, (716) 878-6701
www.usgbuffstate.org

USG is the United Students Government, representing the students of Buffalo State since 1971. USG is headed by students who are elected each year by the student body. USG is maintained with the support of a professional staff and funding through a mandatory student activity fee. In addition to the activities of the student government, USG supports over 60 funded and recognized student organizations, each providing general and specialized events and activities for students with diverse interests.

USG consists of three operating branches of governance: the executive branch, responsible for establishing long-term goals for student government; the senate, the legislative branch of USG; and the judicial council. All undergraduate students are members of USG and are eligible to run for any elected position for which they are qualified.

Student Life Office
Campbell Student Union 400, (716) 878-4631
www.buffalostate.edu/studentlife

The Student Life Office provides support, encouragement, and resources to students and student organizations as they pursue extracurricular activities. Opportunities for students to participate in more than 80 recognized student organizations, student leadership roles, college committees, United Students Government, community service programs, and diversity programs collectively enhance the campus community as well as the collegiate experience for each student.

The Student Life Office encompasses the following areas: campus activities, including Weeks of Welcome and Union Bash; Greek Affairs, overseeing 25 fraternities and sororities; LEAD (Leadership Education and Development Programs) Center; and is the home of the NIA (Nurturing Initiative and Achievement) Mentor Program, the ESLP (Emerging Student Leaders Program) and Minority Student Services programming. The Student Life Office also provides cultural, educational, and social activities that encourage student excellence, support racial and cultural understanding, and promotes student success.

Undergraduate Research Office
South Wing 510, (716) 878-3093
http://www.buffalostate.edu/undergraduateresearch/

The Undergraduate Research Office coordinates campus efforts to encourage and support undergraduate research and creativity in ways that build on scholarly and creative interaction between students and faculty.
Transportation Services
As an urban campus, Buffalo State is a very accessible, walkable college and is located in a vibrant district and surrounded by trendy cafes, restaurants, shops, and Victorian-styled housing.

Information on various modes of transportation for traveling to and from Buffalo State, campus parking, and much more, is accessible at our Transportation Services Web site http://www.buffalostate.edu/financeandmanagement/x672.xml.

University Police
Chase Hall 100, (716) 878-6333
http://police.buffalostate.edu
The State University Police Department at Buffalo State is the law-enforcement agency responsible for crime prevention and control, criminal investigations, traffic and parking supervision, physical plant security, disaster coordination, community policing, and the maintenance of public order. The department offers many special services, including personal-safety awareness education, a motorist assistance program, a safety escort service, a property identification system, and a found-property department.
To make arrangements for educational programs, complete the request form at http://police.buffalostate.edu/educational-programs
http://police.buffalostate.edu/educational-programs.

Crime Statistics Availability
A copy of the Buffalo State campus crime statistics as reported annually to the U.S. Department of Education will be provided upon request. Please direct all requests to the Chief of University Police, Chase Hall, Buffalo State, 1300 Elmwood Avenue, Buffalo, NY 14222, (716) 878-6332. Information also can be obtained from the U.S. Department of Education Web site at http://ope.ed.gov/security http://ope.ed.gov/security or University Police’s Web site at https://police.buffalostate.edu/sites/police.buffalostate.edu/files/uploads/Reports/docs/stats20092012.pdf

Parking Rules and Regulations
The rules governing motor vehicles on campus are intended to ensure maximum pedestrian and vehicular safety and to establish the most convenient arrangements possible for students, staff, and visitors. Motor vehicles may park in any of the designated areas shown on the campus map. Only vehicles with special permits authorizing them to park in spaces designated for persons with disabilities are allowed to park in such spaces. All vehicles parked on the grounds of Buffalo State must display valid college parking permits. Maps and parking permits are available in the Parking Services office, Chase Hall 126 and at http://www.buffalostate.edu/parking.xml.

Parking is prohibited:
- On all roadways
- In all fire lanes
- On lawns, grass, or grounds
- On or over painted lines in parking areas or crosswalks
- In such a way as to interfere with free and proper use of a roadway or pedestrian crossings

The department may authorize towing of any vehicle found to be in violation of the college’s rules and regulations. Violations will result in parking fines and/or summonses. The college assumes no responsibility for automobiles and/or their contents. Rules regarding parking for persons with disabilities are strictly enforced. Parking tickets may be paid in the Student Accounts Office, Moot Hall 260. For more information, call the Parking Services Office at (716) 878-3041.

Veterans Services/Certification Office
Cleveland Hall 210, (716) 878-5907
www.buffalostate.edu/continuingstudies/veterans
http://www.buffalostate.edu/continuingstudies/veterans
The Veterans Services/Certification Office provides one-stop support services for veterans entering college. The office coordinates support services for current and prospective students who are veterans, service persons, or dependents or survivors of veterans with Veterans Affairs educational benefits. Support services include recruitment and advisement, admissions and financial aid counseling, 9/11 bill packaging, and liaison to student veterans organizations. The office also provides information regarding free parking, securing in-state status for active duty military and reservists, and orientation fee billing.
Information on current regulations affecting educational benefits, tutorial assistance, and dependency allowance also is provided. The attendance form can be found at www.buffalostate.edu/continuingstudies/veterans
http://www.buffalostate.edu/continuingstudies/veterans.

Weigel Health Center
(716) 878-6711
www.buffalostate.edu/weigel
http://www.buffalostate.edu/weigel/

The Weigel Health Center provides health and wellness services for all registered students. In addition to diagnosing and treating illness and injury, the professional staff stresses health education and preventive medicine. Students are seen on an appointment basis or a walk-in basis if a clinician is available. There is no charge for most services. Laboratory services are available at Weigel Health Center. Some services may be sent to an outside lab which may result in insurance co-pays.

The Health Promotions program provides the campus community with workshops, trainings, events, and campaigns. Topics include: bystander intervention, wellness, stress, sexual health, tobacco prevention, alcohol and other drug abuse prevention. Internship and volunteer opportunities are available to students. Educational
resources also are available for student research or classroom projects.

All students must be in compliance with New York State law regarding immunizations. Measles, mumps, and rubella immunizations are provided at no charge at the center for those students who need vaccinations. Students must be in compliance to register for classes. New York State Public Law and SUNY Buffalo State also requires that all students enrolled complete and return the Meningitis Information Response Form to Weigel Health Center. The form is available at www.buffalostate.edu/weigel http://www.buffalostate.edu/weigel/.

All full-time students (12 credit hours or more) are required to have health insurance. Students with their own health coverage must submit proof of insurance by completing an insurance waiver [online] by stated deadlines. Students who have not completed waivers will be automatically enrolled in and charged for the SUNY Buffalo State Plan. Students who lose their existing insurance coverage at any time after completing the waiver are NOT automatically enrolled in the student health insurance plan. Once waived, students must request enrollment to be covered under the college’s student health insurance plan. Part-time students are not automatically enrolled but may apply for coverage.

International students must purchase SUNY international health insurance or have comparable coverage.

**Whitworth Ferguson Planetarium**
Science Building 115, (716) 878-4911
Department of Earth Sciences and Science Education
http://www.fergusonplanetarium.net
http://www.fergusonplanetarium.net

Due to construction of the new Science and Mathematics Complex, the Whitworth Ferguson Planetarium is now closed. A new state-of-the-art planetarium will be open in the final phase of construction, currently scheduled for 2018.

When re-opened, the Whitworth Ferguson Planetarium will continue to serve as a unique Buffalo State resource for the Western New York community. Students studying astronomy, geology, and other courses will use the planetarium as an immersive visualization laboratory. The planetarium will again offer public programs about the planets, stars, constellations, and recent advances in the exploration of the universe as well as programs for schoolchildren, scout groups and a variety of other private groups.
Admission to SUNY Buffalo State is based on the academic and personal qualifications of the applicant, and is granted without regard to race, sex, ethnicity, national origin, sexual orientation, religion, age, disability, marital or veteran status of individuals. Detailed information regarding procedures is available at www.buffalostate.edu/admissions. Questions and requests for applications should be directed to the Admissions Office, Moot Hall 110, (716) 878-4017; admissions@buffalostate.edu.

Freshman Admission
Admission is based on high school grades, strength of program, class rank, standardized test scores, an essay or untimed writing sample of at least 250 words, and academic recommendations. Special attention is given to grades in math, English, science, history, and foreign language. Standardized test scores are used in conjunction with the overall high school record to project first-year performance. Enrolling freshmen must hold a high school diploma, TASC/GED, or New York State-recognized equivalent.

Early Decision
Buffalo State does not participate in Early Decision. Freshman admission decisions are made on a rolling basis beginning in mid-December for fall applicants, with the first round of offers being made in January. Processing continues until new -student enrollment is at capacity. Applicants are encouraged to submit their application as early as possible. Please refer to the Buffalo State website for additional information about the application process. http://www.buffalostate.edu/admissions/apply.xml

Early Admission
Well-qualified high school juniors may apply to Buffalo State for full- or part-time study during their senior year in high school under the early admission option. The college offers several options:

- Enrollment on a part-time basis while attending high school.
- Enrollment as a full-time freshman during the last semester of the senior year.
- Enrollment as a freshman for the entire academic year instead of completing the senior year of high school.

The college arranges with the high school to have remaining diploma requirements fulfilled by taking appropriate freshman courses; therefore, high school diploma requirements are met while college credit is earned. Early-admission students are not eligible for federal financial aid.

Educational Opportunity Program
The Arthur O. Eve Educational Opportunity Program (EOP) is designed to provide special admission and counseling to individuals who are academically disadvantaged and in need of financial assistance. Applicants must be New York State residents with a high school diploma or its equivalent. They must show academic promise but not qualify for admission under general admission standards. Candidates must have a family income equal to or less than published standards. Refer to the Buffalo State website for income guidelines, guidelines and application instructions http://www.buffalostate.edu/admissions/eop.xml.

International Students
Applicants should possess the equivalent of 12 years of elementary and secondary education, and must provide evidence of proficiency in the English language and the ability to meet the financial costs of attending college. Accepted students receive an I-20 form or a DS-2019 form enabling them to obtain, respectively, an F-1 (student) visa or a J-1 visa from the U.S. Embassy or Consulate in their home country.

All international students must enroll in a group health insurance plan available through the college unless they carry a health insurance policy that provides comparable coverage and the plan is approved by the medical director of the Weigel Health Center. The premium is subject to change each year. There also are rates for coverage during any semester. Please see International Student Health Insurance in the Finance section for information regarding premium amounts. The insurance premium must be paid to the Student Accounts Office, Moot Hall. International students must take their receipts to the International Student Health Insurance Office in Weigel Health Center 201 to prove they have paid for the College Student Health Insurance and to have their enrollment in the plan processed. Failure to do so will automatically cancel registration.
Approximately $30,303 a year will be necessary to cover all expenses. Students are to make arrangements prior to entering the country. International students who reside on campus may live in the international residence hall, which remains open during the holidays, or in any other residence hall, provided they move out of the residence hall during holidays. (See International Student Services for additional information regarding international students.) This college is authorized under federal law to enroll non-immigrant alien students.

Transfer Students
A student who has completed at least 3 credit hours of college-level work at a college or university after receiving a high school diploma (or its equivalent) will be considered a transfer applicant. Transfer admission is based on academic performance in college and on space availability. If 24 or more credit hours have been completed at the time of application, the previous college academic record is reviewed; if fewer than 24 credits have been completed, a high school transcript and other supporting documents may be requested (see Freshman Admission). All colleges attended must be reported at the time of application.

A minimum GPA of 2.0 out of 4.0 is necessary for consideration, although some programs are very competitive and will require a higher minimum GPA for admission. Transfer students with 60 or more credit hours must apply for and be admitted to specific programs. Those with 59 or fewer credit hours may apply for undeclared status. No student who is on academic probation at another institution or who has been academically dismissed in the past year will be accepted.

Previously earned credit will be evaluated for all transfer students after acceptance, and accepted students will be apprised regarding transferable credit. A maximum of 88 credit hours may be transferred from regionally accredited four-year institutions with no more than 66 credit hours from two-year regionally accredited colleges.

Students transferring to Buffalo State with an A.A., A.S., B.A., or B.S. degree must complete the remaining hours of the trustees’ general educational requirements at Buffalo State but are not obligated to take additional Buffalo State general education courses (now referred to as Intellectual Foundations courses) beyond those mandated by SUNY.

It is important to note that only credit is transferable. Credit is granted only from institutions listed on the application for admission. Grades, quality points, and cumulative averages do not transfer. Additional information on transfer credit policies is available 31 in the Academic Policies section. Students dissatisfied with credit evaluations may formally request a review from the Admissions Office or may submit a petition to the Academic Appeals Committee.

Undergraduate Admissions assists transfer students in their enrollment and transition to Buffalo State. Services include information regarding enrollment through the Dual Admissions and Joint Teacher Preparation Programs with local community colleges and assistance with resolving transfer-credit issues. The Admissions Office also serves as a resource in facilitating transfer articulation agreements between Buffalo State academic departments and programs at other two- and four-year colleges. Buffalo State reserves the right to evaluate all credit-bearing courses. Credit for courses from institutions that are not regionally accredited is evaluated on a case-by-case basis.

Special Credit
In addition to credit awarded for traditional college work, up to 45 credit hours may be accepted from the following combined sources:

<table>
<thead>
<tr>
<th>Source</th>
<th>Maximum Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Published examinations</td>
<td>30</td>
</tr>
<tr>
<td>2. Course challenge</td>
<td>30</td>
</tr>
<tr>
<td>3. Noncollegiate institutions</td>
<td>15</td>
</tr>
<tr>
<td>4. Proprietary institutions</td>
<td>15</td>
</tr>
</tbody>
</table>

Further details may be found in the section on Academic Policies 31.

Military Credit
Credit for military experience and training provided by the Armed Forces will be granted on a case-by-case basis. In addition to credit awarded for traditional college work, every effort is made to award credit for learning acquired in military service that satisfies degree completion, consistent with recommendations of the American Council on Education (ACE) and/or those awarded by the Community College of the Air Force. Official documents (AARTS, SMART, Community College of the Air Force or DANTES transcripts should be submitted directly to the Office of Admissions.

State University of New York Transfer Guarantee
An opportunity to continue full-time study at a four-year State University college is guaranteed to all New York State residents who transfer directly from a SUNY or CUNY two-year college with an A.A. or A.S. degree. To be eligible, students must:

- File an application with the SUNY Application Services Center by March 1 for fall admission or October 1 for spring admission.
- Provide four-year campuses with an official two-year college transcript, showing three semesters of completed studies, by March 15 for fall admission or by October 15 for spring admission.
- Complete any required supplemental application materials by April 15 for fall admission or by November 15 for spring admission.

The transfer guarantee becomes effective if applicants are denied admission at all SUNY four-year college choices.
Students must submit a $125 advance tuition deposit. This deposit is applied to the fall or spring semester tuition bill (whichever is appropriate).

Refunds of the tuition deposit are made only under the following circumstances:

1. A refund request must be made within 30 days after the date of acceptance, or by May 1 for summer/fall terms or November 1 for spring term, whichever is later, but prior to the first day of registration.
2. If the college withdraws a conditional acceptance.
3. If the student withdraws to enter military service.
4. If the college comptroller deems that conditions beyond the student’s control warrant a refund and appropriate documentation is provided.

Requests for tuition deposit refunds must be received in writing and include the appropriate documentation.

Dual Admission Programs
Erie Community College
Genesee Community College
Jamestown Community College
Monroe Community College
Niagara County Community College
Onondaga Community College

First-time freshmen who expect to receive an A.A. or A.S. degree from Erie Community College, Genesee Community College, Jamestown Community College, Monroe Community College, Niagara County Community College, or Onondaga Community College and are in a parallel program may file a single application for simultaneous admission to one of the two-year colleges and to Buffalo State. These students follow a definitive curriculum at the two-year college, and receive counseling and advisement that will facilitate enrollment into a parallel program at Buffalo State upon completion of the associate’s degree. They will matriculate at Buffalo State as juniors and must meet current admissions requirements into their choice of major. They can expect to earn the baccalaureate degree for most programs in four additional semesters of full-time study. Students planning to pursue programs requiring certification (e.g., education) may require more than four semesters of full-time study to finish.

The admission, Intellectual Foundations, and major requirements for the bachelor’s degree at Buffalo State will be those in effect at the time of the student’s application for dual admission at the two-year college. Further details are available from the Undergraduate Admissions Office at Buffalo State or the transfer counseling office at the participating two-year college.

Admission Procedures
The college participates in the SUNY application (freshman and transfer) and the national Common Application (freshman only). These forms can be completed and submitted online at www.suny.edu/student, www.buffalostate.edu/admissions, or www.commonapp.org. Admission decisions are made on a rolling basis beginning in mid-September for spring applicants and mid-December for fall applicants. Processing continues until new-student enrollment goals have been met. Applicants are encouraged to submit their application and supporting materials as early as possible to receive timely consideration.

All matriculating students born on or after January 1, 1957, must submit proof of immunity to measles, mumps, and rubella. Students who cannot show proper proof of immunity will not be permitted to register. A completed health report and physician’s certificate must be on file at the college’s Weigel Health Center.

With the exception of EOP participants, all accepted students must submit a $125 advance tuition deposit. This

Non-degree Status
Non-degree status enables individuals to take college courses for credit without working toward a degree. Students may enroll in up to 11 credit hours of coursework each semester on a space-available basis. Credits earned may be applicable to a degree at the college if the student applies and is accepted as a formally matriculated student. The only entrance requirement is a high school diploma or its equivalent. Students who have been academically dismissed from any institution must wait one full year from the time of dismissal before enrolling under non-degree status. You may apply online https://bscintra.buffalostate.edu/non-degree/ or download and complete a one-page non degree application http://www.buffalostate.edu/admissions/documents/nondeg reeapp512.pdf to be submitted to the Admissions Office. Non-degree students are not eligible for financial aid.

Adult learners without college experience who do not qualify for matriculated study may also enroll as part-time, non-degree students. After completing 15 credit hours of college-level coursework with a minimum GPA of 2.0, they may be eligible for degree study pending a completed application. The credit hours that they have earned will be applicable to their degree.

Students are responsible for completing the degree requirements in effect at the time they reach matriculated status.

Readmission
Students who attended Buffalo State previously in a matriculated status and wish to re-enroll must apply for a specific program and have their applications reviewed by the appropriate department. Readmitted students are required to follow the major/degree requirements in effect for the semester in which they are readmitted, as outlined in the undergraduate catalog for that semester/year. If other courses have been taken at other institutions since leaving the college, official transcripts must be submitted.

Undergraduate and graduate students who discontinue attendance without taking a leave of absence can register for classes, without applying for readmission, for up to four fall and spring semesters beyond the semester in which
they were last registered, unless they attend another institution, in which case a readmission application is required. Baccalaureate graduates and undergraduate students with less than a 2.0 cumulative average retain registration eligibility for only one fall or spring semester beyond the semester in which they were last registered.

Effective fall 2009, all new transfer and readmitted students at Buffalo State are required to fulfill Intellectual Foundations requirements regardless of their initial matriculation date into a regionally accredited four-year institution or two-year college. Students who have been academically dismissed must wait one full year from the time of dismissal before being considered for readmission. If readmitted, all coursework taken previously will be considered in computing the cumulative average. Any student with a Buffalo State GPA of less than 2.0 is eligible to apply for academic clemency.

http://academicstandards.buffalostate.edu/clemency when he or she applies for readmission. Readmission forms http://www.buffalostate.edu/admissions/documents/readmissionapp0612.pdf are available online.

Summer Session
The college offers one of the largest and most comprehensive summer programs in the state university system, with more than 500 graduate and undergraduate courses available. Departments often choose to offer creative or unique courses in the summer, including online courses. A number of scheduling options are available beginning in late May and running through mid-August. Summer Session courses and course registration dates are posted in January online at www.buffalostate.edu/summer.

Students from other colleges are required to complete a non-degree application for admission in advance of registration.

Evening Study
Buffalo State maintains no separate evening division. Instead, all students—whether part time or full time, day or evening—are admitted through the Admissions Office. As a result, the provision of basic college services is direct and efficient. Students enjoy the flexibility of being able to switch between day and evening schedules simply on the basis of the courses for which they register. The general programs, policies, procedures, and course descriptions throughout this catalog apply to day and evening students alike.

Of the college’s more than 70 undergraduate academic majors, the 12 available to evening students are business administration; career and technical education; computer information systems; criminal justice; electrical engineering technology, electronics; electrical engineering technology, Smart Grid; individualized studies; industrial technology; mechanical engineering technology; media production; social work; and urban and regional analysis and planning. Evening-available minors are computer information systems, criminal justice, quality, and safety studies.

The courses for each of these programs are sequenced over several semesters so that evening students are able to fit them into their schedules. Courses are offered on weekends and online.

Student Retention
The college routinely collects and maintains data regarding student persistence and graduation rates. Buffalo State graduation rates compare most favorably with national benchmarks, averages, and graduation rates for other similar public metropolitan institutions. Further information is available upon request.
Electronic bills (eBills) are now the exclusive billing method for all Buffalo State student account balances. Paper bills are no longer mailed to students. Students should print their QuikPAY statement if needed. All e-billing notifications will be sent to your Buffalo State student email address.

Students are required to pay tuition and fees upon receipt of invoice with cash, credit card, or through a deferred payment plan. Deductions will be made under various financial aid programs upon approval of the Financial Aid Office.

Room and board charges must be paid prior to arrival on campus. These charges are usually included in the bill covering tuition and fees. The rates listed below are subject to review and may change without prior notice. Further information concerning payment is available in the Student Accounts Office, Moot Hall 260, (716) 878-4121, www.buffalostate.edu/studentaccounts.

Explanation of Terms

**Full time**—A student registered for 12 or more credit hours a semester is considered a full-time student.

**Part time**—A student registered for 1 to 11 credit hours a semester is considered a part-time student.

**Semester**—An academic year at the college consists of a fall semester and a spring semester. Yearly expenses are twice the semester rate.

**Resident (for tuition purposes)**—As established by the State University Board of Trustees, an individual university registrant is considered a New York State resident and is charged in-state tuition rates when that individual is determined to have a permanent and principal home in New York State for 12 months prior to registration. Those who do not meet this requirement are presumed to be out-of-state residents and are charged out-of-state tuition rates unless satisfactory proof is presented to show that domicile in New York State has, in fact, been established.

**Tuition**

Tuition for full-time Buffalo State undergraduate students is $2,935 per semester for New York State residents and $7,660 per semester for out-of-state students. Tuition for part-time undergraduate students is $245 per credit hour for New York State residents and $638 per credit hour for out-of-state residents.

**College Fee**

A mandatory college fee of $12.50 per semester for full-time students and $.85 per credit hour for part-time students is collected by all units of the state university system to finance the operating budget.

**Activity Fee**

A mandatory activity fee of $75 per semester for full-time students and $6.25 per credit hour for part-time students is collected to support the activities of more than 80 student groups on campus.

**Health Fee**

All full-time students are required to pay a $138.75 per-semester health fee; part-time students pay $11.60 per credit hour per semester. This fee provides basic medical assistance to students on campus through the Weigel Health Center. A mandatory health fee is collected by all units of the State University system.
Waiver for Off-Site Distance-Education Students
Students enrolled exclusively in off-campus or distance-learning courses with no on-campus meetings are eligible for a waiver or refund of the student health fee (not the mandatory health insurance), provided they are not concurrently enrolled in on-campus courses. If a student is enrolled in both on-campus and off-campus or distance-learning courses, the health fee applies to all courses for which the student is registered. More information and refund forms are available at www.buffalostate.edu/weigel or from the Weigel Health Center at (716) 878-6711.

Athletic Fee
A mandatory athletic fee of $140.50 per semester for full-time students and $11.70 per credit hour for part-time students is collected to support intercollegiate athletics.

Technology Fee
A mandatory technology fee of $163.75 per semester for full-time students and $13.70 per credit hour for part-time students is collected to provide enhancements to campus technology.

Transportation Fee
A mandatory fee of $45.50 per semester for full-time students and $3.80 per credit hour for part-time students is collected for the Buffalo State-Niagara Frontier Transportation Authority (NFTA) Metro Pass Program. Under this program, all undergraduate students receive an NFTA Metro Pass, which provides unlimited use of both the extensive NFTA bus services on and around campus and all NFTA bus and rail services throughout the region.

Parking Fee
Students who wish to park on campus pay $70 per academic year and $10 for summer-only permits.

Room and Board
Residence hall room rates are $3,362 per semester for a double-occupancy room. Room rental does not include telephone service, which students arrange with the telephone company. Some single rooms are available, but the college cannot guarantee these accommodations. Meal plan rates vary, starting at $2,199 per semester. Residence hall room rates and meal plan rates are subject to change.

Miscellaneous Expenses
Miscellaneous expenses will vary depending on the academic program, personal spending habits, and commute distance.

Mandatory Student Health Insurance
The Buffalo State student health insurance plan has been developed especially for Buffalo State students. The plan provides coverage for sickness and injuries that occur on and off campus, and includes cost-saving features to keep the coverage as affordable as possible.

All full-time domestic undergraduate and graduate students who attend Buffalo State are eligible and automatically enrolled in the Buffalo State student health insurance plan unless an online waiver verifying proof of health insurance coverage is completed by the applicable deadline. Part-time domestic students are eligible to purchase this coverage; however, they are not automatically enrolled in the plan. Spouse and dependent coverage is available. Please visit www.buffalostate.edu/weigel for enrollment information or a waiver form, or contact the Weigel Health Center at (716) 878-6711. International students must purchase SUNY International Health Insurance or have comparable coverage.

International Student Health Insurance
All international students must enroll in a group health insurance plan available through the college. If a student carries a health insurance policy that provides coverage comparable to the SUNY-mandated health insurance, it may be accepted as an alternative, if approved by the medical director of the Weigel Health Center. The premium was $1,113.00 per year for August 2013 through August 2014. There also are rates for coverage during any semester. The premium is subject to change each year. All American students studying abroad also must carry this insurance.

Summer Session Tuition and Fees
Tuition and fees are charged at the credit-hour rate for all courses taken during Summer Session.

An Estimated Budget
Estimated college costs can be found in the following table for the 2013–2014 academic year. Costs may vary according to a student’s place of residence, academic program, and individual needs. All tuition rates, fees, and fines are subject to change without notice as directed by the State University Board of Trustees.

Estimated Budget for 2013–2014 Fall and Spring Semesters
(New York State Residents)

<table>
<thead>
<tr>
<th></th>
<th>Commuter</th>
<th>Resident</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fixed Costs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuition</td>
<td>$2,935.00</td>
<td>$2,935.00</td>
</tr>
<tr>
<td>Fees</td>
<td>$576.00</td>
<td>$576.00</td>
</tr>
<tr>
<td>Total Fixed Costs</td>
<td>$3,511.00</td>
<td>$3,511.00</td>
</tr>
<tr>
<td><strong>Variable Costs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Books and supplies</td>
<td>$510.00</td>
<td>$510.00</td>
</tr>
<tr>
<td>Maintenance at home</td>
<td>$2,282.00</td>
<td>—</td>
</tr>
<tr>
<td>Room &amp; Board</td>
<td>$2,935.00</td>
<td>$5,644.00</td>
</tr>
<tr>
<td>Miscellaneous expenses</td>
<td>$515.00</td>
<td>$515.00</td>
</tr>
<tr>
<td>Transportation</td>
<td>$566.50</td>
<td>$566.50</td>
</tr>
<tr>
<td>Total Variable Costs</td>
<td>$3,873.50</td>
<td>$7,235.50</td>
</tr>
<tr>
<td>Estimated Total Costs/Semester</td>
<td>$7,384.50</td>
<td>$10,746.50</td>
</tr>
<tr>
<td><strong>Estimated Annual Cost</strong></td>
<td>$(two semesters) $14,769.00</td>
<td>$21,493.00</td>
</tr>
</tbody>
</table>
Automatic Payment Plan
The college has established a payment plan to assist students and their families in meeting the cost of tuition, fees, room, and board. Information and online enrollment is available from the Student Accounts website at www.buffalostate.edu/studentaccounts.

Refund Policies
All financial refunds are sent to students in the following order:
1. Transferred electronically to the student’s bank account if a direct deposit application is on file in the Student Accounts Office.
2. Mailed to the permanent address of record on file in the Registrar’s Office. Students are responsible for informing the Registrar’s Office of any address change.

Tuition Refunds
Tuition refunds will be processed only if the student officially withdraws through the Registrar’s Office. Students given permission to cancel their registration are responsible for payment of tuition according to the following schedule:

<table>
<thead>
<tr>
<th>Date of Course Withdrawal</th>
<th>Tuition Liability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring and Fall Semesters</td>
<td></td>
</tr>
<tr>
<td>First week of class</td>
<td>0</td>
</tr>
<tr>
<td>Second week</td>
<td>30%</td>
</tr>
<tr>
<td>Third week</td>
<td>50%</td>
</tr>
<tr>
<td>Fourth week</td>
<td>70%</td>
</tr>
<tr>
<td>After fourth week</td>
<td>100%</td>
</tr>
<tr>
<td>-The first week of class ends on Saturday of the week in which classes are scheduled.</td>
<td></td>
</tr>
<tr>
<td>Summer Sessions</td>
<td></td>
</tr>
<tr>
<td>First two days of Session A, B, or C</td>
<td>0%</td>
</tr>
<tr>
<td>Third day through end of first week of Session A or B</td>
<td>50%</td>
</tr>
<tr>
<td>Third day through end of first week of Session C</td>
<td>65%</td>
</tr>
<tr>
<td>Second week of Session A, B, or C</td>
<td>100%</td>
</tr>
</tbody>
</table>

Room Rental Refunds
During the fall and spring semesters, a refund can be made only if a student withdraws due to circumstances beyond his or her control. Questions covering refunds are addressed in the residence hall license.

Board Charge Refunds
Refunds are calculated according to college and federal regulations and guidelines, less a $20 service charge for processing. No refunds are given after the drop/add session at the start of each semester. Contact the Buffalo State Campus Dining Services Office, Campbell Student Union 223, for additional information.

Activity Fee
College Fee
Health Fee
Athletic Fee
Technology Fee
These fees are refunded only when registration is canceled during drop/add period.

Parking Fee
The Parking Fee is refundable within the first two weeks of class upon surrender of parking permit.

Service Fees
The following fees are administered to comply with mandatory SUNY policy:

Late Registration Fee
Registrations on "late registration day" (the first day of classes) or later are charged a mandatory $40 late registration fee that cannot be waived or deferred. Exceptions are registrations for graduate workshops, independent study, special projects, contracts, and any course requiring performance auditions. Registrations for independent study, special projects, and contracts turned in after the second week of classes that generate the only registration for a student will also be assessed the $40 late fee.

Billing Fee
A billing fee of $30 is assessed to each delinquency notice sent by the college. Late filing of financial aid does not waive this fee. All financial aid should be filed by March 1st.

Late Payment Fee
A $30 fee is charged if the final semester bill is not paid by the due date.

Late Drop/Add Fee
A $20 late drop/add fee is charged for each transaction after the first week of classes. Independent study, special projects, or contracts added after the second week of classes also are charged this fee.

Academic Transcript Fee
There is a $5 fee for each transcript request.

Returned-Check Fee
A $20 fee is charged for each check returned by the bank or any declined credit card transaction. The fee is nondeferrable and cannot be waived. An additional billing fee is charged on any transaction covering a course and/or room registration. If payment is not received within 10 days from the date of notification, the account is referred to the New York State Attorney General’s Office for collection and handling.

New York State Debt-Collection Mandate
The State University reserves the right to withhold academic records from any student who has not satisfied or made provision to satisfy all obligations incurred in the State University system. Unpaid accounts are, in due course, turned over to an external collection agency. Collection costs are added to the amount of indebtedness.
The goal of the Financial Aid Office is to assist students with securing sufficient funding to cover their educational expenses. Annually, 85 percent of all undergraduate students receive some form of financial aid (federal, state, institutional, and/or private) while attending SUNY Buffalo State.

Staff members in the Financial Aid Office, Moot Hall 230, are available year-round to assist students and their families with the financial aid application process. Contact the Financial Aid Office at (716) 878-4902 and/or finaid@buffalostate.edu. Additional financial aid information is available on-line at www.buffalostate.edu/financialaid.

Application Procedures
There are multiple steps in the financial aid application process. Students must file the Free Application for Federal Student Aid (FAFSA) after January 1st of each year to apply for aid for the upcoming year. We encourage students to apply by March 1st, Buffalo State's priority filing deadline date.

The FAFSA can be found on-line at www.fafsa.ed.gov. To expedite this process, a student and the parent of a dependent student will need to have a federal PIN (personal identification number); apply at www.pin.ed.gov. The PIN serves as the electronic signature on official financial aid documents.

After submitting the FAFSA, a student will receive a Student Aid Report (SAR) from the federal processor. This form contains the data the student entered on the FAFSA. The Department of Education will send it to the student either by e-mail (three to five days) or postal mail (two to three weeks). Students must review the SAR carefully for errors (the form highlights items that may need attention) and follow directions for making corrections. Students are encouraged to submit corrections promptly to avoid long delays in processing of their application. Students should retain a copy of the SAR for their records.

Financial Need
Based on financial information provided on the FAFSA, a thorough analysis of the student’s and/or parent’s financial situation, including income, assets, and number of family members in college, will be conducted. Financial need is determined by taking the Cost of Attendance (an estimated budget that includes tuition, fees, room, board, books, supplies, transportation, and a personal allowance) and subtracting from it the Expected Family Contribution (EFC). The EFC is the amount of money a family can reasonably be expected to contribute as determined by the FAFSA. Aid is then awarded based on the resulting comparative measure of need. Students can be funded only up to the amount of the Cost of Attendance.

At times, Buffalo State may require additional documentation to complete the review of a student’s financial aid eligibility. This may include the submission of federal tax forms and other supporting documents. This verification process is required to ensure the accuracy of information provided on the FAFSA. If selected, students and parents will be required to provide the office with the requested documentation before aid will be disbursed to the student.

It is very important for students to respond to all requests for additional documentation in a timely fashion.

Eligibility for Federal Financial Aid
Eligibility for financial aid is based on many factors, including but not limited to citizenship status, matriculation status, enrollment status, financial need, and satisfactory academic progress.

To be considered eligible for federal financial aid, students must:
• be in good academic standing;
• be a U.S. citizen or eligible non-citizen;
• be registered for selective service (males only);
• be matriculated;
• be registered for at least 6 credits (except for Pell Grant and TEACH Grant);
• not be in default on a previous educational loan;
• have a high school diploma or equivalent: General Education Development (GED) certificate.
Matriculation
To be eligible for most forms of financial aid, students must be U.S. citizens or eligible non-citizens and matriculated into degree or certificate programs. Students taking continuing education courses, some visiting students, and special status students who have been allowed to take courses but have not been formally accepted by the college are considered non-matriculated and are ineligible for federal financial aid.

Students with bachelor’s degrees taking courses required by the state for teacher certification may borrow a Federal Perkins Loan or a Federal Direct Loan at the fifth-year undergraduate limits, even though they are not actually pursuing a degree. Undeclared (pre-major) graduate students also can take out loans at the fifth-year undergraduate limits for one year if they are enrolled in preparatory coursework. Preparatory coursework does not include courses taken solely to raise the student’s GPA to meet graduate admission standards and does not include coursework in a graduate degree program.

Enrollment Status
In most cases, students must be enrolled at least half time (6 credit hours) in courses required for their program to be eligible for federal financial aid. Students may be eligible for a Federal Pell Grant and TEACH Grant when enrolled less than half time.

Overawards
An overaward can occur when students are awarded other forms of assistance (e.g., scholarships, tuition waivers, loans, etc.) from outside agencies after they have accepted their financial aid award package. As a result of an overaward, students may have portions of their federal aid reduced or canceled, which may leave an outstanding balance on their student account.

Students should notify the Financial Aid Office in writing immediately if they receive additional awards or funds that were not included in their award package.

Withdrawal from Classes
If a student who has received financial aid funds withdraws, takes a leave of absence, or drops out during a semester, a portion of the financial aid may need to be repaid to the granting institution. In some situations, students may have incurred full liability for charges but only have "earned" a portion of the aid they were awarded. In such cases, the unearned portions of aid will be returned, but students will still owe the full balance to the college. Students who unofficially withdraw (i.e., stop attending classes without formally withdrawing from school) may also be subject to returning a portion of the aid they received. Students considering withdrawing from all courses should consult with the Financial Aid Office before taking any action.

Return of Title IV (R2T4) Funds
Federal regulations mandate a Return of Title IV Funds calculation when a student receiving Title IV financial aid (e.g. Pell, Perkins, SEOG, and Direct Loans) completely withdraws. If a student never attends, ceases enrollment or withdraws from all courses in the semester and he/she received federal financial aid, the college must determine if these funds are required to be returned to the appropriate financial aid programs within forty-five (45) days.

R2T4 Calculation
The R2T4 calculation may result in a reduction of the student’s federal loan(s) and grant(s) if he/she attended 60 percent or less of the semester. The R2T4 calculation is based on the following:
- The number of days the student attended
- The institutional charges assessed
- The total amount of federal Title IV aid awarded, accepted and or disbursed

As a result, the school and the student may be required to return any "unearned" federal aid received.

Unofficial Withdrawal
Federal Title IV financial aid is processed for a student under the assumption that the student will attend courses for the entire period for which the financial assistance is provided. A registered student who failed to earn a passing grade in at least one course is presumed to have "unofficially withdrawn" for federal Title IV financial aid eligibility purposes.

The Financial Aid Office will work with the student and his/her faculty members to ascertain official proof regarding the student’s last date of attendance (known as the withdrawal date) for the semester and perform the R2T4 calculation to determine the "unearned" federal financial aid that must be returned to the designated program(s). The student will be notified by U.S. Postal mail regarding the results of R2T4 calculation.

Academic Withdrawal
While there is no academic penalty associated with the ‘W’ grade, there may be Financial Aid implications regardless of the reason (e.g. medical; etc.). Any student who received federal Title IV financial aid funding (e.g. Pell Grant, Direct Loans, Perkins Loan, etc.) will have their eligibility recalculated in order to determine:
- the amount of financial aid the student is eligible to retain
- the amount of "unearned financial aid" that must be returned

Additionally, the calculation will be based on the earliest date documented on the official Academic Withdrawal form.

Withdrawal from Modular (Mini-Session/Term) Courses
A student who withdraws from a modular course(s) before the start of a future course within the same payment period (semester) will be considered as withdrawn for Return of Title IV (R2T4) purposes.

An exception is made if the student provides written notification affirming his/her intent to attend a future
course (prior to start of the course) within the payment period or the student provides affirmation of attendance by enrolling/registering in a future course within the same payment period after the original withdrawal date. Written notification MUST be received prior to the first day of the future course.

Notification of attendance in a future course must be made in writing by submitting the Affirmation of Future Attendance form. It is the responsibility of the student to provide complete, accurate and timely information to the Financial Aid Office, Moot Hall, 230.

Unearned Aid
A determination regarding the percentage of the semester the student completed must be preformed and this will reveal the percentage of the federal Title IV aid that the student has earned. The total amount of federal aid disbursed to the student, or that could have been disbursed to the student minus the amount of federal aid earned by the student equals the amount of federal loan(s) and grant(s) that is unearned and that must be returned: (688.22(e)).

Total Title IV Disbursable Aid
- (minus) Title IV Aid Earned

= Title IV Loan(s) and Grant(s) to be Returned

If the college is required to return any unearned aid, we will reduce or cancel the federal award(s), debit the student’s account and return the unearned portion of aid to the U.S. Department of Education. This adjustment may result in a balance due to Buffalo State. It is the student’s responsibility to repay the "unearned" portion of aid that was charged back to the student account. Students will receive notification of this action via a U.S. Postal letter and he/she will receive an updated student bill.

Post-Withdrawal Disbursement
A post-withdrawal disbursement of federal Title IV aid occurs when the amount of federal aid earned by the student is greater than the amount of the federal aid disbursed for the semester. A student eligible for a post-withdrawal disbursement will receive written notification from the college. Students receive a notification via U.S Postal mail that they have the right to accept or decline, some, or all, of the post-withdrawal disbursement that is being offered.

R2T4 Distribution of Financial Aid Refund
Refunds returned to the U.S. Department of Education on behalf of the student are distributed among the financial aid programs in the following order:
1. Unsubsidized Federal Direct Stafford Loan
2. Subsidized Federal Direct Stafford Loan
3. Federal Perkins Loan
4. Federal Direct Parent Loan for Undergraduate Students
5. Federal Pell Grant
6. Federal Supplemental Educational Opportunity Grant
7. Federal Graduate Plus Loans for Graduate Students

Notification
Students will receive official written notification indicating the type and amount of aid returned to the U.S. Department of Education.

3. Maximum Time frame/Degree Completion within 150 percent of the average Length of the Program - Quantitative Component
   a. Students must complete their first baccalaureate degree within 150 percent of the normal time required to complete a bachelor's degree. For example, credit hours cannot exceed 180 attempted credit hours for a program with a published length of 120 credit hours.
   b. Federal financial aid eligibility will be terminated when a student has attempted 180 credit hours (for a degree published with a 120 credit hours requirement); there is no waiver of the maximum time frame standard for any reason.
   c. A student pursuing a double major or degree must earn his or her first bachelor’s degree within the 150 percent maximum time frame standard.
   d. A student that completed all coursework required for a major or degree is ineligible for a Pell grant even if an Application for Undergraduate Degree form is not on file.

All students must be accepted into a major before completing 60 credit hours to continue to be eligible for federal aid.
Readmission to the college after an absence does not automatically mean reinstatement of federal aid eligibility.
Repeated Courses
Courses that are repeated to improve a grade are counted as attempted each time they are taken but are only counted as completed once.

Financial Aid Warning
A student who fails to maintain cumulative GPA or meet Pace requirements is placed on Financial Aid Warning as long as it is mathematically possible to recover in one payment period. There is no action required by the student; federal aid eligibility continues for one payment period/semester.

Appeal Process for Special Circumstances
If the student is still not making satisfactory academic progress after the Financial Aid Warning semester, he or she is ineligible for federal financial aid until the required standard is achieved.

A student has a right to appeal the loss of federal financial aid eligibility if mitigating circumstances (events totally beyond the student’s control) existed. All SAP appeals should be submitted to the Academic Standards Office, Twin Rise 100.

Financial Aid Probation
A student who fails to maintain the cumulative GPA and/or meet the Pace rate standard is placed on Financial Aid Probation only if the student has successfully appealed. The student will continue to receive federal financial aid for one payment period/semester. The student must meet SAP at the end of the probationary period or comply with the requirements of an Academic Plan (contractual agreement that ensures the student is able to meet overall SAP requirements by a specified point in time).

If the student is still not making Satisfactory Academic Progress or fails to meet the Academic Plan requirements after the probationary period, he or she will become ineligible for federal financial aid until all three SAP standards are successfully met.

Federal Financial Aid Sources
There are three basic financial aid categories that constitute a student’s individual award package: grants and scholarships (do not need to be repaid), loans (must be repaid), and jobs (Federal Work-Study position).

Eligibility for the Federal Pell Grant
The Federal Pell Grant Program provides need-based grants to low-income undergraduate students to promote access to postsecondary education. The student’s Expected Family Contribution (EFC) determines eligibility for this grant. The maximum Pell Grant is set by the U.S. Department of Education each award year. The amount of the Pell Grant a student will receive depends on the student’s EFC and several factors, including cost of attendance (tuition and fees, room and board, books, and supplies) and the amount of time the student attends college (whether a full academic year or less, and whether full time or part time). Students cannot receive Pell Grant funds from more than one college at a time.

Eligibility for Federal Supplemental Educational Opportunity Grant (FSEOG)
The Federal Supplemental Educational Opportunity Grant (FSEOG) program is for undergraduates with exceptional financial need. Pell Grant recipients with the lowest expected family contributions (EFCs) will be considered first for a FSEOG. Similar to the Pell Grant, the FSEOG does not have to be repaid.

Eligibility for the Federal TEACH Grant
TEACH Grant eligibility is determined after the fall or spring semester starts. Those students who meet the eligibility requirements will be invited to apply for the TEACH Grant. Students must complete Entrance Counseling and an annual Service Agreement.

In exchange for receiving a TEACH Grant, students must agree to serve as a full-time teacher in a high-need field in a public or private elementary or secondary school that serves low-income students.

A TEACH Grant recipient must teach for at least four academic years (within eight calendar years). If a student fails to complete his or her service obligation, all amounts of TEACH Grants that were received will be converted to a Federal Direct Unsubsidized Loan. Students must then repay this loan to the U.S. Department of Education. Interest will be assessed from the date the grant(s) was disbursed. Note: TEACH Grant recipients will be given a six-month grace period before entering repayment if a TEACH Grant is converted to a Federal Direct Unsubsidized Loan.

Eligibility for Federal Perkins Loans
The Perkins Loan is a low interest federally funded loan program for students who demonstrate exceptional financial need. Students who have been awarded a Federal Perkins Loan will be required to complete an electronic Master Promissory Note (e-MPN) and entrance counseling. You may do so at SUNY Student Loan Service Center’s website http://slsc.albany.edu/cesi/prom.html. These requirements must be completed and received by the college before the loan can be disbursed. Failure to do so by the deadline will mean forfeiture of the loan. Once a Federal Perkins Loan MPN is on file at the college, subsequent loans should not require additional MPNs.

Eligibility for Federal Direct Loans
Federal Direct Loans are low-interest loans for eligible students to help cover the cost of higher education.
Federal Direct Subsidized Loans are for students with financial need. Students are not charged interest while in school at least half time and during grace periods and deferment periods. A first-time borrower as of July 1, 2013, is no longer eligible for a Federal Direct Subsidized Loan once the borrower has received Federal Direct Subsidized Loans for a period that is 150% of the published length of the borrower’s current educational program.

Students are not required to demonstrate financial need to receive a Federal Direct Unsubsidized Loan. Students can pay the interest while in school and during grace periods and deferment or forbearance periods, or students can allow it to accrue and be capitalized (that is, added to the principal amount of the loan). Students who choose not to pay the interest as it accrues will have an increased total amount to repay because interest will be charged on a higher principal amount.

If you are a first time Federal Direct Loan borrower, you must sign a Master Promissory Note. The electronic Master Promissory Note (e-MPN) is the agreement to pay back any Direct Loans. The e-MPN is available online https://studentloans.gov/myDirectLoan/index.action.

On-line Entrance Counseling is required for first-time Direct Loans borrowers. Entrance Counseling will educate students on the rights and responsibilities associated with receiving funds that must be repaid. To satisfy your online Entrance Counseling https://studentloans.gov/myDirectLoan/index.action requirements, students must complete the tutorial and pass a quiz. Failure to comply with this requirement will prevent the disbursement of the student’s loan proceeds.

The U.S. Department of Education issued PIN http://www.pin.ed.gov/PINWebApp/pinindex.jsp is required to complete Entrance Counseling and the e-MPN.

Eligibility for Federal Direct PLUS Loan for Parents of Undergraduate Students

The Federal Direct PLUS loan is a loan in the parent’s name to assist their undergraduate dependent student when there is a gap between the cost of education and the student’s own financial aid. These loans are federally regulated and require credit approval. The PLUS loan has a fixed interest rate, and if a parent is not credit approved, the student may be eligible for an additional Federal Direct Unsubsidized Loan.

If a parent receives credit approval, he or she will also need to complete a Direct PLUS Master Promissory Note at www.studentloans.gov https://studentloans.gov/myDirectLoan/index.action. If a parent is applying for a PLUS loan for more than one student in college, a separate note is required for each student. If more than one parent is applying for a PLUS loan for the same student, each parent must complete a note.

Eligibility for Federal Work-Study

The Federal Work-Study program provides employment opportunities in various on-campus offices and in off-campus community service agencies. Students who qualify for the Federal Work-Study program will be paid at an hourly rate and receive biweekly paychecks for the hours worked. Federal Work-Study will not be credited to your account. It is the responsibility of the student to secure employment. Federal Work-Study positions are limited; therefore, there is no guaranty of eligibility from one year to the next. Students are encouraged to complete the FAFSA by March 1st to receive full consideration to participate in the Federal Work-Study program.

Eligible students will receive a letter before the start of the semester with details regarding the steps to log on to the Financial Aid website to research available positions. Students who do not qualify for Federal Work-Study or who are not successful in securing a job may be able to secure employment with the assistance of the Career Development Center in Cleveland Hall 306.

Scholarships

Buffalo State offers many institutional scholarships to students demonstrating outstanding leadership qualities, academic abilities, and/or financial need. Staff in the Financial Aid Office, Moot Hall 230, can assist students in locating scholarships offered by agencies not affiliated with Buffalo State. Students may also visit www.buffalostate.edu/financialaid http://www.buffalostate.edu/financialaidfor detailed scholarship information including application deadline dates.

Eligibility for New York State Financial Aid

Eligibility for Tuition Assistance Program

The Tuition Assistance Program (TAP) is a grant program for New York State residents who are enrolled full time (12 or more credit hours per semester). The on-line TAP application can be accessed after completing the FAFSA by linking to it directly from your FAFSA Confirmation Page. If you miss the TAP link after finishing the FAFSA, you must wait five business days until your FAFSA data is received by HESC. After the information is received, you can complete a TAP on the Web http://www.tapweb.org/totw application.

To be eligible for TAP, students must:
Be accepted into a major prior to their completion of 60 credit hours
- Pre-major and undeclared status are unacceptable for TAP purposes once a student has earned 60 credit hours

Enroll full-time each semester only in courses that apply to the program of study or major
- Minimum of 12 new credit hours required
Enrollment in course(s) previously failed or withdrawn from is allowed as part of the minimum 12 credit hours. Maintain satisfactory academic progress according to the published TAP chart below. Students enrolled for less than 12 credit hours can apply for Aid for Part-Time Study (APTS).

SUNY Tuition Credit (SUNYTC)
SUNYTC is a SUNY grant for TAP-eligible students that helps to offset the rising tuition cost.

TAP Academic Eligibility Chart***

<table>
<thead>
<tr>
<th>TAP Award Payment Number</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
<th>7th</th>
<th>8th</th>
<th>9th*</th>
<th>10th*</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Having accrued this many TAP Points**)</td>
<td>0–5</td>
<td>6–11</td>
<td>12–17</td>
<td>18–23</td>
<td>24–29</td>
<td>30–35</td>
<td>36–41</td>
<td>42–47</td>
<td>48–53</td>
<td>54–59</td>
</tr>
<tr>
<td>A student must have completed this many credit hours with a passing or failing grade in the prior semester</td>
<td>0</td>
<td>6</td>
<td>6</td>
<td>9</td>
<td>9</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Must have accrued at least this many credit hours</td>
<td>0</td>
<td>6</td>
<td>15</td>
<td>27</td>
<td>39</td>
<td>51</td>
<td>66</td>
<td>81</td>
<td>96</td>
<td>111</td>
</tr>
<tr>
<td>With at least this cumulative GPA</td>
<td>0.0</td>
<td>1.5</td>
<td>1.8</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
</tbody>
</table>

* Only EOP students can receive a ninth or 10th payment.
** TAP payments are measured by TAP points, with students usually being charged six points every semester they receive a TAP award.
*** Students who received a TAP payment in 2009 or earlier are evaluated under a different eligibility chart. EOP students are also evaluated under a different eligibility chart.

Eligibility for Aid for Part-Time Study
Aid for Part-Time Study (APTS) is a grant program for New York State residents who are enrolled for 3–11 credit hours per semester. Applications are available on-line at http://www.buffalostate.edu/financialaid/x487.xml and in the Financial Aid Office, Moot Hall 230.

Satisfactory Academic Progress (State)
To receive TAP/APTS, students must be in good academic standing as defined by two components: pursuit of program and satisfactory academic progress. Pursuit of program tracks withdrawal from courses that result in a student's being enrolled for fewer than 12 credit hours in a semester. Satisfactory academic progress looks at both a student's cumulative GPA and the accumulation of credit hours toward a degree. A student's academic standing is then measured on the TAP Academic Eligibility Chart, above.

It should be noted that when using the chart, only semesters that a student receives a TAP/APTS payment are considered. Students who first receive TAP grants at the start of their junior year would be required to meet the standards represented by the first column. Students are limited to receiving eight semesters of TAP grants, except EOP students, who can receive 10 semesters of TAP. All students must be accepted into a major prior to completing 60 credit hours to continue to be eligible for TAP/APTS. Pre-major and undeclared status are unacceptable for TAP purposes once a student has earned 60 credit hours.

Students who fail to maintain good academic standing become ineligible for TAP/APTS until they achieve the appropriate standards without the assistance of state funding. In exceptional situations, students who become ineligible may be granted a one-time waiver of their ineligibility. All waiver requests should be submitted to the Academic Standards Office, Twin Rise 100.

Arthur O. Eve Educational Opportunity Program (EOP)
EOP provides educational access for academically and economically disadvantaged students who reside in New York State. EOP is an alternative means of acceptance to SUNY Buffalo State for students who show ability and motivation despite the effects of economic and academic struggles. Students who do not meet the college's general academic admissions standards may instead qualify for admission through EOP. Application for the program is made on the SUNY Application for Admission. If a student isn't admitted initially into the college through EOP, he or she cannot join the program at a later time.
Military, Veteran, and Dependent Benefits  
(Location: Cleveland Hall Room 210)

Military, Veterans, and/or Dependents (i.e., Spouse/Child) may be able to receive aid for approved postsecondary study. To find out what your eligibility is, please contact Veteran and Military Services at (716) 878-5907.

Aid for Students with Disabilities

Students with disabilities pursuing higher education may be eligible for assistance through the state Adult Career and Continuing Education Services – Vocational Rehabilitation

Applications and eligibility requirements may be obtained at the Buffalo-area offices or at your local area offices for ACCES-VR and CBVH.

Eligibility for Native Americans

The U.S. Bureau of Indian Affairs offers need-based grants for college to applicants who are enrolled tribal members of an American Indian, Eskimo, or Aleut tribe, band, or group recognized by the Bureau of Indian Affairs. An application is necessary for each year of study and must be accompanied by an official needs analysis from the Financial Aid Office after submission of the FAFSA.

First-time applicants also must submit tribal enrollment certification from the bureau, agency, or tribe that records enrollment for the tribe. Applications are available from the education office of the tribe, band, or group with which you are affiliated or possess membership. For further information, contact the Bureau of Indian Education at (202) 208-6123 or http://www.bie.edu.

New York State also offers grants to Native Americans who are members of one of the Native American tribes located on reservations within New York State. Applications and program details may be obtained from the Native American Education Program Unit, State Education Department, Room 461EBA, Albany, NY 12234, (518) 474-0537.

Eligibility for Summer Aid

Students wishing to apply for summer financial aid must complete the supplemental Summer Aid Application form that becomes available by early-April each year.

Summer financial aid eligibility is predicated upon a student's remaining eligibility from the fall and spring semesters. Therefore, students should seek guidance from the Financial Aid Office before registering for summer classes.

Eligibility for Study Abroad Programs

Many Buffalo State students take advantage of the National Student Exchange (NSE) and Study Abroad programs. Financial aid is available for both of these programs. Students must submit the official exchange budget sheets to the Financial Aid Office, as well as a processed FAFSA on file to receive federal financial aid for participation in the NSE and Study Abroad programs.

To receive TAP for either of these programs, tuition payment must be to a New York State institution.

Award Notification

After you are accepted and have a valid Free Application for Federal Student Aid (FAFSA) on file, the Financial Aid Office will generate a SUNY Award Letter detailing the aid you are eligible to receive based on program eligibility requirements. Students must accept, revise, or decline award(s) by the prescribed deadline date. Failure to accept aid by the deadline date may result in the loss of some types of financial aid.

The Financial Aid Office will send a hard copy SUNY Award Letter to all new students (freshmen, transfer and graduate). Continuing students will receive an e-mail notification directing them to view their award package online at the Banner Self-service site. Some aid programs require additional steps to complete the application process.

All students are responsible for monitoring their campus e-mail and their financial aid status on-line by accessing Banner Self-service.

TAP Notification

New York State TAP award notifications are sent to students directly from HESC shortly after the state budget is set each year. TAP awards are school specific and must have "SUC Buffalo" on the certificate to be valid at Buffalo State. Actual award dollars are sent directly to the Student Accounts Office.
The following college academic procedures, policies, and guidelines apply to all students and all college sessions. Students are responsible for determining their academic programs and for meeting every degree requirement. Faculty or professional staff members who act as advisers are obligated only to assist students in meeting this responsibility. Clarification of any requirements for the baccalaureate degree may be obtained from the academic adviser, department chair, or academic dean. Check with the Academic Standards Office, Twin Rise 100, (716) 878-5222, for clarification of other regulations or procedures. A list of academic policies can be found at www.buffalostate.edu/academicaffairs/x481.xml.

Degree Audit System
Students’ academic progress toward meeting graduation requirements is recorded in the Degree Navigator audit system. Copies of up-to-date audit sheets should be secured before advisement and can be obtained online at www.buffalostate.edu/registrar/degreenavigator.xml. Necessary corrections or questions about the audit sheet information should be brought to the attention of the student’s academic adviser.

Role of Students and Faculty in the Advisement Process
Effective academic advisement is the interaction between a qualified adviser who is knowledgeable and supportive and a serious student who is motivated and receptive, as together they evaluate and plan the student’s course of study. The task of the adviser is to provide guidance and information for the student to make efficient progress in the pursuit of an academic goal. The adviser is responsible for being well informed and ready to provide aid in the selection of specific areas and courses, and for helping the student fulfill academic regulations and interpret administrative policies. The task of the student is to seek advisement, to understand, and to be responsible for decisions. The student should be familiar with the sources of information on requirements, regulations, and policies. The college bears the responsibility for establishing procedures and providing a setting conducive to good advisement.

Notification of Rights under the Family Educational Rights and Privacy Act (FERPA)
The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights include:

1. The right to inspect and review the student’s education records within 45 days of the day the college receives a request for access. A student should submit to the registrar, dean, head of the academic department, or other appropriate official a written request that identifies the record(s) the student wishes to inspect. The college official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the college official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student’s education records that the student believes are inaccurate, misleading, or otherwise in violation of the student’s privacy rights under FERPA. A student who wishes to ask the college to amend a record should write the college official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it should be changed. If the college decides not to amend the record as requested, the college will notify the student in writing of the decision and the student’s right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to provide written consent before the college discloses personally identifiable information from the student’s education records, except to the extent that FERPA authorizes disclosure without consent. The college discloses education records without a student’s prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interests. A school official is a person employed by the college in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the college has contracted as its agent to provide a service
instead of using college employees or officials (such as an attorney, auditor, or collection agent); a person serving on the College Council; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks; and National Student Clearinghouse officials. A school official has a legitimate educational interest if the official needs to review an education record to fulfill his or her professional responsibilities for the college. Upon request, the college also discloses education records without consent to officials of another school in which a student seeks or intends to enroll. Buffalo State hereby designates the following categories of student information as public or directory information. Such information may be disclosed by the institution for any purpose, at its discretion.

a. Name, address, electronic mail address, telephone listing, dates of attendance, enrollment status (e.g., undergraduate or graduate; full-time or part-time), class level, and academic adviser.

b. Most recent educational agency or institution attended; major field of study; degrees, honors, and awards received.

c. Participation in officially recognized activities and sports, weight and height of members of athletic teams, date and place of birth, photographs.

Currently enrolled students may withhold disclosure of any category of information under the Family Educational Rights and Privacy Act of 1974. To withhold disclosure, written notification must be received by September 15 in the Registrar’s Office, Moot Hall, Buffalo State, 1300 Elmwood Avenue, Buffalo, NY 14222-1095. Nondisclosure of information will commence thereafter and be effective until September 14 of the following year. Written notification to withhold disclosure must be made each academic year.

Buffalo State assumes that failure on the part of any student to specifically request the withholding of categories of directory information by the deadline date indicates individual approval for disclosure.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Buffalo State to comply with the requirements of FERPA. The name and address of the office that administers FERPA is Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Ave., SW, Washington, DC 20202-5901.

Academic Calendar
Check the Academic Calendar, including general student deadlines, at www.buffalostate.edu/academiccalendar.xml.

Registration Information
All currently registered students who will continue their studies during the next regular semester are expected to register within two weeks of their first day of registration eligibility. Procedures for registering can be found on the Registrar’s Office website. Course listings are posted on the web in March for fall and in October for spring. For links to up-to-date registration and course information, go to www.buffalostate.edu/registrar.

To receive accurate information about registration eligibility and to maintain registration eligibility, students should remember the following:
- Notify the Registrar’s Office of any change of address within two weeks.
- Notify the Registrar’s Office of any change in your personal email address within two weeks so that we may notify you of important personal registration emails sent to your Buffalo State student Gmail account.
- Students subject to possible academic dismissal under probation regulations should register. Students clearly subject to dismissal should not begin a new semester or summer session until the appropriate dean has determined their status.
- Academic advisement is mandatory for all matriculated students.
- Students with outstanding financial obligations will not be allowed to register at any time.
- Not attending the first class meeting does not withdraw a student from a class.
- Students with 2.0 or higher GPAs who discontinue attendance without taking a leave of absence can register for classes without applying for readmission for up to four fall or spring semesters beyond the semester in which they were last registered. Baccalaureate graduates and students with less than 2.0 cumulative GPAs retain registration eligibility for only one fall or spring semester beyond the semester in which they were last registered.

Course Load
The average course load for matriculated undergraduates is 15–16 credit hours a semester. Should a matriculated student desire to register for more than 19 credit hours, the approval of the appropriate academic adviser must be secured. Students in majors should consult with their faculty adviser, and undeclared students not affiliated with EOP, SSSP, or AIM should consult with the coordinator of the Academic Advisement Office, Twin Rise 100. Students on academic probation or academic warning (below a 2.0 cumulative grade point average) can enroll in a maximum of 15 credit hours. All students should consult with their academic adviser for proper guidance and review for overload. Probationary students seeking an override to their 15 credit limit must make the request at their dean's office.

To graduate in four years (eight semesters), at least 15 credits must be earned each semester to earn the minimum 120 credits required for a degree. Some majors require more than 120 credits.

Attendance
There is no uniform attendance policy set by the college. Attendance regulations are established by each instructor and will be distributed at the start of each semester.
Auditing Courses
Persons may audit or take courses without earning credit, on a space-available basis, with the approval of the department chair and the instructor of the course. A person auditing a course will attend without formal recognition, will not be on the official class list in the Registrar’s Office, will not be required to meet the requirements of the course, and will not be charged tuition or fees for the course. Auditors must submit a non-degree application http://www.buffalostate.edu/admissions/documents/nondeg_reapp512.pdf, along with supporting documents from the appropriate faculty, to the Admissions Office, Moot Hall, before auditing a course.

Exception: Auditing is not permitted in any study-abroad program.

Adding or Dropping Courses
Registration is continuous from the opening of registration through the end of the first week of classes. Dropping a course during that time removes all record of the course from the student’s transcript. Dates and instructions for registration are posted on the web each semester. For up-to-date registration dates, go to www.buffalostate.edu/Registrar. By the end of registration, students should recognize that they have made a serious commitment to complete the courses for which they are registered. It is expected that students will complete any necessary changes to their schedule before the first day of classes in a semester or Summer Session. Changes during the first week of classes (first two days of a Summer Session, or January Term) should be the exception.

Withdrawal from Courses
Instructors are required to notify students of their academic standing no later than the end of the ninth week of the semester, or after two-thirds of a summer session or January Term. If a student does not officially withdraw from a course and stops attending, a grade of E will be recorded.

Students who wish to leave a course after the drop/add period and before the final withdrawal date (the end of the 10th week of the semester, or after two-thirds of a Summer Session or January Term) may withdraw via Self Service Banner. Nonattendance at the first class meeting does not withdraw a student from a class.

Students withdrawing from some coursework may be eligible for a refund in accordance with the college refund schedule, which is posted each term at www.buffalostate.edu/studentaccounts. Beyond the end of the refund schedule’s time limit, full charges are assessed. Student-teaching courses have different deadlines. Students should check with their departments.

Withdrawals remain on the transcript and are recorded as W’s but do not count in credit hours or GPAs. Withdrawal from a course may affect eligibility for financial aid in the current semester and in future semesters. For additional information about financial aid eligibility, refer to the financial aid section of this catalog, or online at www.buffalostate.edu/financialaid.

Before withdrawing from a course, careful thought should be given to the reasons for withdrawing and possible consequences. Course Withdrawals can have a negative impact on both your progress toward graduation and eligibility for financial aid. Withdrawal from Course should be used infrequently and considered an action of last resort. It is to your advantage to read the instructions under Withdrawal from Course at http://www.buffalostate.edu/Registrar/x741.xml before withdrawing.

Academic Clemency
Any student with a Buffalo State GPA of less than 2.0 is eligible to apply for Academic Clemency when he or she applies for readmission to the college through the Admissions Office. The student’s last semester of enrollment must have been at least three years prior to the application for readmission. Students can request clemency for up to two consecutive semesters of work or 30 consecutive credit hours if earned on a part-time basis. These two semesters or 30 hours are to be determined by the student in consultation with appropriate offices (Dean's Office, Educational Opportunity Program, etc.). A decision of clemency includes all coursework taken within those one or two semesters at Buffalo State; it is not selectively applied.

Any mathematics or English competency requirements fulfilled during the clemency period will still be recognized. However, any credit hours associated with these requirements will be removed and must be replaced with other coursework.

Clemency is applied only after a student has registered for an upcoming semester.

Leave of Absence, Medical Leave of Absence, Withdrawal from College
The Undergraduate Application for Leave of Absence/Withdrawal from College form can be obtained in the Academic Advisement Office, South Wing 110, (716) 878-5336, or in the student’s academic department office. Students in a major should begin the application process by conferring with their department chair. Undeclared students should meet with the coordinator of the Academic Advisement Office. Refunds of tuition, if applicable, will be made on a prorated basis as outlined for that semester. Financial aid recipients who withdraw or take a leave of absence may owe a refund of aid they received for the semester. For additional information about financial aid, refer to the financial aid section of this catalog or www.buffalostate.edu/financialaid.
Medical Leave of Absence
Medical leaves of absence of varying lengths of time are granted for documented serious injury or illness. After obtaining a Leave of Absence/Withdrawal form, students requesting a medical leave of absence should report to the Weigel Health Center. To receive a medical leave of absence, students must complete the form and provide a physician’s statement that includes the specific semester(s) for which the leave is being requested, diagnosis/reason for the leave request, and a recommendation from the physician that the medical leave be granted.

Leave of Absence
Matriculated students who wish to leave the college for personal or financial reasons may be granted leaves of absence of two full years (four fall/spring semesters) beyond the semester in which they were last registered, as long as they are in good academic standing with a minimum GPA of 2.0. A leave will not be granted to study at another college or university.

An application for a leave during a semester already in progress must be received in the Registrar’s Office, Moot Hall, no later than the last working day before the Critique and Evaluation Period. These approved leaves will begin at the date the request is received in the Registrar’s Office.

Withdrawal from College
To maintain good academic standing and eligibility for readmission to the college, students finding it necessary to withdraw must do so officially. Failure to file for withdrawal will result in the recording of an E grade in each course in which the student is registered. When it is impossible to withdraw in person, it must be done in writing from the student to the dean. Students withdrawing officially with no outstanding obligations or commitments to the college are considered to be in good academic standing.

The chair and associate dean must sign the Withdrawal from College form. A request to withdraw from the college must be received in the Registrar’s Office, Moot Hall, no later than the last working day before the critique and evaluation period.

Grading
The college uses letter grades to indicate the status of a student at the completion of a course. All grades are awarded at the sole discretion of the faculty member responsible for the course. A grade must be submitted for every student on the course roster at the end of the semester. Students will be apprised of evaluation policies in each class at the beginning of every semester. This information will also include notification, where appropriate, that the plus/minus grading system will be used as determined by the instructor. Instructors will inform students of their standing in each course by the end of the ninth week of the semester, or two-thirds of a Summer Session or January Term. Mid-term grades may be available on Banner for some courses. Questions regarding grading policies or an individual grade received in a particular course should be addressed to the instructor or to the department chair.

Grades awarded by the college:
- A = Superior
- A–
- B+
- B = Above average
- B–
- C+
- C = Average
- C–
- D+
- D = Below average, but passing
- E = Failure or unofficial withdrawal from a course
- EV = Failure, never attended
- S = Satisfactory
- U = Unsatisfactory
- P = Pass
- F = Fail

The following letters are used to indicate status:
- I = Incomplete
- N = Grade delayed
- X = Grade not submitted
- W = Withdrawn

Explanation of Grades
- S, U S (satisfactory) and U (unsatisfactory) grades are reserved for student teaching or other field experiences that are not readily evaluated by the normal letter grades and basic skills courses.
- P, F P (pass) and F (fail) grades are given for courses taken on a pass-fail basis (see description below). They may be submitted only under proper authorization.
- W W (withdrawn) grades may be submitted only when a student has formally withdrawn from a course.
- I I (incomplete) grades may be submitted only when the department chair or program coordinator has been properly notified.
- N N (grade delayed) grades are given for graduate theses/projects and internships. Grades may be given when coursework normally carries over from one semester to another and when it is necessary to delay grading to a subsequent semester. N grades may be submitted only with the permission of the department chair or program coordinator.

Incomplete Grades
An incomplete grade is a temporary grade issued for medical emergencies or life crises. Students must request an incomplete grade directly from the instructor. An incomplete grade is converted to a letter grade by the 10th week of the following spring or fall semester. If the work is not completed by that time, the instructor will submit a grade based upon the amount of work completed. If the
The quality point system is used for determining GPAs, as follows:

\[
\begin{align*}
A+ & = 4.33 \\
A & = 4.0 \\
A- & = 3.67 \\
B+ & = 3.33 \\
B & = 3.0 \\
B- & = 2.67 \\
C+ & = 2.33 \\
C & = 2.0 \\
C- & = 1.67 \\
D+ & = 1.33 \\
D & = 1.0 \\
E & = 0.0 \\
\end{align*}
\]

No other letters carry quality point value.

Term GPA
A student’s term GPA is computed by dividing the total number of quality points by the total number of credit hours attempted in one semester. Only grades carrying quality points are included. For example, consider a student with the following courses and grades at the end of a semester:

<table>
<thead>
<tr>
<th>Course</th>
<th>Grade</th>
<th>Credit</th>
<th>Quality Point Value</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 161</td>
<td>B−</td>
<td>4</td>
<td>(x1.33)</td>
<td>10.68</td>
</tr>
<tr>
<td>SOC 101</td>
<td>A</td>
<td>3</td>
<td>(x2)</td>
<td>12.00</td>
</tr>
<tr>
<td>ENG 250</td>
<td>E</td>
<td>3</td>
<td>(x0)</td>
<td>0</td>
</tr>
<tr>
<td>HEW 101</td>
<td>C</td>
<td>1</td>
<td>(x2)</td>
<td>2.00</td>
</tr>
<tr>
<td>PHI 220</td>
<td>D+</td>
<td>3</td>
<td>(x1.33)</td>
<td>3.99</td>
</tr>
</tbody>
</table>

The student has attempted 14 credit hours, successfully completed 11, and earned 28.67 quality points. The formula for computing this student’s term average follows:

\[
(\text{Term Quality Points} / \text{Term Credit Hours}) = \text{Term GPA}
\]

If the student had taken an additional 3-credit-hour course, DES 371, and received a P grade, the average would not change. If the student received an F grade in DES 371 using the pass-fail option, the average would not change.

Cumulative GPA
A student’s cumulative GPA is computed by dividing the total number of quality points by the total number of credit hours attempted in all semesters of attendance at Buffalo State. As with the semester GPA, only grades carrying quality points are included. Courses taken at other institutions are not included.

Change of Grade
Grades submitted at the end of the semester are considered final. In case of an error or other extenuating circumstance resulting in an incorrect grade, a request for a grade change must be submitted by the instructor, with full written justification, to the appropriate associate dean.

Once a student has completed a bachelor's degree, a final average for that degree is computed. Courses from that
degree may not be repeated, and that final average is not affected by any subsequent coursework at Buffalo State.

Repeating Courses
A student may repeat a given course once for which a C-, D+, D, or E grade was earned. The course must have the same prefix, number, title, and credit hours. The repeated course must be taken at Buffalo State. Only the second grade and those semester hours completed will be used in determining the GPA. A student may not repeat a course a third time.

All grades remain on the permanent record. Students may not use pass-fail to repeat a course for which a C-, D+, D, or E grade was earned. A passing grade will not replace an F or U grade, since F and U are not computed in the GPA. Courses with letter grades above C- cannot be repeated. Courses that were illegally repeated will not be used in computing the cumulative average. Practicum courses may differ. Check with the department that offered the course. Repeating courses affects financial aid. Check with the Financial Aid Office for the current policy.

Once a student has completed a bachelor’s degree, a final average for that degree is computed. Courses from that degree may not be repeated, and that final average is not affected by any subsequent coursework at Buffalo State.

Declaring an Academic Major
All students must declare a major before completing credits that would result in achieving “junior class level” standing (60 hours). It is recommended that all students declare a major upon completing 30 credit hours. Before declaring a major, students should seek the advice of the chair of the department or the associate dean of the school/college responsible for the major. A Change of Major form, available from the chair or the associate dean, must then be completed and sent to the Registrar’s Office.

Some academic programs have special requirements that the student must meet before being admitted as a major. For example, fine arts candidates must submit a portfolio of representative work. The department chair or program coordinator can provide information on specific requirements.

Changing a Major
Incoming first-year students who want to change their major before the start of their first semester may initiate the major change process with the University College Dean’s Office. First-year students who want to change their major after the start of their first semester may initiate the major-change process by contacting the department office of the new major to gain the approval of the department chair. Continuing students who want to change their major may initiate the major change process by contacting the department office of the new major to gain the approval of the department chair.

If the department chair of the new department approves the change, a Change of Major Form will be forwarded to the Registrar’s Office for recording. Change requests should be made at least four weeks before registration for the next semester to allow students to register for courses in the new major. Departments may refuse a student’s request for acceptance to a major based on published requirements and prerequisites.

A student on probation will not be permitted to transfer to a new major without the approval of the associate dean of the new major.

Second Major, Single Degree
A student may fulfill the requirements for two majors and receive a designation on the official transcript indicating the completion of a baccalaureate degree in one major with the fulfillment of requirements of a second major. The student must identify a primary major in which the degree will be awarded. In fulfilling the requirements of a second major, the student will make careful use of electives. The student completes an Application for Undergraduate Degree at the Registrar’s Office indicating on the application the degree major and the second major. Go to www.buffalostate.edu/registrar for a link to a page where students can download a copy of the application. Upon receipt of the degree, the student’s transcript will contain two entries: the major degree and a notation that “this student has also completed all requirements for a second major in the appropriate area.”

The primary major adviser does regular advisement of the student. Students opting for a second major should contact the department involved, request a review of their progress and academic advice concerning the second major, and complete a Change of Major form to be filed with the Registrar’s Office. Only one baccalaureate degree may be awarded for a four-year, 120-credit-hour program.

Dual Baccalaureate Degrees
The awarding of two degrees at the baccalaureate level may occur under the following circumstances. Coursework in fulfillment of requirements for two baccalaureate degrees (B.S. or B.A. or both) may be undertaken simultaneously or concurrently, but requires significant additional coursework (at least 32 credit hours, usually one additional year) in distinctly different fields. An exception to this requirement is the bachelor of fine arts, in which two degrees may be awarded upon the fulfillment of the requirements of each degree. Students must earn a minimum of 152 credit hours to qualify for two baccalaureate degrees. Students pursuing dual baccalaureate degrees should seek academic advisement from the appropriate faculty advisers or department chairs in both majors to ensure that all dual degree requirements have been fulfilled. The maximum number of degrees awarded at the baccalaureate level is two.
Academic Minors
Buffalo State academic minors are specially conceived sequences of courses designed to allow students to achieve important goals. A minor may be used to complement the major course of study, broaden and enhance career opportunities, gain expertise in an area of interdisciplinary studies, or provide in-depth study in a subject of special interest. While an academic minor is an optional study program, students often find it an excellent way to make strategic use of all college elective courses.

Each minor program consists of 18–21 credit hours of coursework. A minimum cumulative GPA of 2.0 is required for admission to a minor program, and at least three of the courses in each minor must be completed at the college. Students may not elect a minor from the same discipline as their major program. A minor may include no more than 9 total hours that overlap with the student’s major disciplinary requirements. A minor may include no more than 2 courses at a lower division level. Students who complete the minor with a minimum GPA of 2.0 will have the minor recorded on their official transcript.

Only matriculated students who intend to seek an undergraduate degree may be accepted into a minor program. A minor may be earned simultaneously only while completing a major degree program.

Students interested in selecting a minor program should contact the coordinating department as soon as possible and complete a Change of Major/Minor form. A listing of all minors and requirements is on file in each department and dean’s office. Only the coordinating department provides advisement on individual minors.

For a list of minors, please refer to Undergraduate Minor Programs at a Glance chart on page 56.

Basic Writing Requirement
The college requires all matriculated students to demonstrate college-level skills in composition.

Basic Writing Requirement for Freshmen
Entering freshmen will be placed in the appropriate writing-level course through the College Writing Program’s placement policy. See www.buffalostate.edu/writingprogram for the placement policy. Students are placed at one of the three levels:

- CWP 099
- CWP 101
- CWP 102

Basic Writing Exemption
The writing program director will forward any basic writing exemptions to the registrar.

CWP 099 is a noncredit course and may not be used to meet any degree requirements. CWP 099, CWP 101, and CWP 102 will be graded on an A-through-E basis. A through D are officially passing grades; however, courses with a prerequisite of CWP 101 or CWP 102 require a C or higher in the class. This means that a student cannot enroll in CWP 102 until he or she has earned at least a C in CWP 101 (grades of C- or below do not meet the requirement)

Course challenges will not be permitted.

Students who are considering taking a composition course at another institution that they expect will fulfill the Buffalo State basic writing requirement must seek prior permission from the College Writing Program director. The basic writing requirement is usually completed by the end of the sophomore year.

Basic Writing Requirement for Transfer Students
If two composition courses equivalent to CWP 101 and CWP 102 are transferred, the basic writing requirement is satisfied. If one composition course equivalent to CWP 101 is transferred, the student must complete CWP 102. If no composition courses are transferred, the student must confer with an academic adviser and follow the requirement stated for freshmen (above). Transfer students must complete the basic writing requirement within their first 45 credit hours at Buffalo State College.

Writing Across the Curriculum Requirement
Writing represents a critical component of the educational process, and the integration of writing into all types of courses across the curriculum is widely encouraged. In particular, the college has established a two course (2–6 credit hours) Writing Across the Curriculum requirement for all students to enhance and reinforce basic writing skills learned in CWP 101 and CWP 102. Taking two Writing Across the Curriculum (W) courses satisfies this requirement. Like many courses offered on this campus, W courses include both formal and informal writing. W courses, however, emphasize writing as a major course component for both instruction and evaluation. Instructors employ writing-to-learn techniques as a major way of teaching. In such courses, students learn to use writing as a tool that can be used in all their learning processes. A significant portion of the coursework, and subsequently grades in these W courses, will be allocated on the basis of the student’s writing performance.

Every piece of formal writing submitted as part of the requirement should meet the following minimum standards, as appropriate to the course and the nature of the assignment:

- Clearly stated purpose/main idea/thesis
- Adequate support/proof/development of main idea
- Clear and logical organization of information
- Complete sentences
- Standard usage of grammar, punctuation, and spelling
- Correct documentation (interior documentation, references, and/or bibliography) in a format appropriate to the field
- Evidence of critical thinking

Some departments have established an alternative method whereby their majors may satisfy the W requirement. Satisfactory completion of CWP 102 or its equivalent is a prerequisite for all courses used in fulfillment of the writing-intensive requirement.

The W courses submitted for transfer from other institutions to Buffalo State will be evaluated using the criteria stated above. Courses that do not meet the criteria will not be transferred.
Basic Writing Requirement for International Students
International students registering at Buffalo State are required to take the placement examination administered by the College Writing Program if they do not have SAT/ACT scores. They must register for the appropriate College Writing Program course(s) designated for nonnative English speakers. International students must complete the Basic Writing requirement before declaring a major. Information on these requirements and ESL instruction is available through the International Student Affairs Office, Campbell Student Union 400. Individual and group supplemental instruction in English as a Second Language is available through the Academic Skills Center, South Wing.

Graduation Requirements
Go to www.buffalostate.edu/registrar/forms.xml to download the Application for Undergraduate Degree. All students expecting to qualify for a degree must fulfill the following requirements:

1. File Application for Undergraduate Degree with the Registrar’s Office, Moot Hall, by the specified date. Failure to make application before the date may eliminate the student from the Commencement program and delay the granting of the degree.
2. Students must meet all financial obligations to the college and return all college property.
3. Students must meet all curricular requirements. They must have completed the prescribed curriculum for their major. If requirements have changed since they were admitted to a program, they may choose to graduate under the old or new requirements.
   a. Students must maintain a minimum cumulative GPA of 2.0 for all coursework taken at the college. The minimum cumulative GPA for the courses taken in the major field must also be 2.0. The minimum cumulative GPA for courses taken in a minor is 2.0.
   b. Students must complete the 39–66 credit hours of Intellectual Foundations requirements.
   c. All candidates must have completed a minimum of 33 credit hours of upper-division coursework, courses generally considered advanced and numbered 300–499.
   d. A minimum of 32 credit hours, including the last 16, must be completed at the college.
   e. A minimum of 120 academic credit hours must be completed.
   f. Students are required to successfully complete 4–6 credit hours of “writing intensive” courses (two courses) indicated by the designation W following the course number.
   g. Students must complete at least 6 credit hours in their major at Buffalo State.
4. Education majors leading to certification for teaching in the early childhood and upper-elementary grades must fulfill a drug-education requirement and should file a certification application with the Teacher Certification Office, Caudell Hall 101.
5. No students will be cleared for graduation until all grades of I, N, or X have been replaced with an appropriate letter grade.

Commencement Ceremony
Commencement is held each year at the end of the spring semester to honor the previous fall semester December graduates and the current May and August degree candidates. Information is mailed in March to December graduates, as well as to May and August degree candidates who apply for their degrees by the appropriate deadlines. For more information, visit the Buffalo State Commencement website at www.buffalostate.edu/commencement.

Dean’s Honor List
Students must meet all of the following criteria to be eligible for the Dean’s Honor List:
1. Must earn a minimum term GPA of 3.5.
2. Must complete a minimum of 12 credit hours of letter grade work (i.e., A, B, C, or D). Grades of S and P are not considered. Students are ineligible for the Dean’s Honor List if they have an incomplete grade or grades of I, N, X, or U in a course for that semester.
3. All courses must be taken at Buffalo State.

Part-Time Dean’s List
Part-time, matriculated students (students carrying less than a 12-credit-hour course load per semester) will become eligible for Part-Time Dean’s List only after prior completion of 12 credit hours of letter grade work (A–E) at Buffalo State. The Dean’s List designation will be determined once a year at the end of the spring semester for courses taken during that semester and the preceding fall semester.

Eligibility also requires the following:
1. A minimum GPA of 3.5 for all coursework taken in that academic year.
2. No grades of I, N, X, or U in a course during that year.
3. Completion of at least 12 hours of letter grade work per academic year.

Baccalaureate Academic Honors/Gold Honors Cord
An honors citation is given to graduating students who have achieved a minimum cumulative GPA of 3.5 for all work completed. Students with a cumulative average of 3.8 to 4.0 will be designated summa cum laude; 3.65 to 3.79 magna cum laude; and 3.5 to 3.64 cum laude. To be considered for an honors citation, a student must complete a minimum of 54 credit hours at Buffalo State.

Degree candidates with a minimum GPA of 3.5 who have completed or have in progress 54 credit hours at Buffalo State may be eligible for academic honors. These students are invited to wear a gold cord at Commencement to signify their academic achievement, and they are recognized in the Commencement program. They will be notified by Academic Affairs separately from the Commencement Information Brochure, which is sent to degree candidates’ homes in March. They also will be on a
list at Commencement Headquarters, where caps, gowns, and honors cords are purchased.

Muriel A. Howard Honors Program
The Muriel A. Howard Honors Program addresses the needs of academically gifted students. Open to a select number of incoming freshman, transfer, and local students, the Muriel A. Howard Honors Program requires students to earn honors credits across disciplines in the arts, humanities, social sciences, math/science, and applied science and technology. Students must maintain a minimum cumulative GPA of 3.5 to remain in the program. Students interested in this program should contact the Admissions Office at (716) 878-5713.

Honors in Majors
Many departments have programs leading to baccalaureate degrees with honors. Generally, these departments require special criteria for admission to the departmental major and 6 credit hours of predetermined honors work to earn the distinction. Students interested in departmental honors programs should contact the department of their choice. The following majors can be pursued as baccalaureate degrees with honors: anthropology, biology, earth sciences, economics B.A., geology, history, philosophy, psychology B.A., psychology B.S., and social studies education (7–12).

Honors Convocation
This recognition of academic excellence is held each spring semester. Students with a minimum cumulative GPA of 3.5 after earning 45 credit hours are invited to attend the Honors Convocation with family members and a faculty guest. Transfer students are eligible after completing 30 credit hours at Buffalo State.

Academic Probation and Dismissal
Good Academic Standing
All students not on Academic Probation are considered to be in good academic standing and are eligible to participate in extracurricular activities at Buffalo State. Any Buffalo State student with a cumulative GPA of a 2.0 or above, on Academic Warning, or on Academic Probation is eligible to register for coursework at Buffalo State.

Academic Warning
Many students go through an adjustment period when beginning their baccalaureate studies at Buffalo State. Therefore, any student—freshman or transfer—whose first-semester GPA is less than 2.0 and who has not met any of the terms for academic dismissal from Buffalo State will be on Academic Warning in his or her second semester of study at the college. However, if a student’s GPA is less than a 2.0 and the student has met one or more of the reasons for academic dismissal from Buffalo State, the student may still be immediately dismissed at the discretion of the college.

In accordance with the Buffalo State Advisement Policy, students on Academic Warning may be subject to an advisement hold in order to encourage a discussion with the student’s academic adviser to help build an effective academic strategy before the student may register for additional coursework at Buffalo State. An extended Academic Warning semester may be granted at the discretion of the college if the student has demonstrated exceptional academic progress during the Academic Warning term. Students on Academic Warning may be ineligible for financial aid based on failure to meet federal and/or state aid eligibility standards. Students on Academic Warning are limited to registering for 15 credits per semester, unless special permission to register for additional credits is granted by their Dean’s office.

Academic Probation
A student is on Academic Probation if the student’s cumulative Buffalo State GPA is less than 2.0 after the second semester of study at Buffalo State. However, if a student’s GPA is less than a 2.0 and the student has met one or more of the reasons for academic dismissal from Buffalo State, the student may be immediately dismissed at the discretion of the college without a probationary semester. A student on Academic Probation has until the completion of the next semester (i.e., spring or fall) to raise the cumulative GPA to a 2.0 or higher.

In accordance with the Buffalo State Advisement Policy, students on Academic Probation may be subject to an advisement hold in order to encourage a discussion with the student’s academic adviser to help build an effective academic strategy before the student may register for additional coursework at Buffalo State. Students on Academic Probation may be ineligible for financial aid based on failure to meet federal and/or state aid eligibility standards. Students on Academic Probation are not eligible to participate in extracurricular college activities. Students on Academic Probation are limited to registering for 15 credits per semester, unless special permission to register for additional credits is granted by their Dean’s office.

Academic Dismissal
Students are reviewed for Academic Dismissal at the end of each academic semester (fall, spring, and summer). Each dismissed student will receive official notification via U.S. mail to the student’s address of record with the college or the student’s Buffalo State e-mail account, and all future academic-year registrations and on-campus housing reservations will be removed. Dismissal appeal guidelines and deadlines are communicated to the student in the dismissal notification sent by the student’s dean’s office.

Students may be dismissed from Buffalo State for the following reasons:
1. Unsuccessfully completing (i.e., E, F, U, I, N, X, or W) one half or more of a semester’s work
2. Failing to satisfy Academic Warning or Academic Probation requirements
3. Failing any course for the third time
Academic Eligibility for Financial Aid
Financial aid guidelines require that to continue to receive financial aid, students must show evidence of making satisfactory academic progress toward a degree. For additional information about financial aid eligibility, refer to the financial aid section of this catalog or visit www.buffalostate.edu/offices/finaid.

Academic Misconduct
All students are expected to display honesty and integrity in completing course requirements and college academic regulations. Academic misconduct refers to any form of plagiarism or cheating on examinations or assignments, and is inconsistent with the aims and goals of Buffalo State.

Faculty may require students to use textual similarity detection software (e.g., Turnitin.com) in courses at Buffalo State. Textual similarity detection software compares submitted student text to a database of millions of previously published documents, including those on the public Internet, a proprietary collection of published articles, as well as every student paper previously submitted to the detection service. When similarities between student text and an existing document are found, the software identifies those similarities for instructor and/or student review. (Similarity alone is not evidence of academic misconduct, as such material may be correctly cited.) This software may be used as an educational tool to assist students in learning how to properly cite resources, decrease instances of academic misconduct, and/or assist in the identification of acts of academic misconduct.

Instances of academic misconduct include, but are not limited to, prior acquisition or possession of an examination and submission of false data, submission of the work of another individual without proper acknowledgment, and performance of work in a course for another individual while registered in the same course. As a result of an admission of academic misconduct, an instructor may issue a written warning; allow the student to resubmit the work, telling the student what grade penalty, if any, will be assessed; submit a recalculated grade; or submit a failing grade with a "J" designation (to appear only on the internal audit system but not on the student’s official transcript; possible grades are EJ, FJ, UJ, WJ). Grade points for the failing grade will be averaged even if the student repeats the course. No penalty for an alleged instance of academic misconduct may be imposed unless the student has been apprised of the allegation, the penalty, and the procedures of due process that are available under this policy. Neither the instructor nor the student should be represented or accompanied by an attorney. A student has the right to appeal allegations of academic misconduct as outlined in the Academic Misconduct Policy at www.buffalostate.edu/academicaffairs/x607.xml.

A statement outlining formal college policies and procedures to be followed in cases of alleged academic misconduct will be on file in each dean’s office, in the Academic Standards Office, in the Student Life Office, and at www.buffalostate.edu/academicaffairs/x607.xml. Cases of severe infractions of acceptable standards may be brought before the Academic Misconduct Board, chaired by the appeals director of academic standards, and may result in academic dismissal.

Graduate Courses
Students who have completed more than 106 credits by the end of the previous semester at Buffalo State may register for graduate-level courses if they have maintained a minimum cumulative GPA of 2.5. A maximum of 6 graduate credit hours may be taken as a senior. The combined enrollment of undergraduate and graduate courses should not exceed 15 hours per semester. Courses taken in this manner are related to a graduate program of study and will not apply toward an undergraduate degree. These courses may be applied toward an advanced degree if they are acceptable to the department. The six-year time limitation on the completion of the master’s degree program applies to these as well as to other credits.

An undergraduate request to enroll in a graduate course must be made by contacting the academic department offering the course. Permission must be granted by the instructor and department chair.

Graduate Programs of Study
The Graduate School offers 40 master’s programs, two certificate of advanced study programs, five graduate certificate programs, and 9 postbaccalaureate teacher certification programs. For more information see postbaccalaureate and graduate program options. Nearly 2,000 students enrolled in graduate study at Buffalo State find that a graduate degree allows them entry into new or related fields or eligibility for promotion in their current fields.

Specialized graduate degree programs include art conservation, creative studies, educational technology, teaching bilingual exceptional individuals, literacy specialist and a certificate of advanced study in art conservation. While teacher education remains a tradition at Buffalo State, other graduate programs in adult
education, applied economics, and higher education and student affairs administration are unique within SUNY. New and applied programs in music education, great lakes ecosystem science, public and nonprofit management (MPA), museum studies, professional applied and computational mathematics, science education, and students with disabilities 7-12 generalist and students with disabilities 7-12 subject extensions offer exceptional opportunities for professional advancement.

Other notable graduate degree programs include criminal justice, industrial technology, applied economics, biology, English, history, and multidisciplinary studies.

Applying for Graduate Study
Students holding bachelor’s degrees from an accredited college or university are eligible to apply for graduate study at Buffalo State. International applicants must submit transcript evaluations and the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) scores. Admissions applications, application online fee payment, transcript request forms, and supplemental department materials are available to download www.buffalostate.edu/graduateschool/admissions http://www.buffalostate.edu/graduateschool/admissions or contact the Graduate School Office, Cleveland Hall 204 or email gradoffc@buffalostate.edu.

In accordance with federal regulations, all students are required to submit a final transcript with a degree posted to the Graduate School by the start of their graduate work for financial aid eligibility.

Alternative Methods of Earning College Credit

Advanced Placement Examinations
Credit may be granted for acceptable scores in approved Advanced Placement examinations, provided the subjects meet the curricular requirements of the specialized units of the college. Approved examinations include New York State College Proficiency Examinations (CPEP), College Entrance Examination Board Advanced Placement Examinations (AP), and College Entrance Examination Board College Level Examinations (CLEP).

Students receiving the lowest passing grade may be admitted to an advanced course but will receive no credit for the beginning course that was exempted. All other passing grades carry college credit. Before taking such an examination for credit, students already enrolled at the college must receive advance approval from the appropriate department chair. When the examination subject is the same as or overlaps a college course already credited, no new credit will be granted.

Course Challenge
Each department determines which courses may be challenged by examination. Matriculated undergraduate students may earn credit hours by challenging the specially designated courses. The following rules apply:

1. Total challenge credit may not exceed 30 credit hours.
2. A course in which a student is currently enrolled may not be challenged.
3. A course may not be challenged more than once.
4. Credit earned will be recorded as credit (cr) only rather than by grade.
5. No credit will be awarded when the challenged area duplicated an area for which credit already has been awarded.
6. A student must be matriculated to register for a course challenge.

Contract
Taking a course by contract is one form of independent study open to students who have reached sophomore level and are in good academic standing. If a course is not offered in a given semester, students may request to take a course by contract. Application forms are available in the academic department and the Registrar’s Office, Moot Hall, and must be filed with that office by the established deadline each semester. Both the instructor and the department chair must sign applications.

Students are provided with a course outline, bibliography, statement of responsibilities, and dates by which responsibilities are to be met. Students may then pursue the course independently under the guidance of a faculty member. The number of conferences, type of evaluation, and culminating activity will be decided by the faculty member and the student before registering for the course. These requirements must be filed with the department chair.

Freshmen are also eligible to take courses by contract under special circumstances. They may do so if

1. they are in their second semester of a one-year course and have a grade of A or B in the first semester part of the course;
2. they have successfully challenged the preceding course in the sequence;
3. they have entered the college with excellent high school records or have done honors work in pertinent fields in high school.

Credit for Experiential Learning
Credit for college-level experiential learning is available. Matriculated students who consider their previous learning experience as college-level creditable may enroll in INS 300, Educational Assessment and Portfolio Development. This course is open to matriculated students who must attend an information session in August to become familiar with the portfolio development process. In INS 300, students will conduct a self-appraisal and inventory of all potentially creditable prior learning. The portfolio will be treated as an application to appropriate departments for the award of college credit.

Within the guidelines noted below, credit for experiential learning follows essentially the same principle as transfer credit; students may receive credit for knowledge gained elsewhere. Students may receive a maximum of 30 credit hours. Credit will be awarded on the basis of its correspondence to existing Buffalo State courses. Credit
learned will be recorded as credit (cr) only, rather than by grade.

For information regarding credit for experiential learning, students should contact the Individualized Studies coordinator, South Wing 310, (716) 878-5303.

Cross-Registration
Students who have reached the sophomore level may take courses at any public or private college in Western New York with which Buffalo State has a cross-registration relationship for degree credit as long as they maintain a 12-credit-hour course load at Buffalo State. They may enroll for no more than one course elsewhere in any semester. Students who fall below the 12-credit-hour course load at the college will forfeit any credit hours earned at another institution that semester under the cross-registration procedure.

Students wishing to take a course on another campus that will apply toward a major must receive permission from the department chair. Cross-registration approval forms are available in the Registrar’s Office, Moot Hall, and must be signed by the student’s adviser and returned to the Registrar’s Office for signature. Students must then take the signed cross-registration approval to the appropriate campus where they must register according to the procedures of that campus.

Transcripts are forwarded automatically to Buffalo State at the end of the semester. Courses taken through cross-registration are recorded as if they had been taken at Buffalo State (credit hours and grade counts in cumulative GPA).

There is no cross-registration during the summer or January Term.

At the time of publication, the State University of New York was preparing to issue new rules for cross registration.

Off-Campus Study
Courses may be taken at other institutions for transfer credit as long as prior approval from the department chair is obtained and the Study Off Campus Form from the Registrar’s Office, Moot Hall, is completed and returned to that office. Students are urged to have transcripts of all coursework completed elsewhere forwarded to the Registrar’s Office as soon as possible. Coursework undertaken elsewhere, other than by cross-registration, will be recorded as transfer credit on the college transcript.

Independent Study (499)
Independent study provides students with the opportunity to pursue a topic that may be covered only briefly or not at all in regular course offerings. Students may choose a faculty sponsor who is an expert in the selected topic and together determine all aspects of the study, including the method of evaluation. The chair of the sponsoring department must approve the description of the study.

Students electing to do independent study should have a degree of knowledge in the area they have chosen, in addition to a strong motivation to work alone much of the time. Independent study is never a substitute for a course already being offered that term.

Specific requirements for independent study:
1. Sophomores, juniors, and seniors who have successfully completed basic courses or their equivalent in the area of study chosen are eligible to participate. They need a minimum GPA of 2.0 and a minimum GPA of 2.0 in the previous semester, plus a minimum GPA of 2.0 in work completed in the selected area. Freshmen who have successful advanced preparation in the selected area may also be allowed this option.
2. The study must be relevant to the student’s total program, and the student must derive special benefit from supervision by the college staff. The study must meet standards established for such programs by the department or program.
3. No independent study may be undertaken for fewer than 3 credit hours. A maximum of 30 credit hours in all areas may be taken independently by a student. No more than two independent studies may be taken in one semester.

Further information is available from the department chair and program coordinator. Application forms are available in the academic department and the Registrar’s Office, Moot Hall, and must be filed with that office by the established deadline each semester.

Internship (488)
Internship programs provide students with guided and supervised field experiences (experiential learning) as part of their degree programs. Students who wish to participate in the program must have a minimum GPA of 2.0 and a background of courses or experience within the area of interest. Approval for experiential learning situations must be obtained from either the student’s adviser or the chair of the department within which the student is a major, the supervising faculty member, and the chair of the department within which credit will be granted. An individual student will be permitted to apply a maximum of 15 credit hours toward the baccalaureate degree.

Topics Courses (189 and 389)
The topics format provides the opportunity for in-depth study and examination of rapidly and significantly changing disciplinary issues, topics, or practices, and may be used to accommodate requests of external agencies or the specialized resources of visiting faculty members. Students may accumulate a maximum of 9 credit hours in one discipline.

Military Service Educational Experience
College credit hours may be awarded for education received through military service, specialty schools, technical training schools, and basic training programs. Request for such credit should be made to the Admissions
Office, Moot Hall. Documents showing completion of such courses should accompany all requests.
Evaluation of this experience is based on its relation to college degree requirements and recommendations suggested by the American Council on Education Credit Manual.

Credit by Evaluation
Up to 45 credit hours may be accepted from the following sources:

<table>
<thead>
<tr>
<th>Source</th>
<th>Maximum credit hours</th>
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<tbody>
<tr>
<td>Published examinations</td>
<td>30</td>
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<tr>
<td>No more than 18 credit hours may be in general examinations.</td>
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<tr>
<td>Course challenge</td>
<td>30</td>
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<tr>
<td>Noncollegiate institutions</td>
<td>15</td>
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<tr>
<td>Proprietary institutions</td>
<td>15</td>
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Published examinations: Included in this category are nationally given subject and general examinations sponsored by the College Level Examination Program (CLEP), Advanced Placement Program (APP), and College Proficiency Examination (CPE). Passing grades are required for credit.

Courses from noncollegiate organizations: For credits to be granted, the institution must be approved by the State Education Department and listed in its Guide to Educational Programs in Noncollegiate Organizations. Noncollegiate organizations are those whose primary function is not education, such as the American Institute of Banking. Such credit applies primarily to the major and is determined by the appropriate department.

Courses from proprietary institutions: The institution must be approved by the State Education Department and listed in its official publication of approved institutions. Proprietary institutions are privately owned and for-profit, such as ITT Technical Institute. Such credit is applied primarily to the major and is determined by the appropriate department.

Transcript of Academic Record
Official transcripts of records are not issued directly to students but will be forwarded upon request to authorities whom the student may designate.

A student copy may be ordered for personal use. The fee is $5 for each transcript requested. Proper photo identification is required when picking up the student copy. Transcript request forms are available in the Registrar’s Office, Moot Hall, or at www.buffalostate.edu/registrar/transcript.xml. Transcripts will not be furnished for students who have incurred a financial obligation to the college. Transcript requests sent by mail must include the student’s name, current address, student (Banner ID or Social Security) number, dates of attendance, graduation date (if applicable), name and address of the party to whom the transcript is to be sent, the student’s signature authorizing release of the transcript, and a $5 check or money order payable to Buffalo State. All checks or money orders must include the last four digits of the student’s Banner ID number or Social Security number.

Transcript requests by telephone cannot be honored. All requests are acted upon in the order in which they are received. Sufficient time is necessary for processing; requests should be made well in advance of the date needed, usually at least two weeks.

Teacher Certification Office
Buffalo State maintains a Teacher Certification Office in Caudell Hall 101 that serves as a resource for Buffalo State students, faculty, and staff. The Teacher Certification Office verifies program completion so that Buffalo State graduates may apply for New York State teacher certification. The Teacher Certification Office also verifies completion of teacher education programs for graduates applying for out-of-state certification, provides teacher certification examination bulletins, and is a resource for certification requirements in all 50 states.

New York State Certification
All students who successfully complete an approved program in teacher education may be recommended to the New York State Education Department for a teaching certificate if they have met all requirements, including at least one student-teaching placement in an urban setting and the required seminars. In addition, the New York State Education Department requires both a background check through a fingerprinting process and satisfactory performance on a series of examinations before a certificate can be issued.

Graduates are able to apply for a New York State Teacher Certificate online through the TEACH Online Service system at www.highered.nysed.gov/tcert/teach. In order for the Teacher Certification Office to provide verification of program completion to the New York State Office of Teaching, students need to provide the certification office with permission to release this information. Release forms may be obtained from the office’s website or the Teacher Certification Office.

All teacher certification candidates who are applying for Initial Certification and Professional Certification through our Teacher Certification Office are required to complete two clock hours of coursework or training in the following four seminars:

- S.A.V.E. (School Anti-Violence Education Workshop)
- Child Abuse Identification Workshop
- Drug and Alcohol Awareness Seminar
- Fire and Arson Safety Seminar

Information regarding these seminars may be obtained from departmental offices and the Teacher Certification Office or website. Students completing an early childhood education and/or childhood education B.S. program through Buffalo State may be required to take an additional HIV/Exposure Seminar.
Teacher Certification Examination
Successful completion of identified portions of the New York State Teacher Certification Examinations (NYSTCE) is required for New York teaching certificates in all areas. Information can be obtained from departmental offices and the Teacher Certification Office.

Interstate Certification
As a participant in the Interstate Certification Project, New York State has reciprocity agreements with a number of other states, allowing Buffalo State graduates to be certified there. These include reciprocity for classroom teachers, vocational teachers, and administrative personnel in various states. The New York State Teacher Certification Examinations may not be acceptable in other states. Students should check with individual states to determine specific requirements.

Certification for B.S./B.A. Degree Holders
Holders of a B.S. or B.A. degree who wish to become certified may complete certification requirements through additional coursework at the undergraduate level or through specially designed postbaccalaureate or master’s degree programs. It is advised that they communicate with the appropriate department to determine the required admissions procedure. Please note: A department may require the completion of subject matter courses in the major area to remove any deficiencies. All professional education requirements and any subject matter courses must be completed prior to the student teaching semester. A full semester (12–15 credit hours) of student teaching, including at least one urban placement, must be successfully completed.

Holders of a B.S. or B.A. degree interested in early childhood education and/or childhood education only should contact the Graduate School, Cleveland Hall 204, for application to a special postbaccalaureate degree program.

Transportation to Off-Campus Instructional Sites
Students are responsible for providing their own transportation to off-campus sites for required courses, including student teaching and participation.

Transfer Students
Credit hours previously earned will be evaluated for all transfer students upon admission to the college. A maximum of 88 credit hours may be transferred from other regionally accredited institutions, with no more than 66 credit hours transferred from two-year colleges. Most credit hours earned at other institutions will be accepted, although the college cannot guarantee how credit hours earned at two-year institutions will relate to bachelor’s degree requirements. The most common cases in which transfer credit hours are not accepted follow:
1. Developmental courses in mathematics, English, and learning skills
2. Courses in theology or religion with sectarian emphasis

Only credit is transferable. Grades, quality points, and cumulative averages do not transfer.

The evaluation of transfer credit hours is recorded in Degree Navigator, the audit system located at http://www.buffalostate.edu/registrar/degreenavigator.xml
http://www.buffalostate.edu/registrar/degreenavigator.xml

The system records the major and general college requirements that have already been fulfilled, and those that remain.

Departments reserve the right to refuse to accept transfer credit hours in fulfillment of their own major requirements. Whether or not a course fulfills a major requirement may be open to discussion with the department chair or academic adviser, and it is useful to have a copy of the catalog from the previous institution available.

Student Complaints, Grievances, and Appeals
Buffalo State complies with New York State Education regulations requiring that campuses have procedures in place for filing complaints and seeking resolution of perceived problems.

Academic Appeals: Waiver of Academic Regulations
Students are expected to adhere to all regulations of the college. However, unusual and extenuating circumstances may warrant a modification of certain regulations.

Students should not request a waiver of any regulations without very strong evidence to justify the waiver. Requests for waivers are made by completing an Academic Appeals Petition available in the Academic Standards Office, Twin Rise 100, or on the Academic Standards website at www.buffalostate.edu/academicstandards/x463.xml.

The assistant dean for University College/director of Academic Standards, makes decisions on requests for waivers that do not relate to a student’s major after consulting with the Academic Appeals Committee. The assistant dean’s decision is final. A minimum of one month is necessary to process academic appeals.

Decisions on requests for a waiver related to a student’s major are made by the appropriate department chair in accordance with procedures established by the department or area faculty. Requests for application of AP and/or transfer credit should be taken directly to the Admissions Office; these requests do not require an Academic Appeals Petition.

Student Complaints Regarding Discrimination
If the complaint involves alleged harassment or discrimination based on race, sex, ethnicity, national origin, sexual orientation, gender identity, religion, age, disability, or marital or veteran status, the student should use procedures administered through the Equity and Campus Diversity Office. Acts of discrimination should be reported immediately to this office for confidential discussion of the alleged acts. Students have 90 days from the alleged act of discrimination or 90 days after receipt of a grade to file a complaint. A copy of the procedures may be obtained in Cleveland Hall 415.

Student Complaints Regarding Nonacademic Issues
If the complaint involves nonacademic issues, the student should deal with procedures administered by the Dean of
Students Office, Campbell Student Union 306. However, students are encouraged to seek resolution of the perceived problem directly in the unit in question before initiating processes that are more formal.

Student Complaints Regarding Academic Issues

The procedures outlined in the next section pertain to complaints about academic issues other than those dealing with waiver of collegewide academic regulations or graduation issues, which are addressed by petitions to the Academic Appeals Committee. The college seeks to resolve student grievances as promptly and informally as possible. No adverse action will be taken against any student initiating a complaint.

Students who feel aggrieved regarding any aspect of the academic program have a right to request a resolution by bringing the matter to the attention of the appropriate college personnel. The academic appeals process regarding a waiver of academic regulations is outlined under Waiver of Academic Regulations section. If the perceived problem pertains to a grade or the conduct of a particular course, students should follow the Student Academic Grievance Procedures, below.

Student Academic Grievance Procedures

The procedures that follow pertain to alleged violations or misapplication of college and/or course policies. They are also directed at a student grievance alleging that the student has been treated unfairly, in violation of established academic policy or practice. These procedures reflect the college’s commitment to a fair and prompt resolution of student academic grievances. These procedures begin with an informal process but include a formal process that centers on hearings and recommended resolution of the grievance in a way that maximizes the opportunity for a full and impartial solution. Request to waive or otherwise alter college academic policies shall continue to be the province of the Academic Appeals Committee (see Waiver of Academic Regulations).

The procedures below do not deal with grievances that are based on issues of sexual harassment or discrimination. Such grievances are handled through the Equity and Campus Diversity Office. Similarly, complaints that deal with other nonacademic issues are administered by the Dean of Students Office (see previous section).

For academic grievances, students are advised to retain all documentation from the course, including (but not limited to) the syllabus, tests, quizzes, papers, and any graded evaluations. These materials are required to substantiate any grievance.

1. Jurisdiction
   A grievance shall include, but not be restricted to, a complaint by a student
   a. That college regulations and/or policies have been violated or misapplied to him or her
   b. That he or she has been treated unfairly, defined in terms of established academic policy or practice governing or affecting students at the college

2. Time Limit
   a. At the informal level before the fifth week of the following semester
   b. At the formal level before the 10th week of the following semester

3. Grievance Resolution Process

   The process includes the possibility of hearings at two levels: the department and the faculty.
   a. At the department level, a student with a complaint should attempt to resolve the complaint informally with the faculty or staff member involved. The assistance of the chair may be sought to resolve the dispute to the satisfaction of both parties. A student must initiate the process no later than five weeks into the following semester. The student who is not able to achieve resolution with the instructor may initiate a formal grievance or grade appeal process no later than 10 weeks into the following semester by preparing a written statement, which includes the following:
      1. A statement of the case in detail
      2. All information about the conference with the instructor
      3. A statement of the reasons the student believes he or she is aggrieved or, in the case of a grade, why it should be reconsidered
      4. All relevant supporting materials, which should be identified and listed in an index

   The student shall submit complete copies of the written statement and attachments to the chair of the department and the faculty member identified in the grievance. The chair shall carefully review the statement, confer with the student and instructor, and attempt to reach a resolution of the dispute. The chair may ask members of the department to serve as a committee to review the materials and assist him or her in reaching a decision. The chair’s response must be made within 10 academic days of the date of the student’s request.

   In conformance with state regulations, the department shall maintain adequate documentation about each formal complaint and its disposition for at least six years after final disposition of the complaint. If the department chair is the party against whom the grievance is brought, the student should initiate a review at the dean’s level, which follows:
   b. If the matter is not resolved to the student’s satisfaction at the departmental level, he or she may request a hearing at the faculty level by writing to the dean of the faculty and forwarding the documentation to that office. The request must be made within 10 academic days of the receipt of the recommendation of the department chair. The dean or designee shall convene a three-person committee drawn from a panel of available faculty within 10 academic days. Such committee shall include one faculty member from the department in which the faculty member resides. Furthermore, after the committee is constituted, the faculty member and the student have the right to review the committee membership and request alternative members in the event it is believed a member of the committee is not neutral. The committee shall meet and review the
materials presented and solicit a response from the instructor to each count of the student’s case. In the case of a grade appeal, the committee will familiarize itself with the standards and objectives of the course and evaluative material presented. Concerns shall be limited to consideration of the fairness of the application of the standards and objectives, and whether the standards and objectives were made known to the student in a reasonable manner. The difficulty of the standards shall not be an issue.

The burden of proof shall be on the student, who may be asked to appear before the committee. In the case of a grade appeal, if the majority of the committee feels no case can be made, the original grade will remain. If it finds that the standards and objectives were not reasonably known to the student or were unfairly applied, it may recommend a different grade and give its reasons for so recommending. The committee shall report its findings in writing to the student, the instructor, and the dean. If the panel recommends a different grade, the instructor shall have 10 academic days from receipt of the panel’s report to inform the dean of the faculty of the intent to change the grade. If necessary, the dean may direct that the grade be changed. A change of grade shall not be interpreted as an admission of unfairness in grading. In the case of a grievance, if the majority of the committee members adjudge the grievance to be without foundation, written notification of their findings will be forwarded to the student, the instructor, and the dean of the faculty. If, in the judgment of the committee, there is a basis for the grievance, a written report will be forwarded to the dean of the faculty with specific recommendations for redress. Copies shall be forwarded to the student and the instructor. The dean of the faculty will notify all parties of his or her final decision regarding the grievance within 10 academic days of receipt of the committee’s findings and recommendations.

In conformance with state regulations, the dean’s office shall maintain adequate documentation about each formal complaint and its disposition for at least six years after the final disposition of the complaint.

4. Committees
Committee members shall be drawn from a list of faculty nominated by departments. In naming the committee to hear a grievance, the dean shall take care to ensure that no member has an interest in the case being heard.

5. Confidentiality
Once the grievance committee has been convened to hear a complaint, principals and committee members shall have the obligation to maintain the confidentiality of the proceedings and of all materials presented.

6. Review
This procedure must be reviewed after two years. The review process should identify any irregularities in grade changes. To facilitate this review, a copy of all documentation/findings at the formal level shall be retained in the department office.

Complaints to State Education Department
Any individual who continues to feel aggrieved after pursuing the options outlined previously, is unable to resolve the problems, or believes the institution has not properly addressed the concerns may file a written complaint with the State Education Department within three years of the alleged incident.

The complainant may telephone the Postsecondary Complaint Registry to request a complaint form at (212) 951-6493 or write to the New York State Education Department, Postsecondary Complaint Registry, One Park Ave., 6th Floor, New York, NY 10016.

Academic Levels (Class Level)
Students are given class designations according to the number of credit hours they have earned. Undergraduate levels are:
- Freshmen: 0 to 29 credit hours
- Sophomores: 30 to 59 credit hours
- Juniors: 60 to 89 credit hours
- Seniors: 90 or more credit hours

Students Unable to Attend Classes on Certain Days Because of Religious Beliefs
1. No person shall be expelled from or be refused admission as a student to an institution of higher education because he or she is unable, due to religious beliefs, to register for or attend classes, or to participate in any examination, study, or work requirements, on a particular day or days.

2. Any student in an institution of higher education who is unable, because of his or her religious beliefs, to attend classes on a particular day or days shall, because of such absence on the particular day or days, be excused from any examination or any study or work requirements.

3. It shall be the responsibility of the faculty and the administrative officials of each institution of higher education to make available to each student who is absent from school, because of his or her religious beliefs, an equivalent opportunity to register for classes or make up any examination, study, or work requirements that he or she may have missed because of such absence on any particular day or days. No fees of any kind shall be charged by the institution for making available to the said student such equivalent opportunity.

4. If registration, classes, examinations, study, or work requirements are held on Friday after 4:00 p.m. or on Saturday, similar or makeup classes, examinations, study, or work requirements shall be made available on other days, where it is possible and practical to do so. No special fees shall be charged to the student for these classes, examinations, study, or work requirements held on other days.
5. In effectuating the provisions of the Education Law, it is expected that faculty and administrative officials will exercise the fullest measure of good faith. No adverse or prejudicial effects shall result to any student for availing himself or herself of the provisions of this section.

6. Any student who is aggrieved by the alleged failure of any faculty or administrative official to comply in good faith with the provisions of this section shall be entitled to maintain an action or proceeding in the supreme court of the county in which such institution of higher education is located for the enforcement of his or her rights under this section.

7. The term "religious beliefs" shall mean beliefs associated with any corporation organized and operated exclusively for religious purposes, which is not disqualified for tax exemption under Section 501 of the United States Code.

8. At Buffalo State, we sharpen the mandate of the state and endorse the policy that prohibits administering evaluative examinations on Rosh Hashanah, Yom Kippur, and Good Friday.

**Assessment**

Buffalo State is committed to fostering the academic achievement and personal development of its students. To carry out this commitment, the college continuously gathers information about the effectiveness of its academic programs, the progress of students toward educational and personal goals, and the achievements and perspectives of alumni. This information is used to monitor program effectiveness, to recognize educational trends and opportunities, and to develop a sound, factual basis for academic planning.

Each Buffalo State student is expected to participate in the college’s assessment efforts. Academic programs use various means and other methods. Participation in these activities may be a completion requirement for some degree programs.

**Academic Advisement**

Students who have declared a major must seek advisement by contacting the chair of the department responsible for their major. Advisement for undeclared students affiliated with the Arthur O. Eve Educational Opportunity Program (EOP), Student Support Services Program (SSSP), Muriel A. Howard All-College Honors, or Academic Intervention (AI) should contact those programs for advisement. Other undeclared majors should consult with the Academic Advisement Office, South Wing 110.
SUNY Buffalo State is organized into five schools: the School of Arts and Humanities, the School of Education, the School of Natural and Social Sciences, the School of the Professions, and the Graduate School. Each school contains specific departments responsible for the degree programs offered there. Each school reports to an academic dean who is responsible for the administration of the departments and the degree programs residing in that area. Students should consult with their dean, usually by appointment, when issues remain unresolved after having met with their department chair. All the major areas of study or interdisciplinary programs described below fall under the responsibility of one or more of the departments.

Each program description gives valuable information concerning all aspects of each course of study offered at Buffalo State. This information includes the department offering the program, the degree that is granted, an explanation of the program’s content and purpose, special admission requirements, required credit hours in the major field and outside of the field, the number of electives allowed, and total degree requirements.

School of Arts and Humanities
The following undergraduate departments are in the School of Arts and Humanities: Art Education, Communication, Design, English, Fine Arts, Interior Design, Modern and Classical Languages, Music, Philosophy, and Theater. The School of Arts and Humanities also offers interdisciplinary degree programs in Arts and Letters, Television and Film arts, and Writing.

School of Education
The following undergraduate departments are in the School of Education: Adult Education, Business and Marketing Education, Career and Technical Education, Elementary Education and Reading, Exceptional Education, Family and Consumer Sciences Education and Social and Psychological Foundations of Education. The School of Education also offers degree programs in individualized studies.

School of Natural and Social Sciences
The following undergraduate departments are in the School of Natural and Social Sciences: Anthropology, Biology, Chemistry, Earth Sciences and Science Education, Economics and Finance, Geography and Planning, Health and Wellness, History and Social Studies Education, Mathematics, Physics, Political Science, Psychology, and Sociology. The School of Natural and Social Sciences also offers degree programs in individualized studies.

School of the Professions
The following undergraduate departments are in the School of the Professions: Business, Computer Information Systems, Creative Studies, Criminal Justice, Engineering Technology, Dietetics and Nutrition, Fashion and Textile Technology, Hospitality and Tourism, Social Work, and Speech-Language Pathology. The School of the Professions also offers degree programs in individual studies.

University College
University College is the academic home of Buffalo State first-year and undeclared students, providing support for their transition to college life and assistance in determining their best selection of majors and careers. University College strives to serve students by being a place that challenges them to think in new ways; to make intentional and appropriate personal and academic choices; and to find meaningful connections to faculty, staff, and fellow students. University College coordinates efforts to ensure that Buffalo State students are glad they came to this college and find it a place to earn success as scholars.

Continuing Professional Studies
Continuing Professional Studies is the academic home of programs for adult students at Buffalo State. In partnership with schools and departments, Continuing Professional Studies provides high-quality credit and noncredit courses, workshops, and certificate programs to both traditional and nontraditional learners using a variety of locations, schedules, and technologies. Continuing Professional Studies manages Summer Session, January Term, Veterans Services/Certification Office, individualized studies, evening and weekend programs for adult students, online learning programming and development, conference planning, and noncredit programming.
Students entering Buffalo State before fall 2006 or who were readmitted in fall 2006 or later should consult with their adviser and www.buffalostate.edu/registrar/degreenuavigator.xml for general education requirements.

The Intellectual Foundations program is required of all undergraduate students entering Buffalo State who begin their college careers in fall 2006 or later or are readmitted into the college after a two-year absence. Students entering Buffalo State before fall 2006 should consult with their adviser and www.buffalostate.edu/registrar/degreenuavigator.xml for general education requirements. For the most up-to-date information, consult www.buffalostate.edu/registrar.

Mission of the Intellectual Foundations Program
The Intellectual Foundations program promotes an understanding of the continuity of human history, the depth of inherited knowledge, the validity of diverse modes of inquiry, the value of artistic expression, and the richness of our collective experience. The purpose of the Intellectual Foundations program is to develop the skills and habits of mind required for a life of intellectual curiosity and civic engagement.

Intellectual Foundations Program Requirements
The Intellectual Foundations program constitutes 36–63 of the 120 credit hours necessary for graduation, divided among 15 areas of knowledge. In each of the 15 areas, students may select from lists of approved courses. These lists are updated each semester, and only those courses that appear on the list during the semester the student successfully completes those courses may be applied to the Intellectual Foundations requirements. The courses that meet the Intellectual Foundations requirement as of this printing are listed on the following pages with the specific categories and credit distribution. For up-to-date course listings, see www.buffalostate.edu/intellectualfoundations.

If you have questions about the Intellectual Foundations requirements or which requirements you should be following, please consult your department office or the Academic Advisement Center, University College, South Wing 110, (716) 878-5223. For the most current information about Intellectual Foundations requirements, visit www.buffalostate.edu/intellectualfoundations.

Categories and Credit Distribution
Under the Intellectual Foundations requirements, student must complete the requisite number of credit hours in the following 15 categories:

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Requirement</th>
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</thead>
<tbody>
<tr>
<td>0–6</td>
<td>Basic Writing: CWP 101 and CWP 102 or equivalent</td>
</tr>
<tr>
<td>3</td>
<td>Mathematics/Quantitative Reasoning*</td>
</tr>
<tr>
<td>6</td>
<td>Cognate Foundations: Arts</td>
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<tr>
<td>6</td>
<td>Cognate Foundations: Humanities</td>
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<tr>
<td>6</td>
<td>Cognate Foundations: Natural Sciences</td>
</tr>
<tr>
<td>6</td>
<td>Cognate Foundations: Social Sciences</td>
</tr>
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<td>3</td>
<td>Foundations of Civilizations: American History</td>
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<tr>
<td>3</td>
<td>Foundations of Civilizations: Western Civilization</td>
</tr>
<tr>
<td>3</td>
<td>Foundations of Civilizations: Non-western Civilization</td>
</tr>
<tr>
<td>0–3</td>
<td>Technology and Society††</td>
</tr>
<tr>
<td>0–3</td>
<td>Diversity††</td>
</tr>
<tr>
<td>0–3</td>
<td>Basic Oral Communication††</td>
</tr>
<tr>
<td>0–6</td>
<td>Writing Across the Curriculum††</td>
</tr>
<tr>
<td>0–6</td>
<td>Foreign Language†</td>
</tr>
<tr>
<td><strong>36–63</strong></td>
<td><strong>Total credit hours</strong></td>
</tr>
</tbody>
</table>

*Students cannot be exempted from this requirement. Students must complete MAT 097 or MAT 098 or the equivalent before taking the Mathematics and Quantitative Reasoning required course unless they have completed three years of high school math or attained an SAT math score of 460 or an ACT math score of 16.
†Proficiency may be wholly or partially completed prior to college.
††One designated 3-credit course, which may satisfy multiple requirements

In Cognate Foundations in the arts, humanities, natural sciences, and social sciences, students must take at least two designated courses in two different disciplines (course
Each student may use courses to fulfill both major requirements and Intellectual Foundations requirements, or those of other General Education categories. Students may also count mathematics and quantitative reasoning and foreign language courses toward their major requirements. Courses in the following Intellectual Foundations categories may satisfy multiple requirements without restriction: technology and society, diversity, basic oral communication, and writing across the curriculum.

Additional Degree Requirements
In addition to the liberal arts education coursework described on the following pages, all undergraduate degree candidates must meet the following college wide graduation requirements:

- Successful completion of required coursework in the declared major
- Successful completion of at least 120 credit hours, of which at least 33 must be upper division. At least 32 credits must be taken at Buffalo State, including the last 16 credits
- Final minimum overall cumulative GPA of 2.0
- Final minimum major GPA of 2.0
- Final minimum cumulative GPA for courses taken in a minor is 2.0.
- Successful clearing of all I, N, or X grades

Course Coding System
A four-character code is used to identify which Intellectual Foundations requirement(s) a course fulfills. This information is printed in the legend of the online undergraduate class schedule. The Intellectual Foundations codes are as follows:

- AHIF American History, IF
- ARIF Arts, IF
- BCBW Basic Communication, IF
- DIIF Diversity, IF
- FLA Foreign Language, IF
- HUIF Humanities, IF
- MQIF Mathematics and Quantitative Reasoning, IF
- NSIF Natural Science, IF
- NWIF Non-Western Civilization, IF
- OCIF Basic Oral Communication, IF
- SSIF Social Science, IF
- TSIF Technology and Society, IF
- WCIF Western Civilization, IF

Department (Major) Requirements
A major consists of no fewer than 24 credit hours and usually no more than 42 credit hours in a particular field of study. Each department sets its own requirements. To receive a degree in a particular major, students must complete at least 6 credit hours in their major at Buffalo State. Courses and sequences of a major are determined by individual departments with the approval of the College Senate, Academic Affairs, and the president.

Second Majors and Minors
Courses selected to satisfy the general education requirement may be used to fulfill any part of the requirements of a second major or a minor.

Electives
The number of unrestricted elective courses varies according to the individual program. These courses are needed to make up the 120 credit hours required for graduation. Check the individual program requirements to determine the number of electives allowed. These courses are taken in addition to general education and departmental credit hours.

Foreign Language Requirement
All Intellectual Foundations students must demonstrate proficiency in a single foreign language equivalent to the successful completion of one year of college-level work (102-level proficiency or equivalent). Students who have successfully completed foreign language study on the high school level may register for the appropriate course. Successful completion of one language through the second year in high school satisfies the requirement. Proficiency in foreign language also may be achieved by completing 6 credits on the College-Level Examination Program test (see section Alternative Methods of Earning College Credit).

Sign language may be substituted for foreign language for students in the following majors (list is here): www.buffalostate.edu/registrar/documents/Intellectualfoundations.htm#Language
For further information regarding placement or any aspect of the requirement, contact the Modern and Classical Languages Department, Bishop Hall 126, (716) 878-5414.

Upper-Division Course Requirement
All students must complete a minimum of 33 credit hours of upper-division coursework (300–400 levels) to be eligible for graduation. An exception is made for foreign language courses (see foreign language requirement). Specific information can be obtained through the appropriate major departments.

Writing Across the Curriculum Requirement
Writing represents a critical component of the educational process, and the integration of writing into all types of courses across the curriculum is widely encouraged. See Basic Writing Requirements 37 for more information.

Basic Writing Requirement
The college requires all matriculated students to demonstrate college-level skills in composition. For more information, see Basic Writing Requirement 37 in the Academic Policies section of this catalog.
Academic Minors

Buffalo State academic minors are specially conceived sequences of courses designed to allow students to achieve important goals. A minor may be used to complement the major course of study, broaden and enhance career opportunities, gain expertise in an area of interdisciplinary studies, or provide in-depth study in a subject of special interest. While an academic minor is an optional study program, students often find it an excellent way to make strategic use of all college elective courses.

Each minor program consists of 18–21 credit hours of coursework. A minimum cumulative GPA of 2.0 is required for admission to a minor program, and at least three of the courses in each minor must be completed at the college. Students may not elect a minor from the same discipline as their major program. A minor may include no more than 9 total hours that overlap with the student’s major disciplinary requirements. A minor may include no more than 2 courses at a lower division level. Students who complete the minor with a minimum GPA of 2.0 will have the minor recorded on their official transcript.

Only matriculated students who intend to seek an undergraduate degree may be accepted into a minor program. A minor may be earned simultaneously only while completing a major degree program. Students interested in selecting a minor program should contact the coordinating department as soon as possible and complete a Change of Major/Minor form. A listing of all minors and requirements is on file in each department and dean’s office. Only the coordinating department provides advisement on individual minors.

For a list of minors, please refer to Undergraduate Minor Programs at a Glance chart on page 56.

Intellectual Foundations

Courses

The courses listed below will satisfy the relevant Intellectual Foundations requirement. Choose the number of required courses and credits from each of the following categories. (Most courses equal 3 credits.)

Foundations of Inquiry:

* Basic Writing
  - CWP 101
  - CWP 102

* Mathematics/Quantitative Reasoning
  - ECO 305
  - MAT 103
  - MAT 114
  - MAT 122
  - MAT 124
  - MAT 126
  - MAT 161
  - MAT 311
  - PHI 107

* Cognate Foundations: Humanities

  - AAS 240
  - COM 100
  - ENG 151
  - ENG 160
  - ENG 205
  - ENG 206
  - ENG 210
  - ENG 211
  - ENG 212
  - ENG 220
  - ENG 221
  - ENG 230
  - ENG 231
  - ENG 240
  - ENG 241
  - ENG 243
  - ENG 252
  - ENG 255
  - HON 101
  - HUM 100
  - MCL 100
  - PHI 101
  - PHI 102
  - PHI 110
  - REL 104
  - REL 205
  - REL 206
  - SPC 103

* Cognate Foundations: Natural Sciences

  - ANT 100
  - ANT 220

* Cognate Foundations: Social Sciences

  - ANT 244/244W
  - CRJ 101
  - ECO 101
  - ECO 201
  - ECO 202
  - GEG 102
  - HON 202
  - HON 302
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</table>
Writing Across the Curriculum
Two (2-6 credits) courses designated "writing intensive" (marked "W" next to the course number in the schedule, such as "ENG 300W"). Writing Across the Curriculum courses may satisfy multiple requirements.

Foreign Language
Proficiency in a foreign language equivalent to at least the 102 level may be demonstrated by success in a foreign language in high school or completion of one of the following:
- CHI 101 and CHI 102
- FRE 101 and FRE 102
- FRE 110
- GER 101 and GER 102
- GRK 101 and GRK 102
- ITA 101 and ITA 102
- LAT 101 and LAT 102
- SLP 101* and SLP 102*
- SPA 101 and SPA 102
- SWA/AAS 101 and SWA/AAS 102

Sign language may substitute for a foreign language for students in selected majors.

*Students in selected majors.

Upper Division
200 level foreign languages count as upper division courses.
# Undergraduate Programs

Undergraduate Major Programs at a Glance

*Evening study available. See minor programs on page 56 for full listing of Undergraduate Minors.

<table>
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<tr>
<th>Major Program</th>
<th>Degree</th>
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<td>Department</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>Printmaking</td>
<td>PRT</td>
<td>Fine Arts</td>
</tr>
<tr>
<td>Psychology</td>
<td>PSY</td>
<td>Psychology</td>
</tr>
<tr>
<td>Public Administration</td>
<td>PUB</td>
<td>Political Science</td>
</tr>
<tr>
<td>Quality*</td>
<td>QUA</td>
<td>Technology</td>
</tr>
<tr>
<td>Religious Studies*</td>
<td>REL</td>
<td>Philosophy and Humanities</td>
</tr>
<tr>
<td>Safety Studies*</td>
<td>SAF</td>
<td>Technology</td>
</tr>
<tr>
<td>Sculpture</td>
<td>SCL</td>
<td>Fine Arts</td>
</tr>
<tr>
<td>Social Welfare</td>
<td>SOW</td>
<td>Social Work</td>
</tr>
<tr>
<td>Sociology</td>
<td>SOC</td>
<td>Sociology</td>
</tr>
<tr>
<td>Spanish</td>
<td>SPA</td>
<td>Modern and Classical Languages</td>
</tr>
<tr>
<td>Speech</td>
<td>SPC</td>
<td>Communication</td>
</tr>
<tr>
<td>Study of Understanding Community, Diversity, and Peace</td>
<td>CDP</td>
<td>Geography and Planning</td>
</tr>
<tr>
<td>Theater</td>
<td>THA</td>
<td>Theater</td>
</tr>
<tr>
<td>Urban Civic Education</td>
<td>UCE</td>
<td>Social and Psychological Foundations of Education</td>
</tr>
<tr>
<td>Urban Studies</td>
<td>UST</td>
<td>Dean’s Office, Natural and Social Sciences</td>
</tr>
<tr>
<td>Women and Gender Studies</td>
<td>WGS</td>
<td>Dean’s Office, Natural and Social Sciences</td>
</tr>
<tr>
<td>Writing</td>
<td>WTG</td>
<td>English</td>
</tr>
</tbody>
</table>
Anthropology (B.A.)

BA-NS ANT
Anthropology Department
Bachelor of Arts (HEGIS 2202)
Classroom Building B107 (716) 878-6110
Anthropology is the exploration of what it means to be human. Although anthropology is often associated with faraway places and remote excavations, anthropologists are increasingly involved in research on such topics as education, health, food, migration, sports, tourism, and cultural identity. The study of anthropology provides a broad-based approach to the understanding of human culture (past and present) and human biology. The anthropological perspective is global, holistic, and involves considerable time-depth. The major exposes students to the primary subdivisions within the field: archaeology, social cultural anthropology, physical/biological anthropology, linguistics, and folklore. The B.A. in anthropology prepares students for further academic training at the graduate level, but can also lead directly to careers in nonacademic (applied) areas, such as forensics, contract archaeology, cultural resource management, museum work, social services, education, government, and market research. Internships, archaeological field schools, and a departmental honors program are available to students in this major.

Intellectual Foundations Requirements

Total Required Credit Hours in Anthropology

A. Required Courses (15 cr)
   ANT 100 Human Origins
   ANT 101 Understanding Culture
   ANT 488 Internship

   TWO of the following three courses:
   ANT 412W Seminar in Cultural Anthropology
   ANT 415 Seminar in Archaeology
   ANT 418W Seminar in Physical Anthropology

B. Electives (12–15 cr)
   Select one course from each of the following areas:

   Archaeology (3 cr)
   *ANT 250 Historical Archaeology
   ANT 310 Mesoamerican Archaeology
   ANT 312 Archaeology of North America
   ANT 329 World Prehistory
   ANT 377 Ancient Civilization

   Physical Anthropology (3 cr)
   *ANT 220 Case Studies in Physical Anthropology
   ANT 321 Primatology
   ANT 323 Anthropology of Disease
   ANT 324 The Human Skeleton
   ANT 325 Forensic Anthropology
   ANT 326 The Human Fossil Record

   Regional/ Social Cultural/Topical Courses (3 cr)
   ANT 300 Indigenous Peoples of Western North America
   ANT 301 Indigenous Peoples of Eastern North America
   ANT 303 The Anthropology of Europe
   ANT 305 Peoples of Africa
   ANT 306 Peoples of Asia
   ANT 307 Urban Anthropology
   ANT 327 Medical Anthropology
   ANT 330 Pacific Islanders
   ANT 340 Women in Anthropological Perspective
   ANT 341 Art and Culture in Anthropological Perspective
   ANT 344W Folklore & Fantasy in Popular Culture: From Middle-earth to Harry Potter
   ANT 350 Global Marriage Practices
   ANT 362W Urban Folklore
   ANT 365 Practicing Anthropology
   ANT 367 Culture and Ecology
   ANT 370 The Anthropology of Contemporary Issues
   ANT 380 Language and Culture
   ANT 381 Religion, Magic and Culture
   ANT 388W Folklore & Technology: American Roots Music
   ANT 411 African Family

Experiential Courses (3–6 cr)
   ANT 244W Introduction to Folklore and Folklife
   ANT 308 Archaeological Method (Field School)
   ANT 315W Research Methods in Cultural Anthropology
   ANT 385 Visual Anthropology
   ANT 400 Ancient Materials
   ANT 455 Project
   ANT 483 Honors Research
   ANT 499 Independent Study

C. Two Other Courses, From Any Area, Selected by Advisement (6 cr)

All College Electives

Total Required Credit Hours

* Courses listed with asterisks may count towards the major requirements ONLY if student is also a Forensic Anthropology or Indigenous Studies Minor.

Note: ANT 389 may be used to fill one or more of the elective requirements according to content in any given semester. You may take only three ANT 389 courses over the duration of your time at Buffalo State. Please contact your adviser to determine the appropriate designation.

Art (B.A.)

BA-AH ART
Fine Arts Department
Bachelor of Arts (HEGIS 1002)
National Association of Schools of Art and Design (NASAD) Accredited

Upton Hall 502 (716) 878-6014
The Art program provides students with the opportunity to study a wide variety of visual arts media. Together with basic instruction in drawing, design, and art history,
The Art Education program prepares students for initial certification to teach pre-kindergarten through grade 12 (PK-12) art in New York State schools. The program develops art education professionals who are knowledgeable about the subject of art; who think systematically about the act of teaching; who are committed to teaching students about art in meaningful and critical ways; who consider teaching to be a dynamic and continuing process of development and growth; who recognize and respect individual differences in their students and adapt their teaching strategies to fit individual student needs; who are sensitive to issues related to diversity in class, ethnicity, and gender in contemporary society; who are active in the professional, cultural, and art communities; who understand and are prepared to utilize current technology and media in the public school art programs; who understand and promote the value of art in contemporary cultures; and who are prepared to address the unique learning needs of pre-kindergarten through grade 12 students in an urban environment.

Requirements of Major: For students to enroll and remain in the art education program, they must maintain a minimum cumulative GPA of 2.5 and a minimum GPA of 3.0 in their major, which includes all Art Education, Fine Art, and Design coursework. A portfolio review is required for admission to the department. Students are expected to assume the costs of materials they use in art education courses, and there may be an additional instructional charge for materials used in class. Students enrolled in a studio course are expected to work a minimum of two additional hours each week outside of class for each credit granted for that class.

Student Teaching: Eligibility for student teaching is determined by the Art Education Department; placement is arranged by the art education coordinator of student teaching. Student teaching experiences are provided in cooperating elementary, middle, and secondary schools. In some cases, students may be required to reside in the community where their student teaching assignments take place; transportation to/from the student teaching assignment is the student’s responsibility. Students enrolled in the student teaching semester devote full time to their practicum assignment. Prior written approval must be obtained from the chair of the Art Education Department for a student to enroll for any other college credit work during a student teaching assignment except for AED 400. All students anticipating a student teaching assignment must show proof of having a test for tuberculosis within three months of the assignment. Results of the test must be filed at the health center.

Transfer Students: Students transferring to the art education major as juniors, and who wish to complete their programs in four semesters, should plan their schedules of coursework in art education with great care, and with an academic adviser. It is important to note that AED 300W, AED 301W, and AED 302W are intended as a sequence and may not be taken concurrently except for students in post-baccalaureate certification-only programs. Art teacher certification is a function of the Office of Teaching Initiatives, NYS Education Department, Albany. For information contact the Buffalo State Teacher Certification Office.

Post-baccalaureate (Certification-Only) Program (see below): This program is for students who have already earned a B.A./B.F.A. degree in a studio area and are interested in earning art teacher certification.

### Intellectual Foundations Requirements

| Total Required Credit Hours in Art Education | 39–66 cr |

#### A. Required Courses (24 cr)
- AED 200 Fundamentals of Art Inquiry
- AED 300W Foundations in Art Education
- AED 301W Theoretical Constructs in Art Education
- AED 302W Functions and Practice in Art Education
- AED 315 Arts in Living
- AED 398 Computer Applications for Art Educators
- AED 400 Student Teaching Seminar
- ATS 325 Arts and Special Needs

#### B. Required Field Experience (12 cr)
- AED 303 Elementary Student Teaching in Art (6)
- AED 304 Secondary Student Teaching in Art (6)
Total Required Credit Hours in Fine Arts and Design 36 cr

A. Required Fine Arts Courses (15 cr)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAR 101</td>
<td>Drawing I</td>
</tr>
<tr>
<td>FAR 102</td>
<td>Drawing II</td>
</tr>
<tr>
<td>FAR 104</td>
<td>Themes and Issues in Contemporary Arts</td>
</tr>
<tr>
<td>FAR 250</td>
<td>Art History I</td>
</tr>
<tr>
<td>FAR 251</td>
<td>Art History II</td>
</tr>
</tbody>
</table>

B. Required Design Courses (6 cr)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES 101</td>
<td>Introductory Design 2D I</td>
</tr>
<tr>
<td>DES 103</td>
<td>Introductory Design 3D I</td>
</tr>
</tbody>
</table>

One elective selected by advisement.

C. Studio (FAR and DES) Electives Selected by Advisement (15 cr)

All College Electives 0–6 cr

ART EDUCATION (PK–12, PTCP)

UG-PBC-AH AED
Art Education Department
Postbaccalaureate Teacher Certification Program (HEGIS 0831)
Bishop Hall 103 (716) 878-4106

The program offers a course sequence meeting the educational requirements for certification in grades pre-kindergarten through 12 (PK-12). Students are expected to complete the entire sequence and are responsible for any additional certification requirements established by the New York State Education Department, Teacher Certification Division, including the NYS Teacher Certification Examinations and mandated seminars. In order to be eligible for the program, applicants must have and maintain a minimum 2.5 overall GPA and a 3.0 GPA in the major, which includes Art Education, Design, and Fine Arts coursework.

Except for the student teaching semester, Postbaccalaureate Certification-only students may elect to attend part-time or full-time. Courses are offered each semester (not summer) during daytime hours.

Art teacher certification is a function of the Office of Teaching Initiatives, NYS Education Department, Albany. For information contact the Buffalo State Teacher Certification Office.

First Semester 12 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AED 200</td>
<td>Fundamentals of Art Inquiry</td>
</tr>
<tr>
<td>AED 398</td>
<td>Computer Applications for Art Educators</td>
</tr>
<tr>
<td>AED 300W</td>
<td>Foundations in Art Education</td>
</tr>
<tr>
<td>AED 301W</td>
<td>Theoretical Constructs in Art Education</td>
</tr>
</tbody>
</table>

Second Semester 9 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AED 302W</td>
<td>Functions and Practice in Art Education</td>
</tr>
<tr>
<td>AED 315</td>
<td>Arts in Living</td>
</tr>
<tr>
<td>ATS 325</td>
<td>Arts and Special Needs</td>
</tr>
</tbody>
</table>

Third Semester 15 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>AED 303</td>
<td>Elementary Student Teaching in Art (6)</td>
</tr>
<tr>
<td>AED 304</td>
<td>Secondary Student Teaching in Art (6)</td>
</tr>
<tr>
<td>AED 400</td>
<td>Student Teaching Seminar</td>
</tr>
</tbody>
</table>

Total Required Credit Hours 36 cr

ART HISTORY (B.A.)

BA-AH ARH
Fine Arts Department
Bachelor of Arts (HEGIS 1003)
National Association of Schools of Art and Design (NASAD) Accredited
Upton Hall 502 (716) 878-6014

The program in Art History is designed to train students in the history and development of art worldwide. Art history, as one of the disciplines in the liberal arts, is envisioned as a foundation for graduate study and for careers in a wide variety of professions. Art history majors are prepared for graduate work in art history, arts administration, museum studies, arts librarianship, visual resource and archive curatorship, historic preservation and art conservation. Buffalo State art history majors who continue their studies on the graduate level may find employment in public and private agencies, libraries, galleries, museums, publishing houses, art dealerships, colleges, arts consultancies, commercial arts organizations and in tourism. It is recommended that art history majors achieve fluency in at least one foreign language before graduating. Students enrolled in a studio course are expected to work a minimum of two additional hours each week outside of class for each credit granted for that class.

Intellectual Foundations Requirements 39–66 cr

A. Required Courses (27 cr)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAR 101</td>
<td>Drawing I</td>
</tr>
<tr>
<td>FAR 104</td>
<td>Themes and Issues in Contemporary Arts</td>
</tr>
<tr>
<td>FAR 250</td>
<td>Art History I</td>
</tr>
<tr>
<td>FAR 251</td>
<td>Art History II</td>
</tr>
<tr>
<td>FAR 354</td>
<td>Art and Culture of Greece</td>
</tr>
<tr>
<td>FAR 359</td>
<td>High Renaissance and Mannerism</td>
</tr>
<tr>
<td>FAR 362</td>
<td>Nineteenth-Century Art</td>
</tr>
<tr>
<td>or FAR 363</td>
<td>or Twentieth-Century Art</td>
</tr>
</tbody>
</table>

One course in medieval art from list below
One course in non-Western art from list below

B. Electives in Art History (15 cr)

Select three courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAR 325</td>
<td>History of Photography</td>
</tr>
<tr>
<td>FAR 352</td>
<td>Art and Culture of Islam</td>
</tr>
<tr>
<td>FAR 353</td>
<td>Art and Culture of Egypt and the Near East</td>
</tr>
<tr>
<td>FAR 356</td>
<td>Early Medieval Art</td>
</tr>
<tr>
<td>FAR 357</td>
<td>Late Medieval Art</td>
</tr>
<tr>
<td>FAR 358</td>
<td>Early Renaissance Art in Italy</td>
</tr>
<tr>
<td>FAR 361</td>
<td>Italian Baroque Art</td>
</tr>
<tr>
<td>FAR 364</td>
<td>Art After 1940</td>
</tr>
<tr>
<td>FAR 365</td>
<td>American Art</td>
</tr>
<tr>
<td>FAR 367</td>
<td>Baroque of Northern Europe</td>
</tr>
<tr>
<td>FAR 369</td>
<td>Art in the Middle Ages</td>
</tr>
</tbody>
</table>
The B.A. degree program in the biological sciences prepares students for several options, including various employment opportunities at the bachelor’s degree level, and entrance to graduate or professional schools.

A departmental honors program is also available. Students should contact the department for additional information.

**Intellectual Foundations Requirements**: 39–66 cr

**Total Required Credit Hours in Biology**: 39–40 cr

### A. Required Courses (16 cr)
- BIO 111 Introduction to Biology (4)
- BIO 212 Introduction to Organismal Biology and Diversity (4)
- BIO 213 Introduction to Ecology, Evolution, and Behavior (4)
- BIO 214 Introduction to Cell Biology (4)

### B. Concentration Courses

Students are required to complete one of the following concentrations:

#### Integrative Biology Concentration (24 cr)
- BIO 303 Genetics (4)
- BIO 405 Organic Evolution

Elective biology courses (300-400 level, except BIO 308-BIO 309) selected by advisement (16 cr)

#### Aquatic Biology Concentration (23 cr)
- BIO 300 Biostatistics (4)
- BIO 325 Ichthyology (4)
- BIO 418 Limnology (4)
- BIO 429 Fisheries Biology (4)
- BIO 430 Stream Ecology (4)
- BIO 488 Internship in Aquatic Biology

#### Biotechnology Concentration (23–24 cr)
- BIO 303 Genetics (4)
- BIO 314 Advanced Cell Biology (4)
- BIO 316 General Microbiology (4)
- BIO 450 Recombinant DNA Technology (4)

Select one course from the following (3–4 cr):
- BIO 301 Cell Physiology (4)
- BIO 305 Molecular Biology (4)
- BIO 350 Genes in Populations (4)
- BIO 402 Comparative Animal Physiology (4)
- BIO 408 Plant Physiology (4)
- CHE 470 Biochemistry

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BA-NS BIO
Biology Department
Bachelor of Arts (HEGIS 0401)
Science Building 261 (716) 878-5203

The B.A. degree program in the biological sciences prepares students for several options, including various employment opportunities at the bachelor’s degree level, and entrance to graduate or professional schools.

A departmental honors program is also available. Students should contact the department for additional information.

BIO 111 Introduction to Biology is the required initial biology course in the program. Students must earn a C or better in BIO 111 to take more advanced biology courses.

**Academic Performance Policy**: Students who have a GPA of less than 2.0 in BIO-prefixed courses required for the major at the end of a semester will be placed on departmental probation. Students will then have two semesters to raise their GPA to a 2.0 or greater in BIO-prefixed required courses or they will be dismissed from the department.

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### Intellectual Foundations Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Required Credit Hours in the Major</td>
<td>39 cr</td>
</tr>
<tr>
<td>A. Primary Concentration (18 cr)</td>
<td></td>
</tr>
<tr>
<td>Courses selected by advisement (at least 9 credit hours in upper division except student teaching) in one of the following areas:</td>
<td></td>
</tr>
<tr>
<td>Art Education (with certain limitations)</td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
</tr>
<tr>
<td>Dance</td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td></td>
</tr>
<tr>
<td>Fine Arts</td>
<td></td>
</tr>
<tr>
<td>Modern and Classical Languages (not allowing 101-102)</td>
<td></td>
</tr>
<tr>
<td>Music</td>
<td></td>
</tr>
<tr>
<td>Philosophy and Humanities</td>
<td></td>
</tr>
<tr>
<td>Theater</td>
<td></td>
</tr>
<tr>
<td>B. Secondary Concentration (9 cr)</td>
<td></td>
</tr>
<tr>
<td>Select a second area from list above (at least 3 of the 9 credit hours must be in upper division)</td>
<td></td>
</tr>
<tr>
<td>C. Arts and Humanities Courses (9 cr)</td>
<td></td>
</tr>
<tr>
<td>D. Senior Paper or Project (3 cr)</td>
<td></td>
</tr>
<tr>
<td>A capstone experience under the guidance of the faculty adviser, this activity must be approved by the adviser and the topic forwarded to the dean before work is begun.</td>
<td></td>
</tr>
<tr>
<td>All College Electives</td>
<td>18–42 cr</td>
</tr>
<tr>
<td>Total Required Credit Hours</td>
<td>120 cr</td>
</tr>
</tbody>
</table>
Total Required Credit Hours in Other Fields

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 111, CHE 112</td>
<td>Fundamentals of Chemistry I, II (4, 4)</td>
<td>8–18 cr</td>
</tr>
<tr>
<td>CHE 201, CHE 203</td>
<td>Organic Chemistry I with Laboratory (3,1)</td>
<td></td>
</tr>
<tr>
<td>CHE 202</td>
<td>Organic Chemistry II</td>
<td></td>
</tr>
</tbody>
</table>

Note: CHE 111 and CHE 112 are required of all Biology B.A. students. CHE 201 and CHE 203 are required of students completing the biotechnology concentration; CHE 202 is required of biotechnology students who choose to take CHE 470.

Recommended Courses in Related Fields

- CHE 202, CHE 203, CHE 204, PHY 107/PHY 108 or PHY 111/PHY 112, MAT 126

All College Electives 0–34 cr

Total Required Credit Hours 120 cr
National Council for Accreditation of Teacher Education (NCATE) Accredited

Science Building 261 (716) 878-5203
The biology B.S. degree program in secondary education leads to a New York State Initial Certificate for teaching both biology and general science in grades 5–12. Students seeking admission to the biology B.S. education program should initially enroll in the biology B.A. program. After successfully completing at least two required biology courses at Buffalo State with a GPA in these courses of 2.75 or higher, students apply for admission to the biology B.S. education program during the semester they complete SED 200. A minimum GPA of 2.75 in biology courses is required for admission to SED 405, SED 407, and SED 408.

NOTE: Undergraduate or post-baccalaureate candidates seeking New York State Teacher Certification are advised to review the M.S.Ed. in Science Education degree program. This program is designed to enable students to quickly and efficiently develop the knowledge and skills required for teaching; the program leads to initial NYS certification for those candidates already holding undergraduate science degrees. Candidates currently in undergraduate or post-baccalaureate programs should strongly consider transitioning to the new program.

<table>
<thead>
<tr>
<th>Intellectual Foundations Requirements</th>
<th>39–66 cr</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Total Required Credit Hours in Biology</th>
<th>31 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 111</td>
<td>Introduction to Biology (4)</td>
</tr>
<tr>
<td>BIO 212</td>
<td>Introduction to Organismal Biology and Diversity (4)</td>
</tr>
<tr>
<td>BIO 213</td>
<td>Introduction to Ecology, Evolution, and Behavior (4)</td>
</tr>
<tr>
<td>BIO 214</td>
<td>Introduction to Cell Biology (4)</td>
</tr>
<tr>
<td>BIO 303</td>
<td>Genetics (4)</td>
</tr>
<tr>
<td>BIO 315</td>
<td>Ecology (4)</td>
</tr>
<tr>
<td>BIO 405</td>
<td>Organic Evolution</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
</tr>
<tr>
<td>BIO 308, BIO 309</td>
<td>Human Anatomy and Physiology (with lab) (3, 1)</td>
</tr>
<tr>
<td>BIO 402</td>
<td>Comparative Animal Physiology (4)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Required Credit Hours in Professional Education</th>
<th>30 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPF 303</td>
<td>Educational Psychology: Middle and Secondary Education</td>
</tr>
<tr>
<td>EDU 416</td>
<td>Teaching Literacy in Middle and Secondary Schools</td>
</tr>
<tr>
<td>SCI 445</td>
<td>Literacy for Teaching Science</td>
</tr>
<tr>
<td>EXE 372</td>
<td>Foundations of Teaching Adolescents with Disabilities</td>
</tr>
<tr>
<td>SCI 323</td>
<td>Science as Inquiry</td>
</tr>
<tr>
<td>SED 200</td>
<td>Field Experience in Secondary Science Education</td>
</tr>
<tr>
<td>SED 310</td>
<td>Teaching Science in a Middle School</td>
</tr>
<tr>
<td>SED 401</td>
<td>Techniques for Teaching Laboratory Activities in the Secondary Science Classroom</td>
</tr>
<tr>
<td>SED 405</td>
<td>Methods and Materials in Teaching Secondary School Science</td>
</tr>
<tr>
<td>SED 409</td>
<td>Seminar in Secondary Science Education</td>
</tr>
</tbody>
</table>

| Total Required Credit Hours in Student Teaching | 12 cr |

| SED 407                                               | Practice Teaching Science in the Middle School (6) |
| SED 408                                               | Practice Teaching Science in the High School (6) |

<table>
<thead>
<tr>
<th>Total Required Credit Hours in Other Fields for Certification</th>
<th>27-35 cr</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>A. One Year (or Equivalent) of a Foreign Language (0-6 cr)</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>B. Cognate Sciences* (23-25 cr)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 111 and CHE 112</td>
<td>Fundamentals of Chemistry I, II (4, 4)</td>
</tr>
<tr>
<td>GES 101</td>
<td>Introductory Geology</td>
</tr>
<tr>
<td>GES 103</td>
<td>Introductory Geology Laboratory (1)</td>
</tr>
<tr>
<td>PHY 107 and PHY 108</td>
<td>General Physics I, II (4, 4)</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>PHY 111 and PHY 112</td>
<td>University Physics I, II (5, 5)</td>
</tr>
</tbody>
</table>

Select one of the following:
| GES 111                                                  | General Oceanography |
| GES 131                                                  | Introductory Astronomy |
| GES 241                                                  | Meteorology |

<table>
<thead>
<tr>
<th>C. Mathematics* (4 cr)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 126</td>
<td>Calculus (or equivalent) (4)</td>
</tr>
</tbody>
</table>

*In most cases, two courses can fulfill Intellectual Foundations requirements.

<table>
<thead>
<tr>
<th>Total Required Credit Hours</th>
<th>139 cr</th>
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</table>

UG-PBC-NS BGS
Biology Department
Postbaccalaureate Teacher Certification Program (HEGIS 0401.01)
National Council for Accreditation of Teacher Education (NCATE) Accredited

Science Building 261 (716) 878-5203
The biology education (7–12) postbaccalaureate certification-only program leads to a New York State Initial Certificate for teaching both biology and general science in grades 7–12. The program is intended for persons with existing undergraduate degrees in biology or a related field who are interested in obtaining certification to teach biology in secondary schools or general science in middle schools. A minimum GPA of 2.75 in biology courses is required for admission to SED 405, SED 407, and SED 408.

NOTE: Undergraduate or post-baccalaureate candidates seeking New York State Teacher Certification are advised to review the M.S.Ed. in Science Education degree program. This program is designed to enable students to quickly and efficiently develop the knowledge and skills required for teaching; the program leads to initial NYS certification for those candidates already holding undergraduate science degrees. Candidates currently in undergraduate or post-baccalaureate programs should strongly consider transitioning to the new program.
Postbaccalaureate Teacher Certification Program (HEGIS Biology Department)

Total Required Credit Hours

A. One Year (or Equivalent) of a Foreign Language (0-6 cr)
   BIO 111  Introduction to Biology (4)
   BIO 212  Introduction to Organismal Biology and Diversity (4)
   BIO 213  Introduction to Ecology, Evolution, and Behavior (4)

B. Cognate Sciences (23-25 cr)
   BIO 214  Introduction to Cell Biology (4)
   BIO 303  Genetics (4)
   BIO 315  Ecology (4)
   BIO 405  Organic Evolution

Select one of the following:
   BIO 308 and BIO 309
   BIO 402  Comparative Animal Physiology (4)

Total Required Credit Hours in Professional Education 24 cr

   SPF 303  Educational Psychology: Middle and Secondary Education
   EDU 416  Teaching Literacy in Middle and Secondary Schools
   SCI 445  Literacy for Teaching Science
   EXE 372  Foundations of Teaching Adolescents with Disabilities
   SED 200  Field Experience in Secondary Science Education
   SED 401  Techniques for Teaching Laboratory Activities in the Secondary Science Classroom
   SED 405  Methods and Materials in Teaching Secondary School Science
   SED 409  Seminar in Secondary Science Education

Total Required Credit Hours in Student Teaching 12 cr

   SED 407  Practice Teaching Science in the Middle School (6)
   SED 408  Practice Teaching Science in the High School (6)

Total Required Credit Hours in Other Fields for Certification 27-35 cr

A. One Year (or Equivalent) of a Foreign Language (0-6 cr)

B. Cognate Sciences (23-25 cr)
   CHE 111 and CHE 112  Fundamentals of Chemistry I, II (4, 4)
   GES 101  Introductory Geology
   GES 103  Introductory Geology Laboratory (1)
   PHY 107 and PHY 108  General Physics I, II (4, 4)
   OR
   PHY 111 and PHY 112  University Physics I, II (5, 5)

Select one of the following:
   GES 111  General Oceanography
   GES 131  Introductory Astronomy
   GES 241  Meteorology

C. Mathematics (4 cr)
   MAT 126  Calculus (or equivalent) (4)

Total Required Credit Hours 94 cr

Biology Education (7–12, 5–6 Extension, PTCP)

UG-PBC-NS BGX
Biology Department
Postbaccalaureate Teacher Certification Program (HEGIS 0401.01)

National Council for Accreditation of Teacher Education (NCATE) Accredited

Science Building 261 (716) 878-5203
The biology education (7–12) postbaccalaureate certification-only program with 5–6 extension leads to a New York State Initial Certificate for teaching both biology and general science in grades 5–12. The program is intended for persons with existing undergraduate degrees in biology or a related field who are interested in obtaining certification to teach biology in secondary schools or general science in middle schools. A minimum GPA of 2.75 in biology courses is required for admission to SED 405, SED 407, and SED 408.

NOTE: Undergraduate or post-baccalaureate candidates seeking New York State Teacher Certification are advised to review the M.S.Ed. in Science Education degree program. This program is designed to enable students to quickly and efficiently develop the knowledge and skills required for teaching; the program leads to initial NYS certification for those candidates already holding undergraduate science degrees. Candidates currently in undergraduate or post-baccalaureate programs should strongly consider transitioning to the new program.

Total Required Credit Hours in Biology 31 cr

   BIO 111  Introduction to Biology (4)
   BIO 212  Introduction to Organismal Biology and Diversity (4)
   BIO 213  Introduction to Ecology, Evolution, and Behavior (4)
   BIO 214  Introduction to Cell Biology (4)
   BIO 303  Genetics (4)
   BIO 315  Ecology (4)
   BIO 405  Organic Evolution

Select one of the following:
   BIO 308 and BIO 309
   BIO 402  Comparative Animal Physiology (4)

Total Required Credit Hours in Professional Education 30 cr

   SPF 303  Educational Psychology: Middle and Secondary Education
   EDU 416  Teaching Literacy in Middle and Secondary Schools
   SCI 445  Literacy for Teaching Science
   EXE 372  Foundations of Teaching Adolescents with Disabilities
   SCI 323  Science as Inquiry
   SED 200  Field Experience in Secondary Science Education
   SED 310  Teaching Science in a Middle School
   SED 401  Techniques for Teaching Laboratory Activities in the Secondary Science Classroom
   SED 405  Methods and Materials in Teaching Secondary Science
   SED 409  Seminar in Secondary Science Education

Total Required Credit Hours in Student Teaching 12 cr

   SED 407  Practice Teaching Science in the Middle School (6)
   SED 408  Practice Teaching Science in the High School (6)

Total Required Credit Hours in Other Fields for Certification 27-35 cr

Total Required Credit Hours in Biology 31 cr

   BIO 111  Introduction to Biology (4)
   BIO 212  Introduction to Organismal Biology and Diversity (4)
   BIO 213  Introduction to Ecology, Evolution, and Behavior (4)
   BIO 214  Introduction to Cell Biology (4)
   BIO 303  Genetics (4)
   BIO 315  Ecology (4)
   BIO 405  Organic Evolution

Select one of the following:
   BIO 308 and BIO 309
   BIO 402  Comparative Animal Physiology (4)

Total Required Credit Hours in Professional Education 30 cr

   SPF 303  Educational Psychology: Middle and Secondary Education
   EDU 416  Teaching Literacy in Middle and Secondary Schools
   SCI 445  Literacy for Teaching Science
   EXE 372  Foundations of Teaching Adolescents with Disabilities
   SCI 323  Science as Inquiry
   SED 200  Field Experience in Secondary Science Education
   SED 310  Teaching Science in a Middle School
   SED 401  Techniques for Teaching Laboratory Activities in the Secondary Science Classroom
   SED 405  Methods and Materials in Teaching Secondary Science
   SED 409  Seminar in Secondary Science Education

Total Required Credit Hours in Student Teaching 12 cr

   SED 407  Practice Teaching Science in the Middle School (6)
   SED 408  Practice Teaching Science in the High School (6)

Total Required Credit Hours in Other Fields for Certification 27-35 cr

Total Required Credit Hours in Biology 31 cr

   BIO 111  Introduction to Biology (4)
   BIO 212  Introduction to Organismal Biology and Diversity (4)
   BIO 213  Introduction to Ecology, Evolution, and Behavior (4)
   BIO 214  Introduction to Cell Biology (4)
   BIO 303  Genetics (4)
   BIO 315  Ecology (4)
   BIO 405  Organic Evolution

Select one of the following:
   BIO 308 and BIO 309
   BIO 402  Comparative Animal Physiology (4)

Total Required Credit Hours in Professional Education 30 cr

   SPF 303  Educational Psychology: Middle and Secondary Education
   EDU 416  Teaching Literacy in Middle and Secondary Schools
   SCI 445  Literacy for Teaching Science
   EXE 372  Foundations of Teaching Adolescents with Disabilities
   SCI 323  Science as Inquiry
   SED 200  Field Experience in Secondary Science Education
   SED 310  Teaching Science in a Middle School
   SED 401  Techniques for Teaching Laboratory Activities in the Secondary Science Classroom
   SED 405  Methods and Materials in Teaching Secondary Science
   SED 409  Seminar in Secondary Science Education

Total Required Credit Hours in Student Teaching 12 cr

   SED 407  Practice Teaching Science in the Middle School (6)
   SED 408  Practice Teaching Science in the High School (6)

Total Required Credit Hours in Other Fields for Certification 27-35 cr
A. One Year (or Equivalent) of a Foreign Language (0-6 cr)

B. Cognate Sciences (23-25 cr)
   - CHE 111 and CHE 112: Fundamentals of Chemistry I, II (4, 4)
   - GES 101: Introductory Geology
   - GES 103: Introductory Geology Laboratory (1)
   - PHY 107 and PHY 108: General Physics I, II (4, 4)
   - OR
   - PHY 111 and PHY 112: University Physics I, II (5, 5)
   - Select one of the following:
     - GES 111: General Oceanography
     - GES 131: Introductory Astronomy
     - GES 241: Meteorology

C. Mathematics (4 cr)
   - MAT 126: Calculus (or equivalent) (4)

Total Required Credit Hours 100 cr

**BUSINESS ADMINISTRATION (B.S.)**

BS-SP BSA
Business Department
Bachelor of Science (HEGIS 0506)
Chase Hall 302 (716) 878-4239

The bachelor of science degree in business administration prepares students for leadership roles in management and marketing in both domestic and international business, and public and nonprofit organizations. During the first two years of the program, students acquire a foundation in accounting, economics, and computers, as well as in the arts, humanities, and social and natural sciences. The last two years are devoted to upper-division courses in management, marketing, human resources, law, finance, production and operations management, and a capstone course in business strategy. Upon acceptance into the program, students will be required to choose and complete a 15-hour concentration in one of the following areas: management, marketing, or international business.

**Admission Requirements:** Transfer students are accepted into the program on a competitive basis. No freshmen are accepted directly into the program. Students interested in business as a major may be admitted as a pre-business major (0424) until completion of entrance requirements. Prior to acceptance into the program, students will be required to attain competency in mathematics and English composition, and have a minimum cumulative GPA of 2.5. Transfer students must take all concentration courses, the six hours of upper-division business elective courses, BUS 430, and BUS 460 at Buffalo State College. Transfer courses with D or less will not be accepted into the major.

**Intellectual Foundations Requirements** 39–66 cr

**Total Required Credit Hours in Business** 60 cr

<table>
<thead>
<tr>
<th>A. Business Core (39 cr)</th>
<th>ECO 202</th>
<th>Principles of Microeconomics</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 101</td>
<td>BUS 312</td>
<td>Financial Accounting</td>
</tr>
<tr>
<td>ECO 201</td>
<td>BUS 313</td>
<td>Managerial Accounting</td>
</tr>
<tr>
<td>BUS 320</td>
<td>BUS 325</td>
<td>Principles of Marketing</td>
</tr>
<tr>
<td>BUS 334</td>
<td>BUS 360</td>
<td>Principles of Management</td>
</tr>
<tr>
<td>BUS 403</td>
<td>FIN 314</td>
<td>Corporate Finance</td>
</tr>
<tr>
<td>BUS 417</td>
<td>ECO 305</td>
<td>Statistics for Economics</td>
</tr>
<tr>
<td>BUS 460</td>
<td>MAT 311</td>
<td>Introductory Probability and Statistics</td>
</tr>
<tr>
<td>BUS 473</td>
<td>BUS 430</td>
<td>Strategic Management</td>
</tr>
</tbody>
</table>

**B. Concentration (15 cr)**

**Marketing**
- BUS 321: Marketing on the Internet
- BUS 323: Sales Methods and Techniques
- BUS 327: Advertising Concepts and Practices
- BUS 329: Sales Management
- BUS 330: Marketing Management
- BUS 347: Retail Management
- BUS 348: Electronic Commerce
- BUS 403: Consumer Behavior
- BUS 404: Marketing Research
- BUS 420: International Marketing Management

**Management**
- BUS 300: International Business
- BUS 324: Business Communication
- BUS 329: Sales Management
- BUS 335: Business Law II
- BUS 347: Retail Management
- BUS 365: Entrepreneurship
- BUS 366: Management Information Systems
- BUS 367: Strategic Management of Innovation and Technology
- BUS 368: Sports Management and Marketing
- BUS 369: Organizational Change and Development
- BUS 424: International Business Communication
- BUS 473: International Management

**International Business**
- BUS 300: International Business
- BUS 363: Business in the Western Hemisphere
- BUS 417: International Accounting
- BUS 420: International Marketing
- BUS 424: International Business Communication
- BUS 425: International and Cross-Cultural Training
- BUS 473: International Management
- ECO 401: International Economics
- FIN 400: International Finance

**C. Business Electives (6 cr)**

Foreign language competency is recommended for the International Business Concentration.

Any upper-level Business Department course that is not required in the business core or used in your concentration may be taken as a business elective. The department recommends that students meet the business elective requirement through participation in the internship program, BUS 378: Business Professional Practice.
## BUSINESS AND MARKETING EDUCATION (B.S.)

BS-ED BME  
Department of Career and Technical Education  
Bachelor of Science (HEGIS 0838.01)  
National Council for Accreditation of Teacher Education (NCATE) Accredited  
Bacon Hall 316S (716) 878-4717  
N. John Popovich, Ed.D. Department Chair

The B.S. degree program in business and marketing education leads to initial certification to teach business and marketing subjects in New York State. In this teaching field, applicants for a teaching certificate must also have an equivalent of one year of occupation-related work experience, which they may obtain through the field experience courses as part of the business electives.

**Admission Requirements**: No freshmen are accepted directly into the major. Students seeking admittance into the business and marketing education major must provide evidence of successfully completing BUS 311 and BUS 324W, and have a minimum cumulative GPA of 2.5. Successful completion is defined as achieving a minimum grade of C.

### Intellectual Foundations Requirements  

- **Total Required Credit Hours in Business**: 39–66 cr
- **Total Required Credit Hours in Professional Education**: 33 cr
- **Total Required Credit Hours in All College Electives**: 0–21 cr

<table>
<thead>
<tr>
<th>Business Core</th>
<th>36 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 300: International Business</td>
<td></td>
</tr>
<tr>
<td>BUS 312: Financial Accounting</td>
<td></td>
</tr>
<tr>
<td>BUS 313: Managerial Accounting</td>
<td></td>
</tr>
<tr>
<td>BUS 320: Principles of Marketing</td>
<td></td>
</tr>
<tr>
<td>BUS 324W: Business Communications</td>
<td></td>
</tr>
<tr>
<td>BUS 325: Human Resource Management</td>
<td></td>
</tr>
<tr>
<td>BUS 334: Business Law I</td>
<td></td>
</tr>
<tr>
<td>BUS 360W: Principles of Management</td>
<td></td>
</tr>
<tr>
<td>BUS 430: Strategic Management</td>
<td></td>
</tr>
</tbody>
</table>

Two 300-level or higher BUS electives selected by advisement.

<table>
<thead>
<tr>
<th>Professional Core</th>
<th>33 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>BME 301W/CTE 301: Principles of Business/Marketing and Technology Education</td>
<td></td>
</tr>
<tr>
<td>BME 302/CTE 302: Curriculum and Evaluation in Business/Marketing and Technology Education</td>
<td></td>
</tr>
<tr>
<td>BME 303: Instructional Strategies in Business/Marketing Education</td>
<td></td>
</tr>
<tr>
<td>BME 411/CTE 404: Applied Teaching Methods in Business/Marketing Education</td>
<td></td>
</tr>
<tr>
<td>BME 415: Student Teaching (6)</td>
<td></td>
</tr>
<tr>
<td>BME 416: Student Teaching (6)</td>
<td></td>
</tr>
<tr>
<td>SPF 303: Educational Psychology</td>
<td></td>
</tr>
<tr>
<td>EDU 416: Teaching Literacy In Middle and Secondary Schools</td>
<td></td>
</tr>
<tr>
<td>EXE 100/CTE 421: Nature and Needs of Individuals with Special Needs</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Required Credit Hours</th>
<th>69 cr</th>
</tr>
</thead>
</table>

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## BUSINESS AND MARKETING EDUCATION (PTCP)

UG-PBC-ED BME  
Department of Career and Technical Education  
Postbaccalaureate Teacher Certification Program  
HEGIS (0838.01)  
National Council for Accreditation of Teacher Education (NCATE) Accredited  
Bacon Hall 316S (716) 878-4717  
N. John Popovich, Ed.D. Department Chair

This program is for students currently holding a bachelor’s degree and/or master’s degree and would like to pursue teaching business and marketing education in a secondary school environment in New York State. To be eligible for admission, the following requirements must be satisfied:

1. Completion of a bachelor’s or master’s degree from an accredited college or university with a concentration of at least 36 credit hours in business and business-related courses, such as computer science and economics, with a minimum 2.5 GPA. The department will accept up to 6 credits in either CIS and/or economics. All other courses should match the required courses in the business/marketing education major.
2. Provide a résumé.
3. Provide a statement of qualification (essay format).

**Note**: This program is considered a postbaccalaureate program. Interested students should apply through the Graduate School.

### Business Core  

<table>
<thead>
<tr>
<th>36 cr</th>
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</thead>
</table>

Accepted courses per review of Business and Marketing Education Program.

### Professional Core  

<table>
<thead>
<tr>
<th>33 cr</th>
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</thead>
</table>

- BME 301W/CTE 301: Principles of Business/Marketing and Technology Education
- BME 302/CTE 302: Curriculum and Evaluation in Business/Marketing and Technology Education
- BME 303: Instructional Strategies in Business and Marketing Education
- BME 411/CTE 404: Applied Teaching Methods in Business Education
- BME 415: Student Teaching (6)
- BME 416: Student Teaching (6)
- SPF 303: Educational Psychology
- EDU 416: Teaching Literacy In Middle and Secondary Schools
- EXE 100/CTE 421: Nature and Needs of Individuals with Special Needs

<table>
<thead>
<tr>
<th>Total Required Credit Hours</th>
<th>69 cr</th>
</tr>
</thead>
</table>

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## CAREER AND TECHNICAL EDUCATION (B.S.)*

BS-ED CTE  
Department of Career and Technical Education
Bachelor of Science (HEGIS 0839.03)
National Council for Accreditation of Teacher Education (NCATE) Accredited
Bacon Hall 316S (716) 878-4717
N. John Popovich, Ed.D. Department Chair

This program prepares career and technical teachers for teaching positions in city high schools, area vocational schools (BOCES), technical institutes, correctional facilities, and community college technical programs. It provides theoretical and practical preparation in planning, instructing, and managing the learning environment for students who have or will have extensive work experience in agricultural education, business and marketing education, family and consumer sciences subject education, health careers education, technical education, or trade education. Students in career and technical education complete coursework in career and technical education to be recommended for initial certification (grades 7-12) in New York State in one of over 83 certification titles. A complete listing of Certification Titles and Codes for Career and Technical Subjects can be found on the New York State Education Department Web site: www.highered.nysed.gov/cert/certificate/careertech_certcodes.htm.

Admission Requirements:

1. Verified full-time trade experience: four years with high school diploma, or two years with an A.A.S. degree in the occupational area, or one year with a B.S. degree and 36 credit hours of coursework in the occupational area, or a work-study arrangement (see EPOT, below).
2. High school diploma or equivalent: High school students interested in entering the program prior to completing the required work experience may apply for the EPOT program (Early Preparation of Occupational Teachers). Applicants must be able to locate a position in their trade. They will take courses in the evening, leading to a B.S. degree and teacher certification, while learning their trade in a paid position. The program takes about five years to complete.
3. Admission review.
4. Trade proficiency verified by a practical and theoretical examination.
5. Students entering the program must take Buffalo State College’s math and English competency exams prior to the completion of 9 hours of college credit.

*Evening study available.

<table>
<thead>
<tr>
<th>Intellectual Foundations Requirements</th>
<th>39–60 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Required Credit Hours in Career and Technical Education</td>
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</table>

**A. Major Field (30 cr)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CTE 100</td>
<td>Comprehensive Theoretical Trade or Technical Skills (15)</td>
</tr>
<tr>
<td>CTE 200</td>
<td>Comprehensive Theoretical Trade or Performance Skills (15)</td>
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**B. Professional Requirements (36 cr)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CTE 301/BME 301</td>
<td>Principles of Business/Marketing and Technology Education</td>
</tr>
<tr>
<td>CTE 302/BME</td>
<td>Curriculum and Evaluation in Business/Marketing</td>
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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CTE 306</td>
<td>Laboratory Management</td>
</tr>
<tr>
<td>CTE 311</td>
<td>Career Mentoring Internship</td>
</tr>
<tr>
<td>CTE 350</td>
<td>School and Community Relationship Field Experience</td>
</tr>
<tr>
<td>ENG 370</td>
<td>Foundations of Language</td>
</tr>
<tr>
<td>CTE 402</td>
<td>Assessment Techniques in Career and Technical Subjects</td>
</tr>
<tr>
<td>CTE 404</td>
<td>Methods of Teaching Career and Technical Subjects</td>
</tr>
<tr>
<td>CTE 413</td>
<td>Student Teaching Career and Technical Education (6)</td>
</tr>
<tr>
<td>CTE 415</td>
<td>Professional Development Seminar</td>
</tr>
<tr>
<td>CTE 421</td>
<td>Occupational Education for Individuals with Special Needs</td>
</tr>
<tr>
<td>CTE 435</td>
<td>Curricular Problems of Career and Technical Schools</td>
</tr>
</tbody>
</table>

**C. Required Courses in Behavioral Studies (6 cr)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SPF 303</td>
<td>Educational Psychology</td>
</tr>
<tr>
<td>SPF 333</td>
<td>Human Development During Early Adolescence and Adolescence</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>All College Electives</th>
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<tbody>
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<td>Total Required Credit Hour</td>
<td>120 cr</td>
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</tbody>
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**CAREER AND TECHNICAL EDUCATION (PTCP)**

UG-PBC-ED CTE
Department of Career and Technical Education
Postbaccalaureate Teacher Certification Program (HEGIS 0839.03)
National Council for Accreditation of Teacher Education (NCATE) Accredited
Bacon Hall 316S (716) 878-4717
N. John Popovich, Ed.D. Department Chair

This program is designed for students who have earned a baccalaureate degree in an area other than career and technical education (CTE) from an accredited college or university, and intend to complete the coursework required for New York State certification as a career and technical teacher.

This postbaccalaureate teacher certification program prepares career and technical teachers for positions in high schools, vocational schools, technical institutes, correctional facilities, and community colleges. It provides theoretical and practical preparation in planning, instructing, and managing the learning environment for students who have or will have extensive work experience in a specific trade.

After successfully completing the teacher certification program and passing required New York State teacher certification exams, students are eligible to apply for New York State certification through the Teacher Certification Office, Caudell Hall 101. No degree or certificate is awarded by Buffalo State.

This program is offered during the evening at Buffalo State. Some courses are offered via interactive distance learning at off-campus BOCES sites.

Financial Assistance: For financial aid purposes, students are considered fifth-year undergraduates, eligible for undergraduate loans.

Admission Requirements:
A bachelor’s degree from an accredited college or university in an area other than career and technical education, with a minimum cumulative GPA of 2.5 (4.0 scale). Minimum of one year of work experience in a CTE area. In addition, all applicants should review the Admission to a Graduate Program section in this catalog.

*Evening study available.*

<table>
<thead>
<tr>
<th>Occupational Competency Exams</th>
<th>30 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTE 100</td>
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</tr>
<tr>
<td>CTE 200</td>
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<table>
<thead>
<tr>
<th>Required Courses</th>
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<tbody>
<tr>
<td>CTE 301/ BME 301</td>
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<tr>
<td>CTE 302/ BME 302</td>
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<tr>
<td>CTE 306</td>
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<td>CTE 311</td>
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<td>CTE 421</td>
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<tr>
<td>SPF 303</td>
<td></td>
</tr>
<tr>
<td>SPF 353</td>
<td></td>
</tr>
<tr>
<td>ENG 470</td>
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</tr>
</tbody>
</table>

Total Required Credit Hours 36–66 cr

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**CERAMICS (B.F.A.)**

BFA-AH CER
Design Department
Bachelor of Fine Arts (HEGIS 1009)
National Association of Schools of Art and Design (NASAD) Accredited
Upton Hall 212 (716) 878-8032

The B.F.A. degree in Ceramics is a studio-intensive program of study focused on developing the aesthetic, conceptual, and technical skills necessary to foster creativity as students work toward developing their individual identities as visual designers/artists. This degree offers students a specialized studio-oriented education in preparation for advanced or graduate studies, or for beginning careers as professional designers or artists. Students begin with foundation courses in two-dimensional design, three-dimensional design, drawing, art history, and design history, along with courses in metals, fibers, and wood. Major courses in ceramics and sculpture complete the requirements. Internship opportunities are available. The remaining credit hours are completed in required Intellectual Foundations courses and in other chosen studio courses.

**Admission Requirements:** There is no entrance portfolio review for admission. All students will enter the ceramics major with a bachelor of science (BS-AH CER) intent, and complete a selection of foundation and major course(s) before a commit-to-major portfolio review for admission into the bachelor of fine arts program (BFA-AH CER). Commit-to-major portfolio reviews are conducted by faculty and generally take place during the sophomore year. After passing the portfolio review, to continue in the B.F.A. degree program a 3.0 GPA must be maintained in the major.

Transfer students are urged to submit their portfolios the semester before transfer in order to facilitate placement in departmental courses and/or for possible commit-to-major portfolio review. Please call the Design Department for additional information. As a condition of graduation, each B.F.A student will be required to mount an individual exhibition of his/her work.

The Design Department reserves the right to retain students’ work for official purposes, such as exhibitions, catalogs, teaching aids, or permanent collections, and to use images of the students and their work for publicity and recruitment. Students are expected to assume the costs of materials used in courses. Some studio courses may have an additional charge for materials used in class. Students enrolled in a studio course are expected to work a minimum of two additional hours each week outside of class for each credit granted for that class.

The Design Department may be in the process of curricular revision. Please refer to the college Web site or the department for updated information.

**Intellectual Foundations Requirements**

<table>
<thead>
<tr>
<th>Total Required Credit Hours in Ceramics</th>
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<tbody>
<tr>
<td><strong>A. Foundation Courses (37 cr)</strong></td>
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</tr>
<tr>
<td>DES 101</td>
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<td>DES 104</td>
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<td>DES 312W</td>
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<td>DES 414</td>
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<td>FAR 104</td>
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<td>FAR 250</td>
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<td>FAR 251</td>
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<tr>
<td><strong>B. Major Courses (30 cr)</strong></td>
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</tr>
<tr>
<td>DES 220</td>
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<td>DES 320</td>
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<td>DES 421</td>
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<td>FAR 240</td>
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</tr>
<tr>
<td>FAR 345</td>
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<tr>
<td><strong>C. Studio Electives Selected by Advisement (12 cr)</strong></td>
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</tr>
<tr>
<td>DES 330</td>
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<td>DES 336</td>
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<td>DES 350</td>
<td></td>
</tr>
<tr>
<td>FAR 341</td>
<td></td>
</tr>
</tbody>
</table>

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*Note:* Additional information on Intellectual Foundations Requirements is available in the Graduate Program section of this catalog. **Transfer students** are urged to submit their portfolios the semester before transfer in order to facilitate placement in departmental courses and/or for possible commit-to-major portfolio review. Please call the Design Department for additional information.
### CERAMICS (B.S.)

**BS-AH CER**  
Design Department  
Bachelor of Science (HEGIS 1009)  
National Association of Schools of Art and Design (NASAD) Accredited  
Upton Hall 212 (716) 878-6032  

The B.S. degree in Ceramics is a studio degree with a strong academic component. This degree offers students a broadly grounded educational experience as a basis for beginning careers as professional designers or artists. Students begin with foundation courses in two-dimensional design, three-dimensional design, drawing, and design history, along with courses in metals, fibers, and wood. Major courses in ceramics focus on developing the aesthetic, conceptual, and technical skills necessary to foster creativity as students work toward developing their individual identities as visual designers/artists. Internship opportunities are available. The remaining credit hours are completed in required Intellectual Foundations courses and in other academic subjects of the student’s choosing. The academic component offers opportunities to gain a broader base of knowledge, as well as knowledge in other disciplines related to the major field of study.

**Admission Requirements:** There is no entrance portfolio review for admission. All students will enter the ceramics major with a bachelor of science (BS-AH CER) intent, and complete a selection of foundation and major course(s) before a commit-to-major portfolio review for continuation in the B.S. degree program. Commit-to-major portfolio reviews are conducted by faculty and generally take place during the sophomore year. After passing the portfolio review, to continue in the B.S. degree program a 2.5 GPA must be maintained in the major. Transfer students are urged to submit their portfolios the semester before transfer major portfolio review.

Please call the Design Department for additional information.

The Design Department reserves the right to retain students’ work for official purposes, such as exhibitions, catalogs, teaching aids, or permanent collections, and to use images of the students and their work for publicity and recruitment. Students are expected to assume the costs of materials used in courses. Some studio courses may have an additional charge for materials used in class. Students enrolled in a studio course are expected to work a minimum of two additional hours each week outside of class for each credit granted for that class.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>FAR 101</td>
<td>Drawing I</td>
<td>1 cr</td>
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<tr>
<td>FAR 104</td>
<td>Themes and Issues in Contemporary Arts</td>
<td>3 cr</td>
</tr>
<tr>
<td>DES 220</td>
<td>Ceramics I</td>
<td>4 cr</td>
</tr>
<tr>
<td>DES 320</td>
<td>Ceramics II</td>
<td>4 cr</td>
</tr>
<tr>
<td>DES 321</td>
<td>Ceramics: Junior Studio (3, 3)</td>
<td>9 cr</td>
</tr>
<tr>
<td>DES 421</td>
<td>Ceramics: Senior Studio (3, 3)</td>
<td>9 cr</td>
</tr>
<tr>
<td>FAR 240</td>
<td>Introductory Sculpture</td>
<td>3 cr</td>
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</tbody>
</table>

### CHEMISTRY (B.S.)

**BS-NS CHE**  
Chemistry Department  
Bachelor of Science (HEGIS 1905)  
Science Building 267 (716) 878-5204  

The chemistry B.S. degree program offers students a strong background in chemistry while providing students with two concentration options, traditional chemistry and biochemistry. Both concentrations are approved by the American Chemical Society. Graduates of this program are fully prepared to assume entry-level positions as chemists with industrial or governmental laboratories, or to begin more specialized programs of study at the graduate level. The biochemistry concentration prepares students for both professional programs in health-related professions and advanced studies in biochemistry.

**Transfer Admission Requirements:** Transfer students from two-year colleges should have earned credit for course equivalent to CHE 111, CHE 112, CHE 201, CHE 202, CHE 203, CHE 204, CHE 301, MAT 161, MAT 162, MAT 263, PHY 111, PHY 112, and BIO 211 or BIO 214 (biology course required for biochemistry concentration only) to avoid possible delays in the completion of the degree program. Transfer students must complete a minimum of 10 credits in chemistry at Buffalo State. Chemistry courses taken elsewhere may be substituted for similar courses at Buffalo State only if they have the same or equivalent prerequisites. Chemistry courses not meeting this criterion may be transferred as elective credit.

**Intellectual Foundations Requirements**  
36–48 cr

**Total Required Credit Hours in Chemistry**  
44–48 cr

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tr>
<td>CHE 111</td>
<td>Fundamentals of Chemistry I (4)</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHE 112</td>
<td>Fundamentals of Chemistry II (4)</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHE 201</td>
<td>Organic Chemistry I</td>
<td>3 cr</td>
</tr>
<tr>
<td>CHE 202</td>
<td>Organic Chemistry II</td>
<td>3 cr</td>
</tr>
<tr>
<td>CHE 203</td>
<td>Organic Chemistry Laboratory I (1)</td>
<td>1 cr</td>
</tr>
<tr>
<td>CHE 204</td>
<td>Organic Chemistry Laboratory II (1)</td>
<td>1 cr</td>
</tr>
</tbody>
</table>
CHE 301  Analytical Chemistry (4)
CHE 305  Physical Chemistry I
CHE 306  Physical Chemistry II
CHE 307  Physical Chemistry Laboratory I (1)
CHE 308  Physical Chemistry Laboratory II (1)

B. Concentration Courses

Students are required to complete one of the following concentrations:

Chemistry Concentration (16 cr)
CHE 310  Literature of Chemistry (1)
CHE 360  Introduction to Inorganic Chemistry
CHE 403  Instrumental Analysis (4)
CHE 462  Advanced Inorganic Chemistry
CHE 470  Biochemistry I
CHE 471  Biochemical Techniques (2)

Biochemistry Concentration (20 cr)
CHE 310  Literature of Chemistry (1)
CHE 360  Introduction to Inorganic Chemistry
CHE 470  Biochemistry I
CHE 471  Biochemical Techniques (2)
CHE 472  Biochemistry II

Select two courses from the following:
BIO 303  Genetics (4)
BIO 305  Molecular Biology (4)
BIO 314  Advanced Cell Biology (4)
BIO 316  General Microbiology (4)
BIO 450  Recombinant DNA (4)
CHE 403  Instrumental Analysis (4)

Total Required Credit Hours in Other Fields 24–28 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>BIO 211</td>
<td>Introduction to Cell Biology and Genetics (4)</td>
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<td>or</td>
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</tr>
<tr>
<td>BIO 214</td>
<td>Introduction to Cell Biology (4)</td>
</tr>
<tr>
<td>MAT 161</td>
<td>Calculus I (4)</td>
</tr>
<tr>
<td>MAT 162</td>
<td>Calculus II (4)</td>
</tr>
<tr>
<td>MAT 163</td>
<td>Using Technology to Explore Calculus I (1)</td>
</tr>
<tr>
<td>MAT 164</td>
<td>Using Technology to Explore Calculus II (1)</td>
</tr>
<tr>
<td>MAT 263</td>
<td>Calculus III</td>
</tr>
<tr>
<td>MAT 264</td>
<td>Using Technology to Explore Calculus III (1)</td>
</tr>
<tr>
<td>PHY 111</td>
<td>University Physics I (5)</td>
</tr>
<tr>
<td>PHY 112</td>
<td>University Physics II (5)</td>
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</tbody>
</table>

Note: BIO 211 or BIO 214 is required only for the biochemistry concentration.

Total Required Credit Hours in Chemistry 43 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
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<tbody>
<tr>
<td>CHE 111, CHE 112</td>
<td>Fundamentals of Chemistry I, II (4, 4)</td>
</tr>
<tr>
<td>CHE 201, CHE 202</td>
<td>Organic Chemistry I, II (3, 3)</td>
</tr>
<tr>
<td>CHE 203, CHE 204</td>
<td>Organic Chemistry Laboratories I, II (1, 1)</td>
</tr>
<tr>
<td>CHE 301</td>
<td>Analytical Chemistry (4)</td>
</tr>
<tr>
<td>CHE 305, CHE 306</td>
<td>Physical Chemistry I, II (3, 3)</td>
</tr>
<tr>
<td>CHE 307, CHE 308</td>
<td>Physical Chemistry Laboratories I, II (1, 1)</td>
</tr>
<tr>
<td>CHE 310</td>
<td>Literature of Chemistry (1)</td>
</tr>
<tr>
<td>CHE 403</td>
<td>Instrumental Analysis (4)</td>
</tr>
<tr>
<td>CHE 460</td>
<td>Inorganic Chemistry</td>
</tr>
<tr>
<td>CHE 461</td>
<td>Inorganic Chemistry Laboratory (2)</td>
</tr>
<tr>
<td>CHE 470</td>
<td>Biochemistry I</td>
</tr>
<tr>
<td>CHE 471</td>
<td>Biochemical Techniques (2)</td>
</tr>
</tbody>
</table>

Total Required Credit Hours in Professional Education 24 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>SPF 303</td>
<td>Educational Psychology: Middle and Secondary Education</td>
</tr>
<tr>
<td>EDU 416</td>
<td>Teaching Literacy in Middle and Secondary Schools</td>
</tr>
</tbody>
</table>

The chemistry B.S. secondary education program leads to a New York State Initial Certificate for teaching both chemistry and general science in grades 7–12. Students seeking admission to the B.S. chemistry program should initially enroll in the B.A. chemistry program. After successfully completing at least two required chemistry courses at Buffalo State with a GPA in these courses of 2.75 or higher, students apply for admission to the B.S. chemistry program during the semester they complete SED 200. A minimum GPA of 2.75 in chemistry courses is required for admission to SED 405, SED 407, and SED 408.

Transfer Admission Requirements: Transfer students from two-year colleges should have earned credit for courses equivalent to CHE 111, CHE 112, CHE 201, CHE 202, CHE 203, CHE 204, CHE 301, MAT 161, MAT 162, MAT 263, PHY 111, and PHY 112 to avoid possible delays in completing the degree program. Transfer students must complete a minimum of 10 credit hours in chemistry at Buffalo State. Chemistry courses taken elsewhere may be substituted for similar courses at Buffalo State only if they have the same or equivalent prerequisites. Chemistry courses not meeting this criterion may be transferred as elective credit.

NOTE: Undergraduate or post-baccalaureate candidates seeking New York State Teacher Certification are advised to review the M.S.Ed. in Science Education degree program. This program is designed to enable students to quickly and efficiently develop the knowledge and skills required for teaching; the program leads to initial NYS certification for those candidates already holding undergraduate science degrees. Candidates currently in undergraduate or post-baccalaureate programs should strongly consider transitioning to the new program.
EXE 372  Foundations of Teaching Adolescents with Disabilities
SCI 445  Literacy for Teaching Science
SED 200  Field Experience in Secondary Science Education
SED 401  Techniques for Teaching Laboratory Activities in the Secondary Science Classroom
SED 405  Methods and Materials in Teaching Secondary School Science
SED 409  Seminar in Secondary Science Education

Total Required Credit Hours in Student Teaching  
<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SED 407</td>
<td>Practice Teaching Science in the Middle School (6)</td>
</tr>
<tr>
<td>SED 408</td>
<td>Practice Teaching Science in the High School (6)</td>
</tr>
</tbody>
</table>

Total Required Credit Hours in Other Fields for Certification 39–45 cr

A. One Year (or Equivalent) of a Foreign Language (0–6 cr)

B. Cognate Sciences* (25 cr)
- GES 101  Introductory Geology
- GES 103  Introductory Geology Laboratory (1)
- PHY 111, PHY 112  University Physics I, II (5, 5)
- Select two courses from the following:
  - BIO 212  Introduction to Organismal Biology and Diversity (4)
  - BIO 213  Introduction to Ecology, Evolution, and Behavior (4)
  - BIO 211  Introduction to Cell Biology and Genetics (4)
  - or BIO 214  Introduction to Cell Biology (4)
- Select one course from the following:
  - GES 111  General Oceanography
  - GES 131  Introductory Astronomy
  - GES 241  Meteorology

C. Mathematics* (14 cr)
- MAT 161  Calculus I (4)
- MAT 162  Calculus II (4)
- MAT 163  Using Technology to Explore Calculus I (1)
- MAT 164  Using Technology to Explore Calculus II (1)
- MAT 263  Calculus III
- MAT 264  Using Technology to Explore Calculus III (1)

*Some of these courses may be counted in the Intellectual Foundations requirements (above) or as electives.

Total Required Credit Hours 154-160 cr

**CHEMISTRY EDUCATION (7–12, 5–6 EXTENSION, B.S.)**

BS-NS CGX
Chemistry Department
Bachelor of Science (HEGIS 1905.01)
National Council for Accreditation of Teacher Education (NCATE) Accredited
Science Building 267 (716) 878-5204

The chemistry B.S. secondary education program leads to a New York State Initial Certificate for teaching both chemistry and general science in grades 5–12. Students seeking admission to the B.S. chemistry program should initially enroll in the B.A. chemistry program. After successfully completing at least two required chemistry courses at Buffalo State with a GPA in these courses of 2.75 or higher, students apply for admission to the B.S. chemistry program during the semester they complete SED 200. A minimum GPA of 2.75 in chemistry courses is required for admission to SED 405, SED 407, and SED 408.

Transfer Admission Requirements: Transfer students from two-year colleges should have earned credit for courses equivalent to CHE 111, CHE 112, CHE 201, CHE 202, CHE 203, CHE 204, CHE 301, MAT 161, MAT 162, MAT 263, PHY 111, and PHY 112 to avoid possible delays in completing the degree program. Transfer students must complete a minimum of 10 credit hours in chemistry at Buffalo State. Chemistry courses taken elsewhere may be substituted for similar courses at Buffalo State only if they have the same or equivalent prerequisites. Chemistry courses not meeting this criterion may be transferred as elective credit.

NOTE: Undergraduate or post-baccalaureate candidates seeking New York State Teacher Certification are advised to review the M.S.Ed. in Science Education degree program. This new program is designed to enable students to quickly and efficiently develop the knowledge and skills required for teaching; the program leads to initial NYS certification for those candidates already holding undergraduate science degrees. Candidates currently in undergraduate or post-baccalaureate programs should strongly consider transitioning to the new program.

**Intellectual Foundations Requirements** 36–42 cr

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
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<td>Fundamentals of Chemistry I, II (4, 4)</td>
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<td>CHE 201, CHE 202</td>
<td>Organic Chemistry I, II (3, 3)</td>
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<td>CHE 203, CHE 204</td>
<td>Organic Chemistry Laboratories I, II (1, 1)</td>
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<tr>
<td>CHE 301</td>
<td>Analytical Chemistry (4)</td>
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<tr>
<td>CHE 305, CHE 306</td>
<td>Physical Chemistry I, II (3, 3)</td>
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<tr>
<td>CHE 307, CHE 308</td>
<td>Physical Chemistry Laboratories I, II (1, 1)</td>
</tr>
<tr>
<td>CHE 310</td>
<td>Literature of Chemistry (1)</td>
</tr>
<tr>
<td>CHE 403</td>
<td>Instrumental Analysis (4)</td>
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<tr>
<td>CHE 460</td>
<td>Inorganic Chemistry</td>
</tr>
<tr>
<td>CHE 461</td>
<td>Inorganic Chemistry Laboratory (2)</td>
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<tr>
<td>CHE 470</td>
<td>Biochemistry I</td>
</tr>
<tr>
<td>CHE 471</td>
<td>Biochemical Techniques (2)</td>
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</table>

Total Required Credit Hours in Chemistry 43 cr

**Total Required Credit Hours in Professional Education** 30 cr

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>SPF 303</td>
<td>Educational Psychology: Middle and Secondary Education</td>
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<tr>
<td>EDU 416</td>
<td>Teaching Literacy in Middle and Secondary Schools</td>
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<tr>
<td>EXE 372</td>
<td>Foundations of Teaching Adolescents with Disabilities</td>
</tr>
<tr>
<td>SCI 445</td>
<td>Literacy for Teaching Science</td>
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<tr>
<td>SCI 323</td>
<td>Science as Inquiry</td>
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<td>SED 200</td>
<td>Field Experience in Secondary Science Education</td>
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<td>SED 310</td>
<td>Teaching Science in the Middle School</td>
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<td>SED 401</td>
<td>Techniques for Teaching Laboratory Activities in the</td>
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</table>
seeking New York State Teacher Certification are advised to review the M.S. Ed. in Science Education degree program. This program is designed to enable students to quickly and efficiently develop the knowledge and skills required for teaching; the program leads to initial NYS certification for those candidates already holding undergraduate science degrees. Candidates currently in undergraduate or post-baccalaureate programs should strongly consider transitioning to the new program.

**Total Required Credit Hours in Chemistry** 43 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>CHE 111, CHE 112</td>
<td>Fundamentals of Chemistry I, II (4, 4)</td>
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<tr>
<td>CHE 201, CHE 202</td>
<td>Organic Chemistry I, II (3, 3)</td>
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<td>Organic Chemistry Laboratory I, II (1, 1)</td>
</tr>
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<td>Analytical Chemistry (4)</td>
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<td>CHE 305, CHE 306</td>
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<td>Physical Chemistry Laboratory I, II (1, 1)</td>
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<td>Literature of Chemistry (1)</td>
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<td>CHE 403</td>
<td>Instrumental Analysis (4)</td>
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<tr>
<td>CHE 460</td>
<td>Inorganic Chemistry</td>
</tr>
<tr>
<td>CHE 461</td>
<td>Inorganic Chemistry Laboratory (2)</td>
</tr>
<tr>
<td>CHE 470</td>
<td>Biochemistry I</td>
</tr>
<tr>
<td>CHE 471</td>
<td>Biochemical Techniques (2)</td>
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**Total Required Credit Hours in Professional Education** 24 cr

<table>
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<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>SPF 303</td>
<td>Educational Psychology: Middle and Secondary Education</td>
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<tr>
<td>EDU 416</td>
<td>Teaching Literacy in Middle and Secondary Schools</td>
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<td>EXE 372</td>
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<td>SCI 445</td>
<td>Literacy for Teaching Science</td>
</tr>
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<td>SED 200</td>
<td>Field Experience in Secondary Science Education</td>
</tr>
<tr>
<td>SED 401</td>
<td>Techniques for Teaching Laboratory Activities in the Secondary Science Classroom</td>
</tr>
<tr>
<td>SED 405</td>
<td>Methods and Materials in Teaching Secondary School Science</td>
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<td>SED 409</td>
<td>Seminar in Secondary Science Education</td>
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**Total Required Credit Hours in Student Teaching** 12 cr

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<td>Practice Teaching Science in the Middle School (6)</td>
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<tr>
<td>SED 408</td>
<td>Practice Teaching Science in the High School (6)</td>
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**Total Required Credit Hours in Other Fields for Certification** 36-42 cr

<table>
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<tbody>
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</tr>
<tr>
<td>B. Cognate Sciences (25 cr)</td>
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</tr>
<tr>
<td>GES 101</td>
<td>Introductory Geology</td>
</tr>
<tr>
<td>GES 103</td>
<td>Introductory Geology Laboratory (1)</td>
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<tr>
<td>PHY 111, PHY 112</td>
<td>University Physics I, II (5, 5)</td>
</tr>
<tr>
<td>BIO 212</td>
<td>Introduction to Organismal Biology and Diversity (4)</td>
</tr>
<tr>
<td>BIO 213</td>
<td>Introduction to Ecology, Evolution, and Behavior (4)</td>
</tr>
<tr>
<td>BIO 211</td>
<td>Introduction to Cell Biology and Genetics (4)</td>
</tr>
<tr>
<td>BIO 214</td>
<td>Introduction to Cell Biology (4)</td>
</tr>
<tr>
<td>Select two courses from the following:</td>
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</tr>
<tr>
<td>BIO 212</td>
<td>Introduction to Organismal Biology and Diversity (4)</td>
</tr>
<tr>
<td>BIO 213</td>
<td>Introduction to Ecology, Evolution, and Behavior (4)</td>
</tr>
<tr>
<td>BIO 211</td>
<td>Introduction to Cell Biology and Genetics (4)</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>BIO 214</td>
<td>Introduction to Cell Biology (4)</td>
</tr>
<tr>
<td>Select one course from the following:</td>
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</tr>
<tr>
<td>GES 111</td>
<td>General Oceanography</td>
</tr>
<tr>
<td>GES 131</td>
<td>Introductory Astronomy</td>
</tr>
<tr>
<td>GES 241</td>
<td>Meteorology</td>
</tr>
</tbody>
</table>

**Total Chemistry Credit Hours** 160-166 cr

The chemistry education (7–12) postbaccalaureate certification-only program leads to a New York State Initial Certificate for teaching both chemistry and general science in grades 7–12. The program is intended for persons with existing undergraduate bachelor’s degrees in chemistry or a related field who are interested in obtaining certification to teach chemistry in secondary schools or general science in middle schools. A minimum GPA of 2.75 in chemistry courses is required for admission to SED 405, SED 407, and SED 408.

NOTE: Undergraduate or post-baccalaureate candidates seeking New York State Teacher Certification are advised to review the M.S. Ed. in Science Education degree program. This program is designed to enable students to quickly and efficiently develop the knowledge and skills required for teaching; the program leads to initial NYS certification for those candidates already holding undergraduate science degrees. Candidates currently in undergraduate or post-baccalaureate programs should strongly consider transitioning to the new program.
The chemistry education (7–12) postbaccalaureate certification-only program with 5–6 extension leads to a New York State Initial Certificate for teaching both chemistry and general science in grades 5–12. The program is intended for persons with existing undergraduate bachelor’s degrees in chemistry or a related field who are interested in obtaining certification to teach chemistry in secondary schools or general science in middle schools. A minimum GPA of 2.75 in chemistry courses is required for admission to SED 405, SED 407, and SED 408.

NOTE: Undergraduate or post-baccalaureate candidates seeking New York State Initial Certificate for teaching both chemistry and general science in grades 5–12. The program is intended for persons with existing undergraduate bachelor’s degrees in chemistry or a related field who are interested in obtaining certification to teach chemistry in secondary schools or general science in middle schools. A minimum GPA of 2.75 in chemistry courses is required for admission to SED 405, SED 407, and SED 408.

The chemistry education (7–12, 5–6 EXTENSION, PTCP) PBC-NS CGX Chemistry Department Postbaccalaureate Teacher Certification Program (HEGIS 1905.01) National Council for Accreditation of Teacher Education (NCATE) Accredited Science Building 267 (716) 878-5204 The chemistry education (7–12) postbaccalaureate certification-only program with 5–6 extension leads to a New York State Initial Certificate for teaching both chemistry and general science in grades 5–12. The program is intended for persons with existing undergraduate bachelor’s degrees in chemistry or a related field who are interested in obtaining certification to teach chemistry in secondary schools or general science in middle schools. A minimum GPA of 2.75 in chemistry courses is required for admission to SED 405, SED 407, and SED 408. NOTE: Undergraduate or post-baccalaureate candidates seeking New York State Teacher Certification are advised to review the M.S.Ed. in Science Education degree program. This program is designed to enable students to quickly and efficiently develop both the knowledge and skills required for teaching; the program leads to initial NYS certification for those candidates already holding undergraduate science degrees. Candidates currently in undergraduate or post-baccalaureate programs should strongly consider transitioning to the new program.

Total Required Credit Hours in Chemistry 43 cr

CHE 111, CHE 112 Fundamentals of Chemistry I, II (4, 4)
CHE 201, CHE 202 Organic Chemistry I, II (3, 3)
CHE 203, CHE 204 Organic Chemistry Laboratory I-II (1, 1)
CHE 301 Analytical Chemistry (4)
CHE 305, CHE 306 Physical Chemistry I, II (3, 3)
CHE 307, CHE 308 Physical Chemistry Laboratory I, II (1, 1)
CHE 310 Literature of Chemistry (1)
CHE 403 Instrumental Analysis (4)
CHE 460 Inorganic Chemistry
CHE 461 Inorganic Chemistry Laboratory (2)
CHE 470 Biochemistry I
CHE 471 Biochemical Techniques (2)
which must include ENG/CWP 101, and at least one of the following: SPF 202, SPF 203, or EXE 100. ENG/CWP 102, and the mathematics and quantitative reasoning competency requirement or MAT 121 must either have been completed or the student must be registered for them. Applicants to the major must have earned a minimum cumulative GPA of 2.5, as well as a minimum 2.5 in these selected SPF/EDU/EXE courses (professional sequence). An acceptable application to the department includes evidence that the above requirements have been met and a description of relevant experiences. In addition, a writing sample regarding the applicant’s experiences that have helped solidify plans to pursue teaching is required. Applications to ECC are available in Bacon 302. Acceptance into the department enables students to proceed through the curricular courses of their selected major.

Combined Childhood and Early Childhood education majors must complete one year of college-level study of one language other than English. Typically, two years of high school study of one language is equivalent to one year of college-level work. Combined education majors must also complete a distribution requirement of at least 6 credit hours in each of the following areas: mathematics, science, social studies, and English (not including ENG/CWP 101 and ENG/CWP 102).

Many of the courses in our professional sequence are taught in authentic settings for clinically-rich mentored experiences. As a result, the teacher candidates will have observation, tutoring, and teaching experiences in a variety of placements in our Professional Development School Consortium. Combined education majors are required to complete a 30-credit hour academic concentration in addition to the professional program requirements; the concentration seeks to broaden students’ academic backgrounds. Descriptions of the approved concentrations can be found in the Elementary Education Department Handbook for Majors, available on the department Web site, www.buffalostate.edu/elementaryeducation, or from the department office. Currently, the concentration may be chosen from: American studies, English, foreign language, mathematics, science, or social studies Student Teaching: The culminating courses for the Combined education majors include two supervised student teaching experiences with children at different age levels in different types of schools. Eligibility and placement for each student teaching experience is determined by the department office in cooperation with public schools in the greater Buffalo area. It is expected that students in these majors will have at least one urban teaching experience. Prior written approval must be obtained from the chair of the department for students to enroll for any other college credit work during a student teaching assignment except for EDU 411. EDU 411 may be taken prior to or with Student Teaching.

Successful Graduates will be recommended for New York State Initial Certification to teach children from birth through grade 6 (Combined Childhood and Early Childhood, ECC). Transfer Students: Most courses taken at an accredited institution and relevant to a Buffalo State degree program will be accepted, but the majority of courses applied to the

Combined Childhood and Early Childhood education major must be courses completed at Buffalo State. Grades for transfer courses are generally used in computing the required GPA for admission to the major. Students planning to transfer as juniors into the Combined program and wishing to complete their program in four semesters must seek advisement at the institution in which they initially enrolled to assure that the prerequisite course equivalencies are met.

Since the teacher candidate will graduate with recommendation for two certification areas, Combined majors should anticipate an additional semester of college work.

<table>
<thead>
<tr>
<th>Intellectual Foundations Requirements</th>
<th>credit hours vary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Credit Hours for Concentration</strong></td>
<td>30 cr</td>
</tr>
<tr>
<td><strong>Distribution Courses</strong></td>
<td>24 cr</td>
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<tr>
<td><strong>Total Required Credit Hours in Education</strong></td>
<td>69 cr</td>
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<tr>
<td>SPF 202</td>
<td>Child Development and Education</td>
</tr>
<tr>
<td>SPF 203</td>
<td>School and Society</td>
</tr>
<tr>
<td>EDU 201</td>
<td>Introduction to Elementary Education</td>
</tr>
<tr>
<td>SPF 302</td>
<td>Educational Psychology: Elementary Education</td>
</tr>
<tr>
<td>EDU 211</td>
<td>Introduction to Literacy</td>
</tr>
<tr>
<td>EDU 220</td>
<td>Programs for Infants and Toddlers</td>
</tr>
<tr>
<td>EDU 310W</td>
<td>Teaching and Social Studies in the Elementary School</td>
</tr>
<tr>
<td>EDU 311W</td>
<td>The Teaching of Reading and other Language Arts in the Elementary School (6)</td>
</tr>
<tr>
<td>EDU 312</td>
<td>The Teaching of Mathematics and Science in the Elementary School (6)</td>
</tr>
<tr>
<td>EDU 329</td>
<td>Integrated Thematic Instruction for Young Children (6)</td>
</tr>
<tr>
<td>EDU 326</td>
<td>Emergent Literacy</td>
</tr>
<tr>
<td>EXE 362</td>
<td>Behavior and Classroom Management</td>
</tr>
<tr>
<td>EXE 371</td>
<td>Foundations of Teaching Children with Disabilities</td>
</tr>
<tr>
<td>EDU 375</td>
<td>Integration of Technology in Education</td>
</tr>
<tr>
<td>EDU 400</td>
<td>Practicum in Teaching (6)</td>
</tr>
<tr>
<td>EDU 402</td>
<td>Seminar to Accompany Student Teaching</td>
</tr>
<tr>
<td>EDU 410</td>
<td>Practicum in Teaching Early Childhood (6)</td>
</tr>
<tr>
<td>EDU 411</td>
<td>Parents, Schools, and Community (taken with student teaching)</td>
</tr>
</tbody>
</table>

| **Total Required Credit Hours Minimum** | 126 cr |

The total number of required hours will vary with course selection. Students should refer to the Elementary Education Handbook and an academic advisor for more detailed information.

**CHILDHOOD EDUCATION (GRADES 1–6, B.S.)**

BS-ED CED
Elementary Education and Reading Department
Bachelor of Science (HEGIS 0802)
National Council for Accreditation of Teacher Education (NCATE) Accredited
Bacon Hall 302 (716) 878-5916
Admission Requirements: To be considered for admission to the Childhood education major (CED), students must have successfully completed at least 24 college credit hours, which must include ENG/CWP 101, and at least one of the following: SPF 202, SPF 203, or EXE 100. ENG/CWP 102, and the mathematics and quantitative reasoning competency requirement or MAT 121 must either have been completed or the student must be registered for them. Applicants to the major must have earned a minimum cumulative GPA of 2.5, as well as a minimum 2.5 in these selected SPF/EDU/EXE courses (professional sequence).

An acceptable application to the department includes evidence that the above requirements have been met and a description of relevant experiences. In addition, a writing sample regarding the applicant’s experiences that have helped solidify plans to pursue teaching is required. Applications to CED are available in Bacon 302.

Acceptance into the department enables students to proceed through the curricular courses of their selected major.

Childhood education majors must complete one year of college-level study of one language other than English. Typically, two years of high school study of one language is equivalent to one year of college-level work. Childhood education majors must also complete a distribution requirement of at least 6 credit hours in each of the following areas: mathematics, science, social studies, and English (not including ENG/CWP 101 and ENG/CWP 102).

Many of the courses in our professional sequence are taught in authentic settings for clinically-rich mentored experiences. As a result, the teacher candidates will have observation, tutoring, and teaching experiences in a variety of placements in our Professional Development School Consortium. Childhood education majors are required to complete a 30-credit hour academic concentration in addition to the professional program requirements; the concentration seeks to broaden students’ academic backgrounds. Descriptions of the approved concentrations can be found in the Elementary Education Department Handbook for Majors, available on the department website, www.buffalostate.edu/elementaryeducation, or from the department office. Currently, the concentration may be chosen from: American studies, English, foreign language, mathematics, science, or social studies.

Student Teaching: The culminating courses for the Childhood education majors include two supervised student teaching experiences with children at different age levels in different types of schools. Eligibility and placement for each student teaching experience is determined by the department office in cooperation with public schools in the greater Buffalo area. It is expected that students in these majors will have at least one urban teaching experience. Prior written approval must be obtained from the chair of the department for students to enroll for any other college credit work during a student teaching assignment except for EDU 375. EDU 375 may be taken prior to or with Student Teaching.

Successful Graduates will be recommended for New York State Initial Certification to teach children from first to sixth grade (Childhood, CED).

Transfer Students: Most courses taken at an accredited institution and relevant to a Buffalo State degree program will be accepted, but the majority of courses applied to the Childhood education major must be courses completed at Buffalo State. Grades for transfer courses are generally used in computing the required GPA for admission to the major. Students planning to transfer as juniors into the Childhood program and wishing to complete their program in four semesters must seek advisement at the institution in which they initially enrolled to assure that the prerequisite course equivalencies are met.

### Intellectual Foundations Requirements

| Credit Hours for Concentration | 30 cr |
| Distribution Courses | 24 cr |
| **Total Required Credit Hours in Education** | **54 cr** |

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPF 202</td>
<td>Child Development and Education</td>
</tr>
<tr>
<td>SPF 203</td>
<td>School and Society</td>
</tr>
<tr>
<td>EDU 201</td>
<td>Introduction to Elementary Education</td>
</tr>
<tr>
<td>SPF 302</td>
<td>Educational Psychology: Elementary Education</td>
</tr>
<tr>
<td>EDU 211</td>
<td>Introduction to Literacy</td>
</tr>
<tr>
<td>EDU 310W</td>
<td>Teaching Social Studies in the Elementary School</td>
</tr>
<tr>
<td>EDU 311W</td>
<td>The Teaching of Reading and other Language Arts in the Elementary School (6)</td>
</tr>
<tr>
<td>EDU 312</td>
<td>The Teaching of Mathematics and Science in the Elementary School (6)</td>
</tr>
<tr>
<td>EXE 362</td>
<td>Behavior and Classroom Management</td>
</tr>
<tr>
<td>EXE 371</td>
<td>Foundations of Teaching Children with Disabilities</td>
</tr>
<tr>
<td>EDU 375</td>
<td>Integration of Technology in Education</td>
</tr>
<tr>
<td>EDU 400</td>
<td>Practicum in Teaching (Primary) (6)</td>
</tr>
<tr>
<td>EDU 401</td>
<td>Practicum in Teaching (Intermediate) (6)</td>
</tr>
<tr>
<td>EDU 402</td>
<td>Seminar in Education</td>
</tr>
</tbody>
</table>

| **Total Required Credit Hours** | **120 cr** |

*The total number of required hours will vary with course selection. Students should refer to the Elementary Education Handbook and an academic adviser for more detailed information.*

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**CHILDHOOD EDUCATION AND ENGLISH EXTENSION (GRADES 1–6 AND 7-9 ENGLISH EXTENSION, B.S.)**

**BS-ED CEN**
Elementary Education and Reading Department  
Bachelor of Science (HEGIS 0802)  
National Council for Accreditation of Teacher Education (NCATE) Accredited  
Bacon Hall 302 (716) 878-5916

Admission Requirements: To be considered for admission to the Childhood Education with English Extension major (CEN), students must have successfully completed at least 24 college credit hours, which must include ENG/CWP 101, and at least one of the following: SPF 202, SPF 203, or EXE 100. ENG/CWP 102, and the mathematics and quantitative reasoning competency requirement or MAT 121 must either have been completed or the student must be registered for them. Applicants to the major must have earned a minimum cumulative GPA of 2.5, as well as a
they initially enrolled to assure that the prerequisite courses (professional sequence).

An acceptable application to the department includes evidence that the above requirements have been met and a description of relevant experiences. In addition, a writing sample regarding the applicant’s experiences that have helped solidify plans to pursue teaching is required. Applications to CEN are available in Bacon 302. Acceptance into the department enables students to proceed through the curricular courses of their selected major.

Childhood with English extension education majors must complete one year of college-level study of one language other than English. Typically, two years of high school study of one language is equivalent to one year of college-level work.

Childhood education with English extension majors must also complete a distribution requirement of at least 6 credit hours in each of the following areas: mathematics, science, social studies, and English (not including ENG/CWP 101 and ENG/CWP 102).

English Extension Majors also complete a 30-credit-hour concentration in English as outlined in the elementary education handbook, available in Bacon 302 and the BSC website, www.buffalostate.edu/elementaryeducation.

Many of the courses in our professional sequence are taught in authentic settings for clinically-rich mentored experiences. As a result, the teacher candidates will have observation, tutoring, and teaching experiences in a variety of placements in our Professional Development School Consortium. In addition, English Extension majors will take ENG 463 in the semester prior to student teaching. See the English department for details about course availability and orientations.

Student Teaching: The culminating courses for the Childhood with English extension major include two supervised student teaching experiences with children at different age levels in different types of schools. Eligibility and placement for each student teaching experience is determined by the department offices in cooperation with public schools in the greater Buffalo area. It is expected that students in this major will have at least one urban teaching experience. Prior written approval must be obtained from the chair of the department for students to enroll for any other college credit work during a student teaching assignment except for EXE 362 and/or EDU 375. Graduates in this major will be recommended for New York State Initial Certification to teach children in grades 1–6 and 7-9 English.

Transfer Students: Most courses taken at an accredited institution and relevant to a Buffalo State degree program will be accepted, but the majority of courses applied to the childhood education with mathematics extension major must be courses completed at Buffalo State. Grades for transfer courses are generally used in computing the required GPA for admission to the major. Jointly registered program students are admitted directly into the Childhood major (BS-ED CED) only. Students planning to transfer as juniors into the Childhood program with English extension and wishing to complete their programs in four or five semesters must seek advisement at the institution in which they initially enrolled to assure that the prerequisite course equivalencies are met. Since graduates in extension programs will receive two certifications, it often requires an additional semester of college work.

<table>
<thead>
<tr>
<th>Intellectual Foundations Requirements Credit hours vary</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Hours for English Concentration 30 cr</td>
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</tr>
<tr>
<td>Distribution Courses 24 cr</td>
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<td>Total Required Credit Hours in Education 60 cr</td>
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<tr>
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<td>Child Development and Education</td>
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<tr>
<td>SPF 203</td>
<td>School and Society</td>
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<td>EDU 201</td>
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<td>SPF 302</td>
<td>Educational Psychology: Elementary Education</td>
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<td>EDU 211</td>
<td>Introduction to Literacy</td>
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<td>EDU 310 W</td>
<td>Teaching Social Studies in the Elementary School</td>
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<tr>
<td>EXE 371</td>
<td>Foundations of Teaching Children with Disabilities</td>
</tr>
<tr>
<td>EDU 375</td>
<td>Integration of Technology in Education</td>
</tr>
<tr>
<td>ENG 463</td>
<td>Methods, Materials, and Professional Development for Teachers of English (6 credits)</td>
</tr>
<tr>
<td>ENG 464</td>
<td>Student Teaching of English in Junior High-Middle School (6 credits)</td>
</tr>
<tr>
<td>EDU 402</td>
<td>Seminar in Education</td>
</tr>
<tr>
<td>EDU 404</td>
<td>Student Teaching (6 credits)</td>
</tr>
<tr>
<td>Total Required Credit Hours Minimum 126 cr</td>
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</tr>
</tbody>
</table>

*The total number of required hours will vary with course selection. Students should refer to the Elementary Education Handbook and an academic adviser for more detailed information.*

**CHILDHOOD EDUCATION AND FRENCH EXTENSION (GRADES 1–6 AND 7-9 FRENCH EXTENSION, B.S.)**

BS-ED CFR
Elementary Education and Reading Department
Bachelor of Science (HEGIS 0802)
National Council for Accreditation of Teacher Education (NCATE) Accredited
Bacon Hall 302 (716) 878-5916

Admission Requirements: To be considered for admission to the Childhood Education with French Extension major (CFR), students must have successfully completed at least 24 college credit hours, which must include ENG/CWP 101, and at least one of the following: SPF 202, SPF 203, or EXE 100. ENG/CWP 102, and the mathematics and quantitative reasoning competency requirement or MAT 121 must either have been completed or the student must be registered for them. Applicants to the major must have earned a minimum cumulative GPA of 2.5, as well as a minimum 2.5 in these selected SPF/EDU/EXE courses (professional sequence).

An acceptable application to the department includes evidence that the above requirements have been met and a
description of relevant experiences. In addition, a writing sample regarding the applicant’s experiences that have helped solidify plans to pursue teaching is required. Applications to CFR are available in Bacon 302. Acceptance into the department enables students to proceed through the curricular courses of their selected major.

Childhood with French extension education majors must complete a distribution requirement of at least 6 credit hours in each of the following areas: mathematics, science, social studies, and English (not including ENG/CWP 101 and ENG/CWP 102).

French Extension Majors also complete a 30-credit-hour concentration in French as outlined in the elementary education handbook, available in Bacon 302, and on the Buffalo State website: www.buffalostate.edu/elementaryeducation.

Many of the courses in our professional sequence are taught in authentic settings for clinically-rich mentored experiences. As a result, the teacher candidates will have observation, tutoring, and teaching experiences in a variety of placements in our Professional Development School Consortium. In addition, French Extension majors take FLE 401 in the fall semester closest to their student teaching experience. See the Modern and Classical Languages department for availability and orientations.

Student Teaching: The culminating courses for the Childhood with French Extension major include two supervised student teaching experiences with children at different age levels in different types of schools. Eligibility and placement for each student teaching experience is determined by the department office in cooperation with public schools in the greater Buffalo area. It is expected that students in this major will have at least one urban teaching experience. Prior written approval must be obtained from the chair of the department for students to enroll for any other college credit work during a student teaching assignment except for EXE 362 or EDU 375. Graduates in this major will be recommended for New York State Initial Certification to teach children in grades 1–6 and 7-9 French.

Transfer Students: Most courses taken at an accredited institution and relevant to a Buffalo State degree program will be accepted, but the majority of courses applied to the Childhood education with French extension major must be courses completed at Buffalo State. Grades for transfer courses are generally used in computing the required GPA for admission to the major. Jointly registered program students are admitted directly into the childhood major (BS-ED CED) only. Students planning to transfer as juniors into the childhood program with French extension and wishing to complete their program in four or five semesters must seek advisement at the institution in which they initially enrolled to assure that the prerequisite course equivalencies are met. Since teacher candidates will qualify for two certifications, most extension programs will require an additional semester.

<table>
<thead>
<tr>
<th>Intellectual Foundations Requirements</th>
<th>Credit Hours for French Concentration</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>credit hours vary</strong></td>
<td><strong>30 cr</strong></td>
<td></td>
</tr>
</tbody>
</table>
Childhood with Italian extension education majors must complete a distribution requirement of at least 6 credit hours in each of the following areas: mathematics, science, social studies, and English (not including ENG/CWP 101 and ENG/CWP 102).

Many of the courses in our professional sequence are taught in authentic settings for clinically-rich mentored experiences. As a result, the teacher candidates will have observation, tutoring, and teaching experiences in a variety of placements in our Professional Development School Consortium. In addition, Italian extension majors take FLE 401 in the fall semester closest to their student teaching experience. See the Modern and Classical Languages Department for course availability and orientations.

Italian extension majors also complete a 30-credit-hour concentration in Italian as outlined in the elementary education handbook, available in Bacon 302 and on the BSC website: www.buffalostate.edu/elementaryeducation.

Student Teaching: The culminating courses for the Childhood with Italian extension major include two supervised student teaching experiences with children at different age levels in different types of schools. Eligibility and placement for each student teaching experience is determined by the department office in cooperation with public schools in the greater Buffalo area. It is expected that students in these majors will have at least one urban teaching experience. Prior written approval must be obtained from the chair of the department for students to enroll for any other college credit work during a student teaching assignment except for EXE 362 or EDU 375. Graduates in this major will be recommended for New York State Initial Certification to teach children in grades 1–6 and 7-9 Italian.

Transfer Students: Most courses taken at an accredited institution and relevant to a Buffalo State degree program will be accepted, but the majority of courses applied to the Childhood education with Italian extension major must be courses completed at Buffalo State. Grades for transfer courses are generally used in computing the required GPA for admission to the major. Jointly registered program students are admitted directly into the childhood major (BS-ED CMT) only. Students planning to transfer as juniors into the Childhood with Italian extension program and wishing to complete their programs in four or five semesters must seek advisement at the institution in which they initially enrolled to assure that the prerequisite course equivalencies are met. Since the teacher candidate will graduate with recommendation for two certification areas, extension majors should anticipate an additional semester of college work.

<table>
<thead>
<tr>
<th>Distribution Courses</th>
<th>Credit Hours</th>
<th>Total Required Credit Hours Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPF 202</td>
<td>30 cr</td>
<td>126 cr</td>
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<tr>
<td>SPF 203</td>
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<tr>
<td>EDU 201</td>
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<tr>
<td>EDU 211</td>
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<tr>
<td>EDU 310 W</td>
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<tr>
<td>EDU 311 W</td>
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<td>FLE 401</td>
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<td>FLE 407</td>
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<tr>
<td>EDU 404</td>
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</tr>
</tbody>
</table>

**Total Required Credit Hours Minimum**
126 cr

The total number of required hours will vary with course selection. Students should refer to the Elementary Education Handbook and an academic adviser for more detailed information.

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**Childhood Education and Mathematics Extension (Grades 1–6 and 7-9 Mathematics Extension, B.S.)**

BS-ED CMT
Elementary Education and Reading Department
Bachelor of Science (HEGIS 0802)
National Council for Accreditation of Teacher Education (NCATE) Accredited
Bacon Hall 302 (716) 878-5916

Admission Requirements: To be considered for admission to the Childhood Education with Math Extension major (CMT), students must have successfully completed at least 24 college credit hours, which must include ENG/CWP 101, and at least one of the following: SPF 202, SPF 203, or EXE 100. ENG/CWP 102, and the mathematics and quantitative reasoning competency requirement or MAT 121 must either have been completed or the student must be registered for them. Applicants to the major must have earned a minimum cumulative GPA of 2.5, as well as a minimum 2.5 in these selected SPF/EDU/EXE courses (professional sequence).

An acceptable application to the department includes evidence that the above requirements have been met and a description of relevant experiences. In addition, a writing sample regarding the applicant’s experiences that have helped solidify plans to pursue teaching is required. Applications to CMT are available in Bacon 302.

Acceptance into the department enables students to proceed through the curricular courses of their selected major.

Childhood with math extension education majors must complete one year of college-level study of one language other than English. Typically, two years of high school study of one language is equivalent to one year of college-level work. Childhood education majors must also complete a distribution requirement of at least 6 credit
hours in each of the following areas: mathematics, science, social studies, and English (not including ENG/CWP 101 and ENG/CWP 102). Many of the courses in our professional sequence are taught in authentic settings for clinically-rich mentored experiences. As a result, the teacher candidates will have observation, tutoring, and teaching experiences in a variety of placements in our Professional Development School Consortium. Math extension majors also complete a 30-credit-hour concentration in mathematics as outlined in the elementary education handbook, available in Bacon 302 and on the Buffalo State website: www.buffalostate.edu/elementaryeducation.

In addition, math extension majors will take MED 309, a methods course, in the spring semester prior to their student teaching experience. See the mathematics department for course availability and orientation.

Student Teaching: The culminating courses for the Childhood with math extension major include two supervised student teaching experiences with children at different age levels in different types of schools. Eligibility and placement for each student teaching experience is determined by the department office in cooperation with public schools in the greater Buffalo area. It is expected that students in these majors will have at least one urban teaching experience. Prior written approval must be obtained from the chair of the department for students to enroll for any other college credit work during a student teaching assignment except for EXE 362 or EDU 375.

Graduates in this major will be recommended for New York State Initial Certification to teach children in grades 1–6 and 7-9 mathematics.

Transfer Students: Most courses taken at an accredited institution and relevant to a Buffalo State degree program will be accepted, but the majority of courses applied to the Childhood education with mathematics extension major must be courses completed at Buffalo State. Grades for transfer courses are generally used in computing the required GPA for admission to the major. Jointly registered program students are admitted directly into the childhood major (BS-ED CED) only. Students planning to transfer as juniors into the Childhood program with math extension and wishing to complete their programs in four to five semesters must seek advisement at the institution in which they initially enrolled to assure that the prerequisite course equivalencies are met. Since the teacher candidate will graduate with recommendation for two certification areas, extension majors should anticipate an additional semester of college work.

<table>
<thead>
<tr>
<th>Intellectual Foundations Requirements</th>
<th>30 credit hours vary</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Credit Hours for Math Concentration</th>
<th>30 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribution Courses</td>
<td>24 cr</td>
</tr>
<tr>
<td>Total Required Credit Hours in Education</td>
<td>57 cr</td>
</tr>
</tbody>
</table>

| SPF 202 | Child Development and Education |
| SPF 203 | School and Society |
| EDU 201 | Introduction to Elementary Education |
| SPF 302 | Educational Psychology: Elementary Education |

| EDU 211 | Introduction to Literacy |
| EDU 310 W | Teaching Social Studies in the Elementary School |
| EDU 311 W | The Teaching of Reading and other Language Arts in the Elementary School (6) |
| EDU 312 | The Teaching of Mathematics and Science in the Elementary School (6) |
| EXE 362 | Behavior and Classroom Management |
| EXE 371 | Foundations of Teaching Children with Disabilities |
| EDU/EXE 375 | Integration of Technology in Education |
| MED 309 | Teaching Mathematics in the Middle School (offered spring semester only) |
| MED 407 | Student Teaching of Mathematics in Junior High-Middle School (6 credits) |
| EDU 402 | Seminar in Education |
| EDU 404 | Student Teaching (6 credits) |

Total Required Credit Hours Minimum: 126 cr

The total number of required hours will vary with course selection. Students should refer to the Elementary Education Handbook and an academic adviser for more detailed information.

CHILDHOOD EDUCATION AND SPANISH EXTENSION (GRADES 1–6 AND 7-9 SPANISH EXTENSION, B.S.)

BS-ED CSH
Elementary Education and Reading Department
Bachelor of Science (HEGIS 0802)
National Council for Accreditation of Teacher Education (NCATE) Accredited
Bacon Hall 302 (716) 878-5916

Admission Requirements: To be considered for admission to the Childhood Education with Spanish Extension major (CSH), students must have successfully completed at least 24 college credit hours, which must include ENG/CWP 101, and at least one of the following: SPF 202, SPF 203, or EXE 100. ENG/CWP 102, and the mathematics and quantitative reasoning competency requirement or MAT 121 must either have been completed or the student must be registered for them. Applicants to the major must have earned a minimum cumulative GPA of 2.5, as well as a minimum 2.5 in these selected SPF/EDU/EXE courses (professional sequence).

An acceptable application to the department includes evidence that the above requirements have been met and a description of relevant experiences. In addition, a writing sample regarding the applicant’s experiences that have helped solidify plans to pursue teaching is required. Applications to CSH are available in Bacon 302. Acceptance into the department enables students to proceed through the curricular courses of their selected major.

Childhood with Spanish extension education majors must complete a distribution requirement of at least 6 credit hours in each of the following areas: mathematics, science, social studies, and English (not including ENG/CWP 101 and ENG/CWP 102).

Spanish extension majors also complete a 30-credit-hour concentration in Spanish as outlined in the elementary education handbook, available in Bacon 302 and on the
Many of the courses in our professional sequence are taught in authentic settings for clinically-rich mentored experiences. As a result, the teacher candidates will have observation, tutoring, and teaching experiences in a variety of placements in our Professional Development School Consortium. In addition, Spanish extension majors will take FLE 401 in the fall semester closest to their student teaching experience. See the Modern and Classical Languages department for seat availability and orientation.

Student Teaching: The culminating courses for the Childhood with Spanish extension major include two supervised student teaching experiences with children at different age levels in different types of schools. Eligibility and placement for each student teaching experience is determined by the department office in cooperation with public schools in the greater Buffalo area. It is expected that students in these majors will have at least one urban teaching experience. Prior written approval must be obtained from the chair of the department for students to enroll for any other college credit work during a student teaching assignment except for EXE 362 or EDU 375.

Graduates in this major will be recommended for New York State Initial Certification to teach children in grades 1–6 and 7-9 Spanish. Transfer Students: Most courses taken at an accredited institution and relevant to a Buffalo State degree program will be accepted, but the majority of courses applied to the Childhood education with Spanish extension major must be courses completed at Buffalo State. Grades for transfer courses are generally used in computing the required GPA for admission to the major. Jointly registered program students are admitted directly into the childhood major (BS-ED CED) only. Students planning to transfer as juniors into the childhood program with Spanish extension and wishing to complete their programs in four-five semesters must seek advisement at the institution in which they initially enrolled to assure that the prerequisite course equivalencies are met. Since the teacher candidate will graduate with recommendation for two certification areas, extension majors should anticipate an additional semester of college work.

### Intellectual Foundations Requirements

| Credit Hours for Spanish Concentration | 30 cr |
| Distribution Courses                  | 24 cr |
| **Total Required Credit Hours in Education** | 57 cr |

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPF 202</td>
<td>Child Development and Education</td>
</tr>
<tr>
<td>SPF 203</td>
<td>School and Society</td>
</tr>
<tr>
<td>EDU 201</td>
<td>Introduction to Elementary Education</td>
</tr>
<tr>
<td>SPF 302</td>
<td>Educational Psychology: Elementary Education</td>
</tr>
<tr>
<td>EDU 211</td>
<td>Introduction to Literacy</td>
</tr>
<tr>
<td>EDU 310 W</td>
<td>Teaching Social Studies in the Elementary School</td>
</tr>
<tr>
<td>EDU 311 W</td>
<td>The Teaching of Reading and other Language Arts in the Elementary School (6)</td>
</tr>
<tr>
<td>EDU 312</td>
<td>The Teaching of Mathematics and Science in the Elementary School (6)</td>
</tr>
<tr>
<td>EXE 362</td>
<td>Behavior and Classroom Management</td>
</tr>
</tbody>
</table>

**Total Required Credit Hours** 126 cr

The total number of required hours will vary with course selection. Students should refer to the Elementary Education Handbook and an academic adviser for detailed information.

**CHILDHOOD EDUCATION AND SOCIAL STUDIES EXTENSION (GRADES 1–6 AND 7-9 SOCIAL STUDIES EXTENSION, B.S.)**

**BS-ED CSS**
Elementary Education and Reading Department
Bachelor of Science (HEGIS 0802)
National Council for Accreditation of Teacher Education (NCATE) Accredited
Bacon Hall 302 (716) 878-5916

Admission Requirements: To be considered for admission to the Childhood Education with Social Studies Extension major (CST), students must have successfully completed at least 24 college credit hours, which must include ENG/CWP 101, and at least one of the following: SPF 202, SPF 203, or EXE 100. ENG/CWP 102, and the mathematics and quantitative reasoning competency requirement or MAT 121 must either have been completed or the student must be registered for them. Applicants to the major must have earned a minimum cumulative GPA of 2.5, as well as a minimum 2.5 in these selected SPF/EDU/EXE courses (professional sequence). An acceptable application to the department includes evidence that the above requirements have been met and a description of relevant experiences. In addition, a writing sample regarding the applicant’s experiences that have helped solidify plans to pursue teaching is required. Applications to CST are available in Bacon 302.

Acceptance into the department enables students to proceed through the curricular courses of their selected major.

Childhood with Social Studies Extension education majors must complete one year of college-level study of one language other than English. Typically, two years of high school study of one language is equivalent to one year of college-level work. Childhood education with social studies extension majors must also complete a distribution requirement of at least 6 credit hours in each of the following areas: mathematics, science, social studies, and English (not including ENG/CWP 101 and ENG/CWP 102).

Social studies extension majors also complete a 30-credit-hour concentration in social studies as outlined in the elementary education handbook, available in Bacon 302 and on the BSC website:
www.buffalostate.edu/elementaryeducation
Many of the courses in our professional sequence are taught in authentic settings for clinically-rich mentored experiences. As a result, the teacher candidates will have observation, tutoring, and teaching experiences in a variety of placements in our Professional Development School Consortium. In addition, social studies extension majors take SSE 303 in the semester prior to student teaching. See the social studies education department for seat availability and orientation.

Student Teaching: The culminating courses for the Childhood with social studies extension major include two supervised student teaching experiences with children at different age levels in different types of schools. Eligibility and placement for each student teaching experience is determined by the department office in cooperation with public schools in the greater Buffalo area. It is expected that students in these majors will have at least one urban teaching experience. Prior written approval must be obtained from the chair of the department for students to enroll for any other college credit work during a student teaching assignment except for EXE 362 or EDU 375. Graduates in this major will be recommended for New York State Initial Certification to teach children in grades 1–6 and 7-9 social studies.

Transfer Students: Most courses taken at an accredited institution and relevant to a Buffalo State degree program will be accepted, but the majority of courses applied to the childhood education with social studies extension major must be courses completed at Buffalo State. Grades for transfer courses are generally used in computing the required GPA for admission to the major. Jointly registered program students are admitted directly into the childhood major (BS-ED CED) only. Students planning to transfer as juniors into the Childhood program with social studies extension and wishing to complete their programs in four-five semesters must seek advisement at the institution in which they initially enrolled to assure that the prerequisite course equivalencies are met. Since the teacher candidate will graduate with recommendation for two certification areas, extension majors should anticipate an additional semester of college work.

### Intellectual Foundations Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credit hours vary</th>
</tr>
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<tbody>
<tr>
<td>Credit Hours for Soc. St. Concentration</td>
<td>30 cr</td>
</tr>
<tr>
<td><strong>Distribution Courses</strong></td>
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</tr>
<tr>
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<tr>
<td>SPF 202</td>
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<td>SPF 302</td>
<td>Educational Psychology: Elementary Education</td>
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<tr>
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<td>The Teaching of Reading and other Language Arts in the Elementary School (6 credits)</td>
</tr>
<tr>
<td>EDU 312</td>
<td>The Teaching of Mathematics and Science in the Elementary School (6)</td>
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<tr>
<td>EXE 362</td>
<td>Behavior and Classroom Management</td>
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<td>Foundations of Teaching Children with Disabilities</td>
</tr>
<tr>
<td>EDU 375</td>
<td>Integration of Technology in Education</td>
</tr>
</tbody>
</table>

### CoA

**Coaching and Physical Education**

**Coaching Minor Program**

Dr. Stephen Schwartz

Classroom Building A113 878-6434

The coaching minor educates and prepares non-physical education major students to coach interscholastic teams. Students may focus their interests in training in one or more sport specialties. Students who successfully complete the coaching minor also fulfill the New York State Coaching Certification requirements.

### Total Required Credit Hours Minimum

<table>
<thead>
<tr>
<th>Minimum</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>126 cr</td>
</tr>
</tbody>
</table>

### A. Required Courses (9 cr)

- HPR 300 Principles, Philosophy and Organization of Athletics in Education
- HPR 309 Health Sciences for Coaching
- HPR 335 Care and Prevention of Athletic Injuries

### B. Electives in Coaching (6 cr)

Select two classes from the following:

- HPR 201 Techniques and Theories of Coaching Specialty Sports
- HPR 202 Techniques and Theories of Coaching Soccer
- HPR 203 Techniques and Theories of Coaching Football
- HPR 205 Techniques and Theories of Coaching Track and Field
- HPR 207 Techniques and Theories of Coaching Baseball/Softball
- HPR 208 Techniques and Theories of Coaching Swimming
- HPR 209 Techniques and Theories of Coaching Basketball
- HPR 488 Internship in Coaching Interscholastic Sports

### C. Elective Selected by Advisement (3 cr)

Select one class from the following:

- BUS 368 Sports Management and Marketing
- HEW 320 Psychoactive Drugs and Health
- HEW 425 Alcohol Problems
- HPR 301 Kinesiology
- HPR 319 Sociology of Sport
- PSY 325 Social Behavior
COMMUNICATION PROGRAMS

See Individual Majors
- Communication Studies
- Journalism
- Media Production
- Public Communication
- Television and Film Arts

COMMUNICATION DESIGN (B.F.A.)

BFA-AH CMD
Design Department
Bachelor of Fine Arts (HEGIS 1009)
National Association of Schools of Art and Design (NASAD) Accredited
Upton Hall 212 (716) 878-6032

The B.F.A. degree in Communication Design is a studio-intensive program of study. This degree offers students a specialized studio-oriented education in preparation for advanced or graduate studies, or for beginning careers as professional designers.

Students begin with foundation courses in two-dimensional design, three-dimensional design, color, art history, and design history. The major is completed with courses in communication design and selected major electives.

Internships are required of senior level majors. The remaining credit hours are completed in required Intellectual Foundations courses and in other chosen studio courses.

All students entering the communication design major enter with a bachelor of fine arts (BFA-AH CMD) intent, and are required to pass a portfolio review for admission into the upper division. Commit-to-major portfolio reviews are conducted by faculty and generally take place during the sophomore year after the completion of selected foundations courses, as well as the first course in the intended major. To continue in the B.F.A. degree program, a 3.0 GPA must be maintained in the major.

Transfer students are urged to submit their portfolios the semester before transfer in order to facilitate placement in departmental courses and/or for possible commit-to-major portfolio review. Please call the Design Department for additional information.

The Design Department reserves the right to retain students’ work for official purposes, such as exhibitions, catalogs, teaching aids, or permanent collections. Students are expected to assume the costs of materials used in courses. Some studio courses may have an additional charge for materials used in class. Students enrolled in a studio course are expected to work a minimum of two additional hours each week outside of class for each credit granted for that class.

The Design Department may be in the process of curricular revision. Please refer to the college Web site or the department for updated information.

<table>
<thead>
<tr>
<th>Intellectual Foundations Requirements</th>
<th>39–66 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Required Credit Hours in Communication Design</td>
<td>79 cr</td>
</tr>
<tr>
<td>A. Foundation Courses (37 cr)</td>
<td></td>
</tr>
<tr>
<td>DES 101 Introduction to Design: 2D I</td>
<td></td>
</tr>
<tr>
<td>DES 102 Introduction to Design: 2D II</td>
<td></td>
</tr>
<tr>
<td>DES 103 Introduction to Design: 3D I</td>
<td></td>
</tr>
<tr>
<td>DES 277 Computer Graphics I</td>
<td></td>
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<tr>
<td>DES 314W History of Graphic Design</td>
<td></td>
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<tr>
<td>DES 377 Computer Graphics II</td>
<td></td>
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<tr>
<td>DES 307 Color Theory</td>
<td></td>
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<tr>
<td>DES 414 Senior Seminar (4)</td>
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<tr>
<td>FAR 101 Drawing I</td>
<td></td>
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<tr>
<td>FAR 104 Themes and Issues in Contemporary Arts</td>
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<tr>
<td>FAR 250 Art History I</td>
<td></td>
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<tr>
<td>FAR 251 Art History II</td>
<td></td>
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<tr>
<td>B. Major Courses (33 cr)</td>
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<tr>
<td>DES 270 Visual Communication I</td>
<td></td>
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<tr>
<td>DES 271 Typography</td>
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<tr>
<td>DES 370 Visual Communication II</td>
<td></td>
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<tr>
<td>DES 374 Advertising I</td>
<td></td>
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<tr>
<td>DES 378 Web Design</td>
<td></td>
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<tr>
<td>DES 380 Illustration I</td>
<td></td>
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<tr>
<td>DES 473 Graphic Design</td>
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<tr>
<td>DES 475 Graphic Design Practicum (6)</td>
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<tr>
<td>DES 479 Multimedia</td>
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<tr>
<td>DES 480 Illustration II</td>
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<tr>
<td>C. Studio Electives Selected by Advisement (9 cr)</td>
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<tr>
<td>DES 220 Ceramics I</td>
<td></td>
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<tr>
<td>DES 230 Introduction to Jewelry</td>
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<tr>
<td>DES 242 Fibers I</td>
<td></td>
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<tr>
<td>DES 250 Wood I</td>
<td></td>
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<tr>
<td>All College Electives</td>
<td>0–2 cr</td>
</tr>
<tr>
<td>Total Required Credit Hours</td>
<td>120-145 cr</td>
</tr>
</tbody>
</table>

COMMUNICATION STUDIES (B.A.)

BA-AH COM
Communication Department
Bachelor of Arts (HEGIS 0601)
Bishop Hall 210 (716) 878-6008

This major allows students much flexibility to tailor a program of theory-based and applied courses. It meets the needs of students preferring a generalist approach to communication, as well as for students seeking a more academic, less applied approach. Compare this major with journalism, media production, and public communication. Like these other majors within the Communication Department, the Communication Studies major adheres to the standards of the Accrediting Council on Education in Journalism and Mass Communication.

Career Opportunities: Students in Communication Studies prepare for careers in organizational communication, research, media analysis, public relations, lobbying, speechwriting, fundraising, and other fields that require a liberal arts education enhanced with communication expertise. The major also provides a base for graduate
education in communication, law, management, and other professional areas.

The profile of a successful communication studies graduate is a person with strong writing and speaking proficiency, keen ethical insight, competence in analyzing and thinking critically, and skill in working effectively both independently and in teams.

**Admission Requirements:** Incoming freshman and transfer students can declare the major. A 2.6 in the major is needed to register for certain required upper-division courses (300- and 400-level).

See www.buffalostate.edu/communication for application forms and additional information, including a list of equivalent core courses at community colleges. Transfer students from two-year schools may apply only core courses toward this major for a maximum of 12 credits. Students generally require four semesters of study after completing communication core courses.

**Academic Standards:** Only grades of C or higher may be applied toward requirements for any communication degree; courses with lower grades must be repeated.

Consistent with standards of the Accrediting Council for Education in Journalism and Mass Communication, the number of communication courses that students may take is capped, encouraging a broad-based liberal arts education. The department encourages students to take minors or second majors, and requires evidence of an academic concentration or area of expertise outside the Communication Department.

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**Intellectual Foundations Requirements**

<table>
<thead>
<tr>
<th>Total Required Credit Hours in Communication</th>
<th>42 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Communication Core (12 cr)</strong></td>
<td></td>
</tr>
<tr>
<td>COM 100 Media Literacy</td>
<td></td>
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<tr>
<td>or SPC 103 or Introduction to Human Writing</td>
<td></td>
</tr>
<tr>
<td>COM 210 Converged Media Writing</td>
<td></td>
</tr>
<tr>
<td>COM 215 Introduction to Visual Communication</td>
<td></td>
</tr>
<tr>
<td>SPC 205 Introduction to Oral Communication</td>
<td></td>
</tr>
</tbody>
</table>

*Note: Students must have a minimum GPA of 2.6 in the major to register for certain upper-division courses (350- and 400-level).*

**B. Upper-Level Oral Communication Course (3 cr)**

Select one course from the following:

| SPC 306 Advanced Public Speaking             |      |
| SPC 307 Group Communication                  |      |
| SPC 315 Media Performance                    |      |

**C. Upper-Level Written Communication Course (3 cr)**

Select one course from the following:

| COM 303 Print News I: Reporting              |      |
| COM 304 Writing and Producing                |      |
| COM 308 Public Relations Writing             |      |
| COM 325 Feature Writing                      |      |
| COM 337 Electronic News I: Producing         |      |
| COM 390 Special Topics: Journalism Writing   |      |

**D. Upper-Level Visual Communication Course (3 cr)**

Select one course from the following:

| COM 322 Communication Graphics               |      |
| COM 329 Video Production                     |      |
| COM 336 Web and Social Media Production      |      |

**E. Communication Theory and Criticisms (6 cr)**

---

*Select two courses from the following:*

| COM 310 International Communication          |      |
| COM 327 Literary Journalism                  |      |
| COM 400 Communication Law                    |      |
| COM 401 Applied Communication Research       |      |
| COM 410 Communication History                |      |
| SPC 309 Persuasion and Propaganda            |      |
| SPC 311 Intercultural Communication          |      |
| SPC 321 Rhetorical Criticism                 |      |
| SPC 333 Minorities and the Media             |      |
| SPC 407 Organizational Communication         |      |
| SPC 422 Media Criticism                      |      |
| SPC 424 Special Topics in Media Criticism    |      |

**F. Senior Seminar (3 cr)**

| COM 450 Communication and Society            |      |

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**G. Communication Electives (12 cr)**

| COM 495 or Independent Project               |      |
| or COM 499 or Independent Study              |      |
| or 300/400-level COM or SPC electives by advisement |      |

**All College Electives**

<table>
<thead>
<tr>
<th>12–39 cr</th>
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</table>

**Total Required Credit Hours**

<table>
<thead>
<tr>
<th>120 cr</th>
</tr>
</thead>
</table>

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**Computer Information Systems (B.S.)**

**BS-SP CIS**

Computer Information Systems Department

Bachelor of Science (HEGIS 0702)
Chase Hall 202 (716) 878-5528

The computer information systems program prepares students for entry-level positions, such as programmer, systems analyst, or network support in the computer field, and provides them with the technical knowledge and managerial skills necessary for a wide range of subsequent career paths. There is a growing demand in all sectors for individuals with this combination of capabilities. This program was developed with the cooperation of employers and information systems professionals and, unlike a computer science program, its emphasis is on commercial applications of computers rather than theory.

**Admission Requirements:** Transfer students from parallel A.S. or A.A.S. programs in computer information systems or computer science, and students from nonparallel programs who have completed a programming course equivalent to CIS 151, are accepted directly into the CIS major on a competitive basis providing they have a minimum cumulative GPA of 2.5 and a minimum GPA of 2.0 in major courses from the transfer institution. Freshmen and transfer students who do not meet these requirements for admission to the CIS major are accepted into the CIS premajor (0824) with no special requirements. Premajors are expected to take CIS 151 within three semesters of entering the premajor. Freshmen who have 6 credits of AP computer science can be accepted directly into the CIS major (0825). CIS premajors, undeclared students, and
students in other majors at Buffalo State can be admitted to the
CIS major when they have (a) completed CIS 151 (or
an equivalent transfer course) with a minimum grade of C
or achieved a minimum GPA of 2.0 in CIS major courses
taken at Buffalo State, and (b) achieved a minimum
cumulative GPA of 2.5 at Buffalo State.
The CIS department is in the process of curricular revision. Please refer to college Web listings or the department for updated information.
*Evening study available.

<table>
<thead>
<tr>
<th>Intellectual Foundations Requirements</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Total Required Credit Hours in Computer</td>
<td>42 cr</td>
</tr>
</tbody>
</table>

A. Required Courses (24 cr)
- CIS 151 Computer-Based Information Processing I
- CIS 251 Computer-Based Information Processing II
- CIS 361 Fundamental Concepts in Object-Oriented Programming
- CIS 315 Computer Organization
- CIS 370 Systems Analysis and Design
- CIS 380 Microcomputer Applications
- CIS 400 Visual Basic Programming for the Windows Environment
- CIS 410 Computer Operating Systems
- CIS 411 Database Systems

B. Electives (18 cr)
- CIS 375 Programming for the Internet Environment
- CIS 391 Information Systems Project Management
- CIS 405 Comprehensive COBOL Programming
- CIS 413 Multimedia Web Programming
- CIS 420 Database Management Systems
- CIS 425 Object-Oriented Development
- CIS 427 E-Commerce Concepts, Technologies and Implementation
- CIS 435 Computer Seminar
- CIS 442 Advanced Systems Applications
- CIS 470 Data Communications
- CIS 471 Networking Laboratory I
- CIS 473 Enterprise Systems Design and Administration
- CIS 475 Programming for the Internet Environment II
- CIS 488 Internship
- CIS 495 Project
- CIS 499 Independent Study

In addition to the above courses, one non-CIS course may be taken as an elective with the department chair’s permission.

C. Residency Requirements
A minimum of 21 credit hours must be completed in the CIS department at Buffalo State College.
No more than 3 credit hours of CIS 488 may be used to fulfill the CIS elective requirement.
No more than 3 credit hours of CIS elective requirement can be satisfied by credit hours from CIS 495 and CIS 499.

1 Required only for transfer students who have not taken a course in C programming.

All College Electives 12–39 cr

Total Required Credit Hours 120 cr

CRIMINAL JUSTICE (B.S.)
BS-SP CRJ
Criminal Justice Department
Bachelor of Science (HEGIS 2105)
Classroom Building C114 (716) 878-4517

Criminal justice is a multidisciplinary academic program that examines the characteristics and operations of the criminal justice system and relationships between crime and crime control within the context of a democratic society. The program explores social, cultural, political, and organizational influences on criminal justice policies and operations from both theoretical and real-world perspectives.

Concentrations in Major:
- Concentration in Policing: CRJ 202, CRJ 301, CRJ 409
- Concentration in Corrections: CRJ 204, CRJ 306, CRJ 406, CRJ 420
- Concentration in Intelligence Analysis: CRJ 250, CRJ 355, CRJ 450, CRJ 455

Admission Requirements: Students are not accepted to the criminal justice major during their first semester at Buffalo State. However, students can be admitted as premajors to receive the benefit of departmental information and advisement. A minimum of 12 credit hours of coursework must be completed with a minimum cumulative GPA of 2.5. A student is then eligible to apply for admittance as a criminal justice major. Transfer students from community colleges are accepted based upon their academic average and according to their date of application.

Degree Requirements

<table>
<thead>
<tr>
<th>Intellectual Foundations Requirements</th>
<th>39–66 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Required Credit Hours in Criminal Justice</td>
<td>42 cr</td>
</tr>
</tbody>
</table>

1. ECO 305, PSY 306, MAT 311, SOC 301, or an approved statistics course is a prerequisite for CRJ 315.
2. CRJ 495 and CRJ 499 require senior class standing and a minimum cumulative GPA of 3.0 at Buffalo State.

A. Core Courses (18 cr)
- CRJ 101 Introduction to Criminal Justice
- CRJ 201 Criminal Law
- CRJ 202 The Police Process
- CRJ 204 The Correctional Process
- CRJ 303 Criminal Justice Theory and Ideology
- CRJ 315 Research Methods in Criminal Justice

B. Supporting Courses (6 cr)
Select two courses from the following:
- CRJ 250 Introduction to Intelligence Analysis
- CRJ 301 Police Organization and Management
- CRJ 302 Criminal Justice and the Community
- CRJ 305 The Juvenile Justice System
- CRJ 306 Probation, Parole, and Community Corrections
- CRJ 307 Comparative Criminal Justice Systems
- CRJ 308 Crime Prevention
- CRJ 317 Constitutional Issues in Criminal Justice
- CRJ 320 Criminal Courts
- CRJ 355 Crime Analysis

Total Required Credit Hours 120 cr
C. Criminal Justice Electives (9 cr)
CRJ 425 Race, Ethnicity, and the Administration of Justice
OR
CRJ 430 Gender and the Administration of Justice
Select two courses from the following:
CRJ 402 Advanced Criminal Justice
CRJ 404 White-Collar and Corporate Crime
CRJ 406 Correctional Institutions and Programs
CRJ 408 Proseminar in Criminal Justice
CRJ 409 Advanced Issues in Law Enforcement
CRJ 410 Organized Crime
CRJ 420 Advanced Issues in Punishment and Corrections
CRJ 440 Drugs, Crime, and Drug Policy
CRJ 450 Terrorism and Criminal Justice
CRJ 455 Advanced Intelligence Analysis
CRJ 470 Advanced Seminar in Criminal Justice
CRJ 485 Moot Court
CRJ 488 Internship
CRJ 495 Special Project
CRJ 499 Independent Study

D. Professional, Behavioral, and Social Science Electives² (9 cr)
Select three courses from the following:
ANT 307 Urban Anthropology
ANT 325 Forensic Anthropology
BIO 322 Human Heredity
BUS 312 Financial Accounting
BUS 313 Managerial Accounting
BUS 334 Business Law I
BUS 360 Principles of Management
BUS 410 Accounting Analysis
CHE 312 Chemistry and Criminalistics
CRS 302 Creative Approaches to Problem Solving
ECO 305 Statistics for Economics
ECO 312 Urban Economics
ECO 350 Public Finance
ECO 360 Introduction to the Economic Analysis of Law
ENG 300 Writing for the Professions
GEG 425 Fundamentals of GIS
HIS 341 African Americans and Civil Rights
HIS 342 English Legal History
LJR 300 Advanced Library Research Methods
MAT 311 Introductory Probability and Statistics
PHI 304 Philosophy of Law
PSC 315 State and Local Government Politics
PSC 316 Urban Ethnic Politics
PSC 320 U.S. Constitution/Civil Liberties
PSC 360 Public Administration
PSC 364 American Public Policy
PSY 306 Statistics in Psychological Research
PSY 325 Social Behavior
PSY 367 Organizational Behavior
PSY 375 Forensic Psychology
PSY 376 Health Psychology
PSY 411 Abnormal Psychology
SOC 301 Social Statistics
SOC 351 Sociology of Race and Ethnicity
SOC 353 Environment and Society

SOC 380 Sociology of Crime
SOC 382 Sociology of Law
SOC 390 Sociology of Juvenile Delinquency
SPA 201 Intermediate Spanish I
SPA 202 Intermediate Spanish II
SPF 306 Public Speaking
SPF 311 Family Violence
SWK 319 Dynamics of Poverty
SWK 320 Social Services Organizations

¹ One of these courses must be included as an elective.
² No more than 7 credit hours from one course area (i.e., two PSC courses, two PSY courses, or two SOC courses) allowed.

All College Electives 12–39 cr

Total Required Credit Hours 120 cr

See Individual Majors
- Ceramics
- Communication Design
- Fibers
- Metals/Jewelry
- Wood/Furniture

DIETETICS-COORDINATED PROGRAM

BS-SP DIE COR
Dietetics and Nutrition Department
Bachelor of Science (HEGIS 1306)
Academy of Nutrition and Dietetics (A.N.D.)
Accredited
Caudell Hall 207 (716) 878-5913

The coordinated program in dietetics (CPD) is currently granted continuing accreditation by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics, 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995, (312) 899-5400 or 1-800-877-1600 x 5400
The program began in 1971 and is the only such program in the SUNY system. The program combines theoretical learning with supervised practice; therefore, the program provides students with the academic and supervised practice requirements established by ACEND for entry-level dietitians. Graduates of the program receive a verification statement signed by the CPD program director. Graduates are then eligible to apply to take the registration examination administered by the Commission on Dietetic Registration. Passing the registration examination earns the credentials of registered dietitian (RD), or registered dietitian nutritionist (RDN).
Admission Requirements: All students with sophomore, junior, or senior status meeting the eligibility requirements must apply for admission to the program during the designated period. Eligibility requirements are a minimum cumulative GPA of 2.75 and completion of the following prerequisite courses prior to beginning the program in the
Required Courses Outside the Major (39 cr)

- BIO 308, BIO 309, CHE 111, CHE 112, CHE 321, CHE 322, NFS 100, NFS 102, NFS 110, NFS 200, NFS 230, NFS 302, NFS 315, PSY 101, and SOC 100.

Selection is based on GPA, completion of prerequisite courses, biographical sketch, personal interviews, faculty/employer recommendations, and various other activities. Up to 16 students are accepted into this program each year. Individuals interested in applying to the coordinated program must contact the department for application details. These are available by December 1 of each year; completed forms must be returned by the end of the first week of classes of the spring semester.

This curriculum is being revised as part of the accreditation process. Contact the department for information.

<table>
<thead>
<tr>
<th>Intellectual Foundations Requirements</th>
<th>33–39 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Required Credit Hours in Nutrition and Food Science</td>
<td>74 cr</td>
</tr>
</tbody>
</table>

A minimum of 12 credit hours in the major must be completed in the department.

**A. Required Courses (47 cr)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFS 100</td>
<td>Introduction to Food Preparation</td>
</tr>
<tr>
<td>NFS 102</td>
<td>Introductory Nutrition</td>
</tr>
<tr>
<td>NFS 111</td>
<td>Applied Principles of Management in Dietetics/Food Services</td>
</tr>
<tr>
<td>NFS 200</td>
<td>Applied Food Chemistry</td>
</tr>
<tr>
<td>NFS 211</td>
<td>Food Service Systems Management in Health Care</td>
</tr>
<tr>
<td>NFS 230</td>
<td>Introduction to Dietetics (2)</td>
</tr>
<tr>
<td>NFS 300</td>
<td>Food Processing I</td>
</tr>
<tr>
<td>NFS 302</td>
<td>Advanced Nutrition</td>
</tr>
<tr>
<td>NFS 310</td>
<td>Personnel Management in Dietetics/Food Services</td>
</tr>
<tr>
<td>NFS 315</td>
<td>Life Cycle and Community Nutrition I</td>
</tr>
<tr>
<td>NFS 316</td>
<td>Life Cycle and Community Nutrition II (2)</td>
</tr>
<tr>
<td>NFS 330</td>
<td>Seminar on Complementary and Alternative Nutrition (1)</td>
</tr>
<tr>
<td>NFS 401</td>
<td>Medical Nutrition Therapy I</td>
</tr>
<tr>
<td>NFS 402</td>
<td>Medical Nutrition Therapy II</td>
</tr>
<tr>
<td>NFS 403</td>
<td>Medical Nutrition Therapy III</td>
</tr>
<tr>
<td>NFS 405</td>
<td>Principles of Nutrition Education (2)</td>
</tr>
<tr>
<td>NFS 419</td>
<td>Introduction to Clinical Practice (2)</td>
</tr>
<tr>
<td>NFS 430</td>
<td>Introduction to Nutrition Research (2)</td>
</tr>
</tbody>
</table>

**B. Courses for ADA Requirements (27 cr)**

To satisfy the clinical requirements of the A.N.D., students are required to take the following courses, which may be substituted for electives.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFS 445</td>
<td>Nutritional Care A</td>
</tr>
<tr>
<td>NFS 446</td>
<td>Nutritional Care B</td>
</tr>
<tr>
<td>NFS 447</td>
<td>Nutritional Care C</td>
</tr>
<tr>
<td>NFS 448</td>
<td>Nutritional Care D</td>
</tr>
<tr>
<td>NFS 449</td>
<td>Nutritional Care E (Nutritional Care of Long-Term Patients)</td>
</tr>
<tr>
<td>NFS 450</td>
<td>Senior Practicum in Dietetics</td>
</tr>
<tr>
<td>NFS 451</td>
<td>Specialty Practice</td>
</tr>
<tr>
<td>NFS 471</td>
<td>Experiences in Health-Care Food Service Systems</td>
</tr>
</tbody>
</table>

**Required Courses Outside the Major (39 cr)**

The ADA requires completion of subjects outside nutrition to satisfy academic requirements. Courses meeting these requirements are identified below; they may be taken as electives or used in fulfilling the Intellectual Foundations requirements.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 100</td>
<td>Principles of Biology</td>
</tr>
<tr>
<td>BIO 210</td>
<td>Bacteriology</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 308</td>
<td>Human Anatomy and Physiology</td>
</tr>
<tr>
<td>BIO 309</td>
<td>Laboratory in Human Anatomy and Physiology (1)</td>
</tr>
<tr>
<td>CHE 111</td>
<td>Fundamentals of Chemistry I (4)</td>
</tr>
<tr>
<td>CHE 112</td>
<td>Fundamentals of Chemistry II (4)</td>
</tr>
<tr>
<td>CHE 321</td>
<td>Principles of Organic Chemistry (4)</td>
</tr>
<tr>
<td>CHE 322</td>
<td>Biological Chemistry (4)</td>
</tr>
<tr>
<td>CIS 101</td>
<td>Computer Fundamentals</td>
</tr>
<tr>
<td>MAT 311</td>
<td>Introduction to Probability and Statistics (or equivalent)</td>
</tr>
<tr>
<td>LIB 100</td>
<td>Introduction to Library Research Methods (1)</td>
</tr>
<tr>
<td>PSY 101</td>
<td>Introduction to Psychology</td>
</tr>
<tr>
<td>SOC 100</td>
<td>Introduction to Sociology</td>
</tr>
</tbody>
</table>

**All College Electives** 0–22 cr

**Total Required Credit Hours** 120 cr

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**Dietetics-Didactic Program (B.S.)**

BS-SP DIE DID

Dietetics and Nutrition Department

Bachelor of Science (HEGIS 1306)

Academy of Nutrition and Dietetics (A.N.D.) Accredited

Caudell Hall 207 (716) 878-5913

The didactic program in nutrition and dietetics (DPND) is currently granted initial accreditation by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics, 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995, (312) 899-5400 or 1-800-877-1600 x 5400

The program provides students with the academic requirements established by ACEND for entry-level dietitians. Graduates of the program receive a verification statement signed by the DPND program director.

Graduates are then eligible to apply for an ACEND-accredited supervised practice program via dietetic internships or pre-professional practice programs that are available throughout the country. After completing the supervised practice requirements, individuals may take the registration examination administered by the Commission on Dietetic Registration. Passing the registration examination earns the credentials of registered dietitian (RD). Career opportunities are available to dietitians in health facilities, food service organizations, government agencies, and consulting work. Some individuals use this program to prepare for graduate study in nutrition-related areas.

**Admission Requirements:** Students are admitted as freshmen or transfers. Transfer students, undeclared students, or students changing majors or desiring a major in this program must have a minimum GPA of 2.75 in previous college credit. Undeclared students or those changing majors to dietetics must fill out a Change of Major form.

<table>
<thead>
<tr>
<th>Intellectual Foundations Requirements</th>
<th>33–39 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Required Credit Hours in Nutrition and Food Science</td>
<td>51 cr</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFS 100</td>
<td>Introduction to Food Preparation</td>
</tr>
<tr>
<td>NFS 102</td>
<td>Introduction to Nutrition</td>
</tr>
<tr>
<td>NFS 111</td>
<td>Applied Principles of Management in Dietetics/Food Services</td>
</tr>
</tbody>
</table>

---
earned a minimum cumulative GPA of 2.5, as well as a
registered for them. Applicants to the major must have
either have been completed or the student must be
ENG/CWP 102, and the mathematics and quantitative
hours, which must include ENG/CWP 101, and at least one
must have successfully completed at least 24 college credit
major (ECE)
Admission Requirements: To be considered for admission
Bacon Hall 302 (716) 878
National Council for Accreditation of Teacher Education
Bachelor of Science (HEGIS 0823)
Elementary Education and R
BS
EDU
ECE
G
IRTH
ment or MAT 121 must
Senior Project (2)
Total Required Credit Hours Outside the Department* 39 cr
BIO 100 Principles of Biology
BIO 210 Bacteriology
BIO 308 Human Anatomy and Physiology
BIO 309 Human Anatomy and Physiology Lab (1)
CHE 111 Fundamentals of Chemistry I (4)
CHE 112 Fundamentals of Chemistry II (4)
CHE 321 Principles of Organic Chemistry (4)
CHE 322 Biological Chemistry (4)
CIS 101 Computer Fundamentals
MAT 311 Introduction to Probability and Statistics (or
equivalent)
LIB 100 Introduction to Library Research Methods (1)
PSY 101 Introduction to Psychology
SOC 100 Introduction to Sociology
*Some of these courses meet the Intellectual Foundations requirements.
All College Electives 0–5 cr
Total Required Credit Hours 120 cr

EARLY CHILDHOOD EDUCATION (BIRTH - GRADE 2, B.S.)

BS-ED ECE
Elementary Education and Reading Department
Bachelor of Science (HEGIS 0823)
National Council for Accreditation of Teacher Education (NCATE) Accredited
Bacon Hall 302 (716) 878-5916

Admission Requirements: To be considered for admission
to the early childhood education major (ECE), students
must have successfully completed at least 24 college credit
hours, which must include ENG/CWP 101, and at least one
of the following: SPF 202, SPF 203, or EXE 100.
ENG/CWP 102, and the mathematics and quantitative
reasoning competency requirement or MAT 121 must
either have been completed or the student must be
registered for them. Applicants to the major must have
earned a minimum cumulative GPA of 2.5, as well as a
minimum 2.5 in these selected SPF/EDU/EXE courses
(professional sequence).
An acceptable application to the department includes
evidence that the above requirements have been met and a
description of relevant experiences. In addition, a writing
sample regarding the applicant’s experiences that have
helped solidify plans to pursue teaching is required.
Applications to ECE are available in Bacon 302.
Acceptance into the department enables students to
proceed through the curricular courses of their selected
major.
Early Childhood education majors must complete one year
of college-level study of one language other than English.
Typically, two years of high school study of one language
is equivalent to one year of college-level work. Early
childhood education majors must also complete a
distribution requirement of at least 6 credit hours in each of
the following areas: mathematics, science, social studies,
and English (not including ENG/CWP 101 and ENG/CWP
102).
Many of the courses in our professional sequence are
taught in authentic settings for clinically-rich mentored
experiences. As a result, the teacher candidates will have
observation, tutoring, and teaching experiences in a variety
of placements in our Professional Development School
Consortium. Early childhood education majors are
required to complete a 30-credit hour academic
concentration in addition to the professional program
requirements; the concentration seeks to broaden students’
academic backgrounds. Descriptions of the approved
concentrations can be found in the Elementary Education
Department Handbook for Majors, available on the
department Web site,
www.buffalostate.edu/elementaryeducation, or from the
department office. Currently, the concentration may be
chosen from: American studies, English, foreign language,
mathematics, science, or social studies
Student Teaching: The culminating courses for the early
childhood education majors include two supervised student
teaching experiences with children at different age levels in
different types of schools. Eligibility and placement for
each student teaching experience is determined by the
department office in cooperation with public schools in the
greater Buffalo area. It is expected that students in these
majors will have at least one urban teaching experience.
Prior written approval must be obtained from the chair of
the department for students to enroll for any other college
credit work during a student teaching assignment except
for EDU 375 or EDU 411. EDU 411 and EDU 375 may be
taken prior to or with Student Teaching.
Successful Graduates will be recommended for New York
State Initial Certification to teach children from birth
through grade 2 (early childhood, ECE).
Transfer Students: Most courses taken at an accredited
institution and relevant to a Buffalo State degree program
will be accepted, but the majority of courses applied to the
early childhood education major must be courses
completed at Buffalo State. Grades for transfer courses are
generally used in computing the required GPA for
admission to the major. Students planning to transfer as
juniors into the early childhood programs and wishing to
complete their programs in four semesters must seek
program. This program is designed to enable students to review the M.S.Ed. in Science Education degree seeking New York State Teacher Certification are advised admission to SED 405, SED 407, and SED 408. GPA of 3.0 in earth science (GES) courses is required for during the semester they complete SED 200. A minimum required geology (GES) courses at Buffalo State with a program. After successfully completing at least 6 credits in sciences and general sciences in grades 7–12. Students seeking admission to the B.S. Earth Science Education program should initially enroll in the B.S. Earth Sciences program. After successfully completing at least 6 credits in required geology (GES) courses at Buffalo State with a GPA in these courses of 3.0 or higher, students apply for admission to the B.S. Earth Science Education program during the semester they complete SED 200. A minimum GPA of 3.0 in earth science (GES) courses is required for admission to SED 405, SED 407, and SED 408. NOTE: Undergraduate or post-baccalaureate candidates seeking New York State Teacher Certification are advised to review the M.S.Ed. in Science Education degree program. This program is designed to enable students to quickly and efficiently develop the knowledge and skills required for teaching; the program leads to initial NYS certification for those candidates already holding undergraduate science degrees. Candidates currently in undergraduate or post-baccalaureate programs should strongly consider transitioning to the new program.

<table>
<thead>
<tr>
<th>Intellectual Foundations Requirements</th>
<th>Credit hours vary</th>
</tr>
</thead>
</table>

| Credit Hours for Concentration | 30 cr |
| Distribution Courses | 24 cr |
| Total Required Credit Hours | 54 cr |

| Total Required Credit Hours in Education | 120 cr |

The total number of required hours will vary with course selection. Students should refer to the Elementary Education Department Handbook and an academic adviser for more detailed information.

**EARTH SCIENCE EDUCATION (7–12, B.S.)**

BS-NS EGS  
Earth Sciences and Science Education Department  
Bachelor of Science (HEGIS 1917.01)  
National Council for Accreditation of Teacher Education (NCATE) Accredited  
Science Building 271 (716) 878-6731

The earth science secondary education program leads to a New York State Initial Certificate for teaching both earth sciences and general sciences in grades 7–12. Students seeking admission to the B.S. Earth Science Education program should initially enroll in the B.S. Earth Sciences program. After successfully completing at least 6 credits in required geology (GES) courses at Buffalo State with a GPA in these courses of 3.0 or higher, students apply for admission to the B.S. Earth Science Education program during the semester they complete SED 200. A minimum GPA of 3.0 in earth science (GES) courses is required for admission to SED 405, SED 407, and SED 408. NOTE: Undergraduate or post-baccalaureate candidates seeking New York State Teacher Certification are advised to review the M.S.Ed. in Science Education degree program. This program is designed to enable students to quickly and efficiently develop the knowledge and skills required for teaching; the program leads to initial NYS certification for those candidates already holding undergraduate science degrees. Candidates currently in undergraduate or post-baccalaureate programs should strongly consider transitioning to the new program.

<table>
<thead>
<tr>
<th>Intellectual Foundations Requirements¹</th>
<th>39–66 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Required Credit Hours in Earth Sciences¹</td>
<td>40 cr</td>
</tr>
<tr>
<td>GES 101</td>
<td>Introductory Geology</td>
</tr>
<tr>
<td>GES 102</td>
<td>Historical Geology</td>
</tr>
<tr>
<td>GES 103</td>
<td>Introductory Geology Laboratory (1)</td>
</tr>
<tr>
<td>GES 111</td>
<td>General Oceanography</td>
</tr>
<tr>
<td>GES 131</td>
<td>Introductory Astronomy</td>
</tr>
<tr>
<td>GES 241</td>
<td>Meteorology</td>
</tr>
<tr>
<td>GES 302</td>
<td>Vertebrate Paleontology (4)</td>
</tr>
<tr>
<td>GES 303</td>
<td>Mineralogy and Petrology (4)</td>
</tr>
<tr>
<td>GES 307</td>
<td>Geomorphology</td>
</tr>
<tr>
<td>GES 408</td>
<td>Structural Geology (4)</td>
</tr>
<tr>
<td>GES 405</td>
<td>Geology of North America</td>
</tr>
</tbody>
</table>

One astronomy elective.  
One upper-division earth science elective.

<table>
<thead>
<tr>
<th>Total Required Credit Hours in Professional Education</th>
<th>24 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPF 303</td>
<td>Educational Psychology: Middle and Secondary Education</td>
</tr>
<tr>
<td>EDU 416</td>
<td>Teaching Literacy in Middle and Secondary Schools</td>
</tr>
<tr>
<td>EXE 372</td>
<td>Foundations of Teaching Adolescents with Disabilities</td>
</tr>
<tr>
<td>SCI 445</td>
<td>Literacy for Teaching Science</td>
</tr>
<tr>
<td>SED 200</td>
<td>Field Experience in Secondary Science Education</td>
</tr>
<tr>
<td>SED 401</td>
<td>Techniques for Teaching Laboratory Activities in the Secondary Science Classroom</td>
</tr>
<tr>
<td>SED 405</td>
<td>Methods and Materials in Teaching Secondary School Science</td>
</tr>
<tr>
<td>SED 409</td>
<td>Seminar in Secondary Science Education</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Required Credit Hours in Student Teaching</th>
<th>12 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>SED 407</td>
<td>Practice Teaching Science in the Middle School (6)</td>
</tr>
<tr>
<td>SED 408</td>
<td>Practice Teaching Science in the High School (6)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Required Credit Hours in Other Fields for Certification</th>
<th>22–30 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. One Year (or Equivalent) of a Foreign Language (0-6 cr)</td>
<td></td>
</tr>
<tr>
<td>B. Cognate Sciences (22–24 cr)</td>
<td></td>
</tr>
<tr>
<td>CHE 111, CHE 112</td>
<td>Fundamentals of Chemistry I, II (4, 4)</td>
</tr>
<tr>
<td>PHY 111, PHY 112</td>
<td>University Physics I, II (5, 5)</td>
</tr>
<tr>
<td>OR</td>
<td>General Physics I, II (4, 4)</td>
</tr>
<tr>
<td>PHY 107, PHY 108</td>
<td>General Physics I, II (4, 4)</td>
</tr>
</tbody>
</table>

Select two courses from the following:  
**BIO 211** | Introduction to Cell Biology and Genetics (4)  
**BIO 212** | Introduction to Organismal Biology and Diversity (4)  
**BIO 213** | Introduction to Ecology, Evolution, and Behavior (4)  

| Total Required Credit Hours | 137 cr |

¹ May be applied to geology B.A. program or earth sciences B.S. program.
The secondary education earth science program leads to a New York State Initial Certificate for teaching both earth sciences and general sciences in grades 5–12. Students seeking admission to the B.S. Earth Science Education program should initially enroll in the B.S. Earth Sciences program. After successfully completing at least 6 credits in required geology (GES) courses at Buffalo State with a GPA of 3.0 or higher, students apply for admission to the B.S. Earth Science Education program during the semester they complete SED 200. A minimum GPA of 3.0 in earth science (GES prefix) courses is required for admission to SED 405, SED 407, and SED 408.

NOTE: Undergraduate or post-baccalaureate candidates seeking New York State Teacher Certification are advised to review the M.S.Ed. in Science Education degree program. This program is designed to enable students to quickly and efficiently develop the knowledge and skills required for teaching; the program leads to initial NYS certification to teach earth sciences in secondary schools or a related field who are interested in obtaining certification to teach earth sciences in secondary schools or general science in middle schools. A minimum GPA of 3.0 in earth science courses is required for admission to SED 405, SED 407, and SED 408.

The secondary education earth science postbaccalaureate certification-only program leads to a New York State Initial Certificate for teaching both earth sciences and general sciences in grades 7–12. The program is intended for persons with existing undergraduate degrees in earth sciences or a related field who are interested in obtaining certification to teach earth sciences in secondary schools or general science in middle schools. A minimum GPA of 3.0 in earth science courses is required for admission to SED 405, SED 407, and SED 408.

NOTE: Undergraduate or post-baccalaureate candidates seeking New York State Teacher Certification are advised to review the M.S.Ed. in Science Education degree program. This program is designed to enable students to quickly and efficiently develop the knowledge and skills required for teaching; the program leads to initial NYS certification for those candidates already holding undergraduate science degrees. Candidates currently in
undergraduate or post-baccalaureate programs should strongly consider transitioning to the new program.

**Total Required Credit Hours in Earth Sciences** 40 cr

- GES 101 Introductory Geology
- GES 102 Historical Geology
- GES 103 Introductory Geology Laboratory (1)
- GES 111 General Oceanography
- GES 131 Introductory Astronomy
- GES 241 Meteorology
- GES 302 Invertebrate Paleontology (4)
- GES 303 Mineralogy and Petrology (4)
- GES 307 Geomorphology
- GES 408 Structural Geology
- GES 405 Geology of North America

One upper-division earth science elective.

**Total Required Credit Hours in Professional Education** 24 cr

- SPF 303 Educational Psychology: Middle and Secondary Education
- EDU 416 Teaching Literacy in Middle and Secondary Schools
- EXE 372 Foundations of Teaching Adolescents with Disabilities
- SCI 445 Literacy for Teaching Science
- SED 200 Field Experience in Secondary Science Education
- SED 401 Techniques for Teaching Laboratory Activities in the Secondary Science Classroom
- SED 405 Methods and Materials in Teaching Secondary School Science
- SED 409 Seminar in Secondary Science Education

**Total Required Credit Hours in Student Teaching** 12 cr

- SED 407 Practice Teaching Science in the Middle School (6)
- SED 408 Practice Teaching Science in the High School (6)

**Total Required Credit Hours in Other Fields for Certification** 22–30 cr

**A. One Year (or Equivalent) of a Foreign Language (0-6 cr)**

**B. Cognate Sciences (22–24 cr)**

- CHE 111, CHE 112 Fundamentals of Chemistry I, II (4, 4)
- PHY 111, PHY 112 University Physics I, II (5, 5)
- OR
- PHY 107, PHY 108 General Physics I, II (4, 4)

Select two courses from the following:
- BIO 211 Introduction to Cell Biology and Genetics (4)
- BIO 212 Introduction to Organismal Biology and Diversity (4)
- BIO 213 Introduction to Ecology, Evolution, and Behavior (4)

**Total Required Credit Hours** 96 cr

---

**Earth Science Education (7–12, 5–6 Extension, PTCP)**

PBC-NS EGX
Earth Sciences and Science Education Department

Postbaccalaureate Teacher Certification Program (HEGIS 1917.01)
National Council for Accreditation of Teacher Education (NCATE) Accredited
Science Building 271 (716) 878-6731

The secondary education earth science postbaccalaureate certification-only program leads to a New York State Initial Certificate for teaching both earth sciences and general sciences in grades 5–12. The program is intended for persons with existing undergraduate degrees in earth sciences or a related field who are interested in obtaining certification to teach earth sciences in secondary schools or general science in middle schools. A minimum GPA of 3.0 in earth science courses is required for admission to SED 405, SED 407, and SED 408.

NOTE: Undergraduate or post-baccalaureate candidates seeking New York State Teacher Certification are advised to review the M.S.Ed. in Science Education degree program. This program is designed to enable students to quickly and efficiently develop the knowledge and skills required for teaching; the program leads to initial NYS certification for those candidates already holding undergraduate science degrees. Candidates currently in undergraduate or post-baccalaureate programs should strongly consider transitioning to the new program.

**Total Required Credit Hours in Earth Sciences** 40 cr

- GES 101 Introductory Geology
- GES 102 Historical Geology
- GES 103 Introductory Geology Laboratory (1)
- GES 111 General Oceanography
- GES 131 Introductory Astronomy
- GES 241 Meteorology
- GES 302 Invertebrate Paleontology (4)
- GES 303 Mineralogy and Petrology (4)
- GES 307 Geomorphology
- GES 408 Structural Geology
- GES 405 Geology of North America

One upper-division earth science elective.

**Total Required Credit Hours in Professional Education** 30 cr

- SPF 303 Educational Psychology: Middle and Secondary Education
- EDU 416 Teaching Literacy in Middle and Secondary Schools
- EXE 372 Foundations of Teaching Adolescents with Disabilities
- SCI 323 Science as Inquiry
- SCI 445 Literacy for Teaching Science
- SED 200 Field Experience in Secondary Science Education
- SED 310 Teaching Science in the Middle School
- SED 401 Techniques for Teaching Laboratory Activities in the Secondary Science Classroom
- SED 405 Methods and Materials in Teaching Secondary School Science
- SED 409 Seminar in Secondary Science Education

**Total Required Credit Hours in Student Teaching** 12 cr

- SED 407 Practice Teaching Science in the Middle School (6)
A. Required Courses (25 cr)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GES 101</td>
<td>Introductory Geology</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Required Credit Hours in Earth Sciences 41–43 cr

B. Cognate Sciences (22–24 cr)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 111, CHE 112</td>
<td>Fundamentals of Chemistry I, II (4, 4)</td>
<td></td>
</tr>
<tr>
<td>PHY 111, PHY 112</td>
<td>University Physics I, II (5, 5)</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td>PHY 107, PHY 108</td>
<td>General Physics I, II (4, 4)</td>
</tr>
</tbody>
</table>

Select two courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 211</td>
<td>Introduction to Cell Biology and Genetics (4)</td>
<td></td>
</tr>
<tr>
<td>BIO 212</td>
<td>Introduction to Organismal Biology and Diversity (4)</td>
<td></td>
</tr>
<tr>
<td>BIO 213</td>
<td>Introduction to Ecology, Evolution, and Behavior (4)</td>
<td></td>
</tr>
</tbody>
</table>

Total Required Credit Hours 104 cr

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**Earth Sciences (B.S.)**

BS-NS EAS
Earth Sciences and Science Education Department
Bachelor of Science (HEGIS 1917)
Science Building 271 (716) 878-6731

The Earth Sciences program offers students the opportunity to develop a broad understanding of the earth as a dynamic, interacting system of land, sea, atmosphere, and solar system. The student, in consultation with a faculty adviser, will select one of the three concentrations, usually after completion of 9 GES credit hours. The concentrations, leading in potentially different career directions, are Earth Science (for secondary education Earth Science candidates), Environmental Earth Sciences, and Geology.

Earth Sciences majors may not minor in Astronomy. Coursework in chemistry, calculus, and physics is expected, particularly for students intent upon careers in the geosciences, contemplating graduate study, or seeking certification as a secondary Earth Science teacher. The recommended courses are CHE 111, CHE 112, MAT 126, MAT 127, PHY 111, PHY 112 and upper-division courses in chemistry, mathematics and physics. Each student should choose the appropriate courses by advisement, beginning with entry into the major.

Student majors are given many opportunities to pursue independent research under faculty supervision or an internship experience. Students may find additional information about undergraduate research possibilities from faculty members, and by visiting the Undergraduate Research Office (www.buffalostate.edu/undergraduate-research).

A departmental honors program also is available. Students should contact the department for additional information.

A. One Year (or Equivalent) of a Foreign Language (0-6 cr)

B. Cognate Sciences (22–24 cr)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GES 102</td>
<td>Historical Geology</td>
<td></td>
</tr>
<tr>
<td>GES 103</td>
<td>Introductory Geology Laboratory (1)</td>
<td></td>
</tr>
<tr>
<td>GES 111</td>
<td>General Oceanography</td>
<td></td>
</tr>
<tr>
<td>GES 131</td>
<td>Introductory Astronomy</td>
<td></td>
</tr>
<tr>
<td>GES 303</td>
<td>Mineralogy and Petrology (4)</td>
<td></td>
</tr>
<tr>
<td>GES 307</td>
<td>Geomorphology (4)</td>
<td></td>
</tr>
<tr>
<td>GES 408</td>
<td>Structural Geology (4)</td>
<td></td>
</tr>
</tbody>
</table>

Total Required Credit Hours 120 cr

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**Economics (B.A.)**

BA-NS ECO
Economics and Finance Department
Bachelor of Arts (HEGIS 2204)
Classroom Building B207 (716) 878-4606

The B.A. degree program in economics provides a solid foundation in the skills and analytical techniques required to understand changes in the economic environment and to be able to formulate decisions as consumers, resource
owners, and managerial personnel in business, government, and nonprofit organizations. This program is also designed to prepare students to participate, as career professionals, citizens and as scholars, in the global economy by providing a strong focus on the international aspects of economics. Students who choose this program are encouraged to complement the international focus of the program by taking additional appropriate courses in history, political science, and geography. In addition to providing preparation for a variety of entry-level management positions in business and government, the program also offers excellent preparation for graduate work in international business, economics, and law.

Admission Requirements: Transfer or uncommitted students must have a minimum GPA of 2.0 in all previous college credits.

Transfer Students: Most courses taken at an accredited institution and relevant to the B.A. degree program will be accepted, but the majority of courses applied to the major must be courses completed at Buffalo State. In most cases, grades for transfer courses will be used in computing the required minimum GPA for admission into the program.

Honors Option for the B.A. Program: An honors designation is available for students who have established high standards of achievement and demonstrated a capacity for independent work. Students should contact the department for information on admission and requirements.

Intellectual Foundations Requirements

| Total Required Credit Hours in Economics | 36 cr |

A. Required Courses (24 cr)
- ECO 201 Principles of Macroeconomics
- ECO 202 Principles of Microeconomics
- ECO 305 Statistics for Economics
- ECO 307 Intermediate Microeconomics
- ECO 308 Intermediate Microeconomics
- ECO 405 History of Economic Thought
- ECO 490 Senior Seminar

B. Select at Least One Course from the Following:
- ECO 401 International Economics
- ECO 403 Comparative Economic Systems
- ECO 404 Economic Development
- FIN 400 International Finance

C. Economics Electives Selected by Advisement (12 cr)
(Only 3 credit hours of ECO 488, ECO 495, or ECO 499 may be included.)

All College Electives 

Total Required Credit Hours 120 cr

Bachelor of Science (HEGIS 2204)
Classroom Building B207 (716) 878-4606

The B.S. degree program in economics provides a solid foundation in the basic skills and analytical techniques that are necessary to understand changes in the broad economic environment and be able to formulate decisions as consumers, resource owners, and managerial personnel in business, government, and nonprofit organizations. Students choose a concentration in either applied economics or financial economics and complete additional required courses and specialized electives. Both concentrations prepare students for entry-level management positions in business, government, and nonprofit organizations, and provide excellent preparation for graduate work in business administration, economics, and law. Financial economics is the rigorous study of financial markets (bonds, derivatives, swaps, and equities) and their related institutions.

Admission Requirements: Transfer or uncommitted students must have a minimum GPA of 2.0 in previous college credits.

Transfer Students: Most courses taken at an accredited institution and relevant to the B.S. degree program will be accepted, but the majority of courses applied to the major must be courses completed at Buffalo State. In most cases, grades for transfer courses will be used in computing the required GPA for admission into the program.

Intellectual Foundations Requirements

| Total Required Credit Hours in Economics | 39–45 cr |

A. Required Courses (27 cr)
- BUS 312 Financial Accounting
- ECO 201 Principles of Macroeconomics
- ECO 202 Principles of Microeconomics
- ECO 305 Statistics for Economics
- ECO 307 Intermediate Microeconomics
- ECO 308 Intermediate Microeconomics
- ECO 424 Econometrics
- ECO 490 Senior Seminar
- MAT 126 Calculus
- OR
- MAT 161 Calculus I

B. Concentrations

Students are required to select one of two concentrations. Only 3 credit hours of ECO 488, ECO 495, or ECO 499 may be included.

AEC—Applied Economics Concentration (12 cr)

Required Courses (6 cr)
- ECO 320 Managerial Economics
- OR
- ECO 325 Industrial Organization
- ECO 405 History of Economic Thought

At least 6 credit hours must be selected from the following:
- ECO 300 Labor Economics
- ECO 301 Economics of Labor Relations
- ECO 302 Women in the Economy
- ECO 304 Money and Banking
- ECO 312 Urban Economics

BS-NS ECO
Economics and Finance Department
ECO 350  Public Finance
ECO 355  The Economics of Energy and the Environment
ECO 360  Introduction to the Economic Analysis of Law
ECO 401  International Economics
ECO 403  Comparative Economic Systems
ECO 404  Economic Development
ECO 411  Regional Economic Analysis
ECO 488  Internship
ECO 495  Project
ECO 499  Independent Study
FIN 400  International Finance

FNE—Financial Economics Concentration (18 cr)

Required Courses (9 cr)
BUS 313  Managerial Accounting
ECO 304  Money and Banking
FIN 314  Corporation Finance

At least 9 credit hours must be selected from the following:
ECO 488  Internship
ECO 495  Project
ECO 499  Independent Study
FIN 345  Estate Planning
FIN 370  Technical Analysis of Financial Markets
FIN 400  International Finance
FIN 414  Investment Management
FIN 415  Cases in Corporation Finance
FIN 416  Advanced Corporation Finance
FIN 417  Derivative Securities
FIN 418  Bond Markets

Electives

It is strongly recommended that students who plan to pursue a Ph.D. in economics also complete, as a minimum, MAT 161, MAT 162, and MAT 202.

All College Electives 9–42 cr

Total Required Credit Hours 120 cr

ELECTRICAL ENGINEERING TECHNOLOGY (ELECTRONICS) (B.S.)*

BS-SP ETE
Engineering Technology Department
Bachelor of Science (HEGIS 0925)
Technology Accreditation Commission/Accreditation Board for Engineering and Technology (ETAC/ABET) Accredited**
Technology Building 126 (716) 878-6017

Electrical engineering technologists who specialize in electronics are employed in the design, testing, fabrication, and application of solid-state circuits and systems (both digital and analog), communication systems, and control systems. This includes consumer products, as well as industrial electronics and computer equipment.

*Evening study available.

Electrical Engineering Technology (Smart Grid) (B.S.)*

BS-SP ETS
Engineering Technology Department
Bachelor of Science (HEGIS 0925)
Technology Accreditation Commission/Accreditation Board for Engineering and Technology (ETAC/ABET) Accredited**
Technology Building 126 (716) 878-6017

Electrical engineering technologists who specialize in power and machines are employed in the design, testing, manufacture, and application of electrical machinery, electrical power systems, and control systems. They are diversified individuals who can fill the many industrial positions that require a knowledge of both mechanical and electrical technology.

*Evening study available.

Intellectual Foundations Requirements 1

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENT 300</td>
<td>Analytical Methods for Technologists</td>
</tr>
<tr>
<td>ENT 301</td>
<td>Mechanics I</td>
</tr>
</tbody>
</table>

Electives

Total Required Credit Hours 124 cr

**Engineering Technology Accreditation Commission/Accreditation Board for Engineering and Technology Inc. (TAC/ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202, (410) 347-7700.
ENT 431  Digital Systems I
ENT 432  Microprocessors
ENT 445  Power Electronics
ENT 461  Control Systems I
ENT 462  Control Systems II
ENT 465  Electrical Design
ENT 471  Power Systems I
ENT 472  Power Systems II
TEC 101  Technical Drawing

Electives1  6–33 cr

1 The following accreditation requirements can be included in the Intellectual Foundations requirements and electives:
CHE 101 or CHE 111
CHE 102 or CHE 112
CIS 151
MAT 110 or MAT 124
MAT 126 or MAT 161
MAT 127 or MAT 162
PHY 107 or PHY 111
PHY 108 or PHY 112
SPC 205

Total Required Credit Hours  124 cr

**Engineering Technology Accreditation Commission/Accreditation Board for Engineering and Technology Inc. (TAC/ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202, (410) 347-7700.

ENGLISH PROGRAMS

See Individual Majors
- English
- English Education
- Television and Film Arts
- Writing

ENGLISH (B.A.)
BA-AH ENG
English Department
Bachelor of Arts (HEGIS 1501)
Ketchum Hall 326 (716) 878-5416

The English B.A. program in literature offers a liberal arts English major, the enhancement of writing skills, and electives to satisfy Intellectual Foundations requirements.

Intellectual Foundations Requirements  39–66 cr
Total Required Credits in English  42 cr
(27 credits must be upper-division)

A. Required Courses (15 cr)
ENG 190  Introduction to Literary Interpretation
(Must be taken immediately after completion of basic communication requirement or within first year of transfer to English Department.)

Major Figure  Select one course from the following:
ENG 313  Milton
or ENG 314  or Chaucer
or ENG 315  or Shakespeare I
or ENG 316  or Shakespeare II
ENG 370  Foundations of Language
ENG 390  Literary Criticism and Theory
ENG 490  Senior Seminar

B. Area Courses in English (27 cr)
1. Three courses in British literature, at least one before 1800 and at least two before 1900. Pre-1800 options:
ENG 210, ENG 313, ENG 314, ENG 315, ENG 316, ENG 415, ENG 416, ENG 417. Pre-1900 options:
ENG 211, ENG 418, ENG 419, ENG 420, OR ENG 421. Other options: ENG 212, ENG 252, ENG 455. If students use ENG 313, ENG 314, ENG 315, or ENG 316 to satisfy their Major Figure requirement (see above), they cannot use it to satisfy their pre-1800 requirement.

2. Three courses in American literature, at least one prior to 1900, and ONLY one can be in a minority area. Pre-1900 options: ENG 220, ENG 441, ENG 442, ENG 445. Other options: ENG 221, ENG 443, ENG 444. Minority area options: ENG 240, ENG 241, ENG 243, ENG 353, ENG 354.

3. Two courses in world literature, one of which must be non-Western. Non-Western options: ENG 230, ENG 345, ENG 346. Other options: ENG 310, ENG 330, ENG 331, ENG 332, ENG 335, ENG 350, ENG 351. The following courses from the Modern and Classical Languages Department and the Humanities Program CAN apply to these areas with approval of English Department chair. Non-Western option: FRE 341. Other options: FRE 331, GER 337, GER 338, HUM 320, HUM 328, ITA 336, MCL 337, MCL 338.

4. One course in minority literature. Options: ENG 231, ENG 240, ENG 241, ENG 243, ENG 353, ENG 354. (If any of these courses are taken to fulfill an American literature requirement, they cannot count for the minority literature requirement.)

Note: Other courses, such as topics courses, when appropriate, can also fulfill major requirements. Discuss questions with adviser.

All College Electives  12–39 cr
Total Required Credit Hours  120 cr

ENGLISH EDUCATION (7–12, B.S.)
BS-AH ENS
English Department
Bachelor of Science (HEGIS 1501.01)
National Council for Accreditation of Teacher Education (NCATE) Accredited
Ketchum Hall 326 (716) 878-5416

The English B.S. degree program in secondary education leads to a New York State Initial Certificate for teaching English in grades 7–12. Freshmen and transfers with fewer than 30 credits or a GPA below 2.5 are admitted into the English major and may switch to English education upon meeting departmental requirements. Transfers with more than 30 credits and a GPA of 2.5 or above can be admitted directly into English education.

Admission Requirements: 30 credits of college coursework; mandatory meeting with the English education coordinator; a 2.5 GPA and/or a strong indication of the professional disposition required to be a successful teacher. Evidence of
professional dispositions can be indicated in a variety of ways: faculty recommendations, completed professional disposition forms, interview with English Education Committee, and/or evidence of relevant extracurricular activities.

Intellectual Foundations Requirements 39–66 cr

Total Required Credits in English (Literature and Language) 39 cr

(21 credits must be upper division)

A. Required Courses (15 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 190</td>
<td>Introduction to Literary Analysis and Interpretation (Must be taken immediately after completion of freshman composition requirement or within first year of transfer to English Department.)</td>
</tr>
<tr>
<td>ENG 317</td>
<td>Shakespeare for Future Teachers (Students can also take ENG 315 or ENG 316.)</td>
</tr>
<tr>
<td>ENG 354</td>
<td>Ethnic American Literatures</td>
</tr>
<tr>
<td>ENG 370</td>
<td>Foundations of Language</td>
</tr>
<tr>
<td>ENG 461</td>
<td>Young Adult Literature</td>
</tr>
</tbody>
</table>

B. Area Courses in Literature (24 credits)

1. Three courses in British literature, at least one before 1800 and at least two before 1900.
   Pre-1800 options: ENG 210, ENG 313, ENG 314, ENG 315, ENG 316, ENG 415, ENG 416, ENG 417.
   If students use ENG 315 or ENG 316 to satisfy their Shakespeare requirement (see above), they cannot use it to satisfy their pre-1800 requirement.
   Pre-1900 options: ENG 211, ENG 418, ENG 419, ENG 420, ENG 421
   Other options: ENG 252, ENG 455

2. Three courses in American literature, at least one prior to 1900, and ONLY one can be in a minority area.
   Pre-1900 options: ENG 220, ENG 441, ENG 442, ENG 445
   Other options: ENG 221, ENG 443, ENG 444
   Minority area options: ENG 240, ENG 241, ENG 243, ENG 353

3. One course in World literature.
   Options: ENG 130, ENG 131, ENG 230, ENG 310, ENG 330, ENG 331, ENG 332, ENG 335, ENG 345, ENG 346, ENG 350, ENG 351
   The following courses from the Modern and Classical Languages Department and the Humanities Program can apply to these areas with approval of the English Department chair: FRE 331, FRE 341, GER 337, GER 338, HUM 320, HUM 328, ITA 336, MCL 337, MCL 338.

4. One elective: Students may choose from any of the literature courses listed in the categories above, and from the following:
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 151</td>
<td>Introduction to Poetry</td>
</tr>
<tr>
<td>ENG 231</td>
<td>Women in Literature</td>
</tr>
<tr>
<td>ENG 301W</td>
<td>Advanced Composition</td>
</tr>
<tr>
<td>ENG 305W</td>
<td>Creative Writing: Narrative</td>
</tr>
<tr>
<td>ENG 306W</td>
<td>Creative Writing: Poetry</td>
</tr>
<tr>
<td>ENG 356</td>
<td>Futuristic Fiction</td>
</tr>
<tr>
<td>ENG 380</td>
<td>History of the Printed Book</td>
</tr>
<tr>
<td>ENG 390</td>
<td>Literary Criticism and Theory</td>
</tr>
</tbody>
</table>

ENG 390

Or an appropriate 490 or 499 section.

Note: Other courses, such as topics courses, when appropriate, can fulfill major requirements. Discuss questions with adviser.

Total Required Credits in Professional Education 42 cr

A. General Education Courses (15 cr)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU/EXE 375</td>
<td>Integration of Technology in Education</td>
</tr>
<tr>
<td>EDU 416</td>
<td>Teaching Literacy in Middle and Secondary Schools</td>
</tr>
<tr>
<td>EDF 303</td>
<td>Educational Psychology for Teachers of Adolescents</td>
</tr>
<tr>
<td>EDF 403</td>
<td>Historical and Philosophical Forces Influencing Secondary Education</td>
</tr>
<tr>
<td>EXE 100</td>
<td>Nature and Needs of Individuals with Special Needs</td>
</tr>
</tbody>
</table>

B. English Education (27 cr)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 200</td>
<td>Field Experience in Secondary English Education</td>
</tr>
<tr>
<td>ENG 309</td>
<td>Teaching and Evaluating Writing</td>
</tr>
<tr>
<td>ENG 311</td>
<td>Methods of Teaching Language</td>
</tr>
<tr>
<td>ENG 463</td>
<td>Methods, Materials, and Professional Development for Teachers of English (6)</td>
</tr>
<tr>
<td>ENG 464</td>
<td>Student Teaching in Middle/Junior High School English (6)</td>
</tr>
<tr>
<td>ENG 465</td>
<td>Student Teaching in Senior High School English (6)</td>
</tr>
</tbody>
</table>

Students are encouraged to utilize their exceptional education course (EXE 100) to fulfill Intellectual Foundations requirements. Doing so will offer more flexibility to their program.

1 SPF 303, SPF 403, EDU 416, ENG 200, ENG 309, ENG 463 are prerequisites for student teaching (ENG 464 and ENG 465). Students must have a 2.75 overall GPA, and a 2.75 GPA in the major to student teach.

All College Electives 0 cr

Total Required Credit Hours 120 cr

ENGLISH EDUCATION (7–12, PTCP)

PBC-AH ENS
English Department
Postbaccalaureate Teacher Certification Program (HEGIS 1501.01)
National Council for Accreditation of Teacher Education (NCATE) Accredited
Ketchum Hall 326 (716) 878-5416

The English secondary education post-baccalaureate certification-only program prepares students to create productive learning environments, plan and execute effective instructional activities in the English language arts, monitor and assess student learning, address the special developmental needs of students at the middle-school level and in high school, and work effectively with learners having diverse backgrounds or special needs. It takes approximately three to four semesters to complete certification requirements at Buffalo State. Students in this program take both undergraduate- and graduate-level courses and will be billed appropriately for each type. Graduate credits can be applied to a master’s degree at Buffalo State. For financial aid purposes, students will be considered fifth-year undergraduates eligible for undergraduate loans. To apply for the program, students should request an application from the Graduate Studies and Research Office, Cleveland Hall 204.

Admission Requirements: (1) Bachelor’s degree in English with courses in Shakespeare, ethnic American literature, young adult literature, and world literature, or completion...
of an undergraduate degree in a related discipline with 36 credit hours of coursework in English, including courses in Shakespeare, ethnic American literature, young adult literature, and world literature. Applicants who do not meet these admission requirements can take courses at Buffalo State to become eligible to apply. (2) The study of a language other than English. Applicants must have completed two years of high school study in one foreign language or two semesters in college. Students not meeting these requirements must complete two semesters of a language other than English at Buffalo State. (Students must provide the department with copies of their high school transcripts to demonstrate the high school foreign-language requirement.) (3) Coursework in exceptional education and education technology (3 credits each) or demonstrated expertise in these areas. Students not meeting these requirements can take undergraduate or graduate courses at Buffalo State. (4) Minimum cumulative GPA of 2.75 in baccalaureate studies, as well as 2.75 GPA in the English major or English coursework.

Additional Requirements: To receive provisional teaching certification, students must pass the first two tests of the New York State Teacher Certification Exams, the Liberal Arts and Sciences Test, and the Assessment of Teaching Skills-Written. Registration bulletins for the exams can be obtained from the Teacher Certification Office, Caudell Hall 101. Students can obtain certifications in identifying child abuse by attending one of several workshops offered at Buffalo State.

### Total Required Credit Hours in English and Professional Education

| Course Code | Course Title | Credit Hours
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Undergraduate-level Coursework (15 cr)</td>
<td>EDF 403 Historical and Philosophical Forces Influencing Secondary Education</td>
<td>3</td>
</tr>
<tr>
<td>A. Undergraduate-level Coursework (15 cr)</td>
<td>EDU 416 Teaching Literacy in Middle and Secondary Schools</td>
<td>3</td>
</tr>
<tr>
<td>A. Undergraduate-level Coursework (15 cr)</td>
<td>ENG 311 Methods of Teaching Language</td>
<td>3</td>
</tr>
<tr>
<td>A. Undergraduate-level Coursework (15 cr)</td>
<td>ENG 463 Methods, Materials, and Professional Development for Teachers of English</td>
<td>3</td>
</tr>
</tbody>
</table>

### Total Required Credit Hours in Student Teaching* 12 cr

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Undergraduate-level Coursework (15 cr)</td>
<td>ENG 464 Student Teaching (Middle/Junior High)</td>
</tr>
<tr>
<td>or ENG 465 Student Teaching (High School)</td>
<td>3</td>
</tr>
</tbody>
</table>

*Students certified in another secondary area are exempt from this requirement.

### Total Required Credit Hours 36 cr

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#### Exceptional Education (B.S.Ed.)

BSED-ED EXE
Dual Certification Program: Teachers of Childhood Special Education and Childhood Education
Exceptional Education Department
Bachelor of Science in Education (HEGIS 0808)
National Council for Accreditation of Teacher Education (NCATE) Accredited
Ketchum Hall 204 (716) 878-3038

Undergraduate majors in exceptional education study within a cross-categorical program focusing on the education of students who have a variety of regular and special instructional needs. Included are students in disability groups traditionally associated with intellectual and developmental disabilities, physical/neurological disabilities, and learning and behavioral difficulties. Graduates of the program typically obtain positions as teachers in inclusive classrooms, resource rooms, self-contained classrooms, special schools, residential facilities, or as consultant teachers in general education settings. Students who pursue initial certification in both childhood special education and childhood education are particularly well qualified to work with students with special needs in integrated education settings. Students in exceptional education complete coursework in elementary education and special education to be recommended for initial certifications as a teacher of childhood education (grades 1–6) and childhood special education (grades 1-6) in New York State.

Candidates for initial certification in both childhood education and childhood special education must achieve passing scores on the Liberal Arts and Sciences Test (LAST), the Assessment of Teaching Skills-Written (ATS-W), Multi-Subject Content Specialty Test, and the Students with Disabilities Content Specialty Test of the New York State Teacher Certification Exam (NYSTCE).

Admission Requirements: Students must provide evidence of potential for success to be admitted into the exceptional education program. Entering freshmen who express an interest in exceptional education on their applications to Buffalo State will be assigned to premajor status (0301) and will be accepted into exceptional education (0299) after (1) successfully completing 12 credit hours at Buffalo State, (2) successfully completing CWP 101 and CWP 102, (3) earning at least two minimum grades of C in two Intellectual Foundations courses, (4) completing the mathematics/quantitative reasoning requirement, and (5) earning a minimum cumulative GPA of 2.6.

Transfer students from other colleges who are not directly accepted into the exceptional education program by the Admissions Office will be accepted as exceptional education premajors (0301) provided they have not completed 60 or more credit hours prior to attending Buffalo State. They will be accepted as majors (0299) after (1) successfully completing 12 credit hours at Buffalo State; (2) waiving/successfully completing CWP 101 and 102; (3) earning at least two minimum grades of C in two cognate foundations courses, unless waived by an associate of arts or associate of science degree; (4) passing the mathematics/quantitative reasoning requirement, unless waived; and (5) earning a minimum cumulative GPA of 2.6.

Buffalo State students who are undeclared or wishing to change to an exceptional education major from another major will be accepted directly into the program (0299) after (1) successfully completing CWP 101 and 102, (2) earning at least two minimum grades of C in two cognate foundations courses, (3) passing the mathematics/quantitative reasoning requirement, and (4) earning a minimum cumulative GPA of 2.6. Students who
meet criteria 1, 2, and 3 above will be accepted as premajors (0301) if their cumulative GPA is between 2.5 and 2.59, and they have not completed 60 or more credit hours. They can be accepted into the major only after earning a cumulative GPA of 2.6.

<table>
<thead>
<tr>
<th>Intellectual Foundations Requirements</th>
<th>39-66 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Required Credit Hours for Concentration</td>
<td>30 cr</td>
</tr>
</tbody>
</table>
A concentration can be in one of the following subjects: English, French, Italian, math, science, social studies, Spanish, or American studies.

<table>
<thead>
<tr>
<th>Total Required Credit Hours for the Exceptional Education Major</th>
<th>65 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPF 202 Child Development and Education</td>
<td></td>
</tr>
<tr>
<td>SPF 203 School and Society</td>
<td></td>
</tr>
<tr>
<td>SPF 302 Educational Psychology: Elementary Education</td>
<td></td>
</tr>
<tr>
<td>EDU 211 Introduction to Literacy</td>
<td></td>
</tr>
<tr>
<td>EDU 310 Teaching Social Studies in the Elementary School</td>
<td></td>
</tr>
<tr>
<td>EDU 311 Teaching Reading and Language Arts (6)</td>
<td></td>
</tr>
<tr>
<td>EDU 312 Teaching Math and Science (6)</td>
<td></td>
</tr>
<tr>
<td>EDU 404 Practicum in Elementary School Teaching (6)</td>
<td></td>
</tr>
<tr>
<td>EXE 100 Nature and Needs of Individuals with Special Needs</td>
<td></td>
</tr>
<tr>
<td>EXE 360 Foundations of Teaching Individuals with Disabilities</td>
<td></td>
</tr>
<tr>
<td>EXE 361 Field Experience in Teaching Individuals with Disabilities (1)</td>
<td></td>
</tr>
<tr>
<td>EXE 362 Behavior and Classroom Management</td>
<td></td>
</tr>
<tr>
<td>EXE 363 Field Experience in Behavior Management (1)</td>
<td></td>
</tr>
<tr>
<td>EXE 364 Educating Students with Severe Disabilities</td>
<td></td>
</tr>
<tr>
<td>EXE 365W Evaluation and Assessment in Special Education</td>
<td></td>
</tr>
<tr>
<td>EXE 366 Field Experience Evaluation and Assessment in Special Education (1)</td>
<td></td>
</tr>
<tr>
<td>EXE 367W Curriculum for Children with Mild Disabilities</td>
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</tr>
<tr>
<td>EXE 368 Field Experience Curriculum for Children with Mild Disabilities (2)</td>
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</tr>
<tr>
<td>EXE 375 Integration of Technology in Education</td>
<td></td>
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<tr>
<td>EXE 420 Practicum in Special Education (6)</td>
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</table>

<table>
<thead>
<tr>
<th>Distribution Courses</th>
<th>24 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 credit hours can be in each of the following areas: English, math, science, and social studies.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Required Credit Hours</th>
<th>167 cr</th>
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</thead>
</table>

**FAMILY AND CONSUMER SCIENCES EDUCATION (B.S.)**

BS-ED FCS
Department of Career and Technical Education
Bachelor of Science (HEGIS 1301.01)
Bacon Hall 316S (716) 878-4717
N. John Popovich, Ed.D., Chairperson

The Family and Consumer Sciences Education Undergraduate Program offers a broad knowledge of family and consumer sciences, plus skills in planning and communicating this knowledge to others. The Bachelor of Science degree program in Family and Consumer Sciences Education leads to initial K-12 certification to teach Family and Consumer Sciences. Graduates from the Family and Consumer Sciences Education program are prepared to teach Family and Consumer Sciences. The Bachelor of Science degree in Family and Consumer Sciences Education is necessary for certification in order to obtain a teaching position.

**Program Requirements**

<table>
<thead>
<tr>
<th>Intellectual Foundations Requirements</th>
<th>66 cr</th>
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</thead>
<tbody>
<tr>
<td>Total Required Credit Hours in Family and Consumer Sciences</td>
<td>33 cr</td>
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</table>

<table>
<thead>
<tr>
<th>Total Required Credit Hours in Family and Consumer Sciences</th>
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<tbody>
<tr>
<td>Family and Consumer Sciences Requirements (33 cr)</td>
<td></td>
</tr>
<tr>
<td>SAF 310 Personal Safety and First Aid</td>
<td></td>
</tr>
<tr>
<td>NFS 105 Food and People</td>
<td></td>
</tr>
<tr>
<td>NFS 334 Contemporary Nutrition</td>
<td></td>
</tr>
<tr>
<td>FTT 100 Construction Elements</td>
<td></td>
</tr>
<tr>
<td>FTT 206 Introduction to Textiles</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>FTT 349 History of Textiles</td>
<td></td>
</tr>
<tr>
<td>SPF 303 Educational Psychology: Middle and Secondary Education</td>
<td></td>
</tr>
<tr>
<td>IDE 101 Introduction to Interior Design</td>
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</tr>
<tr>
<td>SPF 202 Child Development and Education</td>
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<tr>
<td>SPF 345 Parenting</td>
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<tr>
<td>SPF 353 Human Development During Early Adolescence and Adolescence</td>
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<tr>
<td>FIN 110 Personal Finance</td>
<td></td>
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<tr>
<td>OR</td>
<td></td>
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<tr>
<td>BUS 116 Introduction to Business</td>
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</table>

<table>
<thead>
<tr>
<th>Professional Education Requirements (33 cr)</th>
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<tbody>
<tr>
<td>CTE 301/ BME 301/ FCS 301/ 301</td>
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</tr>
<tr>
<td>Foundations of Career and Technology/Education/Business and Marketing Education/Family and Consumer Sciences Education</td>
<td></td>
</tr>
<tr>
<td>CTE 302/ BME 302/ FCS 302/ 302</td>
<td></td>
</tr>
<tr>
<td>Curriculum and Evaluation in Career and Technology/Education/Business and Marketing Education/Family and Consumer Sciences Education</td>
<td></td>
</tr>
<tr>
<td>CTE 303/ BME 303/ FCS 303/ 303</td>
<td></td>
</tr>
<tr>
<td>Instructional Strategies in Career and Technology/Education/Business and Marketing Education/Family and Consumer Sciences Education</td>
<td></td>
</tr>
<tr>
<td>CTE 404/ BME 404/ FCS 404/ 404</td>
<td></td>
</tr>
<tr>
<td>Methods of Teaching Career and Technology/Education/Business and Marketing Education/Family and Consumer Sciences Education Subjects</td>
<td></td>
</tr>
<tr>
<td>EDU 416 Teaching Literacy in Middle and Secondary Schools</td>
<td></td>
</tr>
<tr>
<td>EXE 372 Foundations of Teaching Adolescents With Disabilities</td>
<td></td>
</tr>
<tr>
<td>CTE 311 Career Mentoring Internship</td>
<td></td>
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<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>CTE 350 School and Community Relationship Field Experience</td>
<td></td>
</tr>
<tr>
<td>BME 415 Student Teaching</td>
<td></td>
</tr>
<tr>
<td>BME 416 Student Teaching</td>
<td></td>
</tr>
<tr>
<td>CTE 435 Curricular Problems of Career and Technical Schools</td>
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</table>

<table>
<thead>
<tr>
<th>All College Electives</th>
<th>0–12 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Required Credit Hour</td>
<td>129 cr</td>
</tr>
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</table>
Fashion and Textile Technology (B.S.)

BS-SP FTT
Fashion and Textile Technology Department
Bachelor of Science (HEGIS 1303)
Technology Building, 303 (716) 873-3478

The fashion and textile technology department at Buffalo State is the only baccalaureate department in Western New York that offers a variety of career preparation options for the multifaceted, global fashion industry. Faculty expertise, continuous updating of technology-based curriculum, and industry partnerships contribute to the strength of the program. Class sizes are small, allowing individual attention. Students are encouraged to participate in extracurricular programmatic activities and regional and national competitions. Students have achieved top honors in national apparel and textile design competitions. Internships are available in the Buffalo area and elsewhere in the United States. Affiliations with industry and professional organizations include the American Apparel and Footwear Association (AAFA), which has endorsed the department; the Costume Society of America (CSA); the American Collegiate Retailing Association (ACRA); and the International Textile and Apparel Association (ITAA).

The fashion and textile technology department is designed to prepare students for employment in the apparel, textile, and fashion industries. Employment opportunities exist in textiles, retail management, CAD design for textiles and apparel, apparel production, product development, textile testing/quality control, home furnishings, and government agencies. Examples of available positions include technicians in testing labs to set safety and performance standards, CAD (print, weave, knit, technical, or fashion graphic) apparel designers, trend and design specialists, private label costing and sourcing, CAM production, stylists, colorists, entrepreneurs, fashion/visual merchandisers, merchandiser representatives, fashion journalists, logistics specialists, U.S. customs agents, and theater costuming.

Graduates have been employed by most major apparel and textile companies, including, but not limited to: Abercrombie & Fitch, Calvin Klein, Dior, Ralph Lauren, Macy’s, Fisher-Price, New Era, Eastman Machine Co., AccuMED Technologies Inc., GAP and GAP Kids, Lord & Taylor, Bureau Veritas testing labs, Limited, Oxford Industries, Swavelle/Mill Creek, Tony Walker & Co., Tobin Home Fashions, Toppers, Tommy Hilfiger, Graco Home Fashions International, Park B. Smith, Appollo Patio Furniture Design, Target, Dillard’s, and Victoria’s Secret.

Department Information: The curriculum for the fashion and textile technology department is divided into two parts: the required 21 credit hours of core coursework; and one or more specialized concentrations: fashion merchandising, apparel design, apparel product development, or fashion/textile design. Individuals who have extensive work experience in the fashion field are encouraged to explore earning college credit by course challenge or experiential learning.

Fashion and textile technology majors may spend their senior year studying a specialty topic at the Fashion Institute of Technology (FIT) in New York City in a "three-one" program, earning a B.S. from Buffalo State and an associate’s degree from FIT. North Carolina State University and other institutions have exchange programs. Study abroad opportunities are available in several countries.

Scholarships and Financial Aid: Students may apply for departmental scholarships. Financial assistance through the college is also available. Buffalo State is one of a select group of institutions whose students compete for the annual YMA Fashion Scholarship Fund which offers competitive $5000 scholarships to approximately 125 students nationally every year.

### Intellectual Foundations Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Required Credit Hours in Fashion Technology</td>
<td>51 cr</td>
</tr>
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### A. Required Core Courses (21 cr)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTT 110</td>
<td>Survey of Fashion/Textile Industry</td>
</tr>
<tr>
<td>FTT 206</td>
<td>Introduction to Textiles</td>
</tr>
<tr>
<td>FTT 208</td>
<td>Introduction to Fashion Technologies</td>
</tr>
<tr>
<td>FTT 306</td>
<td>Textile Evaluation</td>
</tr>
<tr>
<td>FTT 310</td>
<td>Sewn Products Industry</td>
</tr>
<tr>
<td>FTT 358</td>
<td>Fashion Forecasting and Consumer Issues</td>
</tr>
<tr>
<td>FTT 450</td>
<td>Issues in Fashion/Textile Industry</td>
</tr>
</tbody>
</table>

### B. Concentration Courses (30 cr)

Select one concentration:

**Fashion Merchandising Concentration**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 320</td>
<td>Principles of Marketing</td>
</tr>
<tr>
<td>FTT 150</td>
<td>Introduction to Fashion Merchandising</td>
</tr>
<tr>
<td>FTT 250</td>
<td>Fashion Buying and Merchandising Principles</td>
</tr>
<tr>
<td>FTT 350</td>
<td>Fashion Merchandising Applications</td>
</tr>
<tr>
<td>FTT 455</td>
<td>Issues in Merchandising and Fashion Retailing</td>
</tr>
<tr>
<td>FTT 475</td>
<td>Sr. Seminar in Fashion Merchandising &amp; Marketing</td>
</tr>
<tr>
<td>FTT 488</td>
<td>Internship</td>
</tr>
</tbody>
</table>

Select three courses from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 325</td>
<td>Human Resource Management</td>
</tr>
<tr>
<td>BUS 212</td>
<td>Introduction to Accounting</td>
</tr>
<tr>
<td>BUS 360</td>
<td>Principles of Management</td>
</tr>
<tr>
<td>COM 215</td>
<td>Introduction to Visual Communication</td>
</tr>
<tr>
<td>FTT 109**</td>
<td>Fundamentals of Apparel Construction</td>
</tr>
<tr>
<td>FTT 308</td>
<td>Fashion CAD (Computer Aided Design)</td>
</tr>
<tr>
<td>FTT 355</td>
<td>Research in Fashion Merchandising</td>
</tr>
<tr>
<td>FTT 359</td>
<td>Visual Merchandising</td>
</tr>
<tr>
<td>FTT 410</td>
<td>Advanced Product Development</td>
</tr>
</tbody>
</table>

**Apparel Design Concentration**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTT 109</td>
<td>Fundamentals of Apparel Construction</td>
</tr>
<tr>
<td>FTT 224</td>
<td>Pattern Drafting and Grading For Industry</td>
</tr>
<tr>
<td>FTT/THA 303</td>
<td>Fashion Illustration</td>
</tr>
<tr>
<td>FTT 324</td>
<td>Industrial Apparel Assembly</td>
</tr>
<tr>
<td>FTT 326</td>
<td>Apparel Design I: Flat Pattern</td>
</tr>
<tr>
<td>FTT 327</td>
<td>Apparel Design II: Computerized Flat Pattern</td>
</tr>
<tr>
<td>FTT 328</td>
<td>Apparel Design III: Draping</td>
</tr>
<tr>
<td>FTT 451</td>
<td>Senior Project or Internship</td>
</tr>
<tr>
<td>FTT 488</td>
<td>Pattern Development for Industry</td>
</tr>
</tbody>
</table>

Select two courses from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTT 304</td>
<td>Pattern Development for Industry</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Required Credit Hours in Fashion Technology</td>
<td>51 cr</td>
</tr>
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</table>
### C. Recommended All College Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTT 308</td>
<td>Fashion CAD (Computer Aided Design)</td>
</tr>
<tr>
<td>FTT 329</td>
<td>Designing Knit Apparel</td>
</tr>
<tr>
<td>FTT 410</td>
<td>Advanced Product Development</td>
</tr>
<tr>
<td>FTT 412</td>
<td>CAD: Apparel/Textile Design for Industry</td>
</tr>
<tr>
<td>FTT 413</td>
<td>CAD Weave for Industry</td>
</tr>
<tr>
<td>FTT 461</td>
<td>Sr. Seminar in Product Development</td>
</tr>
</tbody>
</table>

### Apparel Product Development Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTT 109</td>
<td>Fundamentals of Apparel Construction</td>
</tr>
<tr>
<td>FTT 224</td>
<td>Pattern Drafting and Grading for Industry</td>
</tr>
<tr>
<td>FTT 324</td>
<td>Industrial Apparel Assembly</td>
</tr>
<tr>
<td>FTT 326</td>
<td>Apparel Design I: Flat Pattern</td>
</tr>
<tr>
<td>FTT 327</td>
<td>2D/3D Computer Pattern Making</td>
</tr>
<tr>
<td>FTT 410</td>
<td>Advanced Product Development</td>
</tr>
<tr>
<td>FTT 451 or</td>
<td>Senior Project</td>
</tr>
<tr>
<td>FTT 488 or</td>
<td>Internship</td>
</tr>
<tr>
<td>FTT 461</td>
<td>Sr. Seminar in Product Development</td>
</tr>
</tbody>
</table>

**Select three courses from the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTT 304</td>
<td>Pattern Development for Industry</td>
</tr>
<tr>
<td>FTT 308</td>
<td>Fashion CAD (Computer Aided Design)</td>
</tr>
<tr>
<td>FTT 309</td>
<td>Technical Fashion Specs</td>
</tr>
<tr>
<td>FTT 329*</td>
<td>Designing Knit Apparel</td>
</tr>
<tr>
<td>FTT 412</td>
<td>CAD: Apparel/Textile Design for Industry</td>
</tr>
<tr>
<td>FTT 413</td>
<td>CAD Weave for Industry</td>
</tr>
<tr>
<td>FTT 461</td>
<td>Sr. Seminar in Product Development</td>
</tr>
</tbody>
</table>

### Fashion/Textile Design Technologies Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES 242</td>
<td>Fibers I</td>
</tr>
<tr>
<td>FTT 303 or</td>
<td>Fashion Illustration or Drawing I</td>
</tr>
<tr>
<td>FAR 101</td>
<td>Pattern Development for Industry</td>
</tr>
<tr>
<td>FTT 304</td>
<td>CAD: Apparel/Textile Design for Industry</td>
</tr>
<tr>
<td>FTT 412</td>
<td>CAD Weave for Industry</td>
</tr>
<tr>
<td>FTT 451 or</td>
<td>Senior Project or Internship or Special Project</td>
</tr>
<tr>
<td>FTT 488 or</td>
<td>Internship</td>
</tr>
<tr>
<td>FTT 495</td>
<td>Sr. Seminar in Product Development</td>
</tr>
</tbody>
</table>

**Select one course from the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES 215</td>
<td>Design History</td>
</tr>
<tr>
<td>FTT 348</td>
<td>History of Costume</td>
</tr>
<tr>
<td>FTT 349</td>
<td>History of Textiles</td>
</tr>
<tr>
<td>THA 332</td>
<td>Period Styles</td>
</tr>
</tbody>
</table>

**Select two courses from the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AED 100</td>
<td>Essentials of Visual Arts</td>
</tr>
<tr>
<td>DES 307*</td>
<td>Color Theory</td>
</tr>
<tr>
<td>DES 342*</td>
<td>Fibers II</td>
</tr>
<tr>
<td>FAR 210*</td>
<td>Introduction to Painting</td>
</tr>
<tr>
<td>FTT 150</td>
<td>Introduction to Merchandising</td>
</tr>
<tr>
<td>FTT 200</td>
<td>Introduction to Hand Knitting</td>
</tr>
<tr>
<td>FTT 309</td>
<td>Technical Fashion Specs</td>
</tr>
<tr>
<td>FTT 410*</td>
<td>Advanced Product Development</td>
</tr>
</tbody>
</table>

### Total Required Number of Credit Hours

| Total Required Credit Hours | 6–33 cr |

---

### Fibers (B.F.A.)

**BFA-AH FIB**  
Design Department  
Bachelor of Fine Arts (HEGIS 1009)  
National Association of Schools of Art and Design (NASAD) Accredited  
Upton Hall 212 (716) 878-6032  

The B.F.A. degree in Fibers is a studio-intensive program of study focused on developing the aesthetic, conceptual, and technical skills necessary to foster creativity as students work toward developing their individual identity as visual designers/artists. This degree offers students a specialized studio-oriented education in preparation for advanced or graduate studies, or for beginning careers as professional designers or artists. Students begin with foundation courses in two-dimensional design, three-dimensional design, drawing, painting, art history, and design history, along with courses in ceramics, metals/jewelry, and wood. Major courses in fibers complete the requirements. Internship opportunities are available. The remaining credit hours are completed in required Intellectual Foundations courses and in other chosen studio courses.  

**Admission Requirements:** There is no entrance portfolio review or major with a bachelor of science (BS-AH FIB) intent, and must complete a selection of foundation and major course(s) before a commit-to-major portfolio review for admission into the bachelor of fine arts program (BFA-AH FIB). Commit-to-major portfolio reviews are conducted by faculty and generally take place during the sophomore year. After passing the portfolio review, to continue in the B.F.A. degree program a 3.0 GPA must be maintained in the major. Transfer students are urged to submit their portfolios the semester before transfer in order to facilitate placement in departmental courses and/or for possible commit-to-major portfolio review. Please call the Design Department for additional information. As a condition of graduation, B.F.A. students will be required to mount an individual exhibition of their work. The Design Department reserves the right to retain students’ work for official purposes, such as exhibitions,
The B.S. degree in Fibers is a studio degree with a strong academic component. This degree offers students a broadly grounded educational experience as a basis for beginning careers as professional designers or artists. Students begin with foundation courses in two-dimensional design, three-dimensional design, drawing, painting, and design history, along with courses in ceramics, metals/jewelry, and wood. Major courses in fibers focus on developing the aesthetic, conceptual, and technical skills necessary to foster creativity as students work toward developing their individual identity as visual designers/artists. Internship opportunities are available. The remaining credit hours are completed in required Intellectual Foundations courses and in other academic subjects of the student’s choosing. The academic component offers opportunities to gain a broader base of knowledge, as well as knowledge in other disciplines related to the major field of study.

Admission Requirements: There is no entrance portfolio review for admission. All students will enter the fibers major with a bachelor of science (BS-AH FIB) intent and complete a selection of foundation and major course(s) before a commit-to-major portfolio review for continuation in the B.S. degree program. Commit-to-major portfolio reviews are conducted by faculty and generally take place during the sophomore year. After passing the portfolio review, to continue in the B.S. degree program a 2.5 GPA must be maintained in the major. Transfer students are urged to submit their portfolios the semester before transfer in order to facilitate placement in departmental courses and/or for possible commit-to-major portfolio review. Please call the Design Department for additional information.

The Design Department reserves the right to retain students’ work for official purposes, such as exhibitions, catalogs, teaching aids, or permanent collections, and to use images of the students and their work for publicity and recruitment. Students are expected to assume the costs of materials used in courses. Some studio courses may have an additional charge for materials used in class. Students enrolled in a studio course are expected to work a minimum of two additional hours each week outside of class for each credit granted for that class. The Design Department may be in the process of curricular revision. Please refer to the college’s Web site or the department for updated information.

Intellectual Foundations Courses and Other Academic Requirements

A. Foundation Courses (37 cr)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES 101</td>
<td>Introduction to Design 2D I</td>
</tr>
<tr>
<td>DES 103</td>
<td>Introduction to Design 3D I</td>
</tr>
<tr>
<td>DES 220</td>
<td>Ceramics I</td>
</tr>
<tr>
<td>DES 230</td>
<td>Introduction to Jewelry Making</td>
</tr>
<tr>
<td>DES 250</td>
<td>Wood Design I</td>
</tr>
<tr>
<td>DES 312W</td>
<td>History of Craft: Industrial Revolution to the Present</td>
</tr>
<tr>
<td>DES 414</td>
<td>Senior Seminar/Exhibition (4)</td>
</tr>
<tr>
<td>FAR 101</td>
<td>Drawing I</td>
</tr>
<tr>
<td>FAR 104</td>
<td>Themes and Issues in Contemporary Arts</td>
</tr>
<tr>
<td>FAR 210</td>
<td>Introductory Painting</td>
</tr>
<tr>
<td>FAR 250</td>
<td>Art History I</td>
</tr>
<tr>
<td>FAR 251</td>
<td>Art History II</td>
</tr>
</tbody>
</table>

B. Major Courses (30 cr)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES 242</td>
<td>Fibers I</td>
</tr>
<tr>
<td>DES 338</td>
<td>Computer 3D Modeling and Rendering</td>
</tr>
<tr>
<td>DES 342</td>
<td>Fibers II</td>
</tr>
<tr>
<td>DES 344</td>
<td>Fibers: Junior Studio (3, 3)</td>
</tr>
<tr>
<td>DES 444</td>
<td>Fibers: Senior Studio (3, 3)</td>
</tr>
<tr>
<td>FTT 304</td>
<td>Pattern Development for Industry</td>
</tr>
<tr>
<td>FTT 412</td>
<td>CAD: Apparel and Textile Design for Industry OR</td>
</tr>
<tr>
<td>FTT 413</td>
<td>CAD: Weave for Industry</td>
</tr>
</tbody>
</table>

C. Studio Electives Selected by Advisement (12 cr)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES 320</td>
<td>Ceramics II</td>
</tr>
<tr>
<td>DES 330</td>
<td>Applied Jewelry Techniques</td>
</tr>
<tr>
<td>DES 350</td>
<td>Wood Design II</td>
</tr>
<tr>
<td>DES XXX</td>
<td>(DES 321, DES 331, DES 351)</td>
</tr>
</tbody>
</table>

All College Electives 0–2 cr

Total Required Credit Hours 120–145 cr

FIBERS (B.S.)

BS-AH FIB
Design Department
Bachelor of Science (HEGIS 1009)
National Association of Schools of Art and Design (NASAD) Accredited
Upton Hall 212 (716) 878-6032

The B.S. degree in Fibers is a studio degree with a strong academic component. This degree offers students a broadly
See Individual Majors
- Art
- Art History
- Painting
- Photography
- Printmaking
- Sculpture

FORENSIC CHEMISTRY (B.S.)
BS-NS FRC
Chemistry Department
Bachelor of Science (HEGIS 1999.20)
Forensic Science Education Programs Accreditation Commission (FEPAC) accredited
Science Building 267 (716) 878-5204

Forensic chemistry is a program of professional study whose graduates are prepared to assume entry-level positions as forensic chemists in police laboratories at the local, state, or federal level. Graduates with this degree may also choose to go on to graduate-level forensic science programs or to pursue a career working in a scientific laboratory.

Admission Requirements: Prospective majors must complete CHE 111 and CHE 112 (or the equivalent) with minimum grades of C before applying to the program. Students who have not yet met this requirement will be accepted into the pre-forensic chemistry program (FRCW) and will be formally admitted to the major upon completion of the previously stated requirement.

Admission Recommendations: Transfer students from two-year colleges should have earned credit for courses equivalent to CHE 111, CHE 112, CHE 201, CHE 202, CHE 203, CHE 204, FOR 122, MAT 161, MAT 162, and PHY 111 to avoid possible delays in the completion of the degree program. Transfer students must complete a minimum of 10 credit hours in chemistry at Buffalo State. Chemistry courses taken elsewhere may be substituted for similar courses at Buffalo State only if they have the same equivalent prerequisite. Chemistry courses not meeting this criterion may be transferred as elective credit.

Important Note: Individuals seeking an internship or employment in a forensic science laboratory may be required to undergo an extensive background check including a lie detector test, fingerprinting, and drug testing.

Intellectual Foundations Requirements 33–45 cr

Total Required Credit Hours in Chemistry 32 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 111</td>
<td>Fundamentals of Chemistry I (4)</td>
<td></td>
</tr>
<tr>
<td>CHE 112</td>
<td>Fundamentals of Chemistry II (4)</td>
<td></td>
</tr>
<tr>
<td>CHE 201</td>
<td>Organic Chemistry I</td>
<td></td>
</tr>
<tr>
<td>CHE 202</td>
<td>Organic Chemistry II</td>
<td></td>
</tr>
</tbody>
</table>

Total Required Credit Hours in Forensic Science 15 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR 122</td>
<td>Scientific Criminal Evidence Analysis</td>
</tr>
<tr>
<td>FOR 312</td>
<td>Chemistry and Criminalistics (4)</td>
</tr>
<tr>
<td>FOR 412</td>
<td>Internship in Criminalistics</td>
</tr>
<tr>
<td>FOR 414</td>
<td>Forensic Chemistry Laboratory</td>
</tr>
<tr>
<td>FOR 416</td>
<td>Optical Microscopy</td>
</tr>
</tbody>
</table>

Total Required Credit Hours in Biology 8 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 211</td>
<td>Introduction to Cell Biology and Genetics (4)</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>BIO 214</td>
<td>Introduction to Cell Biology (4)</td>
</tr>
<tr>
<td>BIO 303</td>
<td>Genetics (4)</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>BIO 350</td>
<td>Genes in Populations (4)</td>
</tr>
</tbody>
</table>

Upper Division Elective Courses in the Major 7-9 cr

Select at least 7 credits from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 324</td>
<td>The Human Skeleton</td>
</tr>
<tr>
<td>ANT 325</td>
<td>Forensic Anthropology</td>
</tr>
<tr>
<td>BIO 305</td>
<td>Molecular Biology</td>
</tr>
<tr>
<td>BIO 308</td>
<td>Human Anatomy and Physiology</td>
</tr>
<tr>
<td>BIO 309</td>
<td>Laboratory in Human Anatomy and Physiology (1)</td>
</tr>
<tr>
<td>BIO 314</td>
<td>Advanced Cell Biology</td>
</tr>
<tr>
<td>BIO 316</td>
<td>General Microbiology</td>
</tr>
<tr>
<td>BIO 450</td>
<td>Recombinant DNA Technology (4)</td>
</tr>
<tr>
<td>CHE 300</td>
<td>Chemistry and Medications</td>
</tr>
<tr>
<td>CHE 310</td>
<td>Literature in Chemistry (1)</td>
</tr>
<tr>
<td>CHE 360</td>
<td>Introduction to Inorganic Chemistry</td>
</tr>
<tr>
<td>CHE 406</td>
<td>Analytical Toxicology</td>
</tr>
<tr>
<td>CHE 472</td>
<td>Biochemistry II</td>
</tr>
<tr>
<td>GES 360</td>
<td>Forensic Geoscience</td>
</tr>
<tr>
<td>PSY 375</td>
<td>Forensic Psychology</td>
</tr>
<tr>
<td>FOR 412</td>
<td>Internship in Criminalistics (2nd)</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>FOR 495</td>
<td>Special Project in Forensics</td>
</tr>
</tbody>
</table>

Total Required Credit Hours in Other Fields 23 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 161</td>
<td>Calculus I (4)</td>
</tr>
<tr>
<td>MAT 162</td>
<td>Calculus II (4)</td>
</tr>
<tr>
<td>MAT 163</td>
<td>Using Technology to Explore Calculus I (1)</td>
</tr>
<tr>
<td>MAT 164</td>
<td>Using Technology to Explore Calculus II (1)</td>
</tr>
<tr>
<td>MAT 311</td>
<td>Introductory Probability and Statistics</td>
</tr>
<tr>
<td>PHY 111</td>
<td>University Physics I (5)</td>
</tr>
<tr>
<td>PHY 112</td>
<td>University Physics II (5)</td>
</tr>
</tbody>
</table>

All College Electives 0–2 cr

Total Required Credit Hours 120 cr
The French secondary education program enables students to earn provisional certification to teach French in New York State secondary schools. Students develop French language skills, study the structure and sound system of French, expand their knowledge of the literature and culture of French-speaking peoples, and explore the teaching and learning of foreign languages in school settings. The curriculum includes a series of field experiences. All students desiring this program may be admitted into the B.A. Language and Literature program, which functions as a pre-major for the B.S. program. Prospective students who apply for admission to the B.S. program must complete a Change of Major Form and complete two brief entrance essays—one in English and the other in French—in the Modern and Classical Languages Department office (Bishop 122) after they have successfully completed 6 credits beyond FRE302. No student will be admitted with less than a 2.5 overall GPA, or with less than a 2.5 GPA in French courses. Students must have a minimum GPA of 2.5 (overall and in French), to enroll in the teaching practicum. Also, students must demonstrate Advanced-Low Proficiency in French.

Intellectual Foundations Requirements 39–66 cr

Total Required Credit Hours in French 36 cr

A. Required Courses (27 cr)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRE 301</td>
<td>French Conversation and Composition</td>
</tr>
<tr>
<td>FRE 302</td>
<td>French Conversation and Composition</td>
</tr>
<tr>
<td>FRE 305</td>
<td>Phonetics and Orthography</td>
</tr>
<tr>
<td>FRE 306</td>
<td>Literature and Culture of France from Pre-History to Renaissance</td>
</tr>
<tr>
<td>FRE 307</td>
<td>Literature and Culture of France from Renaissance to Revolution</td>
</tr>
<tr>
<td>FRE 308</td>
<td>Literature and Culture of France in the Nineteenth Century</td>
</tr>
<tr>
<td>FRE 309</td>
<td>Literature and Culture of France in the Twentieth Century</td>
</tr>
<tr>
<td>FRE 415</td>
<td>Advanced Grammar and Composition</td>
</tr>
<tr>
<td>FRE 416</td>
<td>Advanced Conversation and Composition</td>
</tr>
</tbody>
</table>

B. Electives (9 cr)

Select three courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRE 303</td>
<td>Translation</td>
</tr>
<tr>
<td>FRE 331</td>
<td>French Literature in Translation (if all assignments are completed in French)</td>
</tr>
<tr>
<td>FRE 341</td>
<td>Francophone Literature in Translation (if taken in French)</td>
</tr>
<tr>
<td>FRE 411</td>
<td>Studies in French Poetry</td>
</tr>
<tr>
<td>FRE 412</td>
<td>Studies in the French Novel</td>
</tr>
</tbody>
</table>

Total Required Credit Hours in Professional Education 24 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPF 303</td>
<td>Educational Psychology</td>
</tr>
<tr>
<td>SPF 403</td>
<td>Historical and Philosophical Forces Influencing Secondary Education</td>
</tr>
<tr>
<td>EDU 416</td>
<td>Teaching Literacy in Middle and Secondary Schools</td>
</tr>
<tr>
<td>EXE 372</td>
<td>Foundations of Teaching Secondary Students with Disabilities</td>
</tr>
<tr>
<td>FLE 240</td>
<td>Introduction to Linguistics</td>
</tr>
<tr>
<td>FLE 300</td>
<td>Introduction to the Foreign Language Classroom</td>
</tr>
<tr>
<td>FLE 340</td>
<td>Second Language Acquisition and Literacy</td>
</tr>
<tr>
<td>FLE 401</td>
<td>Teaching Foreign Language in Middle and High Schools</td>
</tr>
</tbody>
</table>

Total Required Credit Hours in Student Teaching 12 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLE 407</td>
<td>Student Teaching of Foreign Languages in the Middle/Junior High School (6)</td>
</tr>
<tr>
<td>SED 407</td>
<td>Middle/Junior High School (6)</td>
</tr>
<tr>
<td>FLE 408</td>
<td>Student Teaching of Foreign Languages in the High School (6)</td>
</tr>
<tr>
<td>SED 408</td>
<td>High School (6)</td>
</tr>
</tbody>
</table>

All College Electives 0–6 cr

Total Required Credit Hours 120 cr

FRENCH EDUCATION (7–12, PTCP)

PBC-AH FRE

Modern and Classical Languages Department

Postbaccalaureate Teacher Certification Program (HEGIS 1102.01)

National Council for Accreditation of Teacher Education (NCATE) Accredited

Bishop Hall 122 (716) 878-5414

The French (7-12) post-baccalaureate teacher certification program leads to eligibility for New York State initial certification to teach French in grades 7-12. This program is designed for students who have earned a baccalaureate degree in French or a related field from an accredited college or university and intend to complete the coursework required for New York State certification to teach French in middle or high schools. The program supplies the background knowledge necessary for teachers to implement the New York State Learning Standards for Languages Other Than English (LOTE) 7-12. It also meets the standards set by national professional organizations such as the American Council of Teachers of Foreign Languages (ACTFL) and the National Council for Accreditation of Teacher Education (NCATE). Students are responsible for any additional certification requirements, including the Liberal Arts and Sciences Test (LAST), the Assessment of Teaching Skills—Written (ATS-W), Content Specialty Test (CST) in French, Oral Proficiency Interview (OPI), and all seminars required for initial certification. It takes three to four semesters of coursework, field experiences, and student teaching to complete certification requirements.

To student teach, a student must have achieved a minimum GPA of 2.75 in French coursework and overall, and must...
have earned a minimum grade of C in FLE300, FLE340 and FLE401. Also, the student must complete an ACTFL-Approved Oral Proficiency Interview (OPI) in order to demonstrate Advanced-Low Proficiency in French. If Advanced-Low is not achieved, an additional upper-level French course, chosen in consultation with the student’s advisor, must be successfully completed.

After successfully completing the teacher certification program and passing all required tests, students are eligible to apply for New York State Initial Certification through the Teacher Certification Office, Caudell Hall, 112 Buffalo State College. No degree or certificate is awarded by Buffalo State College.

Financial Assistance: For financial aid purposes, students who are fully admitted into the program are considered fifth-year undergraduates, eligible for undergraduate loans, when applicable.

Admission Requirements.*

1. A bachelor’s degree from an accredited college or university with a minimum cumulative grade point average (GPA) of 2.75 (4.0 scale), a major in French language, literature, culture (or a closely related discipline with a minimum of 30 hours in French).
2. A minimum GPA of 2.75 in French coursework.
3. A completed application form submitted to the Graduate Office at Buffalo State College.
4. Official transcripts from all previous college/university work.**
5. A personal interview with the program coordinator, department chair, or other designated official.
6. Successful completion of two written essays (one English, one French), administered by the department as part of the interview process.

*All students required to take a minimum of 6 credit hours above the 302 level
**Students with undergraduate degrees are eligible, with instructor permission, to enroll in graduate level language and literature courses at Buffalo State College

<table>
<thead>
<tr>
<th>Professional Education Courses</th>
<th>24 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPF 303</td>
<td>Educational Psychology</td>
</tr>
<tr>
<td>SPF 403</td>
<td>Historical and Philosophical Forces Influencing Secondary Education</td>
</tr>
<tr>
<td>EDU 416</td>
<td>Teaching Literacy in Middle and Secondary Schools</td>
</tr>
<tr>
<td>EXE 372</td>
<td>Foundations of Teaching Secondary Students with Disabilities</td>
</tr>
<tr>
<td>FLE 240</td>
<td>Introduction to Linguistics</td>
</tr>
<tr>
<td>FLE 300</td>
<td>Introduction to the Foreign Language Classroom</td>
</tr>
<tr>
<td>FLE 340</td>
<td>Second Language Acquisition and Literacy</td>
</tr>
<tr>
<td>FLE 401</td>
<td>Teaching Foreign Language in Middle and High Schools</td>
</tr>
</tbody>
</table>

Total Required Credit Hours: 42 cr

<table>
<thead>
<tr>
<th>Total Required Credit Hours</th>
<th>42 cr</th>
</tr>
</thead>
</table>

** FRENCH (B.A.)

BA-AH FRE
Modern and Classical Languages Department
Bachelor of Arts (HEGIS 1102)
Bishop Hall 122 (716) 878-5414

This program develops the ability to communicate in French, introduces French and Francophone literary masterpieces, and explores significant aspects of French and Francophone culture. Students are encouraged to study abroad in an approved program. This program also serves as a premajor for students who wish to enter the Bachelor of Science in French Education (7–12) program.

<table>
<thead>
<tr>
<th>Total Required Credit Hours in French</th>
<th>36 cr</th>
</tr>
</thead>
</table>

A. Required Courses (18 cr)

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRE 301</td>
</tr>
<tr>
<td>FRE 302</td>
</tr>
<tr>
<td>FRE 306</td>
</tr>
<tr>
<td>FRE 307</td>
</tr>
<tr>
<td>FRE 308</td>
</tr>
<tr>
<td>FRE 309</td>
</tr>
</tbody>
</table>

B. Electives Selected by Advisement (18 cr)

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRE 303</td>
</tr>
<tr>
<td>FRE 305</td>
</tr>
<tr>
<td>FRE 331</td>
</tr>
<tr>
<td>FRE 341</td>
</tr>
</tbody>
</table>
Studies in French Poetry
Studies in the French Novel
Studies in French Theater
Advanced Grammar and Composition
Advanced Conversation and Composition
Business French
Seminar I
Seminar II

1 These courses may be taken as a part of the French major only with the instructor’s permission and the chair’s permission, and only if all the work for the course is done in French.

All College Electives 18–45 cr
Total Required Credit Hours 120 cr

GEOGRAPHY (B.A.)

BA-NS GEG
Geography and Planning Department
Bachelor of Arts (HEGIS 2206)
Classroom Building A213 (716) 878-6216

The Geography major provides students with a basic foundation of the discipline while allowing them to focus on one major geographic subject area in the following concentrations: meteorology & climatology, watershed & ecosystems, economic geography & development, or Geographic Information Systems (GIS).

Intellectual Foundations Requirements 39–66 cr
Total Required Credit Hours in Geography 39 cr

A. Required Courses (21 cr)

GEG 101 World Natural Environments
GEG 102 Human Geography
GEG 3 25 Maps and Mapmaking Using GIS
GEG 390 Quantitative Methods in Geography and Planning
GEG 396W Research Methods
GEG 430W Senior Thesis

Select one course from the following:
GEG 300 World Regional Geography
GEG 359 Arctic Geography
GEG 360 Geography of Asia
GEG 362 Geography of the United States and Canada
GEG 364 Geography of Europe

B. Concentration Courses (12 cr)

Selected by advisement

Meteorology and Climatology Concentration
GEG/GES 241 Meteorology
GEG 303 Global Climatology
GEG 382 Weather Forecasting
GEG 383 Severe & Unusual Weather
GEG 384 Atmospheric Science
GEG 385 Paleoclimatology
GEG 386 Applied Climatology
GEG 478 Global Change

GEG 480 Air Pollution Applications

Watershed & Ecosystems Concentration
GEG 307 Conservation and Environmental Management
GEG 316 Watershed Pollution
GEG 365 Soil Science and Management
GEG 375 Principles of Hydrology
GEG 421 Watershed Analysis
GEG 423 Biogeography
GEG 478 Global Change
PLN 360 Environmental Impact Assessment
Economic Geography & Development Concentration
GEG 305 Principles of Economic Geography
GEG 309 Introduction to Urban Geography
GEG 310 Urban Transportation Planning
GEG 409 Industrial Geography
GEG 416 Geographies of Development
GEG 419 Globalization, Technology, Competition & Service Economies
GEG 461 Issues in Southeast Asia Environment and Sustainable Development

GIS Concentration
GEG 405 Urban Analysis Using GIS
GEG 418 Remote Sensing
GEG 425 Fundamentals of GIS
GEG 427 Corporate Applications Using GIS
GEG 428 Environmental Assessment and Planning Applications Using GIS
GEG 429 Advanced Topics in GIS
GEG 485 Interactive & Web-based Mapping

B. Electives (6 cr)

Selected by advisement

Any two upper-division Geography courses

All College Electives 15–42 cr
Total Required Credit Hours 120 cr

GEOLOGY (B.A.)

BA-NS GEO
Earth Sciences and Science Education Department
Bachelor of Arts (HEGIS 1914)
Science Building 271 (716) 878-6731

The geology program offers students a variety of opportunities to investigate the materials that constitute and the processes that shape the earth. Classroom, laboratory, and field work provide a base for careers related to energy, the environment, and the exploration for and production of petroleum and mineral resources. Graduates of the program are prepared to enter these fields and/or pursue advanced study in the geosciences.

Coursework in calculus and physics is strongly recommended, particularly for students contemplating graduate study. The recommended courses are MAT 126, MAT 127, PHY 111, PHY 112, and upper-division courses in chemistry, mathematics and physics. Each student
should choose the appropriate courses by advisement, beginning with entry into the major. Student majors are strongly encouraged to pursue independent research under faculty supervision or an internship experience. Students may find additional information about undergraduate research possibilities from faculty and by visiting the Office of Undergraduate Research Web site at www.buffalostate.edu/undergraduate. A departmental honors program also is available. Students should contact the department for additional information.

### Intellectual Foundations Requirements

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Requirements</th>
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</thead>
<tbody>
<tr>
<td>39–66 cr</td>
<td>Total Required Credit Hours</td>
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</tbody>
</table>

### Total Required Credit Hours in Geology

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>42 cr</td>
<td>Total Required Credit Hours</td>
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</table>

#### A. Required Courses (33 cr)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GES 101</td>
<td>Introductory Geology</td>
</tr>
<tr>
<td>GES 102</td>
<td>Historical Geology</td>
</tr>
<tr>
<td>GES 103</td>
<td>Introductory Geology Laboratory (1)</td>
</tr>
<tr>
<td>GES 300</td>
<td>Sedimentology</td>
</tr>
<tr>
<td>GES 301</td>
<td>Stratigraphy</td>
</tr>
<tr>
<td>GES 302</td>
<td>Invertebrate Paleontology (4)</td>
</tr>
<tr>
<td>GES 303</td>
<td>Mineralogy and Petrology (4)</td>
</tr>
<tr>
<td>GES 408</td>
<td>Structural Geology (4)</td>
</tr>
</tbody>
</table>

Two semesters of chemistry: CHE 111 and CHE 112 or equivalent (8)

#### B. Electives Selected by Advisement (9 cr)

Credit will be allowed for any course in geology (GES prefix).

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
</table>

### All College Electives

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>12–39 cr</td>
<td>Total Required Credit Hours</td>
</tr>
</tbody>
</table>

### Total Required Credit Hours

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 cr</td>
<td>Total Required Credit Hours</td>
</tr>
</tbody>
</table>

### HEALTH AND WELLNESS (B.S.)

**BS-NS HEW**  
Health and Wellness Department  
Bachelor of Science (HEGIS 0837)  
Buckham Hall A100  (716) 878-6501

The health and wellness program prepares undergraduate students to assume roles as health/wellness professionals in private business and industry, community organizations, and healthcare environments. Students will be able to administer effective health/wellness programs in organizations that advance preventive medicine and positive lifestyle habits. Students also may participate in the Health and Wellness Student Association; which educates students through lectures, guest speakers, attending conferences, and field trips on ways to achieve a healthier lifestyle.

**Admission Requirements:** Applicants must have a minimum cumulative GPA of 2.5.

### Intellectual Foundations Requirements

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Requirements</th>
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</thead>
<tbody>
<tr>
<td>39–66 cr</td>
<td>Total Required Credit Hours</td>
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</tbody>
</table>

### Total Required Credit Hours in Health and Wellness

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>42 cr</td>
<td>Total Required Credit Hours</td>
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</tbody>
</table>

#### A. Required Courses (33 cr)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEW 204</td>
<td>Personal Health</td>
</tr>
</tbody>
</table>

### B. Electives (9 cr)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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</table>

### All College Electives

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>12–39 cr</td>
<td>Total Required Credit Hours</td>
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</table>

### Total Required Credit Hours

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 cr</td>
<td>Total Required Credit Hours</td>
</tr>
</tbody>
</table>

### HISTORY (B.A.)

**BA-NS HIS**  
History and Social Studies Education Department  
Bachelor of Arts (HEGIS 2205)  
Classroom Building C205  (716) 878-5412

The program ensures both a knowledge and an understanding of the foundations of the development of humankind, stimulates thinking about interaction of ideas, develops facility with written and verbal expression, increases confidence in articulating ideas, and encourages the critical awareness of self so important to an educated individual. Special emphasis is placed on the development of the abilities to analyze, synthesize, and communicate. A departmental honors program is also available. Students should contact the department for additional information.

### Intellectual Foundations Requirements

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>39–66 cr</td>
<td>Total Required Credit Hours</td>
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</table>

### Total Required Credit Hours in History

<table>
<thead>
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<th>Credit Hours</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>39 cr</td>
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</table>

#### American History (6 cr)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS 106</td>
<td>History of American Life I</td>
</tr>
<tr>
<td>HIS 107</td>
<td>History of American Life II</td>
</tr>
</tbody>
</table>

#### European History (6 cr)

Select two courses from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS 115</td>
<td>Foundations of Western Civilization</td>
</tr>
<tr>
<td>HIS 116</td>
<td>Europe Since 1500</td>
</tr>
<tr>
<td>HIS 117</td>
<td>Twentieth-Century Europe</td>
</tr>
</tbody>
</table>

#### World History (6 cr)

Two electives in Asian, African, Middle Eastern, or Latin American history.
**Research and Writing Seminar (3 cr)**  
HIS 300W  
Research and Writing Seminar

**Historiography Seminar (3 cr)**  
HIS 400W  
Senior Seminar in History  
HIS 490W  
Senior Seminar in Historiography

**Upper-Division History Electives (15 cr)**  
Three 300-level history courses.  
Two 400-level history courses.

<table>
<thead>
<tr>
<th>All College Electives</th>
<th>15–42 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Credit Hours</td>
<td>120 cr</td>
</tr>
</tbody>
</table>

**HOSPITALITY ADMINISTRATION (B.S.)**

BS-SP HTR  
Hospitality and Tourism Department  
Bachelor of Science (HEGIS 1307)  
Accreditation Commission for Programs in Hospitality Administration (ACPHA) Accredited  
Caudell Hall 207 (716) 878-5913

The hospitality and tourism curriculum prepares graduates for management positions in various aspects of the hospitality industry. Career opportunities exist for managers in restaurants, hotels, clubs, casino and gaming, resorts, catering operations, residential and health care, school and university food service, sales, production, travel and tourism, and other components of industry/business. The department’s mission is to educate and develop proven hospitality professionals by integrating a strong core curriculum with a deliberate emphasis on experiential learning. The department is defined by its extraordinary focus on student development, and is firmly grounded in producing graduates that excel in communication, teamwork, professionalism, and problem solving.  

Admission Requirements: Transfer or undeclared students desiring to major in this program must have a minimum GPA of 2.0 in previous college credits.

<table>
<thead>
<tr>
<th>Intellectual Foundations Requirements</th>
<th>39–66 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Required Credit Hours in Hospitality Administration</td>
<td>42 cr</td>
</tr>
</tbody>
</table>

### A. Required Courses (30 cr)

- HTR 110  
  Introduction to Hospitality and Tourism  
- HTR 300  
  Food and Beverage Management (4)  
- HTR 350  
  Computer Applications for Hospitality  
- HTR 370  
  Cost Controls in Hospitality  
- HTR 380  
  Advanced Training in Hospitality  
- HTR 390  
  Strategic Marketing in Hospitality  
- HTR 455  
  Advanced Human Resource Management in Hospitality  
- HTR 470  
  Legal Issues in Hospitality  
- HTR 480  
  Practicum in Hospitality Operations (4)  
- HTR 485  
  Seminar in Hospitality (1)

### B. Concentration Courses (12 cr)

#### Restaurant and Institutional Management Concentration

- HTR 100  
  Multicultural Foods

### HTR 200  
Sanitation and Safety in Food Service  
HTR 361W  
Principles of Management in Food Service  
NFS 334  
Contemporary Nutrition  

Required: 400 hours of hospitality-related industry experience.

**Culinary Arts Concentration**

- HTR 305  
  Applied Culinary Arts  
- HTR 330  
  Principles of Bakeshop Production  
- HTR 365  
  Menu Design & Development  
- HTR 400  
  Catering Management  

Required: 400 hours of hospitality-related industry experience.

**Hotel Tourism Management Concentration**

- HTR 368  
  Hotel Operations  
- HTR 408  
  Conventions, Meetings, and Expositions Management  
- HTR 418  
  Tourism Management  
- HTR 468  
  Hotel Management  

Required: 400 hours of hospitality-related industry experience.

**Electives in Hospitality Administration**

- HTR 100  
  Multicultural Foods  
- HTR 200  
  Sanitation and Safety in Food Service  
- HTR 305  
  Applied Culinary Arts  
- HTR 318  
  Cultural Tourism  
- HTR 320  
  Alcohol Management Issues (2)  
- HTR 330  
  Fundamentals of Bakeshop Production  
- HTR 335  
  Wine Essentials  
- HTR 340  
  Industry Experience  
- HTR 348  
  Tourism and World Travel  
- HTR 361  
  Principles of Management in Food Service  
- HTR 363  
  Quantity Food Production  
- HTR 364  
  Dining Room Service  
- HTR 365  
  Menu Design & Development  
- HTR 368  
  Hotel Operations  
- HTR 375  
  Events Management  
- HTR 385  
  Private Club Management  
- HTR 400  
  Catering Management  
- HTR 408  
  Convention and Meeting Management  
- HTR 468  
  Hotel Management  
- HTR 475  
  Research Methods in Hospitality

<table>
<thead>
<tr>
<th>All College Electives</th>
<th>12–39 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Required Credit Hours</td>
<td>120 cr</td>
</tr>
</tbody>
</table>

**INDIVIDUALIZED STUDIES (B.S.)***

BS-UC INS  
Continuing Professional Studies  
University College  
Bachelor of Science (HEGIS 4901)  
Cleveland Hall 210 (716) 878-5907  
South Wing 310 (716) 878-5303

The individualized studies program provides students with a vehicle to design their own unique programs of study.
The program allows students to investigate a theme, an issue, a problem, or a particular career interest and to formulate a specific curriculum accordingly. Individualized studies provide appreciable academic advisement so that students can integrate and synthesize several academic fields.

The program offers students a choice between two distinct options. Students may combine any two compatible minor programs (Track I) or develop their own programs of study by drawing upon the offerings of two to four different academic fields (Track II). Students in both tracks complete all collegewide degree expectations: the Intellectual Foundations requirements and unrestricted electives. Both tracks require a senior-level integrating research project as a culminating degree experience. Since individualized studies is particularly attractive to working adult students, it recognizes and embraces college-level experiential learning generated outside the formal classroom.

Admission Requirements: Entering students must have a minimum 2.3 GPA and must expect to complete a minimum of 36 credit hours under individualized studies advisement once accepted into the major.

*Evening study available.

Industrial Technology (B.S.)*

BS-SP TEC  
Engineering Technology Department  
Bachelor of Science (HEGIS 0925)  
Accreditation: Association of Technology Management and Applied Engineering (ATMAE.org)  
http://www.ATMAE.org)  
Technology Building 126 (716) 878-6018

The industrial technology program, through its two concentrations, provides students with the opportunity to develop a specialty within a broader framework of technical operations knowledge. By selecting the manufacturing concentration, the student specializes in direct manufacturing support of a technical or managerial nature. Knowledge of management principles, physical sciences, technology of industry, and liberal arts is employed to optimize manufacturing processes, materials, and personnel. The quality concentration allows the student to develop the ability to assist the product or service organization in obtaining the maximum level of quality performance in a lean environment. This concentration requires a professional internship that places the student in a specialty position in a local organization as a culminating activity.

Program graduates have filled positions as industrial engineers, manufacturing engineers, quality-assurance specialists, directors of technology, production/lean operations managers, corporate trainers, cost estimators, purchasing managers, first line supervisors, supply chain managers, distribution supervisors, safety engineers, drafting specialists, technical writers, web masters, and technical sales and marketing specialists.

Admission Requirements: This program accepts freshmen, sophomores, and transfer students.

*Evening study available.

<table>
<thead>
<tr>
<th>Intellectual Foundations Requirements</th>
<th>39–66 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Required Credit Hours in Individualized Studies</td>
<td>39–45 cr</td>
</tr>
<tr>
<td><strong>Track I:</strong> Two minors OR <strong>Track II:</strong> Two to four academic fields, maximum of six courses per discipline</td>
<td></td>
</tr>
<tr>
<td>Culuminating Project 495 (3 cr)</td>
<td></td>
</tr>
<tr>
<td>All College Electives</td>
<td>9–42 cr</td>
</tr>
<tr>
<td>Total Required Credit Hours</td>
<td>120 cr</td>
</tr>
</tbody>
</table>

Total Required Credit Hours in Technology/Core Studies  

<table>
<thead>
<tr>
<th>A. Manufacturing Concentration¹</th>
<th>39–66 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEC 101</td>
<td>Technical Drawing</td>
</tr>
<tr>
<td>TEC 201</td>
<td>Materials Processing</td>
</tr>
<tr>
<td>TEC 311</td>
<td>Materials Science and Testing</td>
</tr>
<tr>
<td>TEC 312</td>
<td>Materials Management</td>
</tr>
<tr>
<td>TEC 313</td>
<td>Statistical Quality Control</td>
</tr>
<tr>
<td>TEC 314</td>
<td>Electromechanics</td>
</tr>
<tr>
<td>TEC 402</td>
<td>Ergonomics</td>
</tr>
<tr>
<td>TEC 403</td>
<td>Systems Analysis</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Quality Concentration¹</th>
<th>18 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 307</td>
<td>Communication and Group Processes</td>
</tr>
<tr>
<td>MAT 311</td>
<td>Introductory Probability and Statistics</td>
</tr>
<tr>
<td>TEC 200W</td>
<td>Total Quality Management</td>
</tr>
<tr>
<td>TEC 321</td>
<td>Measurement Systems</td>
</tr>
<tr>
<td>TEC 323</td>
<td>Quality Improvement Through Design of Experiments</td>
</tr>
<tr>
<td>TEC 488</td>
<td>Quality Internship</td>
</tr>
</tbody>
</table>

¹Student selects either the manufacturing or quality concentration.

Total Required Credit Hours in Other Fields for Accreditation  

| Core Math (3) | Pre-Calculus Mathematics |
| Core Chemistry (3) | General Physics I |
| MAT 124 |  |
| PHY 107 |  |

All College Electives  

Total Required Credit Hours  

12 cr

120 cr

Interior Design (B.F.A.)

BFA-AH INT  
Interior Design Department  
Bachelor of Fine Arts (HEGIS 1009)
The Interior Design B.F.A. degree offers students a specialized studio-oriented education in preparation for advanced or graduate studies, or for beginning careers as professional interior designers. Students gain a thorough knowledge of design processes and technical skills, including computer-aided design and traditional drafting and rendering. Construction methods, lighting design, materials specification, and color use are emphasized to support specializations within the major. Studios offer design exploration in spatial experimentation, residential design, retail design, public buildings, office planning, and industry standards for sustainable design principles, and culminates in the Undergraduate Thesis Project. Students enrolled in a studio course are expected to work a minimum of two additional hours each week outside of class for each credit granted for that class.

Interior design graduates are prepared for careers in independent practice and employment in interior design and architectural firms, institutions, corporations, and other settings. Following completion of this program, plus two years interior design work experience, students are eligible to apply and sit for the professional, nationally recognized NCIDQ (National Council for Interior Design Qualification) licensing exam. They may then apply for a "Certified Interior Designer" designation and the right to practice in New York State.

The Interior Design Department is committed to the intellectual, personal, and professional growth of the students. Through varied and increasingly complex coursework, coupled with a strong community-based project component, the students and faculty have and will continue to enhance the region in terms of residential, health care, and commercial designs, as well as culturally sensitive and public-interest projects. These projects connect the students, faculty, and community in a dynamic relationship, inspire students to expand their horizons, and create life-long learners. The program is rigorous and comprehensive, resulting in professional and innovative designers actively sought after by regional and national employers.

Requirements for Acceptance to Major:

1. Successful completion of the Skills Competency Exam following IDE 151, IDE 152, and IDE 153. The one-day exam evaluates entry-level ability to visualize, design, and communicate spatial solutions to a simple problem through scaled drafting, rendering, and model-building.
2. A minimum cumulative GPA of 2.6 after the freshman year.
3. Transfer Students: Acceptance to the major is determined after reviewing a portfolio of work during an interview with the chair of the Interior Design Department; transcripts are evaluated on a case-by-case basis.
Career Opportunities: Students prepare for careers as reporters, anchors, commentators, and news directors for radio, television, and internet-based media, and as reporters, editors, and columnists on newspapers, magazines, blogs, and other digital media. The profile of a successful journalism graduate is a person with a strong writing proficiency and a compelling use of language, good speaking and listening skills, keen ethical insight and legal awareness, and competence in presentation of information in a particular format (written, visual, and/or digital).

Admission Requirements: Incoming freshmen and transfer students can declare the major. A 2.6 GPA in the major is needed to register for required upper division courses (300 and 400 levels).

See www.buffalostate.edu/communication for application forms and additional information, including a list of equivalent core courses at community colleges. Transfer students from two-year schools may apply only core courses toward this major for a maximum of 12 credits. Students generally require four semesters of study after completing communication core courses.

Academic Standards: Only grades of C or higher may be applied toward requirements for any communication degree; courses with lower grades must be repeated. Consistent with standards of the Accrediting Council for Education in Journalism and Mass Communication, the number of communication courses that students may take is capped, encouraging a broad-based liberal arts education. The department encourages students to take minors or second majors, and requires evidence of an academic concentration or area of expertise outside the Communication Department.

Intellectual Foundations Requirements

- 39–66 cr

Total Required Journalism Courses

- 42 cr

A. Communication Core (12 cr)
- COM 100 Media Literacy
- COM 210 Converged Media Writing
- COM 215 Introduction to Visual Communication
- SPC 205 Introduction to Oral Communication

Note: Students must have a minimum GPA of 2.6 in the major to register for certain upper-division courses (300- and 400-level).

B. Major Requirements (21 cr)
- COM 302 Principles of Journalism
- COM 303 Print News I: Reporting
- COM 312 Basic Media Production
- COM 337 Electronic News I: Producing
- COM 325 Feature Writing or COM 338 or Electronic News II: Reporting
- COM 400 Communication Law
- COM 405 Online Newsroom

C. Senior Seminar (3 cr)
- COM 450 Communication and Society

D. Communication Electives (6 cr)
- COM 488 Internship
- or COM 495 or Independent Project
- or COM 499 or Independent Study
- or 300/400-level elective by advisement

LEADERSHIP

LDR
Center for Studies in Creativity
Leadership Minor Program
Chase Hall 244 (716) 878-4861

The leadership minor program is designed for all students interested in studying and applying leadership theory and practice. The leadership minor supports the mission of Buffalo State in preparing a diverse population of students for leadership roles and responsibilities in a challenging world. The minor serves as a nexus for connecting and integrating the insights of a variety of disciplines in understanding the complex phenomenon of leadership. Out of multiple modes of inquiry, students acquire frameworks that guide creative and critical thinking, and inform the practice of leadership in relevant contexts.

Total Required Credit Hours in Leadership

- 18 cr

A. Required Courses (12 cr)
- CRS/UNC 201 Foundations of Leadership
- CRS 302 Creative Approaches to Problem Solving
- CRS 303 Creative Leadership through Effective Facilitation
- CRS/UNC/BUS 415 Experiences in Leadership (capstone course)

B. Electives (6 cr)
Electives must be chosen from two different skill areas (Ability to Interact Socially, Critical Evaluation and Systematic Thinking, Empowerment, or Diversity) identified as critical to effective leadership. One of the chosen electives must be an upper-level elective. Select two classes from the following:

Ability to Interact Socially
- ENG 300W Writing for the Professions
- SPC 205 Introduction to Oral Communication
- SPC 306 Public Speaking*
- SPC 311 Intercultural Communication
- SWK 105 Interpersonal Relations

Critical Evaluation and Systematic Thinking
- BUS 360 Principles of Management
- PHI 103 Introduction to Logic
- PHI 310 History of Ethics*
- SOC 240 Analyzing Social Problems
- SPC 321 Rhetorical Criticism

Empowerment
- BUS 426 Creative Opportunities in Leadership and Management Practices
- PSY 365 Psychology in the Workplace*
- SOC 331 Sociology of Group Dynamics*
- SPC 205 Introduction to Oral Communication
- SPC 307 Group Communication*

Diversity
- BUS 305 Workforce Diversity in the 21st Century
- HIS/SSE 363 American Identity in Transition: Diversity and Pluralism in the United States
- PSC 230 International Relations

All College Electives

- 12–39 cr

Total Required Credit Hours

- 120 cr
**MATHEMATICS (B.A.)**

*Indicates courses with prerequisites

**BA-NS MAT**  
Mathematics Department  
Bachelor of Arts (HEGIS 1701)  
Bishop Hall 317 (716) 878-5621

**Admission Requirements:** High school mathematics through Regents Course III is recommended.

<table>
<thead>
<tr>
<th>Intellectual Foundations Requirements</th>
<th>45-51 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Required Credit Hours in Mathematics</td>
<td>44 cr</td>
</tr>
</tbody>
</table>

**A. Required Courses (38 cr)**
- MAT 161 Calculus I (4)
- MAT 162 Calculus II (4)
- MAT 163 Using Technology to Explore Calculus I (1)
- MAT 164 Using Technology to Explore Calculus II (1)
- MAT 202 Introduction to Linear Algebra
- MAT 263 Calculus III
- MAT 264 Using Technology to Explore Calculus III (1)
- MAT 270 Discrete Mathematics I
- MAT 301 Fundamentals of Abstract Algebra
- MAT 381 Probability Theory
- MAT 417 Introduction to Real Analysis I
- MAT 491 Capstone Research in Mathematics

**B. Electives Selected by Advisement (12 cr)**
*Select four courses from the following:*
- MAT 300 Techniques of Proof
- MAT 302 Abstract Algebra II
- MAT 309 Discrete Mathematics II
- MAT 315 Differential Equations
- MAT 316 Intermediate Differential Equations
- MAT 322W Modern Geometry
- MAT 351 Elementary Theory of Numbers
- MAT 366 Computational Tools for Applied Mathematicians II
- MAT 370 Applied Networks
- MAT 382 Mathematical Statistics
- MAT 383 Applied Statistics I
- MAT 401 Introduction to Computability
- MAT 404 Applications of Linear Algebra
- MAT 411 Complex Variables
- MAT 418 Introduction to Real Analysis II
- MAT 431 Mathematical Logic
- MAT 461 Numerical Analysis
- MAT 471 Introduction to Topology
- MAT 481 Stochastic Processes
- MAT 490 Seminar
- MAT 495 Special Project
- MAT 499 Independent Study

**All College Electives**  
25–31 cr

**Total Required Credit Hours**  
120 cr

---

**MATHEMATICS—APPLIED (B.S.)**

**BS-NS AMT**  
Mathematics Department  
Bachelor of Science (HEGIS 1703)  
Bishop Hall 317 (716) 878-5621

The applied mathematics B.S. program is directed toward a career goal for computer- and mathematics-related government, industrial, or business employment. It may also provide a basis for entry into graduate school in mathematics, applied mathematics, computer science, or other related disciplines.

**Admission Requirements:** Four years of college preparatory mathematics is recommended.

<table>
<thead>
<tr>
<th>Intellectual Foundations Requirements</th>
<th>39–66 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Required Credit Hours in Mathematics</td>
<td>53 cr</td>
</tr>
</tbody>
</table>

**A. Required Courses (35 cr)**
- MAT 161 Calculus I (4)
- MAT 162 Calculus II (4)
- MAT 163 Using Technology to Explore Calculus I (1)
- MAT 164 Using Technology to Explore Calculus II (1)
- MAT 202 Introduction to Linear Algebra
- MAT 241 Computational Tools for Applied Mathematicians I
- MAT 263 Calculus III
- MAT 264 Using Technology to Explore Calculus III (1)
- MAT 270 Discrete Mathematics I
- MAT 366 Computational Tools for Applied Mathematicians II
- MAT 381 Probability Theory
- MAT 382 Mathematical Statistics
- MAT 495 Special Project

**B. Concentration Courses Selected by Advisement (18 cr)**
*Students must choose one of three concentrations:*

**Concentration in Statistics**

**Required Courses (6 cr)**
- MAT 383 Applied Statistics I
- MAT 484 Applied Statistics II

**Select four courses from the following (18 cr):**
- MAT 315 Differential Equations
- MAT 316 Intermediate Differential Equations
- MAT 319 Mathematical Biology
- MAT 370 Applied Networks
MAT 390 Introduction to Operations Research
MAT 404 Applications of Linear Algebra
MAT 411 Complex Variables
MAT 417 Introduction to Real Analysis I
MAT 461 Numerical Analysis
MAT 481 Stochastic Processes
MAT 490 Seminar
MAT 499 Independent Study

Concentration in Numeric Computation
Required Courses (6 cr)
MAT 390 Introduction to Operations Research
MAT 461 Numerical Analysis

Select four courses from the following (18 cr):
MAT 315 Differential Equations
MAT 316 Intermediate Differential Equations
MAT 318 Mathematical Modeling
MAT 319 Mathematical Biology
MAT 370 Applied Networks
MAT 383 Applied Statistics I
MAT 404 Applications of Linear Algebra
MAT 411 Complex Variables
MAT 417 Introduction to Real Analysis I
MAT 471 Introduction to Topology
MAT 481 Stochastic Processes
MAT 490 Seminar
MAT 499 Independent Study

Concentration in Computational Discrete Mathematics
Required Courses (6 cr)
MAT 318 Mathematical Modeling
MAT 390 Introduction to Operations Research

Select four courses from the following (18 cr):
MAT 315 Differential Equations
MAT 316 Intermediate Differential Equations
MAT 319 Mathematical Biology
MAT 370 Applied Networks
MAT 383 Applied Statistics I
MAT 401 Introduction to Computability
MAT 404 Applications of Linear Algebra
MAT 411 Complex Variables
MAT 417 Introduction to Real Analysis I
MAT 461 Numerical Analysis
MAT 481 Stochastic Processes
MAT 490 Seminar
MAT 499 Independent Study

All College Electives 1-28 cr

Total Required Credit Hours 120 cr
The Mathematics Education major prepares students for a career in teaching mathematics. This program includes the course requirements leading to New York State initial certification to teach mathematics in grades 5–12.

**Admission Requirements:** Four years of college preparatory mathematics is recommended.

**Intellectual Foundations Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>39–66 cr</td>
</tr>
</tbody>
</table>

**Total Required Credit Hours in Mathematics** 41 cr

**A. Required Courses (32 cr)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 161</td>
<td>Calculus I (4)</td>
</tr>
<tr>
<td>MAT 162</td>
<td>Calculus II (4)</td>
</tr>
<tr>
<td>MAT 163</td>
<td>Using Technology to Explore Calculus I (1)</td>
</tr>
<tr>
<td>MAT 164</td>
<td>Using Technology to Explore Calculus II (1)</td>
</tr>
<tr>
<td>MAT 202</td>
<td>Introduction to Linear Algebra</td>
</tr>
<tr>
<td>MAT 263</td>
<td>Calculus III</td>
</tr>
<tr>
<td>MAT 264</td>
<td>Using Technology to Explore Calculus III (1)</td>
</tr>
<tr>
<td>MAT 270</td>
<td>Discrete Mathematics I</td>
</tr>
<tr>
<td>MAT 301W</td>
<td>Fundamentals of Abstract Algebra</td>
</tr>
<tr>
<td>MAT 322W</td>
<td>Modern Geometry</td>
</tr>
<tr>
<td>MAT 325</td>
<td>Probability and Statistics</td>
</tr>
<tr>
<td>MAT 417</td>
<td>Introduction to Real Analysis I</td>
</tr>
</tbody>
</table>

**B. Electives (9 cr)**

Select three courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 302</td>
<td>Abstract Algebra II</td>
</tr>
</tbody>
</table>

**Total Required Credit Hours** 123 cr

**MATHEMATICS EDUCATION (7–12, 5–6 EXTENSION, B.S.)**

**BS-NS MTS**

Mathematics Department

Bachelor of Science (HEGIS 1701.01)

National Council for Accreditation of Teacher Education (NCATE) Accredited

Bishop Hall 317 (716) 878-5621

For information about this program, see the Graduate Catalog.
**Mathematics Education (7–12, 5–6 Extension; PTCP)**

PBC-NS MTX
Mathematics Department
Postbaccalaureate Teacher Certification Program (HEGIS 1701.01)
National Council for Accreditation of Teacher Education (NCATE) Accredited
Bishop Hall 317 (716) 878-5621
For information about this program, see the Graduate Catalog.

Mechanical Engineering Technology (B.S.)*
BS-SP MET

Engineering Technology Department
Bachelor of Science (HEGIS 0925)
Technology Accreditation Commission/Accreditation Board for Engineering and Technology (TAC/ABET) Accredited**
Technology Building 126 (716) 878-6017
The bachelor’s degree in the mechanical engineering technology program is designed to give the student a broad education in the areas of mechanical design, mechanics, stress analysis, thermosciences, and manufacturing. Graduates are in high demand and are employed by manufacturing companies, consulting firms, government agencies, testing laboratories, and other enterprises that require people with strong mechanically oriented backgrounds. Graduates work as mechanical designers developing new products, manufacturing supervisors solving problems of producing these products for performance or quality, as plant engineers improving or maintaining factories, and in technical sales selling these products. The duties of technologists may involve overseeing installation, operation, maintenance, and repair to ensure that machines and equipment are installed and functioning according to specifications; specifying system components; supervising drafters in developing the design of products; testing and evaluating products; and/or developing cost estimates.
*Evening study available.

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENT 102</td>
<td>Intro. Equat. Solve</td>
</tr>
<tr>
<td>ENT 202</td>
<td>Intro. Engineering Econ.</td>
</tr>
<tr>
<td>ENT 301</td>
<td>Mechanics I</td>
</tr>
<tr>
<td>ENT 302</td>
<td>Mechanics II</td>
</tr>
<tr>
<td>ENT 303</td>
<td>Kinematics</td>
</tr>
<tr>
<td>ENT 311</td>
<td>Thermodynamics</td>
</tr>
<tr>
<td>ENT 312</td>
<td>Fluid Mechanics</td>
</tr>
<tr>
<td>ENT 314</td>
<td>Solid Modeling</td>
</tr>
<tr>
<td>ENT 331</td>
<td>Electrical Circuits and Devices I</td>
</tr>
<tr>
<td>ENT 335 or 371</td>
<td>Industrial Electronics</td>
</tr>
<tr>
<td>ENT 371</td>
<td>Electric Machines</td>
</tr>
<tr>
<td>ENT 401</td>
<td>Stress Analysis</td>
</tr>
<tr>
<td>ENT 402</td>
<td>Shock and Vibration Analysis</td>
</tr>
</tbody>
</table>

Intellectual Foundations Requirements 63-75 cr

Electives 0-10 cr

The following accreditation requirements can be included in the Intellectual Foundations requirements and electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 101 or CHE 111</td>
<td></td>
</tr>
<tr>
<td>CHE 102 or CHE 111</td>
<td></td>
</tr>
<tr>
<td>CIS 151</td>
<td></td>
</tr>
<tr>
<td>MAT 110 or MAT 124 or MAT 311</td>
<td></td>
</tr>
<tr>
<td>MAT 126 or MAT 161</td>
<td></td>
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<tr>
<td>MAT 127 or MAT 162</td>
<td></td>
</tr>
<tr>
<td>MAT 315 or ENT 300</td>
<td></td>
</tr>
<tr>
<td>PHY 107 or PHY 111</td>
<td></td>
</tr>
<tr>
<td>PHY 108 or PHY 112</td>
<td></td>
</tr>
<tr>
<td>SPC 205</td>
<td></td>
</tr>
</tbody>
</table>

Total Required Credit Hours 124 cr

**Technology Accreditation Commission/Accreditation Board for Engineering and Technology Inc. (TAC/ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202, (410) 347-7700.

**Media Production (B.A.)**

BA-AH MDP
Communication Department
Bachelor of Arts (HEGIS 0603)
Accrediting Council on Education in Journalism and Mass Communications (Accredited)
Bishop Hall 210 (716) 878-6008

This major (formerly called broadcasting) allows students flexibility to tailor a program based on production of audio and/or visual messages using various electronic media. It meets the needs of students preparing for a career integrating many elements: research, planning, writing and other aspects of preproduction; studio and field experience in technical production; post-production activities, such as editing; and media management areas. Compare this major with communication studies, journalism, and public communication.

This is the only program in broadcasting and production at any SUNY school that is affiliated with the Accrediting Council on Education in Journalism and Mass Communications. Only four other undergraduate programs in New York State are accredited.

Career Opportunities: Students in media production prepare for careers in radio or audio production, television or video production, Web design, music production, media sales and management, related technical areas, and other fields that require a liberal arts education enhanced with production skills. Specific job titles associated with this major include writer, producer, director, videographer, editor, Web designer, and production manager.

The profile of a successful media production graduate is a person with strong skills in using computers, cameras, and other technical equipment, writing and speaking proficiency, keen ethical insight, analytical and creative competence, and management abilities.
### Admission Requirements:
Incoming freshmen and transfer students can declare the major. A 2.6 GPA in the major is needed to register for required upper-division courses (300- and 400-level).

See www.buffalostate.edu/communication for application forms and additional information, including a list of equivalent core courses at community colleges. Transfer students from two-year schools may apply only core courses toward this major for a maximum of 12 credits. Students generally require four semesters of study after completing communication core courses.

### Academic Standards:
Only grades of C or higher may be applied toward requirements for any communication degree; courses with lower grades must be repeated. Consistent with standards of the Accrediting Council for Education in Journalism and Mass Communication, the number of communication courses that students may take is capped, encouraging a broad-based liberal arts education. The department encourages students to take minors or second majors, and requires evidence of an academic concentration or area of expertise outside the Communication Department.

<table>
<thead>
<tr>
<th>Intellectual Foundations Requirements</th>
<th>39–66 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Required Credit Hours in Media Production</strong></td>
<td>42 cr</td>
</tr>
</tbody>
</table>

#### A. Communication Core (12 cr)
- COM 100 Media Literacy
- COM 210 Converged Media Writing
- COM 215 Introduction to Visual Communication
- SPC 205 Introduction to Oral Communication

Note: Students must have a minimum GPA of 2.6 in the major to register for certain upper-division courses (300- and 400-level).

#### B. Major Requirements (21 cr)
- COM 304 Writing for Broadcast
- COM 312 Basic Media Production
- COM 317 Media Management
- COM 328 Intermediate Audio Production
- COM 329 Intermediate Video Production

Two of the following six courses:
- COM 428 Advanced Audio Production
- COM 429 Advanced Multicamera Studio Production
- COM 431 Advanced Field Production
- COM 432 Advanced Postproduction
- COM 433 Advanced Television Documentary Production
- COM 434 Advanced Video Production Practicum

#### C. Senior Seminar (3 cr)
- COM 450 Communication and Society

#### D. Communication Electives (6 cr)
- COM 488 Internship
- COM 495 Independent Project
- COM 499 Independent Study

<table>
<thead>
<tr>
<th>All College Electives</th>
<th>12–39 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Required Credit Hours</strong></td>
<td>120 cr</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Intellectual Foundations Requirements</th>
<th>39–66 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Required Credit Hours in Metal/Jewelry Design</strong></td>
<td>79 cr</td>
</tr>
</tbody>
</table>

#### A. Foundation Courses (37 cr)
- DES 101 Introduction to Design: 2D I
- DES 103 Introduction to Design: 3D I

**BFA-AH MJD**
Design Department
Bachelor of Fine Arts (HEGIS 1009)
National Association of Schools of Art and Design (NASAD) Accredited
Upton Hall 212 (716) 878-6032

The B.F.A. degree in metals/jewelry design is a studio-intensive program of study focused on developing the aesthetic, conceptual, and technical skills necessary to foster creativity as students work toward developing their individual identities as visual designers/artists. This degree offers students a specialized studio-oriented education in preparation for advanced or graduate studies, or for beginning careers as professional designers or artists.

Students begin with foundation courses in two-dimensional design, three-dimensional design, drawing, art history, and design history along with courses in ceramics, fibers, and wood. Major courses in metals/jewelry design and sculpture complete the requirements. Internship opportunities are available. The remaining credit hours are completed in required Intellectual Foundations courses and in other chosen studio courses.

**Admission Requirements:** There is no entrance portfolio review for admission. All students will enter the metals/jewelry design major as a bachelor of science (BS-AH MJD) and complete a selection of foundation and major course(s) before a commit-to-major portfolio review for admission into the bachelor of fine arts program (BFA-AH MJD). Commit-to-major portfolio reviews are conducted by faculty and generally take place during the sophomore year. After passing the portfolio review, to continue in the B.F.A. degree program a 3.0 GPA must be maintained in the major. Transfer students are urged to submit their portfolios the semester before transfer in order to facilitate placement in departmental courses and/or for possible commit-to-major portfolio review. Please call the Design Department for additional information. As a condition for graduation, each B.F.A. student will be required to mount an individual exhibition of his/her work. The Design Department reserves the right to retain students’ work for official purposes, such as exhibitions, catalogs, teaching aids, or permanent collections and to use images of the students and their work for publicity and recruitment. Students are expected to assume the costs of materials used in courses. Some studio courses may have an additional charge for materials used in class. Students enrolled in a studio course are expected to work a minimum of two additional hours each week outside of class for each credit granted for that class.

The Design Department may be in the process of curricular revision. Please refer to the college Web site or the department for updated information.
The B.S. degree in metals/jewelry design major as a bachelor of science (BS-AH MJD) and complete a selection of foundation and major course(s) before a commit-to-major portfolio review for continuation in the B.S. degree program. Commit-to-major portfolio reviews are conducted by faculty and generally take place during the sophomore year. After passing the portfolio review, to continue in the B.S. degree program a 2.5 GPA must be maintained in the major. Transfer students are urged to submit their portfolios the semester before transfer in order to facilitate placement in departmental courses and/or for possible commit-to-major portfolio review. Please call the Design Department for additional information.

The Design Department reserves the right to retain students’ work for official purposes, such as exhibitions, catalogs, teaching aids, or permanent collections, and to use images of the students and their work for publicity and recruitment. Students are expected to assume the costs of materials used in courses. Some studio courses may have an additional charge for materials used in class. Students enrolled in a studio course are expected to work a minimum of two additional hours each week outside of class for each credit granted for that class.

Admission Requirements: There is no entrance portfolio review for admission. All students will enter the metals/jewelry design major as a bachelor of science (BS-AH MJD) and complete a selection of foundation and major course(s) before a commit-to-major portfolio review. Total Required Credit Hours is 120-145 cr.

Metals/Jewelry (B.S.)

BS-AH MJD
Design Department
Bachelor of Science (HEGIS 1009)
National Association of Schools of Art and Design (NASAD) Accredited
Upton Hall 212 (716) 878-6032

The B.S. degree in metals/jewelry design is a studio degree with a strong academic component. This degree offers students a broadly grounded educational experience as a basis for beginning careers as professional designers or artists.

Students begin with foundation courses in two-dimensional design, three-dimensional design, drawing, and design history, along with courses in ceramics, fibers, and wood. Major courses in metal/jewelry design focus on developing the aesthetic, conceptual, and technical skills necessary to foster creativity as students work toward developing their individual identities as visual designers/artists. Internship opportunities are available. The remaining credit hours are completed in required Intellectual Foundations courses and in other academic subjects of the student’s choosing. The academic component offers opportunities to gain a broader base of knowledge, as well as knowledge in other disciplines related to the major field of study.

Music (B.A.)

BA-AH MUS
Music Department
Bachelor of Arts (HEGIS 1005)
National Association of Schools of Music (Accredited)
Rockwell Hall 203 (716) 878-6401

The Music major is a liberal arts program that provides students with the broad knowledge and skills to enjoy a lifetime of music, integrate music into a career, and, in some cases, perform as a vocalist or instrumentalist.
For current information regarding policies and procedures for music program acceptance, continuance, and completion, visit www.buffalostate.edu/music/documents/handbook.pdf.

**Intellectual Foundations Requirements** 39–66 cr

**Total Required Credit Hours in Musicianship** 43 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 122</td>
<td>Introduction to Music Studies (2)</td>
</tr>
<tr>
<td>MUS 206</td>
<td>Foundations of American Popular Music</td>
</tr>
<tr>
<td>MUS 218</td>
<td>Aural Perception I (1)</td>
</tr>
<tr>
<td>MUS 219</td>
<td>Aural Perception II (1)</td>
</tr>
<tr>
<td>MUS 230</td>
<td>Music Theory I</td>
</tr>
<tr>
<td>MUS 231</td>
<td>Music Theory II</td>
</tr>
<tr>
<td>MUS 302</td>
<td>Music History: Antiquity–Baroque</td>
</tr>
<tr>
<td>MUS 303</td>
<td>Music History: Classic–Modern</td>
</tr>
<tr>
<td>MUS 318</td>
<td>Aural Perception III (1)</td>
</tr>
<tr>
<td>MUS 319</td>
<td>Aural Perception IV (1)</td>
</tr>
<tr>
<td>MUS 321</td>
<td>Composition, Improvisation, and Arranging (2)</td>
</tr>
<tr>
<td>MUS 330</td>
<td>Music Theory III</td>
</tr>
<tr>
<td>MUS 331</td>
<td>Music Theory IV</td>
</tr>
<tr>
<td>MUS 440</td>
<td>Ethnomusicology</td>
</tr>
<tr>
<td>MUS 495</td>
<td>Capstone Project (1)</td>
</tr>
</tbody>
</table>

**Total Required Credit Hours in Musical Performance** 10 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 171</td>
<td>Applied Instruction (4 semesters; 4 cr)</td>
</tr>
<tr>
<td>MUS 173</td>
<td>Applied Instruction (4 semesters; 4 cr)</td>
</tr>
<tr>
<td>271</td>
<td>Applied Instruction (4 semesters; 4 cr)</td>
</tr>
<tr>
<td>273</td>
<td>Applied Instruction (4 semesters; 4 cr)</td>
</tr>
<tr>
<td>MUS 290</td>
<td>Ensemble Requirements (6 semesters; 6 cr)</td>
</tr>
<tr>
<td>MUS 314</td>
<td>Ensemble Requirements (6 semesters; 6 cr)</td>
</tr>
<tr>
<td>MUS 335</td>
<td>Ensemble Requirements (6 semesters; 6 cr)</td>
</tr>
</tbody>
</table>

**Music Electives** 10 cr

**All College Electives (Not Music)** 1–28 cr

**Total Required Credit Hours** 120 cr

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**Music Education (Pre-K–12, B.Mus.)**

**MUSB-AH MUE**
Music Education in Music Department
Bachelor of Music (HEGIS 1005)
National Association of Schools of Music (Accredited)
Rockwell Hall 203 (716) 878-6401

The Music Education program leads to a New York State Initial Certificate for teaching general, vocal, and instrumental music in New York State schools at the pre-kindergarten through grade 12 levels. The program requires intensive study in music performance, music history, music theory, and methodology of teaching, with an emphasis on world music and urban culture. For current information regarding policies and procedures for music program acceptance, continuance, and completion, visit www.buffalostate.edu/music/documents/handbook.pdf.

**Intellectual Foundations Requirements** 39–66 cr

**Total Required Credit Hours in Basic Musicianship and Performance** 70 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 171</td>
<td>Applied Instruction (7 semesters; 7 cr)</td>
</tr>
<tr>
<td>173</td>
<td>Applied Instruction (7 semesters; 7 cr)</td>
</tr>
<tr>
<td>MUS 271</td>
<td>Applied Instruction (7 semesters; 7 cr)</td>
</tr>
</tbody>
</table>

**Total Required Credit Hours in Professional Education** 30 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPF 203</td>
<td>School and Society</td>
</tr>
<tr>
<td>SPF 303</td>
<td>Educational Psychology</td>
</tr>
<tr>
<td>SPF 403</td>
<td>Historical and Philosophical Forces Influencing Secondary Education</td>
</tr>
<tr>
<td>EDU 211</td>
<td>Introduction to Literacy Instruction</td>
</tr>
<tr>
<td>EDU 416</td>
<td>Teaching Literacy in Middle and Secondary Schools</td>
</tr>
<tr>
<td>EXE 100</td>
<td>Nature and Needs of Individuals with Special Needs</td>
</tr>
<tr>
<td>MUS 457</td>
<td>Elementary Student Teaching (5)</td>
</tr>
<tr>
<td>MUS 458</td>
<td>Secondary Student Teaching (5)</td>
</tr>
<tr>
<td>MUS 460</td>
<td>Student Teaching Seminar (2)</td>
</tr>
</tbody>
</table>

In addition to the course requirements for music education majors, the class piano sequence is strongly recommended in the freshman and sophomore years of study:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 161</td>
<td>Class Piano I (1)</td>
</tr>
<tr>
<td>MUS 162</td>
<td>Class Piano II (1)</td>
</tr>
<tr>
<td>MUS 261</td>
<td>Class Piano III (1)</td>
</tr>
<tr>
<td>MUS 262</td>
<td>Class Piano IV (1)</td>
</tr>
</tbody>
</table>

**Total Required Credit Hours** 139 cr
PAINTING (B.F.A.)

BFA-AH PTG
Fine Arts Department
Bachelor of Fine Arts (HEGIS 1002)
National Association of Schools of Art and Design (NASAD) Accredited
Upton Hall 502 (716) 878-6014

All freshmen and transfer students enter the B.F.A. program through required portfolio review. Those admitted as freshmen or as transfers with fewer than four semesters in college must be examined for the major prior to their last four semesters in the program. Students admitted as upper-division transfers must be examined for the major at the end of the first semester in the program.

The application for a major is the most critical evaluation in the program. Eligibility will be determined by a two-member faculty committee on the basis of an interview with the student and a review of his or her portfolio. Each B.F.A. student will be required to mount an individual exhibition of his or her work. It will be planned and installed with the advice of the student’s faculty adviser, but no grade will be assigned. The Fine Arts Department reserves the right to retain students’ artwork for official purposes, such as exhibits, catalogs, or teaching aids.

Admission Requirements: Admission to the B.F.A. program is based on an interview and portfolio examination by the Fine Arts Department. The portfolio is to be presented in person or mailed along with a statement of intent as stipulated by the department and should contain examples of work that the candidate believes best display his or her abilities.

Students are expected to assume the costs of materials they use in their courses. All studio courses may have an additional instructional charge for materials used in class. Students enrolled in a studio course are expected to work a minimum of two additional hours each week outside of class for each credit granted for that class.

Intellectual Foundations Requirements 39–66 cr
Total Required Credit Hours in Fine Arts 78 cr

A. Required Courses (45 cr)
   - FAR 101 Intermediate Painting I
   - FAR 102 Intermediate Painting II
   - FAR 103 Intermediate Painting III
   - FAR 104 Intermediate Painting IV
   - FAR 105 Intermediate Painting V
   - FAR 106 Intermediate Painting VI

B. Painting Courses (21 cr)
   - FAR 311 Intermediate Painting I
   - FAR 312 Intermediate Painting II

C. Art Electives (12 cr)
   - All College Electives 0–3 cr

Total Required Credit Hours 120-145 cr

PHILOSOPHY (B.A.)

BA-AH PHI
Philosophy and Humanities Department
Bachelor of Arts (HEGIS 1509)
Bishop Hall 231 (716) 878-5136

The B.A. degree in Philosophy is fundamental to liberal education, especially in its emphasis on careful, critical thinking. It challenges students to examine their societal and personal beliefs and values so that they are more creatively and responsibly chosen. To the extent that philosophy emphasizes foundational issues, it also helps in the study of other disciplines. Philosophy majors are well prepared for law school and other specializations requiring a liberal education, including graduate studies in philosophy. The department also offers a minor in religious studies that deepens students’ understanding of various religious traditions, and their own views about the nature and meaning of religion.

A departmental Honors program is also available. Students should contact the department chair for additional information.

Intellectual Foundations Requirements 39–66 cr
Total Required Credit Hours in Philosophy 30 cr

A. Required Courses (12 cr)
   - PHI 101 Introduction to Philosophy
   - PHI 102 Introduction to Ethics
   - PHI 110 Meaning of Life
   - PHI 204 Philosophy of Religion
   - PHI 207 Philosophy in Literature
   - PHI 210 Existentialism
   - PHI 300 Problems of Philosophy
   - PHI 301 History of Political Philosophy
   - PHI 302 Philosophy of Art and Beauty
   - PHI 304 Philosophy of Law
   - PHI 305 Philosophy of Language
   - PHI 308 Philosophy of Love and Sex
   - PHI 309 Knowledge and Justification
   - PHI 310 History of Ethics
   - PHI 312 Philosophy of Mind
   - PHI 314 Contemporary Ethics

Select six courses from the following:

- PHI 101 Introduction to Philosophy
- PHI 102 Introduction to Ethics
- PHI 110 Meaning of Life
- PHI 204 Philosophy of Religion
- PHI 207 Philosophy in Literature
- PHI 210 Existentialism
- PHI 300 Problems of Philosophy
- PHI 301 History of Political Philosophy
- PHI 302 Philosophy of Art and Beauty
- PHI 304 Philosophy of Law
- PHI 305 Philosophy of Language
- PHI 308 Philosophy of Love and Sex
- PHI 309 Knowledge and Justification
- PHI 310 History of Ethics
- PHI 312 Philosophy of Mind
- PHI 314 Contemporary Ethics

- or Seminar in History of Philosophy
PHI 324  Zen Buddhism
PHI 333  Philosophy of Natural Sciences
PHI 334  Philosophy of Social Sciences
PHI 347  Western Thought: Homer to Alexander
PHI 351  Ethics Bowl
PHI 495  Project
PHI 499  Independent Study

All College Electives  27–54 cr

Total Required Credit Hours  120 cr

Academic Road Map for Philosophy, B.A.
http://catalog.buffalostate.edu/undergraduate/roadmaps/RMPHilosophyBA.pdf

Student Learning Outcomes for Philosophy, B.A.

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PHOTOGRAPHY (B.F.A.)

BFA-AH PHO
Fine Arts Department
Bachelor of Fine Arts (HEGIS 1011)
National Association of Schools of Art and Design (NASAD) Accredited
Upton Hall 502 (716) 878-6014

The discipline emphasized in our B.F.A. program is art photography - specifically the creation of art to be displayed in museums, sold in galleries, or published in books. Graduates of our program may also find receptive employers in advertising, and editorial illustration. A major is required to mount an individual exhibition of his or her work in their senior year. It will be planned and installed with the advice of the student's Senior Studio adviser, but no grade will be assigned.

Students are expected to assume the costs of certain materials and cameras (film and digital) needed to make photographs. Cameras and other photography equipment are not provided to do course work by the college. However, we do provide a well-equipped computer/digital-printing lab for color, a black-and-white film developing lab, and a print-enlarging lab to make traditional monochromatic silver prints. All photography courses have a materials fee. This fee covers chemistry, ink jet inks, certain ink jet papers, and some other materials. The fee does not cover film, cameras, flash equipment, and other equipment and supplies needed by all majors.

Students enrolled in a studio course are expected to work a minimum of two additional hours each week outside of class for each credit granted for that class. The study of photography in the Fine Arts emphasizes creativity, craft, and making memorable pictures. Our courses teach film and digital camera craft, traditional film developing and print enlarging, the use of electronic flash, the use of computers and ink jet printers, color management, and Photoshop as used by photographers. Some of our students go on to do graduate degrees and to teach. Our graduates include self-employed artists, freelance photographers, and teachers. The art world, advertising, photojournalism, education, and industry are some fields in which our graduates have found employment.

Admission Requirements: High school students applying for admission to the B.F.A. photography major need only state his/her intent to major in photography to be accepted to the major, assuming required G.P.A. and other college admissions standards are met. A portfolio is not required. A transfer student who has studied photography elsewhere seeking advanced placement may be accepted directly into the major, but must show a portfolio of photographs to be evaluated at the Area Coordinator's discretion, for appropriate placement here. The portfolio must contain 10, silver black-and-white, 8"x10" prints enlarged from film, and 10, 8.5"x11" color ink jet prints. These prints should represent the applicant's strongest pictures. The Fine Arts Department reserves the right to retain students' artwork for use in exhibits, catalogs, or as teaching aids.

Intellectual Foundations Requirements  39–66 cr

Total Required Credit Hours in Fine Arts  78 cr

A. Required Courses (45 cr)
   - DES 101  Two-Dimensional Design
   - FAR 101  Drawing I
   - FAR 102  Drawing II
   - FAR 103  Modeling
   - FAR 104  Themes and Issues in Contemporary Arts
   - FAR 201  Introductory Painting
   - FAR 220  Introductory Photography
   - FAR 230  Introductory Printmaking
   - FAR 240  Introductory Sculpture
   - FAR 250  Art History I
   - FAR 251  Art History II
   - FAR 350  Twentieth-Century Art
   - FAR 470  Senior Seminar in Fine Arts

   Two art history electives.

B. Photography Courses (21 cr)
   - FAR 321  Intermediate Photography I
   - FAR 322  Intermediate Photography II
   - FAR 323  Advanced Photography (three courses) (9)
   - FAR 420  Senior Studio in Photography (6)

C. Art Electives (12 cr)

All College Electives  0–3 cr

Total Required Credit Hours  120-145 cr

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PHYSICS (B.A.)

BA-NS PHY
Physics Department
Bachelor of Arts (HEGIS 1902)
Science Building 262 (716) 878-6726

The physics B.A. program provides a good concentration in physics courses and a broad distribution in the liberal arts. It prepares students for technical or technically related graduate school studies or employment.

Intellectual Foundations Requirements  39–66 cr
The physics B.S. program gives a broad background in the fundamental concepts and applications of physics. This background is appropriate for further study in graduate school, or for scientific employment in physics or physics-related fields.

Students in this program may pursue a four-year physics degree or they may choose the “three-two” option. Transfer students must take a minimum of 8 credit hours of upper-division courses, including PHY 410, in the Buffalo State Physics Department.

"Three-Two" Physics-Engineering Option
This program offers an ideal combination of basic and applied science. Students in the Cooperative (three-two) Physics-Engineering Program attend the college for three years pursuing a liberal arts curriculum in physics. After three years, students transfer to the engineering school of their choice and complete the requirements for an engineering degree in two more years. Cooperating engineering schools include Binghamton University and the University at Buffalo (both SUNY universities), and Clarkson University.

### Physics (B.S.)

**BS-NS PHY**
Physics Department
Bachelor of Science (HEGIS 1902)
Science Building 262 (716) 878-6726

<table>
<thead>
<tr>
<th>Total Required Credit Hours in Physics</th>
<th>33 cr</th>
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<tbody>
<tr>
<td><strong>A. Required Core Courses (18 cr)</strong></td>
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</tr>
<tr>
<td>PHY 111 &amp; University Physics I (or equivalent) (5)</td>
<td></td>
</tr>
<tr>
<td>PHY 112 &amp; University Physics II (or equivalent) (5)</td>
<td></td>
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<tr>
<td>PHY 213 &amp; University Physics III</td>
<td></td>
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<tr>
<td>PHY 305 &amp; Modern Atomic Physics I</td>
<td></td>
</tr>
<tr>
<td>PHY 320 &amp; Introduction to Theoretical Physics (4)</td>
<td></td>
</tr>
<tr>
<td><strong>B. Electives in Physics (13 cr)</strong></td>
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</tr>
<tr>
<td>PHY 306 &amp; Modern Physics II</td>
<td></td>
</tr>
<tr>
<td>PHY 310 &amp; Computational Physics Laboratory (2)</td>
<td></td>
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<tr>
<td>PHY 315 &amp; Heat and Thermodynamics</td>
<td></td>
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<tr>
<td>PHY 323 &amp; Statics</td>
<td></td>
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<tr>
<td>PHY 324 &amp; Electric Circuits</td>
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<tr>
<td>PHY 410 &amp; Advanced Physics Laboratory</td>
<td></td>
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<tr>
<td>PHY 425 &amp; Classical Mechanics (4)</td>
<td></td>
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<tr>
<td>PHY 435 &amp; Introduction to Quantum Mechanics</td>
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<tr>
<td>PHY 440 &amp; Electricity and Magnetism I</td>
<td></td>
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<tr>
<td>PHY 441 &amp; Electricity and Magnetism II</td>
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<table>
<thead>
<tr>
<th>Total Required Credit Hours Outside the Major</th>
<th>12 cr</th>
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<tbody>
<tr>
<td>MAT 161 &amp; Calculus I</td>
<td></td>
</tr>
<tr>
<td>MAT 162 &amp; Calculus II</td>
<td></td>
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<tr>
<td>MAT 163 &amp; Using Technology to Explore Calculus I (1)</td>
<td></td>
</tr>
<tr>
<td>MAT 164 &amp; Using Technology to Explore Calculus II (1)</td>
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</tr>
<tr>
<td>MAT 263 &amp; Calculus III</td>
<td></td>
</tr>
<tr>
<td>MAT 264 &amp; Using Technology to Explore Calculus III (1)</td>
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</tr>
</tbody>
</table>

| All College Electives | 11–38 cr |

| Total Required Credit Hours | 120 cr |

### Intellectual Foundations Requirements

<table>
<thead>
<tr>
<th>Total Required Credit Hours in Physics</th>
<th>39–66 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Required Core Courses (22 cr)</strong></td>
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</tr>
<tr>
<td>PHY 111 &amp; University Physics I (5)</td>
<td></td>
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<tr>
<td>PHY 112 &amp; University Physics II (5)</td>
<td></td>
</tr>
<tr>
<td>PHY 213 &amp; University Physics III</td>
<td></td>
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<tr>
<td>PHY 305 &amp; Modern Physics I</td>
<td></td>
</tr>
<tr>
<td>PHY 310 &amp; Computational Physics Laboratory (2)</td>
<td></td>
</tr>
<tr>
<td>PHY 320 &amp; Introduction to Theoretical Physics (4)</td>
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<tr>
<td><strong>B. Additional Required Courses for the &quot;Three-Two&quot; Option (22 cr)</strong></td>
<td></td>
</tr>
<tr>
<td>PHY 306 &amp; Modern Physics II</td>
<td></td>
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<tr>
<td>PHY 323 &amp; Statics</td>
<td></td>
</tr>
<tr>
<td>PHY 324 &amp; Electric Circuits</td>
<td></td>
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<tr>
<td>PHY 440 &amp; Electricity and Magnetism I</td>
<td></td>
</tr>
<tr>
<td>PHY 441 &amp; Electricity and Magnetism II</td>
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</tbody>
</table>

Plus 10 credit hours of engineering courses, transferred from engineering school.

<table>
<thead>
<tr>
<th>C. Additional Required Courses for Four-Year Physics B.S.-Only Degree (22 cr)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 306 &amp; Modern Physics II</td>
<td></td>
</tr>
<tr>
<td>PHY 324 &amp; Electric Circuits</td>
<td></td>
</tr>
<tr>
<td>PHY 410 &amp; Advanced Physics Laboratory</td>
<td></td>
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<tr>
<td>PHY 425 &amp; Classical Mechanics (4)</td>
<td></td>
</tr>
<tr>
<td>PHY 435 &amp; Introduction to Quantum Mechanics</td>
<td></td>
</tr>
<tr>
<td>PHY 440 &amp; Electricity and Magnetism I</td>
<td></td>
</tr>
<tr>
<td>PHY 441 &amp; Electricity and Magnetism II</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Required Credit Hours Outside the Major</th>
<th>15 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 161 &amp; Calculus I</td>
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</tr>
<tr>
<td>MAT 162 &amp; Calculus II</td>
<td></td>
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<tr>
<td>MAT 163 &amp; Using Technology to Explore Calculus I (1)</td>
<td></td>
</tr>
<tr>
<td>MAT 164 &amp; Using Technology to Explore Calculus II (1)</td>
<td></td>
</tr>
<tr>
<td>MAT 263 &amp; Calculus III</td>
<td></td>
</tr>
<tr>
<td>MAT 264 &amp; Using Technology to Explore Calculus III (1)</td>
<td></td>
</tr>
<tr>
<td>MAT 315 &amp; Differential Equations</td>
<td></td>
</tr>
</tbody>
</table>

| All College Electives | 0–24 cr |

| Total Required Credit Hours | 120 cr |

### Physics Education (7–12, B.S.)

**BS-NS PGS**
Physics Department
Bachelor of Science (HEGIS 1902.01)
National Council for Accreditation of Teacher Education (NCATE) Accredited
Science Building 262 (716) 878-6726

The physics B.S. degree program in secondary education leads to a New York State Initial Certificate for teaching both physics and general science in grades 7–12. Students seeking admission to the B.S. physics education program should initially enroll in the B.S. physics program. After successfully completing at least two required physics courses at Buffalo State with a GPA in these courses of 2.75 or higher, students apply for admission to the B.S. physics education program during the semester they complete SED 200. A minimum GPA of 2.75 in physics
<table>
<thead>
<tr>
<th>Intellectual Foundations Requirements</th>
<th>39–66 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Required Credit Hours in Physics</td>
<td>34 cr</td>
</tr>
<tr>
<td>PHY 111</td>
<td>University Physics I (5)</td>
</tr>
<tr>
<td>PHY 112</td>
<td>University Physics II (5)</td>
</tr>
<tr>
<td>PHY 213</td>
<td>University Physics III</td>
</tr>
<tr>
<td>PHY 305</td>
<td>Modern Physics I</td>
</tr>
<tr>
<td>PHY 306</td>
<td>Modern Physics II</td>
</tr>
<tr>
<td>PHY 310</td>
<td>Computational Physics Laboratory (2)</td>
</tr>
<tr>
<td>PHY 320</td>
<td>Introduction to Theoretical Physics (4)</td>
</tr>
<tr>
<td>PHY 324</td>
<td>Electric Circuits</td>
</tr>
<tr>
<td>PHY 410</td>
<td>Advanced Physics Laboratory</td>
</tr>
<tr>
<td>PHY 440</td>
<td>Electricity and Magnetism I</td>
</tr>
</tbody>
</table>

**Total Required Credit Hours in Professional Education** | 24 cr |
| SPF 303 | Educational Psychology: Middle and Secondary Education |
| EDU 416 | Teaching Literacy in Middle and Secondary Schools |
| EDU 417 | Adolescent Literacy |
| EXE 372 | Foundations of Teaching Adolescents with Disabilities |
| SED 200 | Field Experience in Secondary Science Education |
| SED 401 | Techniques for Teaching Laboratory Activities in the Secondary Science Classroom |
| SED 405 | Methods and Materials in Teaching Secondary School Science |
| SED 409 | Seminar in Secondary Science Education |

**Total Required Credit Hours in Student Teaching** | 12 cr |
| SED 407 | Practice Teaching Science in the Middle School (6) |
| SED 408 | Practice Teaching Science in the High School (6) |

**Total Required Credit Hours in Other Fields for Certification** | 41–47 cr |

A. **One Year (or Equivalent) of a Foreign Language (0-6 cr)**

B. **Cognate Sciences (26 cr)**

| CHE 111 | Fundamentals of Chemistry I (4) |
| CHE 112 | Fundamentals of Chemistry II (4) |
| GES 101 | Introductory Geology |
| GES 102 | Historical Geology |
| GES 103 | Introductory Geology Laboratory (1) |

Select one course from the following:
- GES 111 General Oceanography
- GES 131 Introduction to Astronomy
- GES 241 Meteorology

Select two courses from the following:
- BIO 211 Introduction to Cell Biology and Genetics (4)
- BIO 212 Introduction to Organismal Biology and Diversity (4)
- BIO 213 Introduction to Ecology, Evolution, and Behavior (4)

C. **Mathematics (15 cr)**

| MAT 161 | Calculus I |
| MAT 162 | Calculus II |
| MAT 163 | Using Technology to Explore Calculus I (1) |
| MAT 164 | Using Technology to Explore Calculus II (1) |
| MAT 263 | Calculus III |
| MAT 264 | Using Technology to Explore Calculus III (1) |
| MAT 315 | Differential Equations |

**Total Required Credit Hours** | 150 cr |

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**Physics Education (7–12, 5–6 Extension, B.S.)**

BS-NS PGX

Physics Department

Bachelor of Science (HEGIS 1902.01)

National Council for Accreditation of Teacher Education (NCATE) Accredited

Science Building 262 (716) 878-6726

The physics B.S. degree program in secondary education leads to a New York State Initial Certificate for teaching both physics and general science in grades 5–12. Students seeking admission to the B.S. physics education program should initially enroll in the B.S. physics program. After successfully completing at least two required physics courses at Buffalo State with a GPA in these courses of 2.75 or higher, students apply for admission to the B.S. physics education program during the semester they complete SED 200. A 2.75 GPA in physics courses is required for admission to SED 405, SED 407, and SED 408.

**Intellectual Foundations Requirements** | 39–66 cr |

**Total Required Credit Hours in Physics** | 34 cr |
| PHY 111 | University Physics I (5) |
| PHY 112 | University Physics II (5) |
| PHY 213 | University Physics III |
| PHY 305 | Modern Physics I |
| PHY 306 | Modern Physics II |
| PHY 310 | Computational Physics Laboratory (2) |
| PHY 320 | Introduction to Theoretical Physics (4) |
| PHY 324 | Electric Circuits |
| PHY 410 | Advanced Physics Laboratory |
| PHY 440 | Electricity and Magnetism I |

**Total Required Credit Hours in Professional Education** | 30 cr |
| SPF 303 | Educational Psychology: Middle and Secondary Education |
| EDU 416 | Teaching Literacy in Middle and Secondary Schools |
| EDU 417 | Adolescent Literacy |
| EXE 372 | Foundations of Teaching Adolescents with Disabilities |
| SED 200 | Field Experience in Secondary Science Education |
| SED 401 | Techniques for Teaching Laboratory Activities in the Secondary Science Classroom |
| SED 405 | Methods and Materials in Teaching Secondary School Science |
| SED 409 | Seminar in Secondary Science Education |

**Total Required Credit Hours in Student Teaching** | 12 cr |
| SED 407 | Practice Teaching Science in the Middle School (6) |
| SED 408 | Practice Teaching Science in the High School (6) |

**Total Required Credit Hours in Other Fields for Certification** | 38–44 cr |

A. **One Year (or Equivalent) of a Foreign Language (0-6 cr)**
Total Required Credit Hours in Professional Education 24 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPF 303</td>
<td>Educational Psychology: Middle and Secondary Education</td>
</tr>
<tr>
<td>EDU 416</td>
<td>Teaching Literacy in Middle and Secondary Schools</td>
</tr>
</tbody>
</table>

Total Required Credit Hours in Physics 34 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
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<td>PHY 213</td>
<td>University Physics III</td>
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<tr>
<td>PHY 305</td>
<td>Modern Physics I</td>
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<tr>
<td>PHY 306</td>
<td>Modern Physics II</td>
</tr>
<tr>
<td>PHY 310</td>
<td>Computational Physics Laboratory (2)</td>
</tr>
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<td>PHY 320</td>
<td>Introduction to Theoretical Physics (4)</td>
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<tr>
<td>PHY 324</td>
<td>Electric Circuits</td>
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<tr>
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<td>Advanced Physics Laboratory</td>
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<tr>
<td>PHY 440</td>
<td>Electricity and Magnetism I</td>
</tr>
</tbody>
</table>

Total Required Credit Hours in Other Fields for Certification 38-44 cr

A. One Year (or Equivalent) of a Foreign Language (0-6 cr)
B. Cognate Sciences (23 cr)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td>CHE 111, CHE112</td>
<td>Fundamentals of Chemistry I, II (4, 4)</td>
</tr>
<tr>
<td>GES 101</td>
<td>Introductory Geology</td>
</tr>
<tr>
<td>GES 103</td>
<td>Introductory Geology Laboratory (1)</td>
</tr>
</tbody>
</table>

Select one course from the following:
- GES 111 General Oceanography
- GES 131 Introduction to Astronomy
- GES 241 Meteorology

Select two courses from the following:
- BIO 211 Introduction to Cell Biology and Genetics (4)
- BIO 212 Introduction to Organismal Biology and Diversity (4)
- BIO 213 Introduction to Ecology, Evolution, and Behavior (4)

C. Mathematics (15 cr)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>MAT 161</td>
<td>Calculus I</td>
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<tr>
<td>MAT 162</td>
<td>Calculus II</td>
</tr>
<tr>
<td>MAT 163</td>
<td>Using Technology to Explore Calculus I (1)</td>
</tr>
<tr>
<td>MAT 164</td>
<td>Using Technology to Explore Calculus II (1)</td>
</tr>
<tr>
<td>MAT 263</td>
<td>Calculus III</td>
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<tr>
<td>MAT 264</td>
<td>Using Technology to Explore Calculus III (1)</td>
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<td>MAT 315</td>
<td>Differential Equations</td>
</tr>
</tbody>
</table>

The physics postbaccalaureate certification-only program in secondary education leads to a New York State Initial Certificate for teaching both physics and general science in grades 7–12. This program is intended for persons with a bachelor’s degree in physics or a related field who are interested in obtaining certification to teach physics in secondary schools or general science in middle schools. A minimum GPA of 2.75 in physics courses is required for admission to SED 405, SED 407, and SED 408.

The physics postbaccalaureate certification-only program in secondary education leads to a New York State Initial Certificate for teaching both physics and general science in grades 5–12. This program is intended for persons with a bachelor’s degree in physics or a related field who are interested in obtaining certification to teach physics in secondary schools or general science in middle schools. A minimum GPA of 2.75 in physics courses is required for admission to SED 405, SED 407, and SED 408.
# Total Required Credit Hours in Other Fields for Certification

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>A.</td>
<td>One Year (or Equivalent) of a Foreign Language (0-6 cr)</td>
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<tr>
<td>B.</td>
<td>Cognate Sciences (23 cr)</td>
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<td></td>
<td>CHE 111, CHE 112</td>
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<td></td>
<td>GES 101</td>
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<td></td>
<td>GES 103</td>
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<tr>
<td></td>
<td>Select one course from the following:</td>
</tr>
<tr>
<td></td>
<td>GES 111</td>
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<td></td>
<td>GES 131</td>
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<tr>
<td></td>
<td>GES 241</td>
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<tr>
<td></td>
<td>Select two courses from the following:</td>
</tr>
<tr>
<td></td>
<td>BIO 211</td>
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<tr>
<td></td>
<td>BIO 212</td>
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<tr>
<td></td>
<td>BIO 213</td>
</tr>
<tr>
<td>C.</td>
<td>Mathematics (15 cr)</td>
</tr>
<tr>
<td></td>
<td>MAT 161</td>
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<td></td>
<td>MAT 162</td>
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<td></td>
<td>MAT 163</td>
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<td>MAT 164</td>
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<td>MAT 263</td>
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<tr>
<td></td>
<td>MAT 264</td>
</tr>
<tr>
<td></td>
<td>MAT 315</td>
</tr>
</tbody>
</table>

# Total Required Credit Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Required Credit Hours</td>
<td>114 cr</td>
</tr>
</tbody>
</table>

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**POLITICAL SCIENCE (B.A.)**

BA-NS PSC
Political Science Department
Bachelor of Arts (HEGIS 2207)
Classroom Building B218 (716) 878-6116

Political science is the study of government and politics. The major is divided into four areas: American politics, international politics, comparative politics, and political theory. A variety of courses is offered in each of these areas. Minors are offered in public administration, political science, legal studies and international relations.

Students gain an understanding of government and politics through a combination of theoretical analysis and practical experience; interning in national, state, or local government; or participating in the Washington Program. Students are prepared for an array of career options in the public and private sectors. The department offers special advisement for graduate study, pre-law, and public administration.

The Bachelor of Arts program enables students to concentrate in international relations or public administration and policy, or to develop a more individualized program under the general political science concentration.

### Intellectual Foundations Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Required Courses (16 cr)</td>
</tr>
<tr>
<td></td>
<td>PSC 101</td>
</tr>
<tr>
<td></td>
<td>PSC 102</td>
</tr>
<tr>
<td></td>
<td>PSC 203</td>
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<td></td>
<td>PSC 204</td>
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<tr>
<td></td>
<td>PSC 399</td>
</tr>
<tr>
<td></td>
<td>PSC 470</td>
</tr>
<tr>
<td>OR</td>
<td>PSC 488</td>
</tr>
</tbody>
</table>

Students will choose one of the following concentrations:

**GENERAL POLITICAL SCIENCE CONCENTRATION**

### B. Political Science Distribution Requirements (12 cr)

1. **American Government and Politics (3 cr)**
   
   Must take one of the following courses:
   
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSC 210</td>
<td>The American Presidency</td>
</tr>
<tr>
<td>PSC 215</td>
<td>Urban Government</td>
</tr>
<tr>
<td>PSC 218</td>
<td>African American Political Culture</td>
</tr>
<tr>
<td>PSC 225</td>
<td>Women in American Politics</td>
</tr>
<tr>
<td>PSC 310</td>
<td>American Political Parties</td>
</tr>
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<td>PSC 311</td>
<td>Interest Groups</td>
</tr>
<tr>
<td>PSC 312</td>
<td>Legislative Process</td>
</tr>
<tr>
<td>PSC 315</td>
<td>State and Local Government and Politics</td>
</tr>
<tr>
<td>PSC 316</td>
<td>Urban Ethnic Politics</td>
</tr>
<tr>
<td>PSC 317</td>
<td>U.S. Constitutional Law</td>
</tr>
<tr>
<td>PSC 319</td>
<td>Gay, Lesbian, Bisexual, Transgender, Questioning Politics</td>
</tr>
<tr>
<td>PSC 320</td>
<td>U.S. Civil Liberties</td>
</tr>
<tr>
<td>PSC 326</td>
<td>Politics and Media</td>
</tr>
</tbody>
</table>
2. International Relations (3 cr)
Must take one of the following courses:
PSC 230 International Relations
PSC 305 Environmental Policy
PSC 308 International Organizations and International Law
PSC 309 International Political Economy
PSC 330 American Foreign Policy
PSC 333 African International Relations
PSC 335 International Relations of the Middle East
PSC 336 Latin America in World Politics
PSC 337 The Politics of Globalization

3. Comparative Government (3 cr)
Must take one of the following courses:
PSC 240 European Political Systems
PSC 340 Politics of Developing Countries
PSC 341 Government, Politics, and Policies of the European Union
PSC 342 Russian Politics
PSC 345/HIS 313 Politics and History of the Middle East
PSC 368 Comparative Public Administration
PSC 370 Canadian Public Administration

4. Political Theory and Philosophy (3 cr)
Must take one of the following courses:
PSC 250 Introduction to Law
PSC 318 Democracy and Peace: Principles and Practices in the Urban Experience
PSC 351 History of Political Thought I
PSC 352 History of Political Thought II
PSC 355 American Political Thought
PSC 375 Race/Sex/Politics of Myth and Story
PSC 450 Contemporary Political Thought

C. General Electives in Political Science (9 cr)
NOTE: Courses NOT used to fulfill Section B may also be used as Political Science electives.
PSC 103 Great Political Issues
PSC 306 Politics of Energy
PSC 389 Topics in Political Science
PSC 390 Italian American Experience
PSC 495 Special Project
PSC 497 Washington Semester
PSC 499 Independent Study

INTERNATIONAL RELATIONS CONCENTRATION

B. Political Science Distribution Requirements (9 cr)
1. American Government and Politics (3 cr)
PSC 210 The American Presidency

2. International Relations (3 cr)
PSC 230 International Relations

3. Political Theory and Philosophy (3 cr)
PSC 352 History of Political Thought II

C. Electives - International Relations (12 cr)
Choose two (2) courses from International Relations and two (2) from Comparative Government:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSC 305</td>
<td>Environmental Policy</td>
</tr>
<tr>
<td>PSC 308</td>
<td>International Organizations and International Law</td>
</tr>
<tr>
<td>PSC 309</td>
<td>International Political Economy</td>
</tr>
<tr>
<td>PSC 330</td>
<td>American Foreign Policy</td>
</tr>
<tr>
<td>PSC 333</td>
<td>African International Relations</td>
</tr>
<tr>
<td>PSC 335</td>
<td>International Relations of the Middle East</td>
</tr>
<tr>
<td>PSC 336</td>
<td>Latin America in World Politics</td>
</tr>
<tr>
<td>PSC 337</td>
<td>The Politics of Globalization</td>
</tr>
</tbody>
</table>

Comparative Government (6 cr)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSC 340</td>
<td>Politics of Developing Countries</td>
</tr>
<tr>
<td>PSC 341</td>
<td>Government, Politics, and Policies of the European Union</td>
</tr>
<tr>
<td>PSC 342</td>
<td>Russian Politics</td>
</tr>
<tr>
<td>PSC 345/HIS</td>
<td>Politics and History of the Middle East</td>
</tr>
<tr>
<td>PSC 368</td>
<td>Comparative Public Administration</td>
</tr>
<tr>
<td>PSC 370</td>
<td>Canadian Public Administration</td>
</tr>
</tbody>
</table>

PUBLIC ADMINISTRATION AND POLICY CONCENTRATION

B. Political Science Distribution Requirements (12 cr)

1. American Government and Politics (3 cr)
PSC 360 Public Administration

2. International Relations (3 cr)
Must take one of the following courses:
PSC 305 Environmental Policy
PSC 308 International Organizations and International Law
PSC 330 American Foreign Policy

3. Comparative Government (3 cr)
Must take one of the following courses:
PSC 368 Comparative Public Administration
PSC 370 Canadian Public Administration

4. Political Theory and Philosophy (3 cr)
Must take one of the following courses:
PSC 250 Introduction to Law
PSC 318 Democracy & Peace: Principles and Practices in the Urban Experience

C. Electives - Public Administration and Policy (9 cr)
PSC 215 Urban Government
PSC 315 State & Local Government and Politics
PSC 364 American Public Policy
PSC 415 Urban Public Policy

NOTE: IR/Comp/Theory courses NOT used to fulfill Section B may also be used as electives.

ADDITIONAL REQUIREMENT:
Out of 37 political science credits, 19 credits must be in the upper division.

<table>
<thead>
<tr>
<th>All College Electives</th>
<th>17–44 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Required Credit Hours</td>
<td>120 cr</td>
</tr>
</tbody>
</table>
**PRINTMAKING (B.F.A.)**

BFA-AH PRT  
Fine Arts Department  
Bachelor of Fine Arts (HEGIS 1009)  
National Association of Schools of Art and Design (NASAD) Accredited  
Upton Hall 502 (716) 878-6014

All freshman and transfer students are welcomed into the BFA program. Each B.F.A. student will be required to mount an individual exhibition of his or her work. It will be planned and installed with the advice of the student’s faculty adviser, but no grade is assigned. The Fine Arts Department reserves the right to retain students’ artwork for official purposes, such as exhibits, catalogs, or teaching aids.

**Admission Requirements:** Admission to the B.F.A. program is open. Newly declared majors need to schedule a meeting with their new advisor in the major to review their work and become familiarized with the program’s requirements.

Students are expected to assume the costs of materials they use in their courses. All studio courses may have an additional instructional charge for materials used in class. Students enrolled in a studio course are expected to work a minimum of two additional hours each week outside of class for each credit granted for that class.

**Intellectual Foundations Requirements** 39–66 cr  
**Total Required Credit Hours in Fine Arts** 78 cr  

A. **Required Courses (15 cr)**  
- DES 101 Two-Dimensional Design  
- FAR 101 Drawing I  
- FAR 102 Drawing II  
- FAR 103 Modeling  
- FAR 104 Themes and Issues in Contemporary Arts  
- FAR 210 Introductory Painting  
- FAR 220 Introductory Photography  
- FAR 230 Introductory Printmaking  
- FAR 240 Introductory Sculpture  
- FAR 250 Art History I  
- FAR 251 Art History II  
- FAR 363 Twentieth-Century Art  
- FAR 470 Senior Seminar in Fine Arts  

Two art history electives.

B. **Printmaking (21 cr)**  
- FAR 331 Intermediate Printmaking I  
- FAR 332 Intermediate Printmaking II  
- FAR 333 Advanced Printmaking (three courses) (6)  
- FAR 430 Senior Studio in Printmaking (6)

C. **Art Electives (12 cr)**

All College Electives 0–3 cr  

**Total Required Credit Hours** 120–145 cr

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**PSYCHOLOGY (B.A.)**

BA-NS PSY

Psychology Department  
Bachelor of Arts (HEGIS 2001)  
Classroom Building C312 (716) 878-6215

Students in the B.A. degree program receive a broad and comprehensive background in the science of psychology, which will qualify them to seek entry to graduate or professional schools, or to apply for jobs that require a liberal arts training. The department’s approach is both theoretical and empirical at all levels. The broad content areas represented include learning, perception, lifespan development and aging, animal behavior, industrial/organizational psychology, social processes, and normal and abnormal behavior.

**B.A. Honors in Psychology:** Departmental honors are for students who are performing exceptionally well in their courses. The honors designation is an adjunct to the B.A. degree with an added emphasis on independent work, and requires that students conduct a comprehensive original research project under the supervision of a faculty mentor. To be considered, students must have at least 24 credit hours in psychology from Buffalo State with a minimum GPA of 3.5, and a minimum GPA of 3.25 in all courses taken at Buffalo State. In addition to the required courses in the B.A. degree program, honors students must take PSY 496 and PSY 498. A 39-credit-hour sequence of psychology courses is required for a B.A. honors degree. This requirement is identical to that of the B.A. degree except that PSY 496 is used as a psychology elective and PSY 498 is an additional required course. Students should see their adviser no later than the junior year for more information about the honors option.

**Intellectual Foundations Requirements** 39–66 cr  
**Total Required Credit Hours in Psychology** 36 cr  

A. **Required Courses (15 cr)**  
- PSY 101 Introduction to Psychology  
- PSY 306 Statistics in Psychological Research  
- PSY 450W Research Methods in Psychology I: Introduction to Research Methods  
- PSY 471 History and Systems of Psychology  
- PSY 472W Seminar on Psychology

B. **Electives Selected by Advisement: 300-level (12 cr)**

1. **Select one course from each of the following three concentrations** (9 cr):  
   **Bio/Cognitive Psychology Concentration**  
   - PSY 304 Learning: Theory and Research  
   - PSY 308 Sensation and Perception  
   - PSY 321 Comparative Animal Behavior  
   - PSY 330 The Psychological Power of Language  
   - PSY 340 Cognitive Psychology  
   **Social/Developmental Psychology Concentration**  
   - PSY 325 Social Behavior  
   - PSY 327 Adult Development and Aging I  
   - PSY 355 Lifespan Developmental Psychology  
   - PSY 356 Child Development  
   - PSY 357 Adolescent and Young Adult Development  
   - PSY 370 Environmental Psychology I
The student must be enrolled in the B.A. program and be in good academic standing at the college before he or she can apply to the B.S. program. The student applying for the B.S. program must have received a minimum grade of B in the first course of the required sequence of B.S. courses for that concentration. For guidance in the application process, the potential B.S. applicant must meet with the faculty coordinator for the specialized B.S. concentration in which the student is interested.

A psychology department faculty member must formally sponsor the student. The student must be able to complete a minimum of one academic year of supervised work with his or her sponsor in the B.S. program prior to graduation.

Final acceptance into the B.S. program requires approval of the candidate by the psychology department.

**B.S. Honors in Psychology:** Departmental honors are for students who are performing exceptionally well in their courses. The honors designation is an adjunct to the B.S. degree with an added emphasis on independent work, and requires that students conduct a comprehensive original research project under the supervision of a faculty mentor. To be considered, students must have at least 24 credit hours in psychology from Buffalo State with a minimum GPA of 3.5, and a minimum GPA of 3.25 in all courses taken at Buffalo State. In addition to the required courses in the B.S. degree program, honors students must take PSY 496 and PSY 498. A 42-credit-hour sequence of psychology courses is required for a B.S. honors degree. PSY 496 and PSY 498 may be used, where applicable, as elective courses in these programs. Students should see their adviser no later than the junior year for more information about the honors option.

<table>
<thead>
<tr>
<th>Intellectual Foundations Requirements</th>
<th>39–66 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Required Credit Hours in Psychology</td>
<td>39–42 cr</td>
</tr>
</tbody>
</table>

**A. Required Courses (18 cr)**

- PSY 101 Introduction to Psychology
- PSY 306 Statistics in Psychological Research
- PSY 450W Research Methods in Psychology I: Introduction to Research Methods
- PSY 471 History and Systems of Psychology
- PSY 472W Seminar on Psychology
- PSY 488 Internship
- OR
- PSY 495 Project
- OR
- PSY 499 Independent Study

**B. Concentration Courses (21–24 cr)**

Students are required to complete one of the following concentrations. At least two courses for each concentration must be at the 400 level (excluding the courses listed in group A).

**Biological Psychology Concentration (24 cr)**

(Take 5 of the following 7 courses by advisement)

- PSY 304 Learning: Theory and Research
- PSY 308 Sensation and Perception
- PSY 321 Comparative Animal Behavior
This major allows students flexibility to tailor a program based on strategic communication through the disciplines of public relations, advertising, and related fields. It meets the needs of students preparing for a career in which research, strategic planning, implementation of creative tactics, and evaluation are central, whether to advance an organization, promote a product, or advocate a cause.

Compare this major with communication studies, journalism, and media production. This is the only program in public relations and advertising at any SUNY school that is affiliated with the Accrediting Council on Education in Journalism and Mass Communications. Only four other undergraduate programs in New York State are accredited.

Career Opportunities: Students in public communication prepare for careers in public relations and advertising, as well as fundraising, organizational communication, research, lobbying, marketing communication, and other fields that require a liberal arts education enhanced with communication expertise.

The profile of a successful public communication graduate is a person with strong writing and speaking proficiency, keen ethical insight, competence in research and planning, and skill in working effectively both independently and in teams.

Admission Requirements: Incoming freshmen and transfer students can declare the major. A 2.6 GPA in the major is needed to register for required upper-division courses (300- and 400-level).

See www.buffalostate.edu/communication for application forms and additional information, including a list of equivalent core courses at community colleges. Transfer students from two-year schools may apply only core courses toward this major for a maximum of 12 credits. Students generally require four semesters of study after completing communication core courses.

Academic Standards: Only grades of C or higher may be applied toward requirements for any communication degree; courses with lower grades must be repeated. Consistent with standards of the Accrediting Council for Education in Journalism and Mass Communication, the number of communication courses that students may take is capped, encouraging a broad-based liberal arts education. The department encourages students to take minors or second majors and requires evidence of an academic concentration or area of expertise outside the Communication Department.

Intellectual Foundations Requirements 39–66 cr

Total Requirements 42 cr
Intellectual Foundations Requirements 39–66 cr

D. Communication Electives (9 cr)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
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<tbody>
<tr>
<td>COM 488</td>
<td>Internship</td>
</tr>
<tr>
<td>COM 495</td>
<td>or Independent Project</td>
</tr>
<tr>
<td>COM 499</td>
<td>or Independent Study</td>
</tr>
<tr>
<td></td>
<td>or 300/400-level elective</td>
</tr>
</tbody>
</table>

All College Electives 12–39 cr

Total Required Credit Hours 120 cr

Academic Road Map for Public Communication, B.A.
http://catalog.buffalostate.edu/undergraduate/roadmaps/RMPublicCommunicationBA.pdf

Student Learning Outcomes for Public Communication, B.A.

SCULPTURE (B.F.A.)

BFA-AH SCL
Fine Arts Department
Bachelor of Fine Arts (HEGIS 1002)
National Association of Schools of Art and Design (NASAD) Accredited
Upton Hall 502 (716) 878-6014

High school students applying for admission to the B.F.A. sculpture major need only state his/her intent to major in sculpture to be accepted to the major, assuming required G.P.A. and other college admission standards are met. A portfolio is not required. All students, including transfer students, must undergo a formal portfolio review after completion of FAR342 (Intermediate II) or the equivalent course for a transfer student.

Each B.F.A. student will be required to mount an individual exhibition of his or her work. It will be planned and installed with the advice of the student’s faculty adviser, but no grade will be assigned.

The Fine Arts Department reserves the right to retain student artwork for official purposes, such as exhibits, catalogs, or teaching aids.

Admission Requirements: Admission to the B.F.A. program for high school students is made by stating his/her intent to major in sculpture when applying to the college, assuming G.P.A. and other college admission standards are met. A portfolio is not required. All students, including transfer students, must undergo a formal portfolio review after completion of FAR342 (Intermediate II) or the equivalent course for a transfer student. The portfolio is to be presented in person or mailed along with a statement of intent as stipulated by the department and should contain examples of work that the candidate believes best display his or her abilities.

Students are expected to assume the costs of materials they use in their courses. All studio courses may have an additional instructional charge for materials used in class. Students enrolled in a studio course are expected to work a minimum of two additional hours each week outside of class for each credit granted for that class.

Total Required Credit Hours in Fine Arts 78 cr

A. Required Courses (45 cr)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES 101</td>
<td>Two-Dimensional Design</td>
</tr>
<tr>
<td>FAR 101</td>
<td>Drawing I</td>
</tr>
<tr>
<td>FAR 102</td>
<td>Drawing II</td>
</tr>
<tr>
<td>FAR 103</td>
<td>Modeling</td>
</tr>
<tr>
<td>FAR 104</td>
<td>Themes and Issues in Contemporary Arts</td>
</tr>
<tr>
<td>FAR 210</td>
<td>Introductory Painting</td>
</tr>
<tr>
<td>FAR 220</td>
<td>Introductory Photography</td>
</tr>
<tr>
<td>FAR 230</td>
<td>Introductory Printmaking</td>
</tr>
<tr>
<td>FAR 240</td>
<td>Introductory Sculpture</td>
</tr>
<tr>
<td>FAR 250</td>
<td>Art History I</td>
</tr>
<tr>
<td>FAR 251</td>
<td>Art History II</td>
</tr>
<tr>
<td>FAR 363</td>
<td>Twentieth-Century Art</td>
</tr>
<tr>
<td>FAR 470</td>
<td>Senior Seminar in Fine Arts</td>
</tr>
</tbody>
</table>

Two art history electives.

B. Sculpture (21 cr)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAR 341</td>
<td>Intermediate Sculpture I</td>
</tr>
<tr>
<td>FAR 342</td>
<td>Intermediate Sculpture II</td>
</tr>
<tr>
<td>FAR 343</td>
<td>Advanced Sculpture (three courses) (9)</td>
</tr>
<tr>
<td>FAR 440</td>
<td>Senior Studio in Sculpture (6)</td>
</tr>
</tbody>
</table>

C. Art Electives (12 cr)

All College Electives 0–3 cr

Total Required Credit Hours 120-145 cr

Academic Road Map for Sculpture, B.F.A.
http://catalog.buffalostate.edu/undergraduate/roadmaps/RMSculptureBFA.pdf

SOCIAL STUDIES EDUCATION (7–12, B.S.)

BS-NS SSS
History and Social Studies Education Department
Bachelor of Science (HEGIS 2201.01)
National Council for Accreditation of Teacher Education (NCATE) Accredited
Classroom Building C205
(716) 878-5412

The social studies B.S. degree program in secondary education prepares students to meet the educational requirements leading to New York State Initial Certification in Adolescence Education required to teach social studies in grades 7–12. The program supplies a knowledge base that provides the background knowledge necessary for teachers to implement the NYS Learning Standards for students in grades 7–12.

Admission Requirements: Applicants must have a minimum cumulative GPA of 2.75, a minimum GPA of 2.75 in all history and social science courses.

Prerequisites for Student Teaching: See prerequisites for SSE 409 and SSE 410.

A departmental honors program is also available. Students should contact the department for additional information.

The social studies content core constitutes a 42-credit major in social studies that consists of study in economics, government, and a minimum of 30 credit hours of study in
the history and geography of the United States and the world (see total required credit hours in social studies, below). All program majors are required to complete a minimum of 100 clock hours of field experience related to coursework prior to student teaching. These field experiences consist of observations, individual tutoring, and the teaching of small groups of students under the supervision of certified teachers. These experiences are an integral component of the pedagogical core courses specified in the previous section, with learning outcomes specified and their achievement evaluated by course instructors.

Students complete a minimum of 30–35 clock hours of field experience in each of three courses: SSE 200, SSE 303, and SSE 309. Another course, SSE/HIS 488, is available and will be used by transfer students and others who may have a deficiency in field experience. The department has established relationships with several "high-need" urban and suburban school districts where field experiences are held. All majors will have study and experiences that together provide a solid foundation for teaching in high-need schools.

To student teach, students are required to have a minimum cumulative GPA of 2.75 and a minimum GPA of 2.75 in the social studies major, as well as obtain a minimum grade of C in SSE 303 and SSE 309. All majors meeting these requirements must enroll in two practicum courses following completion of all other coursework and satisfaction of English and math competency requirements. Placements for these practica include urban and suburban settings. The urban placements may be in high-need districts that provide opportunities for student teachers to work with students from diverse backgrounds, including socio-economically disadvantaged students, students with disabilities, and students who are English-language learners. Experiences include individual and group instruction, daily and long-view planning, unit teaching, classroom management and routine procedures, use of audiovisual aids, community resources, record-keeping, evaluation procedures, and participation in the total school program.

**Intellectual Foundations Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS 117</td>
<td>Twentieth-Century Europe</td>
</tr>
</tbody>
</table>

One world history elective (any Asian, African, or Middle-Eastern world history course).

**C. Geography (6 cr)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEG 300</td>
<td>World Regional Geography</td>
</tr>
</tbody>
</table>

Select one course from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEG 102</td>
<td>Human Geography</td>
</tr>
<tr>
<td>GEG 206</td>
<td>Geography of New York State</td>
</tr>
<tr>
<td>GEG 309</td>
<td>Introduction to Urban Geography</td>
</tr>
<tr>
<td>GEG 320</td>
<td>Historical Geography of the United States</td>
</tr>
<tr>
<td>GEG 360</td>
<td>Geography of Asia</td>
</tr>
<tr>
<td>GEG 362</td>
<td>Geography of the United States and Canada</td>
</tr>
<tr>
<td>GEG 364</td>
<td>Geography of Europe</td>
</tr>
</tbody>
</table>

**D. Political Science (3 cr)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSC 102</td>
<td>Introduction to American Government</td>
</tr>
<tr>
<td>PSC 220</td>
<td>The Development of American Constitutional Law</td>
</tr>
<tr>
<td>PSC 320</td>
<td>U.S. Civil Liberties</td>
</tr>
</tbody>
</table>

**E. Economics (3 cr)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 101</td>
<td>The Economic System</td>
</tr>
<tr>
<td>ECO 201</td>
<td>Principles of Macroeconomics</td>
</tr>
<tr>
<td>ECO 202</td>
<td>Principles of Microeconomics</td>
</tr>
</tbody>
</table>

**F. Upper-Division Social Science Elective (3 cr)**

**G. Seminar (3 cr)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS 300W</td>
<td>Research and Writing Seminar</td>
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</table>

**Total Required Credit Hours in Social Sciences**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
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<tbody>
<tr>
<td>SPF 303</td>
<td>Educational Psychology: Middle and Secondary Education</td>
</tr>
<tr>
<td>EDU 416</td>
<td>Teaching Literacy in Middle and Secondary Schools</td>
</tr>
<tr>
<td>ENG 309</td>
<td>Teaching and Evaluating Writing</td>
</tr>
<tr>
<td>EXE 100</td>
<td>Nature and Needs of Individuals with Special Needs</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>EXE 372</td>
<td>Foundations of Teaching Adolescents with Disabilities</td>
</tr>
<tr>
<td>PSY 357</td>
<td>Adolescent and Young-Adult Development</td>
</tr>
<tr>
<td>SSE 200</td>
<td>Introduction to Secondary Teaching</td>
</tr>
<tr>
<td>SSE 303</td>
<td>Methods and Materials in Teaching Middle School Social Studies</td>
</tr>
<tr>
<td>SSE 309</td>
<td>Methods and Materials in Teaching High School Social Studies</td>
</tr>
<tr>
<td>SSE 370</td>
<td>Computer Technology in the Social Studies Classroom</td>
</tr>
<tr>
<td>SSE 402</td>
<td>Historical and Philosophical Foundations of Social Education</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>SSE/HIS 407</td>
<td>The Teaching of History</td>
</tr>
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</table>

**Total Required Credit Hours in Professional Education**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>SSE 409</td>
<td>Student Teaching of Social Studies in the Middle School (6)</td>
</tr>
<tr>
<td>SSE 410</td>
<td>Student Teaching of Social Studies in Senior High School (6)</td>
</tr>
</tbody>
</table>

**One Year (or Equivalent) of a Foreign Language**

**Total Required Credit Hours**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>39–66 cr</td>
<td>Intellectual Foundations Requirements</td>
</tr>
<tr>
<td>42 cr</td>
<td>Total Required Credit Hours in Social Sciences</td>
</tr>
<tr>
<td>30 cr</td>
<td>Total Required Credit Hours in Professional Education</td>
</tr>
<tr>
<td>12 cr</td>
<td>Total Required Credit Hours in Student Teaching</td>
</tr>
<tr>
<td>0-6 cr</td>
<td>One Year (or Equivalent) of a Foreign Language</td>
</tr>
<tr>
<td>123 cr</td>
<td>Total Required Credit Hours</td>
</tr>
</tbody>
</table>
The social studies secondary education program prepares students to meet the educational requirements leading to New York State Initial Certification in Adolescence Education required to teach social studies in grades 7–12, with an extension for middle childhood that qualifies the holder to teach social studies in grades 5–9. The program supplies a knowledge base that provides the background knowledge necessary for teachers to implement the NYS Learning Standards for social studies in grades 5–12. 

Admission Requirements: Applicants must have a minimum cumulative GPA of 2.75, a minimum GPA of 2.75 in all history and social science courses. 

Prerequisites for Student Teaching: See prerequisites for SSE 409 and SSE 410. 

A departmental honors program is also available. Students should contact the department for additional information. 

The social studies content core constitutes a 42-credit major in social studies that consists of study in economics, government, and a minimum of 33 credit hours of study in the history and geography of the United States and the world (see "Total Required Credit Hours in Social Studies," below). 

All program majors are required to complete a minimum of 150 clock hours of field experience related to coursework prior to student teaching. These field experiences consist of observations, individual tutoring, and the teaching of small groups of students under the supervision of certified teachers. These experiences are an integral component of the pedagogical core courses specified in the previous section, with learning outcomes specified and their achievement evaluated by course instructors. 

Students complete a minimum of 30-35 clock hours of field experience in each of three courses: SSE 200, SSE 303, and SSE 309. Another course, SSE/HIS 488, will be used by students to complete the additional 50 clock hours in field experience required for the grades 5–6 extension. The department has established relationships with several "high-need" urban and suburban school districts where field experiences are held. All majors will have study and experiences that together provide a solid foundation for teaching in high-need schools. 

To student teach, students are required to have a minimum cumulative GPA of 2.75 and a minimum GPA of 2.75 in the social studies major, as well as obtain a minimum grade of C in SSE 303 and SSE 309. All majors meeting these requirements must enroll in two practicum courses following successful completion of all other coursework, and satisfaction of English and math competency requirements. Placements for these practica include urban and suburban settings. The urban placements may be in high-need districts that provide opportunities for student teachers to work with students from diverse backgrounds, including socio-economically disadvantaged students, students with disabilities, and students who are English-language learners. Experiences include individual and group instruction, daily and long-view planning, unit teaching, classroom management and routine procedures, use of audiovisual aids, community resources, record-keeping, evaluation procedures, and participation in the total school program.

### Intellectual Foundations Requirements **39–66 cr**

Program majors should enroll in an introductory psychology course, such as PSY 101, to satisfy their Intellectual Foundations requirements. It is recommended that majors take history courses to meet their civilizations requirements.

### Total Required Credit Hours in Social Sciences **42 cr**

#### A. History of the Western Hemisphere (15 cr)

- HIS 106 History of American Life I
- HIS 107 History of American Life II
- HIS 308 History of Early Canada
- OR
- HIS 316 History of Modern Canada
- OR
- HIS 326 History of the Great Lakes Region
- HIS 314 Modern Latin America
- HIS 415 History and Government of New York State

**Select two courses from the following:**

- HIS 115 Foundations of Western Civilization
- HIS 116 Europe Since 1500
- HIS 117 Twentieth-Century Europe

Two upper-division electives (any Asian, African, or Middle-Eastern world history courses).

#### B. History of the Eastern Hemisphere (15 cr)

- HIS 230 World Civilizations

**Select two courses from the following:**

- HIS 107 History of American Life I
- HIS 108 History of American Life II
- HIS 308 History of Early Canada
- OR
- HIS 316 History of Modern Canada
- OR
- HIS 326 History of the Great Lakes Region
- HIS 314 Modern Latin America
- HIS 415 History and Government of New York State

**Select two courses from the following:**

- HIS 115 Foundations of Western Civilization
- HIS 116 Europe Since 1500
- HIS 117 Twentieth-Century Europe

Two upper-division electives (any Asian, African, or Middle-Eastern world history courses).

#### C. Geography (3 cr)

- GEG 300 World Regional Geography

#### D. Political Science (3 cr)

**Select one course from the following:**

- PSC 102 Introduction to American Government
- PSC 220 The Development of American Constitutional Law
- PSC 320 U.S. Civil Liberties

**Select one course from the following:**

- PSC 020 US Government and Politics
- PSC 220 The Development of American Constitutional Law
- PSC 320 U.S. Civil Liberties

#### E. Economics (3 cr)

- ECO 101 The Economic System
- ECO 201 Principles of Microeconomics
- ECO 202 Principles of Macroeconomics

**Select one course from the following:**

- ECO 101 The Economic System
- ECO 201 Principles of Microeconomics
- ECO 202 Principles of Macroeconomics

#### F. Seminar (3 cr)

- HIS 300W Research and Writing Seminar

### Total Required Credit Hours in Professional Education **30 cr**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPF 303</td>
<td>Educational Psychology: Middle and Secondary Education</td>
</tr>
<tr>
<td>EDU 46</td>
<td>Teaching Literacy in Middle and Secondary Schools</td>
</tr>
<tr>
<td>ENG 309</td>
<td>Teaching and Evaluating Writing</td>
</tr>
<tr>
<td>EXE 100</td>
<td>Nature and Needs of Individuals with Special Needs</td>
</tr>
</tbody>
</table>
EXE 372 Foundations of Teaching Adolescents with Disabilities
PSY 357 Adolescent and Young-Adult Development
SSE 200 Introduction to Secondary Teaching
SSE 303 Methods and Materials in Teaching Middle School Social Studies
SSE 309 Methods and Materials in Teaching High School Social Studies
SSE 370 Computer Technology in the Social Studies Classroom
SSE 402 Historical and Philosophical Foundations of Social Education
OR SSE/HIS 407 The Teaching of History

Total Required Credit Hours in Field Experience and Student Teaching 15 cr

SSE 409 Student Teaching of Social Studies in the Middle School (6)
SSE 410 Student Teaching of Social Studies in Senior High School (6)
SSE/HIS 488 Internship: Middle Childhood and Adolescence Education

One Year (or Equivalent) of a Foreign Language 0-6 cr

Total Required Credit Hours 126 cr

SOCIAL STUDIES EDUCATION (7–12, PTCP)

PBC-NS SSX
History and Social Studies Education Department
Postbaccalaureate Teacher Certification Program (HEGIS 2201.01)
National Council for Accreditation of Teacher Education (NCATE) Accredited
Classroom Building C205 (716) 878-5412

The social studies education (7–12) postbaccalaureate certification-only program prepares persons with undergraduate degrees in history or social science, or with a 36-credit concentration in history and/or social science courses, to meet the disciplinary content and educational requirements leading to New York’s Initial Certificate in adolescence education required to teach social studies in grades 5–12. The program supplies the background knowledge necessary for teachers to implement the NYS Learning Standards for social studies in grades 5–12. It also meets the standards set by national professional organizations such as the National Council for the Social Studies and the National Council for the Accreditation of Teacher Education.

Admission Requirements: Applicants must have an existing undergraduate degree with a 36-credit concentration in history and/or social science courses, as well as a minimum 2.75 cumulative GPA; a minimum 2.75 GPA in all history and social science courses. Students complete a minimum of 30–35 clock hours of field experience in each of three courses: SSE 200, SSE 303, and SSE 309. The department has established relationships with several high-need urban and suburban school districts where field experiences are held. All majors will have study and experiences that together provide a solid foundation for teaching in high-need schools.

To meet NCATE certification requirements, the total social studies subject matter coursework must include no less than 40 percent of a total four-year program, with an area of concentration of at least 18 semester hours in one academic discipline. The program of study must include economics, government, and a minimum of 30 semester hours of study in the history and geography of the United States and the world. All students’ history/social science coursework must include the following or the equivalent of the following:

Total Required Credit Hours in Content Area Courses 50 cr

A. Basic U.S. History (9 cr)
   HIS 106 American Life I
   HIS 107 American Life II
   HIS 415 History and Government of New York State

B. Basic World History (9 cr)
   HIS 230 World Civilizations
   Select two courses from the following:
   HIS 115 Foundations of Western Civilization
   HIS 116 Europe Since 1500
   HIS 117 Twentieth-Century Europe

C. Other World History (6 cr)
   Two Asian, Middle-Eastern, or African history courses

D. Geography (6 cr)
   GEG 300 World Regional Geography
   Select one course from the following:
   GEG 102 Human Geography
   GEG 206 Geography of New York State
   GEG 309 Introduction to Urban Geography
   GEG 320 Historical Geography of the United States
   GEG 360 Geography of Asia
   GEG 362 Geography of the United States and Canada
   GEG 364 Geography of Europe

E. Political Science (3 cr)
   Select one course from the following:
   PSC 102 Introduction to American Government
   PSC 220 Development of American Constitutional Law
   PSC 320 U.S. Constitution/Civil Liberties

F. Economics (3 cr)
   Select one course from the following:
   ECO 101 The Economic System
   ECO 201 Principles of Macroeconomics
   ECO 202 Principles of Microeconomics

G. Cultural Diversity (3 cr)
   SSE/HIS 363 American Identity in Transition: Diversity and Pluralism in the United States

H. History/Social Science Electives (11 cr)

Total Required Credit Hours in Professional Education 30 cr

SPF 303 Educational Psychology: Middle and Secondary Education
EDU 416 Teaching Literacy in Middle and Secondary Schools
ENG 309 Teaching and Evaluating Writing
EXE 100 Nature and Needs of Individuals with Special Needs
OR
Department has established relationships with several high
school districts where field experiences are held. All majors will have study
and experiences that together provide a solid foundation for
teaching in high-need schools.

<table>
<thead>
<tr>
<th>Total Required Credit Hours in Content Area Courses</th>
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<tbody>
<tr>
<td>A. History of the Western Hemisphere (15 cr)</td>
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</tr>
<tr>
<td>HIS 106 American Life I</td>
<td></td>
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<tr>
<td>HIS 107 American Life II</td>
<td></td>
</tr>
<tr>
<td>HIS 308 History of Canada</td>
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<tr>
<td>HIS 314 Modern Latin America</td>
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<tr>
<td>HIS 415 History and Government of New York State</td>
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</tr>
<tr>
<td>B. History of the Eastern Hemisphere (9 cr)</td>
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<tr>
<td>HIS 230 World Civilizations</td>
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<tr>
<td>Select two courses from the following:</td>
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</tr>
<tr>
<td>HIS 115 Foundations of Western Civilization</td>
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<tr>
<td>HIS 116 Europe Since 1500</td>
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<td>C. Geography (6 cr)</td>
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<tr>
<td>GEG 300 World Regional Geography</td>
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<tr>
<td>Select one course from the following:</td>
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<tr>
<td>D. Political Science (3 cr)</td>
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<td>Select one course from the following:</td>
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<tr>
<td>PSC 102 Introduction to American Government</td>
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<td>PSC 320 U.S. Constitution/Civil Liberties</td>
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<tr>
<td>E. Economics (3 cr)</td>
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</tr>
<tr>
<td>Select one course from the following:</td>
<td></td>
</tr>
<tr>
<td>ECO 101 The Economic System</td>
<td></td>
</tr>
<tr>
<td>ECO 201 Principles of Macroeconomics</td>
<td></td>
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<tr>
<td>ECO 202 Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>F. Cultural Diversity (3 cr)</td>
<td></td>
</tr>
<tr>
<td>SSE/HIS 363 American Identity in Transition: Diversity and Pluralism in the United States</td>
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</tr>
<tr>
<td>G. History/Social Science Electives (11 cr)</td>
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<tr>
<td>SPF 303 Educational Psychology; Middle and Secondary Education</td>
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<td>EDU 416 Teaching Literacy in Middle and Secondary Schools</td>
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<td>OR</td>
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<td>EXE 372 Foundations of Teaching Secondary Students with Disabilities</td>
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<tr>
<td>PSY 357 Adolescent and Young Adult Development</td>
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<td>SSE 309 Methods and Materials in Teaching High School Social Studies</td>
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PBC-NS SSX
History and Social Studies Education Department
Postbaccalaureate Teacher Certification Program (HEGIS 2201.1)
National Council for Accreditation of Teacher Education (NCATE) Accredited
Classroom Building C205 (716) 878-5412

The social studies education (7–12; 5–6 extension) postbaccalaureate certification-only program prepares
persons with existing undergraduate degrees who have a
history or social science major to meet the disciplinary
content and educational requirements leading to New York
State’s Initial Certificate in adolescence education required
to teach social studies in grades 5–12. The program
supplies the background knowledge necessary for teachers
to implement the NYS Learning Standards for social
studies in grades 5–12. It also meets the standards set by
national professional organizations such as the National
Council for the Social Studies and the National Council for
the Accreditation of Teacher Education.

Admission Requirements: Applicants must have an existing
undergraduate degree with a 36-credit concentration in
history and/or social science courses, as well as a minimum
2.75 cumulative GPA; a minimum 2.75 GPA in all history
and social sciences courses.

Students complete a minimum of 30–35 clock hours of
field experience in each of three courses: SSE 200, SSE
303, and SSE 309. Another course, SSE/HIS 488, will be
used by students to complete the additional 50 clock hours
in field experience required for the 5-6 extension. The
department has established relationships with several high-
need urban and suburban school districts where field

<table>
<thead>
<tr>
<th>Total Required Credit Hours</th>
<th>92 cr</th>
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<tbody>
<tr>
<td>SSE 200 Methods and Materials in Teaching Middle School Social Studies</td>
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</tr>
<tr>
<td>SSE 303 Methods and Materials in Teaching High School Social Studies</td>
<td></td>
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<tr>
<td>SSE 309</td>
<td></td>
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<tr>
<td>SSE/HIS 407</td>
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<td>SSE 409</td>
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<tr>
<td>PSY 357 Adolescent and Young Adult Development</td>
<td></td>
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<tr>
<td>SSE 200 Introduction to Secondary Teaching</td>
<td></td>
</tr>
<tr>
<td>SSE 303 Methods and Materials in Teaching Middle School Social Studies</td>
<td></td>
</tr>
<tr>
<td>SSE 309</td>
<td></td>
</tr>
</tbody>
</table>
The social work program prepares students for social work practice at the first professional level. Consistent with accreditation standards, the social work courses cover the following areas: human behavior and the social environment, social welfare policy and services, intervention methods, research, values and ethics, diversity, social and economic justice, populations at risk, and field instruction.

Social work is an upper-division major that builds on a liberal arts base. Academic evaluation includes GPA, class performance, and conduct that is ethical and professional. Interested students should contact the department for specific information on these academic standards.

Admission Requirements: At the time of application, students are required to have:
1. Completed 45 credit hours
2. Attained a minimum GPA of 2.5.
3. Successfully completed the SUNY Buffalo State required college Writing (CWP101/102), Intro to Statistics (Math 311), in addition to Human Biology (BIO101).
4. Progress toward completing the liberal arts foundation (a recommended course in each of the following areas: sociology, psychology, political science, anthropology, economics, history, philosophy, literature, and the arts). However, at a minimum, must have a course in SOC and PSYCH.
5. *Evening courses are available.
6. Evening and weekend field education is NOT available.

**SOCIAL WORK (B.S.)*

BS-SP SWK
Social Work Department
Bachelor of Science (HEGIS 2104)
Council on Social Work Education Accredited
Classroom Building C115 (716) 878-5705

The B.A. degree in sociology presents a general program to prepare students for a wide variety of positions in business, industry, government, health-related services, or social services. It is also designed to prepare undergraduate students for graduate work in the study of sociology, law, public administration, media studies, demography, crime/deviance, or other social science disciplines. Its emphasis upon scholarly research culminates in either Internship in Sociology (SOC 488) or Senior Seminar (SOC 490). The freedom of choice in selection of courses permits students to develop a particular specialty within sociology, either to meet special career interests or to meet graduate program requirements.

**SOCIOMETRY (B.A.)**

BA-NS SOC
Sociology Department
Bachelor of Arts (HEGIS 2208)
Classroom Building B307 (716) 878-5411

**Total Required Credit Hours in Social Work** 42 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>SWK 220</td>
<td>Introduction to Social Work</td>
</tr>
<tr>
<td>SWK 307</td>
<td>Human Behavior and Social Environment I</td>
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</tbody>
</table>

**Total Required Credit Hours in Sociology** 42 cr

A. Required Courses (21 cr)

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<th>Course</th>
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<tbody>
<tr>
<td>SOC 100</td>
<td>Introduction to Sociology</td>
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<tr>
<td>SOC 300W</td>
<td>Methods in Social Research</td>
</tr>
<tr>
<td>OR</td>
<td>OR</td>
</tr>
<tr>
<td>SOC 302W</td>
<td>Qualitative Methods</td>
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<tr>
<td>SOC 301</td>
<td>Social Statistics</td>
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<tr>
<td>SOC 330</td>
<td>Social Psychology</td>
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<tr>
<td>SOC 400W</td>
<td>Foundations of Sociological Thought</td>
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<tr>
<td>SOC 408W</td>
<td>Contemporary Sociological Theory</td>
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<td>SOC 488</td>
<td>Internship in Sociology</td>
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<td>OR</td>
<td>OR</td>
</tr>
<tr>
<td>SOC 490</td>
<td>Seminar in Sociology</td>
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B. Inequality Electives (6 cr)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 240</td>
<td>Analyzing Social Problems</td>
</tr>
<tr>
<td>SOC 310</td>
<td>Sociology of Sex and Gender</td>
</tr>
<tr>
<td>SOC 321</td>
<td>The African American Family</td>
</tr>
<tr>
<td>SOC 333</td>
<td>Sociology of Social Movements</td>
</tr>
<tr>
<td>SOC 350</td>
<td>Power, Class, and Inequality</td>
</tr>
<tr>
<td>SOC 351</td>
<td>Sociology of Race and Ethnicity</td>
</tr>
<tr>
<td>SOC 353</td>
<td>Environment and Society</td>
</tr>
<tr>
<td>SOC 430</td>
<td>Sociology of International Development and Underdevelopment</td>
</tr>
</tbody>
</table>
C. Sociology Electives (15 cr)
At least three additional courses in sociology. Students may, in consultation with their advisor, use these electives to develop a specialty cluster.

All College Electives 14–41 cr
Total Required Credit Hours 120 cr

SOCIOLOGY—APPLIED (B.S.)
BS-NS SOA
Sociology Department
Bachelor of Science (HEGIS 2208)
Classroom Building B307 (716) 878-5411

The B.S. degree program emphasizes applied sociology and prepares students to conduct and administer sociological research for client organizations, such as business and financial institutions, labor organizations, criminal justice units, government agencies, health-related organizations, and a host of social service agencies. It also provides preparation for graduate study. The program rests upon a foundation of required core courses stressing research skills and sociological theory. Students select one of four clusters to emphasize a particular area of interest in the field.

Intellectual Foundations Requirements 39–66 cr
Total Required Credit Hours in Sociology 40 cr

A. Required Courses (19 cr)*
SOC 100 Introduction to Sociology
SOC 300W Methods of Research
OR
SOC 302W Applied Social Research
SOC 301 Social Statistics (4)
SOC 400W Foundations of Sociological Thought
SOC 486 Practicum in Applied Sociology
SOC 488 Internship in Sociology

* A number of courses are listed in more than one section. If a student selects one of these courses, it can be applied only in a single section. The student will choose where to apply the credit.

B. Cluster Requirement (9 cr)
Select three courses from one cluster:

Socialization through the Life Course
SOC 310 Sociology of Gender and Sex Roles
SOC 312 Women and Society
SOC 320 Sociology of the Family
SOC 321 African American Family
SOC 322 Sociology of Childhood and Youth
SOC 323 Sociology of Education
SOC 328 Sociology of Religion
SOC 330 Social Psychology
SOC 331 Sociology of Group Dynamics
SOC 352 Sociology of Aging
SOC 360 Sociology of Work
SOC 370 Sociology of Deviant Behavior
SOC 392 Sociology of Sexual Behavior

Deviance and Social Control

SOC 240 Social Problems
SOC 370 Sociology of Deviant Behavior
SOC 380 Sociology of Crime
SOC 382 Sociology of Law
SOC 383 Sociology of Punishment and Corrections
SOC 381 Sociology of Violence
SOC 389 Sociology of Murder
SOC 392 Sociology of Sexual Behavior
SOC 390 Sociology of Juvenile Delinquency
SOC 391 Sociology of Addiction
SOC 392 Sociology of Sexual Behavior
SOC 393 Sociology of Mental Illness

Community, Work, and Organizations
SOC 250 Sociology of Buffalo, New York
SOC 323 Sociology of Education
SOC 324 Sociology of Sport
SOC 328 Sociology of Religion
SOC 331 Sociology of Group Dynamics
SOC 333 Social Movements
SOC 340 Sociology of the City
SOC 350 Power, Class, and Inequality
SOC 351 Sociology of Race and Ethnicity
SOC 353 Environment and Society
SOC 360 Sociology of Work
SOC 361 Industrial Sociology
SOC 362 Sociology of Organizations
SOC 382 Sociology of Law
SOC 430 Sociology of International Development and Underdevelopment

C. Inequality Electives (6 cr)
Select two courses from the following:
SOC 250 Sociology of Buffalo, New York
SOC 310 Sociology of Gender and Sex Roles
SOC 312 Women in Society
SOC 321 African American Family
SOC 333 Social Movements
SOC 341 Sociology of Human Ecology
SOC 350 Power, Class, and Inequality
SOC 351 Sociology of Race and Ethnicity
SOC 352 Sociology of Aging
SOC 353 Environment and Society
SOC 360 Sociology of Work
SOC 380 Sociology of Crime
SOC 430 Sociology of International Development and Underdevelopment

D. Sociology Electives (6 cr)
Students may take any two courses in sociology that have not already been applied to the major. These include all of the courses for the B.S. listed above and all of those listed below.
SOC 491 Topical Seminar in Sociology
SOC 495 Special Project
SOC 499 Independent Study

All College Electives 14–41 cr
Total Required Credit Hours 120 cr
The Spanish secondary education program leads to eligibility for New York State initial certification to teach Spanish in grades 7-12. Students develop Spanish language skills and study the structure and sound system of Spanish, the literature and culture of Spanish-speaking peoples, and explore the teaching and learning of foreign languages in school settings. The curriculum includes a series of field experiences. All students desiring this program may be admitted into the B.A. language and literature program, which functions as a pre-major for the B.S. program. Prospective students who apply for admission to the B.S. program must fill out a Change of Major Form and complete two brief entrance essays – one in English and the other in Spanish – in the Modern and Classical Languages Department office (Bishop 122) after they have successfully completed 6 credits beyond SPA302. No student will be admitted with less than a 2.5 overall GPA, or with less than a 2.5 GPA in Spanish courses. Students must have a minimum GPA of 2.5 (overall and in Spanish), to enroll in the teaching practicum. Also, the student must complete an ACTFL-approved Oral Proficiency Interview (OPI) in order to demonstrate Advanced-Low Proficiency in Spanish. If Advanced-Low is not achieved, an additional upper-level Spanish course, chosen in consultation with the student’s advisor, must be successfully completed.

### Intellectual Foundations Requirements
39–66 cr

### Total Required Credit Hours in Spanish
36 cr

#### A. Required Courses (27 cr)
- SPA 301: Spanish Conversation and Composition
- SPA 302: Spanish Conversation and Composition
- SPA 305: Spanish Phonetics
- SPA 306: The Civilization of Spain
- SPA 307: Survey of Spanish Literature
- SPA 308: Survey of Spanish American Literature

#### B. Electives (9 cr)
Select three courses from the following:
- SPA 303: Introduction to Spanish Literature
- SPA 307: Survey of Spanish Literature*
- SPA 308: Survey of Spanish Literature*
- SPA 310: Survey of Spanish American Literature*
- SPA 311: Survey of Spanish American Literature*
- SPA 317: Business Spanish
- SPA 405: Old Spanish

### Total Required Credit Hours in Professional Education
24 cr

- SPF 303: Educational Psychology
- SPF 403: Historical and Philosophical Forces Influencing Secondary Education
- EDU 416: Teaching Literacy in Middle and Secondary Schools
- EXE 372: Foundations of Teaching Adolescents with Disabilities
- FLE 240: Introduction to Linguistics
- FLE 300: Introduction to the Foreign Language Classrooms
- FLE 340: Second Language Acquisition and Literacy
- FLE 401: Teaching Foreign Language in Middle and High Schools

### Total Required Credit Hours in Student Teaching
12 cr

- FLE 407/SED 408: Student Teaching of Foreign Languages in the Middle/Junior High School (6)

### All College Electives
0–6 cr

### Total Required Credit Hours
120 cr

Academic Road Map for Spanish Education (7-12), B.S.
http://catalog.buffalostate.edu/undergraduate/roadmaps/RMSpanishEdBS.pdf

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### SPANISH EDUCATION (7–12, PTCP)

PBC-AH SPS
Modern and Classical Languages Department
Postbaccalaureate Teacher Certification Program (HEGIS 1105.01)
National Council for Accreditation of Teacher Education (NCATE) Accredited
Bishop Hall 122 (716) 878-5414

The Spanish (7-12) postbaccalaureate teacher certification program leads to eligibility for New York State initial certification to teach Spanish in grades 7-12. This program is designed for students who have earned a baccalaureate degree in Spanish or a related field from an accredited college or university and intend to complete the coursework required for New York State certification to teach Spanish in middle or high schools. The program supplies the background knowledge necessary for teachers to implement the New York State Learning Standards for Languages Other Than English (LOTE) 7-12. It also meets the standards set by national professional organizations such as the American Council of Teachers of Foreign Languages (ACTFL) and the National Council for Accreditation of Teacher Education (NCATE). Students are responsible for any additional certification requirements, including the Liberal Arts and Sciences Test (LAST), the Assessment of Teaching Skills--WRITTEN (ATS-W), Content Specialty Test (CST) in Spanish, Oral
Proficiency Interview (OPI), and all seminars required for initial certification. It takes three to four semesters of coursework, field experiences, and student teaching to complete certification requirements.

To student teach, a student must have achieved a minimum GPA of 2.75 in Spanish coursework and overall, and must have earned a minimum grade of C in FLE300, FLE340 and FLE401. Also, the student must complete an ACTFL-Approved Oral Proficiency Interview (OPI) in order to demonstrate Advanced-Low Proficiency in Spanish. If Advanced-Low is not achieved, an additional upper-level Spanish course, chosen in consultation with the student’s advisor, must be successfully completed. After successfully completing the teacher certification program and passing all required tests, students are eligible to apply for New York State Initial Certification through the Teacher Certification Office, Caudell Hall, 112 Buffalo State College. No degree or certificate is awarded by Buffalo State College.

Financial Assistance: For financial aid purposes, students who are fully admitted into the program are considered fifth-year undergraduates, eligible for undergraduate loans, when applicable.

Admission Requirements.*

1. A bachelor’s degree from an accredited college or university with a minimum cumulative grade point average (GPA) of 2.75 (4.0 scale), a major in Spanish language, literature, culture (or a closely related discipline with a minimum of 30 hours in Spanish).

2. A minimum GPA of 2.75 in Spanish coursework.

3. A completed application form submitted to the Graduate Office at Buffalo State College.

4. Official transcripts from all previous college/university work.**

5. A personal interview with the program coordinator, department chair, or other designated official.

6. Successful completion of two written essays (one English, one Spanish), administered by the department as part of the interview process.

*Applicants who do not meet these minimum requirements should contact an Modern and Classical Languages advisor.

**Students who received degrees from institutions outside the United States must have their transcripts evaluated by a recognized evaluation service.

Program Requirements

Required Residency Requirement * ** 6 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPA 303</td>
<td>Introduction to Spanish Literature</td>
</tr>
<tr>
<td>SPA 305</td>
<td>Spanish Phonetics</td>
</tr>
<tr>
<td>SPA 306</td>
<td>The Civilization of Spain</td>
</tr>
<tr>
<td>SPA 307, SPA 308</td>
<td>Survey of Spanish Literature</td>
</tr>
<tr>
<td>SPA 309</td>
<td>The Civilization of Latin America</td>
</tr>
<tr>
<td>SPA 310, SPA 311</td>
<td>Survey of Spanish American Literature</td>
</tr>
<tr>
<td>SPA 405</td>
<td>Old Spanish</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPA 415</td>
<td>Advanced Grammar and Composition</td>
</tr>
<tr>
<td>SPA 416</td>
<td>Advanced Conversation</td>
</tr>
<tr>
<td>SPA 495</td>
<td>Special Project</td>
</tr>
<tr>
<td>SPA 496</td>
<td>Seminar I</td>
</tr>
</tbody>
</table>

* All students required to take a minimum of 6 credit hours above the 302 level

** Students with undergraduate degrees are eligible, with instructor permission, to enroll in graduate level language and literature courses at Buffalo State College.

Professional Education Courses 24 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPF 303</td>
<td>Educational Psychology</td>
</tr>
<tr>
<td>SPF 403</td>
<td>Historical and Philosophical Forces Influencing Secondary Education</td>
</tr>
<tr>
<td>EDU 416</td>
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<tr>
<td>EXE 372</td>
<td>Foundations of Teaching Adolescents with Disabilities</td>
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<td>FLE 240</td>
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<td>FLE 401</td>
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</tr>
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</table>

Student Teaching Courses 12 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>FLE 407/SED 407</td>
<td>Student Teaching of Foreign Languages in the Middle/Junior High School (6)</td>
</tr>
<tr>
<td>FLE 408/SED 408</td>
<td>Student Teaching of Foreign Languages in the High School (6)</td>
</tr>
</tbody>
</table>

Total Required Credit Hours 42 cr

Total Required Credit Hours 42 cr

SPANISH (B.A.)

BA-AH SPN
Modern and Classical Languages Department
Bachelor of Arts (HEGIS 1105)
Bishop Hall 122 (716) 878-5414

This program develops the ability to communicate in Spanish and introduces students to the masterpieces of the literature of Spanish-speaking countries and the most significant aspects of Hispanic culture. Students are encouraged to study in Spain or Latin America in an approved program. This program also serves as a pre-major for students who wish to enter the Bachelor of Science in Spanish Education (7–12).

Intellectual Foundations Requirements 39–66 cr

Total Required Credit Hours in Spanish 36 cr

A. Required Courses (15 cr)

- Majors may select either sequence of courses:
- SPA 301, SPA 302 Spanish Conversation and Composition
- SPA 306 The Civilization of Spain
- SPA 307 Survey of Spanish Literature
- SPA 308 Spanish Conversation and Composition
- or
- SPA 309 The Civilization of Latin America
Speech-Language Pathology (B.S.)

BS-SP SLP
Speech-Language Pathology Department
Bachelor of Science (HEGIS 1220)
Ketchum Hall 208 (716) 878-5502

The undergraduate program in speech-language pathology prepares students in the fundamentals of normal acquisition of speech, language, and hearing, and provides an introduction to the field of communication sciences and disorders. The undergraduate curriculum provides students with necessary prerequisite courses for graduate study. The master's degree is necessary for the initial teaching certificate, the license to practice speech-language pathology, and for the Certificate of Clinical Competence (CCC) awarded by the American Speech-Language Hearing Association, www.asha.org. The speech-language pathology master's degree program is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA) of the American Speech-Language Hearing Association.

Admission Requirements: Transfer students are eligible to apply for admission to the department as a junior. Undeclared BSC students are eligible to apply for admission to the department after two semesters of college study. A minimum GPA of 2.8 is required for admission, no exceptions.

Academic Performance Policy: Students who have a GPA of less than 3.0 in SLP-prefixed courses required for the major at the end of a semester will be placed on departmental probation. The student will then have one semester to raise their GPA to a 3.0 or greater in SLP-prefixed required courses or they will be dismissed from the department.

Intellectual Foundations Requirements 39–66 cr

Total Required Credit Hours in the Major 46 cr

Total Required Credit Hours 120 cr

Recommended speech-language pathology electives:
PSY 306 Statistics in Psychological Research
OR
MAT 311 Introductory Probability and Statistics
SLP 400 Language and Literacy for Speech-Language Pathologists

TECHNOLOGY EDUCATION (B.S.)

BS-SP TED
Engineering Technology Department
Bachelor of Science (HEGIS 8393.01)
National Council for Accreditation of Teacher Education (NCATE) Accredited
Technology Building 126 (716) 878-6018

The technology education program prepares students to teach technology and the technological systems utilized in problem solving. The four systems emphasized are construction, manufacturing, communication, and transportation. The program is laboratory oriented, teaching the important role of engineering a product or service through selecting and systemizing knowledge for
the solution of a problem. Graduates are recommended for an initial certificate to teach technology education in grades K–12.

**Intellectual Foundations Requirements** 39–66 cr

<table>
<thead>
<tr>
<th>Total Required Credit Hours in Technology</th>
<th>33 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEC 101</td>
<td>Technical Drawing</td>
</tr>
<tr>
<td>TED 123</td>
<td>Principles of Manufacturing</td>
</tr>
<tr>
<td>TEC 300</td>
<td>Construction Systems</td>
</tr>
<tr>
<td>TEC 301</td>
<td>CAD/CAM</td>
</tr>
<tr>
<td>TEC 302</td>
<td>Technology and Values</td>
</tr>
<tr>
<td>TEC 311</td>
<td>Materials Science and Testing</td>
</tr>
<tr>
<td>TEC 314</td>
<td>Electro Mechanicals</td>
</tr>
<tr>
<td>TEC 319</td>
<td>Technology and Values</td>
</tr>
<tr>
<td>TED 100</td>
<td>Introduction to Technology Education</td>
</tr>
<tr>
<td>TED 349</td>
<td>Communication Systems</td>
</tr>
<tr>
<td>TED 361</td>
<td>Transportation Systems</td>
</tr>
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</table>

**Total Required Credit Hours in Professional Sequence** 27 cr

<table>
<thead>
<tr>
<th>CTE 301/BME 301</th>
<th>Principles of Occupational Education</th>
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</thead>
<tbody>
<tr>
<td>CTE 302/BME 302</td>
<td>Curriculum and Evaluation in Occupational Education</td>
</tr>
<tr>
<td>EDF 303</td>
<td>Educational Psychology</td>
</tr>
<tr>
<td>EDU 416</td>
<td>Teaching Reading in the Secondary School</td>
</tr>
<tr>
<td>TED 360W</td>
<td>Technology Education Methods and Evaluation</td>
</tr>
<tr>
<td>TED 450W</td>
<td>Professional Semester (6)</td>
</tr>
<tr>
<td>TED 451W</td>
<td>Professional Semester (6)</td>
</tr>
</tbody>
</table>

**Total Required Credit Hours in Other Fields for Certification** 15 cr

| CHE XXX | Core Chemistry (3) |
| EXE 372 | Foundations of Teaching Adolescents with Disabilities |
| MAT XXX | Core Math (3) |
| MAT 124 | Precalculus Mathematics |
| PHY 107 | General Physics I |

**All College Electives** 0–6 cr

| Total Required Credit Hours | 120 cr |

**Academic Road Map for Technology Education, B.S.**

**TECHNOLOGY EDUCATION (PTCP)**

PBC-SP TED
Engineering Technology Department
Postbaccalaureate Teacher Certification Program (HEGIS 0839.01)
National Council for Accreditation of Teacher Education (NCATE) Accredited
Technology Building 126 (716) 878-6018

This program is designed for students who have earned a baccalaureate degree in a technology-related field from an accredited college or university and intend to complete coursework required for New York State certification to teach technology. It generally takes at least three semesters for a person with a degree in engineering or architecture to complete this program.

The professional semester, also known as student teaching, is completed with two seven-week rotations: one in a middle school and one in a high school. Students are assigned to specific schools based on their qualifications; however, each student must complete one rotation in a school with a racially diverse population.

**Admission Requirements:**
1. A bachelor’s degree from an accredited college or university.
2. Completion of 36 credit hours of coursework in technology or a technologically-related area, such as engineering, architecture, engineering technology, electrical technology, or industrial technology.
3. Evidence of coursework or professional experience from among the following areas: biotechnical systems, communication systems, structural systems, production systems, and transportation systems.

Applications for admission may be obtained online at www.buffalostate.edu/graduateschool or from the Graduate School, Cleveland Hall 204, (716) 878-5601.

**Other Program Requirements:** In addition to the required coursework, students must complete:
1. New York State Certification Exams: LAST, ATS-W, and CST. Registration materials for these exams may be obtained from the Teacher Certification Office, Caudell Hall 101.
2. Seminars:
   a. S.A.V.E. (School Anti-Violence Education) workshop
   b. Child abuse identification workshops
   c. Drug and alcohol awareness seminar
   d. Fire and arson safety seminar

<table>
<thead>
<tr>
<th>Total Required Credit Hours in Technology Education</th>
<th>6 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>TED 100</td>
<td>Introduction to Technology Education</td>
</tr>
<tr>
<td>TED 360W</td>
<td>Technology Education Methods and Evaluation</td>
</tr>
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</table>

**Total Required Credit Hours in Other Education** 15 cr

<table>
<thead>
<tr>
<th>BME 301</th>
<th>Principles of Occupational Education</th>
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</thead>
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<tr>
<td>BME 302</td>
<td>Curriculum and Evaluation in Business/Marketing Education</td>
</tr>
<tr>
<td>EDF 303</td>
<td>Educational Psychology</td>
</tr>
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<td>EDF 416</td>
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<td>EXE 372</td>
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</tbody>
</table>

**Professional Semesters** 12 cr

<table>
<thead>
<tr>
<th>TED 450W</th>
<th>Professional Semester (6)</th>
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</thead>
<tbody>
<tr>
<td>TED 451W</td>
<td>Professional Semester (6)</td>
</tr>
</tbody>
</table>

**Total Required Credit Hours** 33 cr

**TELEVISION AND FILM ARTS (B.A.)**

BA-AH TFA
Television and Film Arts
Bachelor of Arts (HEGIS: 0603)
Bishop Hall 210 (716) 878-3180

The Television and Film Arts major (TFA) at Buffalo State—an interdepartmental program encompassing the
Communication, English, and Theater departments—
prepares students for a variety of careers in the entertainment industry. The goal of the major is to teach the TFA student to hone his/her vision and storytelling skills, thus facilitating pursuits in such dynamic fields as screenwriting, producing, and directing. The TFA program recognizes that creative content is paramount in today’s age of multi-media and to that end, encourages its students to tell stories across all media. The program is dedicated to excellence in teaching and scholarship, cultural enrichment, and service, providing TFA majors with an appropriate mix of criticism, theory, practical application, and real-life internship opportunities passionately designed to help them succeed.

Required TFA Courses: This series of eight courses provides students with the foundational skills needed for success in the TFA major. The lower-division courses emphasize the history of storytelling, writing fundamentals, film as a vehicle for literature, and basic television production. The upper-division courses emphasize film criticism; collaboration across production roles; working independently as an "auteur"; and writing, producing, directing, and editing professionally produced stories exhibited in a public forum.

In addition to required courses, TFA offers electives related to two professional tracks: (1) writing and storytelling, and (2) directing and producing. Students may take all their major electives from a single track, or they can blend courses from both tracks.

Writing and Storytelling Track: This track is designed for the TFA major who wishes to pursue a career as a screenwriter. Students will write a full-length feature screenplay, and immerse themselves in the history of motion pictures and theater.

Directing and Producing Track: This track is designed for the TFA major who wishes to pursue a career as a director or producer. Students will write, produce, direct, and edit advanced video projects, and be introduced to set design and the business of performing arts.

Admission Requirements: Admission to the television and film arts program is very competitive (15 students admitted each year) and based upon an application, letter of recommendation, and submission of creative work (including screenplays, short stories, poetry, and/or videos/films). All submitted materials are reviewed by the Television and Film Arts Advisory Committee.

The elective requirement can be satisfied by completing 18 credits in any of the courses below.

Writing and Storytelling Track
- ENG 205 History of Cinema I
- ENG 206 History of Cinema II
- ENG 305 Creative Writing: Narrative*
- ENG 350 Twentieth-Century Drama I
- ENG 351 Twentieth-Century Drama II
- ENG 402 Advanced Creative Writing*
- TFA 460 Adaptation
- THA 340 Playwriting

Directing and Producing Track
- COM 432 Advanced Postproduction
- COM 329 Intermediate Video Production
- TFA 480 Advanced Directing/Producing I
- TFA 481 Advanced Directing/Producing II
- THA 200 Voice and Diction
- THA 226 Acting I
- THA 325 Business of Performing Arts
- THA 337 Set Design**

All College Electives 12–39 cr
Total Required Credits 120 cr

Academic Road Map for Television and Film Arts, B.A.
Student Learning Outcomes for Television and Film Arts, B.A.

THEATER (B.A.)

BA-AH THA
Theater Department
Bachelor of Arts (HEGIS 1506)
National Association of Schools of Theater (Accredited)
Donald Savage Theater Building 222 (716) 878-6416

The Theater Department introduces students to all aspects of theater and the entertainment industries. The theater season includes both faculty- and student-directed productions presented on campus. These productions are attended by members of both the college and the community. Through advisement, students may focus their studies in the following concentrations: acting, directing/dramaturgy, design/technical, and general study. The department also emphasizes direct application of theater skills beyond the stage in the form of various outreach projects. High standards afford a foundation for careers in professional theater, television, and film. A 19-credit-hour minor program in theater is also available.

Intellectual Foundations General Education

<table>
<thead>
<tr>
<th>Requirements</th>
<th>39–66 cr</th>
</tr>
</thead>
</table>

Total Required Credits Hours in Theater 42 cr

A. Required Courses (26 cr)
- THA 216 Theater Fundamentals
- THA 226 Acting: Theory and Practice
- THA 230 Theater Practicum I (1)
- THA 231 Theater Practicum II (1)
- THA 234 Introduction to Theater Design and Technology
- THA 316 Script Analysis

B. Elective Courses (18 cr)
B.  Concentration Electives (18 cr)

Electives in a concentration: acting, directing, design-technical, or general study.

All College Electives: Urban-Regional Planning 12–39 cr

Total Required Credit Hours 120 cr

Urban and Regional Analysis and Planning (B.S.)*

BS-NS URP
Geography and Planning Department
Bachelor of Science (HEGIS 2214)
Classroom Building A213 (716) 878-6216

Planning is a discipline concerned with effective change and development in a positive and beneficial manner. It has many sub-areas that range from land-use planning to public service planning. The planning program at Buffalo State provides students with a sound, fundamental knowledge of one of two principal concentrations: urban planning or environmental planning. Students majoring in the program are encouraged to develop their own secondary area of interest in planning.

*Evening study available.

Intellectual Foundations Requirements 39–66 cr

Total Required Credit Hours in the Major 40–42 cr

A. Required Courses for Both Concentrations (24 cr)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEG 307</td>
<td>Conservation and Environmental Management</td>
</tr>
<tr>
<td>PLN 315</td>
<td>Principles of Urban and Regional Planning</td>
</tr>
<tr>
<td>PLN 325</td>
<td>Maps and Mapmaking Using GIS</td>
</tr>
<tr>
<td>PLN 390</td>
<td>Quantitative Methods in Geography and Planning</td>
</tr>
<tr>
<td>PLN 396W</td>
<td>Research Methods</td>
</tr>
<tr>
<td>PLN 412</td>
<td>Community Planning Agencies and Issues</td>
</tr>
<tr>
<td>PLN 430W</td>
<td>Senior Thesis</td>
</tr>
</tbody>
</table>

B. Concentration Electives (18 cr)

Select one of two concentrations:

1. Urban and Regional Planning Concentration Electives (18 cr)

Specialized required course (3 cr)

GEG 309 Urban Geography

Select six courses from the following (by advisement):

- ECO 412 Urban Economics
- ECO 424 Econometrics
- GEG 305 Principles of Economic Geography
- GEG 425 Fundamentals of GIS
- GEG 427 Corporate Applications in GIS
- GEG 485 Interactive and Web-Based Mapping
- PLN 310 Urban Transportation Planning
- PLN 435 Brooklyn Planning
- PLN 474 Advanced Seminar in Planning
- PLN 488 Internship (3 cr maximum)

2. Environmental Planning Concentration Electives (16–18 cr)

Students in this concentration must demonstrate college-level competency in general chemistry and general biology. These courses are taken outside of the major.

Select one course from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>BIO 212</td>
<td>Introduction to Organismal Biology and Diversity</td>
</tr>
<tr>
<td>BIO 213</td>
<td>Introduction to Ecology, Evolution and Behavior</td>
</tr>
</tbody>
</table>

Select one course from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 101</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHE 102</td>
<td>General Chemistry II</td>
</tr>
</tbody>
</table>

Electives selected by advisement (9–11 cr):

- BIO 315 Ecology (4)
- BIO 418 Limnology (4)
- GEG 365 Soil Science and Management
- GEG 375 Principles of Hydrology
- GEG 386 Applied Climatology
- GEG 421 Watershed Analysis
- GEG 425 Fundamentals of GIS
- GEG 428 Environmental Assessment and Planning Applications in GIS
- GES 452 Hydrogeology
- PLN 360 Environmental Impact Assessment
- PLN 388 Internship (3 cr maximum)
- PLN 370 Water Resource Planning

All College Electives: Urban-Regional Planning 21–45 cr

All College Electives: Environmental Planning 21–41 cr

Total Required Credit Hours (Either Concentration) 120 cr

Wood/Furniture (B.F.A.)

BFA-AH WFD
Design Department
Bachelor of Fine Arts (HEGIS 1009)
National Association of Schools of Art and Design (NASAD) Accredited
Upton Hall 212 (716) 878-6032

The B.F.A. degree in wood/furniture design is a studio-intensive program of study focused on developing the aesthetic, conceptual and technical skills necessary to foster creativity as the student works toward developing their individual identity as a visual designer/artist. This degree offers students a specialized studio-oriented education in preparation for advanced or graduate studies or for beginning careers as professional designers or artists. Students begin with foundation courses in two-dimensional design, three-dimensional design, drawing, art history and design history along with courses in ceramics, fibers and metal/jewelry. Major courses in wood/furniture design...
complete the requirements. Internship opportunities are available. The remaining credit hours are completed in required Intellectual Foundations courses and in other chosen studio courses.

**Admission Requirements:** There is no entrance portfolio review for admission. All students will enter the wood/furniture design major as a bachelor of science (BS-AH WFD) and complete a selection of foundation and major course(s) before a commit-to-major portfolio review for admission into the bachelor of fine arts program (BFA-AH WFD). Commit-to-major portfolio reviews are conducted by faculty and generally take place during the sophomore year. After passing the portfolio review, to continue in the B.F.A. degree program a 3.0 GPA must be maintained in the major. Transfer students are urged to submit their portfolios the semester before transfer in order to facilitate placement in departmental courses and/or for possible commit-to-major portfolio review. Please call the Design Department for additional information. As a condition for graduation each B.F.A student will be required to mount an individual exhibition of his/her work. The Design Department reserves the right to retain students’ work for official purposes, such as exhibitions, catalogs, teaching aids, or permanent collections and to use images of the students and their work for publicity and recruitment. Students are expected to assume the costs of materials used in courses. Some studio courses may have an additional charge for materials used in class. Students enrolled in a studio course are expected to work a minimum of two additional hours each week outside of class for each credit granted for that class. The Design Department may be in the process of curricular revision. Please refer to the college Web site or the department for updated information.

**Intellectual Foundations Requirements**

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<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>DES 101</td>
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<td>DES 103</td>
<td>Introduction to Design: 3D I</td>
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<td>Drawing I</td>
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<tr>
<td>FAR 104</td>
<td>Themes and Issues in Contemporary Arts</td>
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<td>DES 104</td>
<td>Introduction to Design: 3D II</td>
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<td>DES 230</td>
<td>Introduction to Jewelry</td>
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<td>Fibers I</td>
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<td>FAR 250</td>
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<td>History of Craft</td>
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<tr>
<td>DES 414</td>
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**Total Required Credit Hours in Wood/Furniture Design** 79 cr

**A. Foundation Courses** (37 cr)

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**B. Major Courses** (30 cr)

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<td>TEC 101</td>
<td>Technical Drawing</td>
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<td>Computer 3D Modeling and Rendering</td>
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<td>DES 351</td>
<td>Wood - Junior Studio (3, 3)</td>
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<td>Wood - Senior Studio (3, 3)</td>
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<td>DES 451 or DES 488</td>
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**C. Studio Electives Selected by Advisement** (12 cr)

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<td>DES 330</td>
<td>Applied Jewelry Techniques</td>
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<tr>
<td>DES 336</td>
<td>Metalsmithing</td>
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<td>DES 342</td>
<td>Fibers II</td>
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<td>FAR 240</td>
<td>Introduction to Sculpture</td>
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</table>

**All College Electives** 0–2 cr

**Total Required Credit Hours** 120-145 cr

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**Wood/Furniture (B.S.)**

BS-AH WFD
Design Department
Bachelor of Science (HEGIS 1009)
National Association of Schools of Art and Design (NASAD) Accredited
Upton Hall 212 (716) 878-6032

The B.S. degree in wood/furniture design is a studio degree with a strong academic component. This degree offers students a broadly grounded educational experience as a basis for beginning careers as professional designers or artists.

Students begin with foundation courses in two-dimensional design, three-dimensional design, drawing and design history along with courses in ceramics, fibers and metal/jewelry. Major courses in wood/furniture design focus on developing the aesthetic, conceptual and technical skills necessary to foster creativity as the student works toward developing their individual identity as a visual designer/artist. Internship opportunities are available. The remaining credit hours are completed in required Intellectual Foundations courses and in other academic subjects of the student’s choosing. The academic component offers opportunities to gain a broader base of knowledge, as well as knowledge in other disciplines related to the major field of study.

**Admission Requirements:** There is no entrance portfolio review for admission. All students will enter the wood/furniture design major as a bachelor of science (BS-AH WFD) and complete a selection of foundation and major course(s) before a commit-to-major portfolio review for continuation in the B.S. degree program. Commit-to-major portfolio reviews are conducted by faculty and generally take place during the sophomore year. After passing the portfolio review, to continue in the B.S. degree program a 2.5 GPA must be maintained in the major.

Transfer students are urged to submit their portfolios the semester before transfer in order to facilitate placement in departmental courses and/or for possible commit-to-major portfolio review. Please call the Design Department for additional information.

The Design Department reserves the right to retain students’ work for official purposes, such as exhibitions, catalogs, teaching aids, or permanent collections and to use images of the students and their work for publicity and recruitment. Students are expected to assume the costs of materials used in courses. Some studio courses may have an additional charge for materials used in class. Students enrolled in a studio course are expected to work a
minimum of two additional hours each week outside of class for each credit granted for that class.

**Intellectual Foundations Requirements**

| 39–66 cr |

| Total Required Credit Hours in Wood/Furniture Design |

| 45 cr |

**A. Foundation Courses (24 cr)**

- DES 101 Introduction to Design: 2D I
- DES 103 Introduction to Design: 3D I
- FAR 101 Drawing I
- FAR 104 Themes and Issues in Contemporary Arts
- DES 220 Ceramics I
- DES 230 Introduction to Jewelry
- DES 242 Fibers I
- DES 312W History of Craft

**B. Major Concentrations (21 cr)**

- DES 250 Wood Design I
- DES 350 Technical Processes in Wood
- DES 338 Computer 3D Modeling and Rendering
- DES 351 Wood - Junior Studio (3,3)
- DES 451 Wood - Senior Studio (3,3)

**All College Electives** 9–36 cr

| Total Required Credit Hours |

| 120 cr |

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**WRITING (B.A.)**

**BA-AH WRT**

English Department

Bachelor of Arts (HEGIS 1507)

Ketchum Hall 326 (716) 878-5416

The Writing B.A. degree program offers students an opportunity to combine the study and practice of the craft of writing with the study of literature, theater, television and communication arts. The writing degree program allows for the development of skills in creative writing, journalistic writing, literary writing, and/or professional writing. Students can take courses from a variety of disciplines to fulfill their requirements. The program is intended for students interested in the advanced study and practice of writing.

**Admission Requirements:** All applicants must submit a writing portfolio to be considered for acceptance into the program. Transfer or uncommitted students must have a 2.5 minimum GPA in all previous college credits to enter the major, and must complete the College Basic Writing requirement to be accepted into the major. Freshman may be admitted to the program on a one-year probationary basis at the discretion of the selection committee.

**Intellectual Foundations Requirements** 39–66 cr

| Total Required Credits in English |

| 42 cr |

(24 credits must be upper-division)

**A. Required Courses (12 cr)**

- ENG 190 Introduction to Literary Analysis and Interpretation

(Must be taken immediately after completion of freshman composition requirement or within first year of transfer to English Department.)
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Course Coding System

At the time of the printing of this catalog, all incoming students at Buffalo State College, both first-year and transfer students, are required to fulfill Intellectual
Foundations requirements. Students starting their education before fall 2006 are required to fulfill general education (GE2K) requirements via petition and should consult their department adviser about whether that would be advantageous. See page 00 of this catalog for more information.

Banner codes are used to identify which Intellectual Foundations requirement(s) a course fulfills. The Intellectual Foundations codes are as follows:

- **AHIF** = Foundations of Civilizations: American History
- **ARIF** = Cognate Foundation: Arts
- **BWIF** = Basic Writing
- **FLIF** = Foreign Language
- **HUIF** = Cognate Foundations: Humanities
- **MQIF** = Mathematics/Quantitative Reasoning
- **NSIF** = Cognate Foundations: Natural Sciences
- **NWIF** = Foundations of Civilizations: Non-Western Civilizations
- **OCIF** = Basic Oral Communication
- **SSIF** = Cognate Foundations: Social Sciences
- **TSIF** = Technology and Society
- **WCIF** = Foundations of Civilizations: Western Civilization

Here’s a sample course listing:

**ANT 300**

**INDIGENOUS PEOPLES OF WESTERN NORTH AMERICA**

3, 3/0; DIIF, NWIF

*Prerequisite: ANT 100 or permission of instructor.* Way of life of the original inhabitants of Western North America; reconstructing life during the seventeenth, eighteenth, and nineteenth centuries using archaeology, historical documents, and oral tradition. Tribal nations of the Plains, Northwest Coast, Southwest, Great Basin, Plateau, and California. Effects of European exploration and colonization and the persistence of indigenous Western North American peoples in the modern world.

**Here’s what it means:**

**ANT 300**

This is an anthropology course, number 300.

**INDIGENOUS PEOPLES OF WESTERN NORTH AMERICA**

Name of course.

3, 3/0

Number of semester credit hours the course earns, Number of lecture hours the class meets per week/Number of studio or lab hours per week.

**DIIF, NWIF**

This course satisfies two requirements in Intellectual Foundations: Diversity (DIIF) and the Foundations of Civilizations Non-Western Civilizations (NWIF).

**Prerequisites:**

Prerequisites or requirements you must fulfill before registering for a course. For this course, students must have taken ANT 100 first.

The remainder of the course listing describes the subject matter.
AAS 234
HISTORY OF THE BLACK DANCE MOVEMENT
3, 3/0
The development of African American dance and the contributions of African American dancers; emphasis on how traditional African dance forms evolved into and influenced the contemporary dance vernacular. Equivalent course: DAN234

AAS 240
AFRICAN AMERICAN LITERATURE
3, 3/0; DIIF, HUIF
African American slave narratives, poetry, fiction, essays, and drama from the eighteenth century to 1940. The influence of spirituals, gospel, the blues, jazz, sermons, and folktales on African American writing; the Harlem Renaissance of the 1920s and 1930s; and the development of African American revolutionary thought. Equivalent course: ENG240

AAS 241
AFRICAN AMERICAN LITERATURE SINCE 1940
3, 3/0
Realism, naturalism, modernism, and postmodernism in African American literature; black revolutionary thought and artistry in the 1960s and 1970s; neo-slave narratives; African American poetry, fiction, essays, and drama from 1940 to the present; influence of spirituals, gospel, the blues, jazz, sermons, and folktales on contemporary African American writing.

AAS 304
MODERN JAZZ
3, 3/0
Prerequisite: MUS 206 An explanation of the history and development of modern jazz from 1941 to the present. Equivalent course: MUS305

AAS 305
PEOPLES OF AFRICA
3, 3/0
Cross-cultural comparisons of indigenous and modern African nations. Emphasis is placed upon regional, linguistic, social, political, religious, economic, and aesthetic characteristics, as well as historical and recent population migrations on the African continent and the surrounding islands. Equivalent course: ANT305

AAS 306
HISTORY OF AFRICA TO 1919
3, 3/0
Indigenous development and early empires of Africa; the impact of Islam; Western contact and the slave trade; the development of European colonialism; the partition of Africa and colonial administrative policies of the European powers; the waning of European power as a result of World War I. Equivalent course: HIS306

AAS 321
THE AFRICAN AMERICAN FAMILY
3, 3/0; DIIF
The relationship of American social institutions and the African American family; familial relations within the African American family. Useful for students who will interact with a diverse population in their careers, e.g., education and service occupations. Equivalent course: SOC321

AAS 322
AFRICAN AMERICAN HISTORY
3, 3/0
Heritage of black Americans; African Americans' existence under slavery; their role in influencing historical events; activity in the Civil War period; the freed men during reconstruction; migration to the north and adjustment to urban life. African American leaders, institutions, and ideas, and their impact on modern America. Equivalent course: HIS322

AAS 333
AFRICAN INTERNATIONAL RELATIONS
3, 3/0
African international politics vis-à-vis international relations theory, models, and concepts; power; multipolarity; bipolarity; pan-Africanism, North-South debate; approaches to international politics; and state and international organizations as international actors. Equivalent course: PSC333

AAS 340
ETHNOMUSICOLOGY
3, 3/0
Prerequisite: MUS 303 or MUS 303W Lectures, readings, and recordings introducing principal musical traditions of selected non-Western cultures, such as African, Indic, and Sinic. Consideration of the African American tradition, including jazz and rock. Includes individual projects of music or cultural analysis. Required for music majors. Equivalent course: MUS340

AAS 341
AFRICAN-AMERICANS AND CIVIL RIGHTS
3, 3/0
History of the landmark court decisions, laws, and governmental policies regarding the civil rights of African Americans. Examines some of the historic relationships among race, racism, law, and public policy in America. Focuses on resistance, protest, and the quest for equality in America. Equivalent course: HIS341

AAS 351
SOCIOLOGY OF RACE AND ETHNICITY
3, 3/0; DIIF
Prerequisite: SOC 100 The study of racial and ethnic groups in American and other societies; focuses on forms, causes, and effects of prejudice and ethnic conflicts, and the changing relationships of these groups to the larger society. Possible solutions to social problems involving issues of race and ethnicity are also explored. Equivalent course: SOC351

AAS 411
AFRICAN FAMILY
3, 3/0
The family, kinship, and marriage among the peoples of Africa. Emphasis on the interrelationships of kinship with other aspects of culture. Equivalent course: ANT411

AAS 425
RACE, ETHNICITY, AND THE ADMINISTRATION OF JUSTICE
3, 3/0
Prerequisite: CRJ 101 The current state of race relations in society and the criminal justice system. Examination of the historical experiences of different racial and ethnic groups in the United States, including the use of law and the criminal justice system as a means of social subordination, affecting the criminality of minority groups and informal aspects of criminal justice, such as power, discretion, and authority. Equivalent course: CRJ425

AAS 468
READINGS IN AFRICAN AMERICAN HISTORY
3, 3/0
Prerequisite: Upper-division status. Major historical writings on selected periods and topics in African American history, Readings, discussions, and writing book reviews and bibliographic essays. Equivalent course: HIS468

AAS 469
BLACK PROTEST AND LEADERSHIP IN THE U.S. IN THE TWENTIETH CENTURY
3, 3/0
The black protest movements and leaders in twentieth-century America. Equivalent course: HIS469

AAS 495
SPECIAL PROJECT
1-3, 0/0

AAS 499
INDEPENDENT STUDY
3-9, 0/0
Prerequisite: Faculty adviser permission must be secured prior to registration.
### AED - Art Education

**AED 100**  
**Essentials of Visual Arts**  
3, 2/2; ARIF  
Non-art majors only. The development of visual and perceptual awareness through expressive learning processes inherent in the visual arts. Experience with a variety of media that will accommodate individual interpretations of art concepts that generate the formations, judgments, and decisions of a liberally educated individual.  
Equivalent course: AED100W

**AED 200**  
**Fundamentals of Art Inquiry**  
3, 3/0; ARIF  
Establishes the individual student's critical framework for looking at works of art and develops his or her knowledge and understanding of contemporary art. This is achieved by studying the application of the elements of art and principles of composition, discussions about artists and their work, and visiting art museums.  
Equivalent course: AED200W

**AED 300**  
**Foundations in Art Education**  
3, 2/2  
Prerequisites: Art education major or department chair permission and successful completion of English composition/basic communication and mathematics skills competency requirements. A writing-intensive introductory course that integrates instructional planning, learning theories, and teaching practices with the visual arts in education and society. Required for education majors.  
Equivalent course: AED300W

**AED 301**  
**Theoretical Constructs in Art Education**  
3, 2/2  
Prerequisites: Art education major, AED 300W, or department chair permission, and one course in psychology. AED 301 is a writing intensive course that examines traditional and contemporary theories and practices relevant to current art education environments, learners, and communities and is required for art education majors.  
Equivalent course: AED301W

**AED 302**  
**Functions and Practice in Art Education**  
3, 2/2  
Prerequisites: Art education major, AED 300W, AED 301W, and one course in sociology or anthropology. Studies of contemporary theories, functions, and practices in the visual arts including context, content, and processes necessary in the design of instructional planning, implementation, and evaluation of visual art teaching. Practicum experiences in local educational settings. Required for art education majors.  
Equivalent course: AED302W

**AED 303**  
**Elementary Student Teaching in Art**  
6, 0/0; OCIF  
Prerequisites: Art education major, AED 302W, ATS 325, satisfaction of departmental requirements, and approval of AED coordinator of student teaching. Students are assigned to a supervised elementary teaching placement for five full days a week for approximately seven consecutive weeks. Students are required to effectively demonstrate content knowledge, pedagogical preparation, instructional delivery, classroom management, knowledge of student development, collaboration with school professionals, and reflective practice.

**AED 304**  
**Secondary Student Teaching in Art**  
6, 0/0; OCIF  
Prerequisites: Art education major, AED 302W, ATS 325, satisfaction of departmental requirements, and approval of AED coordinator of student teaching. Students are assigned to a supervised secondary teaching placement for five full days a week for approximately seven consecutive weeks. Students are required to effectively demonstrate content knowledge, pedagogical preparation, instructional delivery, classroom management, knowledge of student development, collaboration with school professionals, and reflective practice.

**AED 310**  
**Art Media and Methods Exploration**  
3, 2/2  
Prerequisites: For ATS minors: ATS 320 and one visual arts studio course, or instructor permission; for AED majors: Junior or senior status, or instructor permission. Development of practical skill and knowledge in art media, methods, and resources for educational and/or therapeutic purposes. Hands-on exploration of culturally diverse traditional and nontraditional art tools and materials that are appropriate for school and community settings; media analysis for application to promoting developmental and/or therapeutic goals.

**AED 315**  
**Arts in Living**  
3, 2/2; WCIF  
Contemporary and historic art forms as they apply to everyday living. Discussion and analysis of the individual significance and interrelatedness of architecture, industrial design, the graphic arts, painting, sculpture, music, and theater arts in the context of the history of Western civilization. Participation in creative activities related to the course.  
Equivalent course: AED315W

**AED 319**  
**Art for Elementary and Exceptional Education Classroom Teachers**  
3, 2/2  
Prerequisite: Elementary education, exceptional education, or social work major, or permission of instructor. Children's expressive abilities, interests, and needs in relation to art at several developmental levels. The management of media as an agent for developing skills, inquiry, and appreciation of the artistic process. Studio experiences with processes and materials used in elementary school settings.

**AED 365**  
**Seminar in Feminist Art and Criticism**  
3, 3/0  
Prerequisites: Fulfillment of English composition/basic communication requirement and sophomore status. Women's creative achievements in visual art. Varieties of feminist visual art and criticism and their relationship to contemporary culture. Portrayal of women and the ways in which cultural definitions of gender shape artistic expression.

**AED 398**  
**Art, Society and New Media Technologies for Art Educators**  
3, 2/2  
Prerequisites: Art education major. Critical examination and uses of new media technologies in art education within socio-cultural contexts. Pedagogical tools for teaching media technologies to children and youth (pre-K through 12th grade).  
Equivalent course: AED398

**AED 400**  
**Student Teaching Seminar**  
3, 3/0  
Relationship of art education theories to teaching practices used in the contemporary school art program. Crucial issues in art education. Problems of beginning art teachers. The value of current professional literature in the resolution of issues and problems. Required for art education majors. To be taken concurrently with or immediately following student teaching.

**AED 488**  
**Internship**  
1-12, 0/0  
Prerequisites: Upper-division status and/or permission of instructor, minimum cumulative GPA of 2.5, and background coursework appropriate to the internship setting. Guided, supervised field experiences for qualified students in community-based agencies or settings. Interns apply and enhance knowledge gained through formal instruction demonstrating operational skills as practitioners in prospective specializations.

**AED 495**  
**Special Project**  
1-3, 0/0  
Prerequisite: Upper-division status. Project undertaken and meeting hours arranged individually with instructor.
ANT 100
HUMAN ORIGINS
3, 3/0; NSIF
Introduction to physical anthropology and archaeology. Physical anthropology portion focuses on evolutionary theory and genetics, the human fossil record, and the study of non-human primates. Archaeology reconstructs past cultures. Discusses the basics of archaeological data and dating methods. Transformation from a hunting-and-gathering lifestyle to one based on food production and the consequences of this transformation, which include, in some instances, the development of complex sociopolitical institutions and state societies.

ANT 101
UNDERSTANDING CULTURE
3, 3/0; NWIF
Human behavior and culture; formation of personality; nature of social structure, interaction, and the satisfaction of human needs. Cross-cultural comparisons. Recommended as a first or second course in anthropology.

ANT 189
TOPICS COURSE
1-3, 1-3/0

ANT 220
CASE STUDIES IN PHYSICAL ANTHROPOLOGY
3, 3/0; NSIF
Introduction to physical anthropology through detailed examination of exemplary case studies covering a broad range of topics in physical anthropology. The process of inquiry in physical anthropology, including initial conception of the research question, methodology, results, and conclusions. Ethics of physical anthropology research.

ANT 244
FOLKLORE AND LIFE
3, 3/0; SSIF
Prerequisite: CWPI02. Introduction to the major genres of folklore and folk life and their function in contemporary society; including roots music, ethnic and occupational folklore, rites of passage and calendar customs, and traditional narratives. The relationship between folklore and popular culture. Equivalent courses: ANT144, ANT244W

ANT 250
HISTORICAL ARCHAEOLOGY
3, 3/0; AHIF
Prerequisite: ANT 100. Archaeology of the United States from 1500 through the American Civil War. Material life and diversity of sociocultural experiences in the United States during this period.

ANT 300
INDIGENOUS PEOPLES OF WESTERN NORTH AMERICA
3, 3/0; DIIF, NWIF
Prerequisite: ANT100Way of life of the original inhabitants of Western North America; reconstructing life during the seventeenth, eighteenth, and nineteenth centuries using archaeology, historical documents, and oral tradition. Tribal nations of the Plains, Northwest Coast, Southwest, Great Basin, Plateau, and California. Effects of European exploration and colonization and the persistence of indigenous Western North American peoples in the modern world.

ANT 301
INDIGENOUS PEOPLES OF EASTERN NORTH AMERICA
3, 3/0; DIIF, NWIF
Prerequisite: ANT 100. The way of life of the original inhabitants of Eastern North America. Reconstructing life during the sixteenth and seventeenth centuries using archaeology, historical documents, and oral tradition. Details of the early seventeenth-century Wendat/Huron Haudenosaunee/Five Nation Iroquois and Powhatan confederacies. Highlights the effects of European exploration and colonization and the persistence of indigenous Eastern North American peoples in the modern world.

ANT 303
THE ANTHROPOLOGY OF EUROPE
3, 3/0; WCIF
Prerequisite: ANT101. Introduction to the anthropology of Europe and European culture. The course discusses the traits and development of distinctive cultural features of European peoples through cultural histories of Europe in general and ethnographic case studies. It related the development and influence of Western civilization to other regions of the world.

ANT 305
PEOPLES OF AFRICA
3, 3/0; NWIF
Prerequisite: ANT 101. Cross-cultural comparisons of indigenous and modern African nations. Emphasis is placed upon regional, linguistic, social, political, religious, economic, and aesthetic characteristics as well as historic and recent population migrations on the African continent and the surrounding islands. Equivalent course: AAS305

ANT 306
PEOPLES OF ASIA
3, 3/0; NWIF
Prerequisite: ANT 101. Cross-cultural comparisons of indigenous and modern nations of Asia. Emphasis on regional, linguistic, social, political, religions, economic, and aesthetic characteristics as well as historic and recent population migrations on the Asian continent and surrounding islands.

ANT 307
URBAN ANTHROPOLOGY
3, 3/0; DIIF, NWIF
Prerequisite: ANT 101. Study of the origins and evolution of cities around the world; their impact upon the human family and other social relationships, and the physical environment. Early and recent viewpoints on life in cities, suburbs and rural communities.

ANT 308
ARCHAEOLOGICAL METHOD
6, 0/0
Prerequisite: ANT 100. Laboratory and field methods in archaeology. Opportunity for practical experience with various archaeological techniques.

ANT 310
MESOAMERICAN ARCHAEOLOGY
3, 3/0; NWIF
Prerequisites: ANT 100. Overview of ancient civilizations of Mesoamerica, including Olmecs, Maya, Monte Alban, Teotihuacan,
Toltecs, and Aztecs using archaeological evidence, hieroglyphic texts, iconography, and ethnohistorical sources. Comparative analysis of art, architecture, religion, political structure, economic and social organization of societies in Mesoamerica from archaic foraging groups through Spanish contact.

ANT 312 ARCHAEOLOGY OF NORTH AMERICA
3, 3/0
Prerequisite: ANT 100. Prehistory of North America beginning with earliest human presence, including the Paleo-Indian period; Archaic, Woodland, and Mississippian in the East; periods comparable in time in the West.

ANT 315 RESEARCH METHODS IN CULTURAL ANTHROPOLOGY
3, 3/0
Prerequisite: ANT 101. Research methods in cultural anthropology covering fieldwork, participant-observation, sampling, measurements, documentation, statistical and cross-cultural methods.
Equivalent course: ANT315W

ANT 321 PRIMATOLOGY
3, 3/0
Prerequisite: ANT 100. Study of living prosimians, monkeys, and apes, including taxonomy, social organization, feeding and ranging, community ecology, and conservation; field studies of natural populations.
Equivalent course: ANT321W

ANT 323 ANTHROPOLOGY OF DISEASE
3, 3/0
Prerequisites: ANT 100 or instructor permission. Study of ill health from an anthropological perspective. Biological anthropology; how cultural activities contribute to the spread of disease; how disease manifests itself in the archaeological record; how the language used for disease impacts thinking about disease; how anthropologists contribute to the fight against disease. Understanding epidemiological concepts via current events.

ANT 324 THE HUMAN SKELETON
3, 3/0
Prerequisite: ANT 100. Hands-on experience with natural human skeletons to learn all bones, landmarks, and features of the bones; how to determine the side of the body the bone came from, determine if a bone is from a male or female, estimate age at death, and estimate stature of the individual.
Equivalent courses: ANT325, CRJ325

ANT 325 FORENSIC ANTHROPOLOGY
3, 3/0
Prerequisite: ANT 324. Forensic applications of the recovery and identification of human skeletal remains. Determination of age, sex, and ancestry. Also taphonomy, differentiating human from animal remains, analysis and significance of traumas, and search and recovery techniques.
Equivalent course: CRJ325

ANT 326 THE HUMAN FOSSIL RECORD
3, 3/0
Prerequisite: ANT 100. Human evolution as derived from the fossil record examination of major fossil hominin discoveries, their interpretation, and their place in the development of the human species.

ANT 327 INTRODUCTION TO MEDICAL ANTHROPOLOGY
3, 3/0; NWIF
Prerequisite: ANT 101. An overview of the history and development of concepts and practices of medicine worldwide. Theories and procedures in illness, sickness, health and well-being in and from a variety of cultural perspectives, historical and contemporary, East and West. Stone Age, folk, shaman, traditional Western and herbal medicine, including healing and religion, homeopathy, and anthropological study of health-care institutions.
Equivalent course: HEW327

ANT 329 WORLD PREHISTORY
3, 3/0; NWIF
Prerequisite: ANT 100. An overview of the major developments in human culture as inferred from the archaeological record. Past cultures of hunter-gatherers, the first farmers, and early civilizations will be described as well as their legacy for the modern world.

ANT 330 PACIFIC ISLANDERS
3, 3/0; NWIF
Prerequisite: ANT101. Introduction to Pacific Islanders including origins, languages, ecology, cultural identity and agency, political struggles. Experience of indigenous communities. Representations of the Pacific originating inside and outside the region. Encounters and transformation by first inhabitants, explorers, missionaries, colonists, and recent global flows of people, culture, and capital.

ANT 340 WOMEN IN ANTHROPOLOGICAL PERSPECTIVE
3, 3/0
Prerequisite: ANT 101. The study of women’s position with attention to political, social, and cultural influences on female status in a cross-cultural perspective.

ANT 341 INDIGENOUS ART OF NORTH AMERICA
3, 3/0
Prerequisites: Ant 100 or instructor permission. The study of art from an anthropological perspective using case studies from the Indigenous cultures of North America from the pre-contact period until today. Examination of art and material culture within Indigenous communities. How material culture and art can be used as evidence for human behavior, especially ritual behavior. Historical factors affecting the production and use of material culture and art. Continuity and change within material culture/artistic repertoires.
Equivalent course: ANT341W

ANT 344 FOLKLORE & FANTASY IN POPULAR CULTURE: FROM MIDDLE-EARTH TO HOGWARTS
3, 3/0
Prerequisites: CWP 102 or equivalent, upper class standing. How J. R. R. Tolkien, the creator of modern fantasy writing, based his mythology for England on the work of 18th and 19th century folklorists. Influence of the work of myth scholars, primarily Joseph Campbell, on George Lucas and other film makers in the Star Wars trilogies and similar films and television series. Creation of folk groups (fandoms) based on fantasy novels and films, especially since the rise of the Internet.

ANT 350 GLOBAL MARRIAGE PRACTICES
3, 3/0
Prerequisite: ANT 101 or SOC 100. Cross-cultural and comparative study of marriage practices through an examination of kinship, gender, and economy. Interdisciplinary materials in anthropology, sociology, history, and popular culture.

ANT 362 URBAN FOLKLORE
3, 3/0
Prerequisite: ANT 144 or upper-division status. Prerequisite: Folklore in the urban environment. The role of folklore in the creation and preservation of ethnic, occupational and community identity. Folklore in the media and popular culture.
Equivalent course: ANT362W

ANT 365 PRACTICING ANTHROPOLOGY
3, 3/0
Prerequisite: ANT 101. The application of anthropology and anthropological perspectives to contemporary community and world issues and problems. Focus on the practice of anthropology as a career outside academia, in social services, international relations, government positions, community organizing, etc. The relevance of anthropological principles in day-to-day life.
ANT 367
CULTURE AND ECOLOGY
3, 3/0
Prerequisite: ANT 101. Overview of the anthropological study of culture and ecology-environmental anthropology-the evolutionary and comparative study of various cultures' relations, both biological and cultural, to their environments. Industrial and nonindustrial adaptations to and understandings of the environment. Human-to-nature relations, the study of place, and environmentalism.

ANT 370
THE ANTHROPOLOGY OF CONTEMPORARY ISSUES
3, 3/0
Prerequisite: ANT 101. An anthropological perspective of some of the principal dilemmas of the contemporary world, including technological, demographic, ideological, and cultural problems, which provide much of the content of our daily news and have implications for the survival of our species. Equivalent course: ANT370W

ANT 377
ANCIENT CIVILIZATION
3, 3/0; NWIF
Prerequisite: ANT 100. Examination of the nature of early civilizations; possible factors involved in both their rise and fall. Old World civilizations studied: Mesopotamia, Egypt, the Indus Valley, China, the Aegean Islands, and Europe (Greece and Italy). New World civilizations examined: Mesoamerica and the Andes region of South America. Similarities and differences considered.

ANT 380
LANGUAGE AND CULTURE
3, 3/0
Prerequisite: ANT 101. Concepts of language and culture as symbolic systems. Introduction to phonetics, phonemics, morphemics, syntax, and semantics from a cross-cultural and cross-lingual perspective. Exploration of the relationship between grammatical structure and modes of perception and cognition as related to world views and systems of values, with special emphasis on the Sapir-Whorf hypothesis and the work of Chomsky.

ANT 381
RELIGION, MAGIC, AND CULTURE
3, 3/0; NWIF
Prerequisite: ANT101. Descriptions and analysis of world religious beliefs and practices, universal phenomena with many manifestations. Examination of the place of religion and spirituality in widely diverse cultures, including discussion of magic, trance, altered states, cults, Wicca, Santeria, voodoo, and late-twentieth-century religions.

ANT 385
VISUAL ANTHROPOLOGY
3, 3/0; TSIF
Prerequisites: ANT 101 or SOC 100. How technology of the still camera transformed relationship to imagery, perception of time and movement through splitting and flattening of representations into "realistic" images. Basics of still cameras as a research tool; how to collect informants' images as data. Meaning, use of images, representations, and power of visual data.

ANT 388
FOLKLORE & TECHNOLOGY: AMERICAN ROOTS MUSIC
3, 3/0
Prerequisites: CWP 102 and upper class standing. The richness and diversity of American roots music, with emphasis on the relationship of roots music to folklore and popular culture. Ways in which mediated a transmission and technology have contributed to the development and dissemination of roots music.

ANT 389
TOPICS IN ANTHROPOLOGY
3, 3/0
Analysis of current areas of research interest in anthropology. Emphasis on using concepts and methods from the subfields of anthropology to study a specific problem or series of problems. Equivalent course: ANT389W

ANT 400
ANCIENT MATERIALS
3, 3/0; TSIF
Prerequisite: ANT 329 or ANT 312. The study of technology and production in its broadest sense. Raw materials used to create material culture as defined archaeologically, such as stone, bone, wood, clay, and metal. Datasets from ethnographic and archaeological films and reports; hands-on experimental archaeology projects. How archaeologists use material culture as evidence for past human behavior, e.g., measurement of lithic flakes, creating typologies of ceramic sherds.

ANT 405
HISTORY OF ANTHROPOLOGICAL THOUGHT
3, 3/0
Prerequisite: ANT 101. Important contributions in the development of anthropological theory to the present. Includes theories of Boas, Kroeber, Lévi-Strauss, Malinowski, and Tylor. Equivalent course: ANT405W

ANT 412
SEMINAR IN SOCIAL-CULTURAL ANTHROPOLOGY
3, 3/0
Prerequisite: ANT 101. The concept of culture and ethnographic research. Value of cultural anthropology and ethnographic research and their relevance to problems faced by people today. Intellectual, social, and political trends that have shaped the development of the field of cultural anthropology. Cultural anthropological theory, research design, research practice.

ANT 415
SEMINAR IN ARCHAEOLOGY
3, 3/0; OCIF
Prerequisites: ANT 329 or ANT 312. Value of archaeology and its relevance to the problems faced by people today. Benefits from archaeology and how they are achieved. Intellectual, social, and political trends that have shaped the development of the field of archaeology. Archaeological theory and research design in depth. Negotiating between the different stakeholders in archaeological projects. Oral and written communication of archaeological findings.

ANT 418
SEMINAR IN PHYSICAL ANTHROPOLOGY
3, 3/0
Prerequisites: CWP 102 and ANT 100. Value of physical anthropology and its relevance to the problems faced by people today. Benefits from physical anthropology and how they are achieved. Intellectual, social and political trend that have shaped the development of the field of physical anthropology. Physical anthropology theory and research design in depth. Negotiating between the different stakeholders in physical anthropology projects. Written communication of physical anthropological findings. Equivalent course: ANT418

ANT 488
INTERNSHIP IN ANTHROPOLOGY
1-12, 0/0
Supervised fieldwork in community agencies, organizations, and milieus where students develop and apply practical and anthropological knowledge and skills. Students interact in diverse cultural settings, and experience and establish connections of potential use in the job market. Preparatory conferences, ongoing seminars with the faculty supervisor, a log/journal of the field experience, and a final report.

ANT 498
HONORS RESEARCH
3, 0/0
Prerequisites: 3.5 Cumulative GPA, Majors/Minors Only.

ANT 499
INDEPENDENT STUDY
3-9, 0/0
**ATS - ART THERAPY STUDIES**

**ATS 320**  
**INTRODUCTION TO ART AND THERAPY**  
3, 3/0  
Prerequisite: Junior or senior status. For ATS minors: two approved human service courses, or instructor permission. Introduction to the theory and practice of art therapy. Exploration of art as a means of assessment and treatment for child, teen, and adult populations in various therapeutic settings such as hospitals, mental health clinics, nursing homes, and developmental centers. Clinical case material presentations and exploration of personal creative processes.

**ATS 325**  
**ART FOR CHILDREN WITH SPECIAL LEARNING NEEDS**  
3, 2/2; DIIF  
Prerequisites: For ATS minors: ATS 320 and one approved human service course, or instructor permission. Examining the role of art as it relates to development of children with special learning needs due to disability and/or adverse environmental circumstances. Emphasis on differentiated instruction, therapeutic teaching, roles of the art educator and the art therapist, and cultural competence. 30 hours of supervised fieldwork takes place in approved settings that serve children with special learning needs.

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**BIO - BIOLOGY**

**BIO 100**  
**PRINCIPLES OF BIOLOGY**  
3, 3/0; NSIF  
Non-majors only. The unifying principles of modern biology with special emphasis on cell biology, metabolism, and genetics.

**BIO 101**  
**HUMAN BIOLOGY**  
3, 3/0; NSIF  
Non-majors only. Biological principles of the human condition with particular emphasis on physiology of normal body function with regard to nutrition, disease, psychoactive agents, reproduction and contraception, and aging. Contemporary health-related issues.

**BIO 104**  
**ENVIRONMENTAL BIOLOGY**  
3, 3/0; NSIF, TSIF  
Non-majors only. Biological aspects of global environmental problems. Principles of ecology. Equivalent course: BIO104W

**BIO 210**  
**MICROBIOLOGY**  
3, 2/2  
Prerequisite: BIO 100 or BIO111. Non-majors only. Morphology and physiology of bacteria. General application to household science, sanitation, hygiene, and infectious disease.

**BIO 211**  
**INTRODUCTION TO CELL BIOLOGY AND GENETICS**  
4, 3/3; NSIF  

**BIO 212**  
**INTRODUCTION TO ORGANISMAL BIOLOGY AND DIVERSITY**  
4, 3/3; NSIF  
Prerequisite: BIO111 C or better. Origins and history of life. Functional biology of animals and plants studied in an integrated fashion. Survey of morphology, physiology, development, reproduction and life cycles of animals, plants, fungi and microbes.

**BIO 213**  
**INTRODUCTION TO ECOLOGY, EVOLUTION, AND BEHAVIOR**  
4, 3/3; NSIF  
Prerequisite: BIO111 C or better. Population, community and ecosystem ecology; human impact on the environment. The Darwinian revolution, evolution of populations and the formation of new species. Principles of animal behavior.

**BIO 214**  
**INTRODUCTION TO CELL BIOLOGY**  
4, 3/3  
Prerequisites: CHE111 and CHE112. Structure of biological macromolecules; organization of eukaryotic and prokaryotic cells; and basic cell processes.

**BIO 300**  
**BIOSTATISTICS**  
4, 3/3  

**BIO 301**  
**CELL PHYSIOLOGY**  
4, 3/3  
Prerequisites: BIO 211 or BIO214 and CHE 201. Basic concepts in cell physiology with an emphasis on transport across cell membranes, cell communication, and excitability of nerve and muscle cells. Labs introduce students to a variety of techniques employed to study cell physiology including biochemistry, cellular electrophysiology, and fluorescence microscopy.

**BIO 303**  
**GENETICS**  
4, 3/3; OCIF  
Prerequisites: BIO 211 or BIO214, CHE 111 and CHE 112. Principles of Mendelian, molecular and population genetics. Classic and molecular experimental methods for studying of gene structure, transmission, expression. Equivalent course: BIO303W

**BIO 305**  
**MOLECULAR BIOLOGY**  
4, 3/1  
Prerequisites: BIO 214, CHE 201. Structure, organization, and function in living matter at the molecular level.

**BIO 308**  
**HUMAN ANATOMY AND PHYSIOLOGY**  
3, 3/0  
Prerequisites: BIO 100 or BIO 111, and upper-division status. Physiology and pertinent anatomy of the major organ systems of the human body including consideration of clinical health and disease. Not applicable as a biology elective for students pursuing a B.A. in biology.

**BIO 309**  
**LABORATORY IN HUMAN ANATOMY AND PHYSIOLOGY**  
1, 0/3  
Prerequisites: BIO 100 or BIO 111 and upper-division status. Human anatomy and functions of the major anatomical systems using the techniques of rigorous animal dissection (e.g., cats and sheep organs) and physiological experiments. Not applicable as a biology elective for students pursuing a B.A. in biology.

**BIO 314**  
**ADVANCED CELL BIOLOGY**  
4, 3/3  
Prerequisites: BIO 211 or BIO214, CHE 201. In-depth examination of the cell. Emphasis on the contribution of the molecular approach to the understanding of cell structure and functions, in particular, the contribution of recombinant DNA technology. Equivalent course: BIO314W

**BIO 315**  
**ECOLOGY**  
4, 3/3  
Prerequisites: BIO 212, BIO 213, CHE 111, CHE 112. Ecosystems, biotic communities, interspecific and intraspecific relationships, biogeochemical cycles, energy flow, population ecology, introduction to analysis of community composition, effects of humanity in modifying natural environments. Several half-day or all-day field trips may be required.
BIO 316
GENERAL MICROBIOLOGY
4, 2/6
Prerequisites: BIO 211 or BIO214, CHE 111, CHE 112. Microorganisms and techniques of observing their morphology, growth characteristics, and distribution. The relationship of microorganisms to human activities.
Equivalent course: BIO316W

BIO 321
COMPARATIVE VERTEBRATE ANATOMY
4, 3/3
Prerequisites: BIO 212 and BIO 213. Function, evolution, and development of the diversity of vertebrate structure. Rigorous dissections of representative vertebrate morphologies (e.g., preserved sharks, amphibians, cats, etc.).

BIO 325
ICHTHYOLOGY
4, 3/3
Prerequisites: BIO 212 and BIO 213. Study of the biology of fishes: structure and function (anatomy and physiology), systems, evolution, diversity, zoogeography, and ecology.

BIO 350
GENES IN POPULATIONS
4, 3/3; OCIF
Prerequisites: BIO 211 or BIO214, CHE 111, CHE 112, and upper-division status. Processes that cause populations to change over time; mutation, natural selection, genetic drift, and gene flow. Application of population genetic principles to problems in conservation biology and forensic genetic analysis.

BIO 402
COMPARATIVE ANIMAL PHYSIOLOGY
4, 3/3
Prerequisites: BIO 211 or BIO214, BIO 212, CHE 201. Study of hormonal control, neural processing, sensory mechanisms, circulation, gas exchange, digestion, muscles, energetics, and thermoregulation using vertebrate and invertebrate examples.

BIO 405
ORGANIC EVOLUTION
3, 3/0
Prerequisites: BIO 212, BIO 213, BIO 303. Empirical foundation of evolutionary theory. Emphasizes the dynamics of the process of evolution, especially as it relates to individual variation within an interbreeding population, to the variation pattern on the population level, and to the origin of species; more recent trends, such as introgressive hybridization, polyploidy, apomixis, and genetic homeostasis are developed.
Equivalent course: BIO405W

BIO 408
PLANT PHYSIOLOGY
4, 3/3
Prerequisites: BIO 211 or BIO214, BIO 212, CHE 201. Physiological processes in plants, including photosynthesis, respiration, osmosis, translocation, transpiration, effects of hormones, soil nutrients, and tropisms.

BIO 414
MAMMALOGY
4, 2/3
Prerequisites: BIO 212 and BIO 213. Introduction to the study of mammals, living and extinct, including a survey of the diversity of mammalian life history strategies, behavior, ecology, morphology, and physiology. Required field trips, collection techniques, and preparation of study materials.

BIO 418
LIMNOLOGY
4, 3/3
Prerequisites: BIO 212, BIO 213, CHE 111, and CHE 112. Physical, chemical, and biological factors that influence freshwater life and the ecological interactions in freshwater communities. Lectures, demonstrations, and field trips.
INDEPENDENT STUDY
BME 499
3, 0/0
Prerequisites: Faculty adviser and department chair permission.

BME - BUSINESS AND MARKETING EDUCATION

BME 301
PRINCIPLES OF BUSINESS/MARKETING AND TECHNOLOGY EDUCATION
3, 3/0
Introduction to the teaching of occupational education courses in public schools; principles, philosophy, and objectives; historical development of occupational education and the development of current issues for an occupational education program. Equivalent courses: BME301W, BUS301, CTE301, FCS301

BME 302
CURRICULUM AND EVALUATION IN BUSINESS/MARKETING AND TECHNOLOGY EDUCATION
3, 3/0
Introduction to the curriculum and evaluation in business/marketing and technology education. State curriculum and standards, lesson planning, student learning, and curriculum evaluation. Equivalent courses: BUS302, CTE302, FCS302, VTE302

BME 303
INSTRUCTIONAL STRATEGIES IN BUSINESS AND MARKETING
3, 3/0
Instructional strategies dealing with classroom management, classroom environment, and educational technologies. 100 hours of field experience prior to student teaching required. Equivalent courses: BUS303, FCS303

BME 411
APPLIED TEACHING METHODS IN BUSINESS/MARKETING
3, 3/0
Prerequisites: BME/CTE/FCS 301 and BME/CTE/FCS 302. Basic principles and methods of teaching business and marketing subjects. Prepares the student to effectively teach subjects in this area. Equivalent courses: BUS411, CTE404, FCS404, VTE404

BME 415
STUDENT TEACHING IN BUSINESS EDUCATION
6, 0/0
Prerequisites: Senior standing; completion of business core area and BME 411; 2.5 cumulative average in major subject area; 2.0 cumulative average in total program; C or better in CWP 101 and CWP 101; satisfactory completion of (or exemption from) prerequisite EXE 100 Student Speech Clinic if referred. Full-time teaching in a public school for one semester under the supervision of a master teacher and a college supervisor. Equivalent courses: BUS415, FCS415

BME 416
STUDENT TEACHING IN BUSINESS EDUCATION
6, 0/0
Prerequisites: Senior standing; completion of business core area and BME 411; 2.5 cumulative average in major subject area; 2.0 cumulative average in total program; C or better in CWP 101 and CWP 101; satisfactory completion of (or exemption from) prerequisite EXE 100 Student Speech Clinic if referred. Full-time teaching in a public school for one semester under the supervision of a master teacher and a college supervisor. Equivalent courses: BUS416, FCS416

BME 495
SPECIAL PROJECT
3, 0/0

BME 499
INDEPENDENT STUDY
3-12, 0/0

BUSINESS AND MARKETING EDUCATION

BUS 116
INTRODUCTION TO BUSINESS
3, 3/0
Modern business functions. Economic and social aspects, organization and management, operations, marketing functions, management control and decision making, financial risk and management, and career information for a changing business climate.

BUS 117
INTRODUCTION TO RETAILING
3, 3/0
Role and function of retailing as a channel of distribution, the relationship and responsibilities to the producer and consumer.

BUS 189
TOPICS COURSE
1-3, 0/0

BUS 201
FOUNDATIONS OF LEADERSHIP
3, 3/0
History of leadership and leadership as an ongoing process of challenge, growth, and development. Students learn the foundational concepts of leadership, assess their own leadership styles, and discuss issues relevant to leadership. Provides opportunities for the practice of leadership skills in campus and community organizations. Equivalent courses: CRS201, UNC201

BUS 212
INTRODUCTION TO ACCOUNTING
3, 3/0
Introduction to the accounting cycle and double-entry bookkeeping. Students analyze business transactions, apply rules of debits and credits, and prepare income statements and balance sheets.

BUS 300
INTERNATIONAL BUSINESS
3, 3/0

BUS 305
WORKFORCE DIVERSITY IN THE TWENTY-FIRST CENTURY
3, 3/0; DIF
Prerequisite: Junior/senior status. Workforce diversity as the positive acknowledgement of the way in which people are different. Recognizes gender, age, religion, and cultural background, and work and life responsibilities. Teamwork develops an understanding and awareness of cultural diversification in the workforce.

BUS 312
FINANCIAL ACCOUNTING
3, 3/0
Introduction to the fundamental accounting theories and methods underlying financial statements and the use of accounting information by decision makers.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 313</td>
<td>MANAGERIAL ACCOUNTING</td>
<td>3, 3/0</td>
<td>Prerequisite: BUS 312. Managerial accounting focuses on accumulating, processing, reporting, and interpreting decision-relevant financial information which are used in managing an organization. Topics include cash flow analysis, time value of money, cost behavior, budgeting, and elements of cost accounting.</td>
</tr>
<tr>
<td>BUS 320</td>
<td>PRINCIPLES OF MARKETING</td>
<td>3, 3/0</td>
<td>Survey course on concepts, policies, and marketing goods and services. Includes consumer behavior, target markets, marketing programs and ethics.</td>
</tr>
<tr>
<td>BUS 321</td>
<td>MARKETING ON THE INTERNET</td>
<td>3, 3/0</td>
<td>Prerequisite: BUS 320, business major. Foundations and rationale for Internet marketing. Marketing objectives and strategies for Web sites, online promotion, and advertising. Web site design tools, research on customers, and legal and ethical issues. Students evaluate Web sites and design their own online marketing sites.</td>
</tr>
<tr>
<td>BUS 323</td>
<td>SALES METHODS AND TECHNIQUES</td>
<td>3, 3/0</td>
<td>Prerequisite: BUS 320, business major. Foundation in sales principles and techniques. Emphasis on the personal development of sales skills, analysis of characteristics, behavior, and motivation of buyers, and the use of the selling process to achieve customer satisfaction. Equivalent course: BME323W</td>
</tr>
<tr>
<td>BUS 324</td>
<td>BUSINESS COMMUNICATION</td>
<td>3, 3/0</td>
<td>Prerequisite: BUS 360, business major. Fundamental principles and tools for effective communication within organizations. Experiential exercises will be used to assist in developing written and oral communication skills. Equivalent course: BUS324W</td>
</tr>
<tr>
<td>BUS 325</td>
<td>HUMAN RESOURCE MANAGEMENT</td>
<td>3, 3/0</td>
<td>Prerequisite: Business major. Theoretical and practical knowledge in the major areas of human resource management including selecting, training, developing, evaluating and compensating employees.</td>
</tr>
<tr>
<td>BUS 327</td>
<td>ADVERTISING CONCEPTS AND PRACTICES</td>
<td>3, 3/0</td>
<td>Prerequisite: BUS 320, business major. Introduction to the field of advertising, including discussion of research, target marketing media selection and evaluation, goal setting and budgeting, and the development of advertising campaigns.</td>
</tr>
<tr>
<td>BUS 329</td>
<td>SALES MANAGEMENT</td>
<td>3, 3/0</td>
<td>Prerequisite: BUS 320, business major. Sales management function within modern organizations including sales-force operation, sales strategies, leadership, ethics, recruitment, selection, and motivation of staff. Sales management as a vital business function within the context of a global economy.</td>
</tr>
<tr>
<td>BUS 330</td>
<td>MARKETING MANAGEMENT</td>
<td>3, 3/0</td>
<td>Prerequisite: BUS 320, business major. Marketing-oriented thinking in today's competitive environment; analyzing needs, identifying opportunities, and bringing valued offers to targeted customer groups; analyzing, planning, implementing, and controlling marketing strategies. Includes recent themes: customer relationship management, technology/Internet revolution, brand building, and global marketing from a marketing manager's perspective.</td>
</tr>
<tr>
<td>BUS 334</td>
<td>BUSINESS LAW I</td>
<td>3, 3/0</td>
<td>Prerequisite: BUS 334, business major. The nature of real and personal property; trusts, wills and estates; creditor's rights and secured transactions; government regulation of business; administrative law; insurance, and evidence. Topics may include taxation of income, arbitration in resolving contract disputes, and Rule 10 b-5 of the Securities and Exchange Commission.</td>
</tr>
<tr>
<td>BUS 340</td>
<td>SECURITIES</td>
<td>3, 3/0</td>
<td>Prerequisite:Junior/senior status. Securities and securities markets. Emphasis on investment markets and their interaction with the macroeconomics system. Equivalent course: BUS340W</td>
</tr>
<tr>
<td>BUS 341</td>
<td>COMMODITIES</td>
<td>3, 3/0</td>
<td>Prerequisite: Junior/senior status. Commodities futures trading. Special emphasis on terminology, hedging procedures, trading procedures, and price-making influences.</td>
</tr>
<tr>
<td>BUS 347</td>
<td>RETAIL MANAGEMENT</td>
<td>3, 3/0</td>
<td>Prerequisite: BUS 320, business major. Introduction to trends and developments in retailing and to the operation of retail organizations. Strategic planning, financial control, merchandising, site selection, store organization, pricing and promotion.</td>
</tr>
<tr>
<td>BUS 348</td>
<td>ELECTRONIC COMMERCE</td>
<td>3, 3/0</td>
<td>Prerequisite: BUS 320, business major. Introduction to the principles and practices of electronic commerce including EDI, electronic payment, online promotion, electronic shopping and distribution, online stores and malls, security, intellectual property rights, and legal issues. Select tools and skills required for navigating the Internet and creating a Web site.</td>
</tr>
<tr>
<td>BUS 350</td>
<td>CURRENT PRACTICES IN BUSINESS TECHNOLOGY</td>
<td>3, 3/0</td>
<td>Prerequisite: BUS 360, business major. Instruction in the use of information technology and business computer applications including spreadsheets, graphic presentations, networking, database management, word processing and office automation. Emphasis on using computers and computer-based information in the decision-making process.</td>
</tr>
<tr>
<td>BUS 360</td>
<td>PRINCIPLES OF MANAGEMENT</td>
<td>3, 3/0</td>
<td>Introduction to the basic functions of management, including strategic and operational planning, developing organizational structure and behavior, leadership, motivation, and effective control systems. Equivalent course: BUS360W</td>
</tr>
<tr>
<td>BUS 363</td>
<td>BUSINESS IN THE WESTERN HEMISPHERE</td>
<td>3, 3/0</td>
<td>Prerequisite: BUS 360, business major. Survey of business practices in the Western Hemisphere including economic, cultural and political differences among countries, regional trade agreements, and trade practices. Select countries are compared in terms of management, marketing and human resources practices, organizational communications, and business ethics.</td>
</tr>
</tbody>
</table>
BUS 365  
ENTREPRENEURSHIP  
3, 3/0  
Prerequisite: BUS 360, business major. The functions performed by entrepreneurs such as searching for opportunities and gathering resources to convert into growth-oriented, profitable ventures. Students conduct research, identify opportunities, and prepare a business plan.

BUS 366  
MANAGEMENT INFORMATION SYSTEMS  
3, 3/0  
Prerequisites: CIS 101 and BUS 360, business major. A balanced framework for the successful management of today's increasingly complex array of information. Tools for dealing with and improving the management of information in a variety of business settings using application software such as Microsoft Office.

BUS 367  
STRATEGIC MANAGEMENT OF INNOVATION AND TECHNOLOGY  
3, 3/0  
Prerequisite: BUS 360, business major. Strategic management in newly created and established firms from the perspectives of various functional groups (e.g., research and development, manufacturing, management, and marketing) and levels of general management (business, project, corporate) involved in the process of technological innovation.

BUS 368  
SPORTS MANAGEMENT AND MARKETING  
3, 3/0  
Prerequisite: BUS 360, business major. The administration, coordination, and evaluation of event-related sports. Open to business and non-business majors. Provides professional and general education base for careers in sports and recreational management and marketing.

BUS 369  
ORGANIZATIONAL CHANGE AND DEVELOPMENT  
3, 3/0  
Prerequisite: BUS 360, business major. The process of organizational change: conceptual foundation, principles, and practical applications for use in the design and development of organizations to improve organizational effectiveness in dynamic and competitive environments.

BUS 378  
BUSINESS PROFESSIONAL PRACTICE  
1-12, 3/0  
Business majors may elect to take up to 12 credit hours of field experience. Introductory, part-time experience usually generates 3 credit hours, whereas a full-time culminating experience could generate as many as 12 credit hours. Credit, training, and evaluation criteria to be arranged by business instructor in charge of field experience.

BUS 403  
CONSUMER BEHAVIOR  
3, 3/0  
Prerequisite: BUS 320, business major. Psychological, sociological, and cultural factors that influence consumer behavior and decision making. Emphasis on the importance of understanding consumer behavior in formulating marketing programs and marketing strategies.

BUS 404  
MARKETING RESEARCH  
3, 3/0  
Prerequisite: BUS 320, business major. Research methods and techniques used to collect data and provide information for solving marketing problems, design, sampling, data collection, analysis and interpretation, and report preparation. Orientation from the perspective of users of marketing research.

BUS 410  
ACCOUNTING ANALYSIS  
3, 3/0  
Prerequisites: BUS 313 and junior/senior status. Management fundamentals and economic concepts of the firm. Application of accounting concepts and techniques in preparing, presenting, and interpreting the accounting information used by management in planning and controlling operations.

BUS 412  
INCOME TAXATION  
3, 3/0  
Fundamentals of federal income taxation. Course focuses on concepts related to gross income, deductions, credits, and property transactions.

BUS 413  
TAXATION OF CORPORATIONS  
3, 3/0  
Prerequisite: Junior/senior status. Federal taxation of corporate income and shareholders; includes organizing and capitalizing the corporate entity, determining tax liability, dividends and other non-liquidating distributions, stock redemptions, liquidations, and other corporate entities, such as S corporations and LLCs.

BUS 417  
INTERNATIONAL ACCOUNTING  
3, 3/0  
Prerequisites: Business major and completion of BUS 312, BUS 313, and ECO 314. Designed to familiarize students with the accounting issues arising from national differences in accounting systems, standards, terminology, disclosure patterns, tax policies, fluctuations in exchange and inflation rates, and managerial options for dealing with these issues.

BUS 420  
INTERNATIONAL MARKETING  
3, 3/0  
Prerequisite: BUS 320, business major. Concepts, theory, and practice of international marketing. Competitive global environment, trade issuers, cultural factors, and global marketing strategy formulation and implementation.

BUS 424  
INTERNATIONAL BUSINESS COMMUNICATION  
3, 3/0  
Prerequisite: BUS 324, business major. Preparation for the complex communication tasks encountered in the world of international business. Cultural aspects that influence communication including language, environment and technology, social organization, contexting, authority conception, nonverbal communication, and temporal conception. Emphasis on understanding social and cultural differences and developing effective communication strategies for the global corporation.

BUS 425  
INTERNATIONAL AND CROSS-CULTURAL TRAINING  
3, 3/0  
Prerequisite: Business major. Analysis, selection, design, implementation, and evaluation of training programs to increase functional capabilities in international and multicultural environments. Emphasis on communication strategies, human response to cultural settings, and procedures for increasing performance.

BUS 426  
CREATIVE OPPORTUNITIES IN LEADERSHIP AND MANAGEMENT PRACTICES  
3, 3/0  
Prerequisites: BUS 360 and BUS 325, junior/senior status. Detailed analysis of creative problem-solving techniques. Case problems and business projects that reinforce management functions and approaches. Places students in the role of an individual manager and team members in practical application of management theory. Equivalent course: BUS426W

BUS 428  
ADVANCED MERCHANDISING  
3, 3/0  
Prerequisite: BUS 326 or permission of instructor. Techniques of merchandising fashion apparel, accessories, housewares, major and minor appliances, and furniture. Major approaches used in planning and analyzing sales and stock records, and the use of operating and financial data to make profitable merchandising decisions as well as market planning.

BUS 430  
STRATEGIC MANAGEMENT  
3, 3/0  
Prerequisite: Business major; senior status. Methods and techniques commonly used in strategic management decision making. Provides a background in strategic analysis and implementation of strategy in a
CHE - CHEMISTRY

CHE 100
CHEMISTRY AND SOCIETY
3, 3/0; NSIF
Non-mathematical approach to the study of matter. Presentation of the fundamentals of chemistry followed by socially relevant topics such as toxic waste management, environmental pollution, space technology, agricultural chemistry, chemistry of consumer products, food processing, polymers, and plastics.

CHE 101
GENERAL CHEMISTRY I
3, 2/3; NSIF
Basic principles of chemistry, including atomic and molecular structure; gases, liquids, solids, and solutions; chemical reactions; acids and bases. Not open to chemistry majors.

CHE 102
GENERAL CHEMISTRY II
3, 2/3
Prerequisite: CHE 101. Continuation of CHE 101. Includes chemical equilibria, electrochemistry, metals and nonmetals, some fundamentals of organic chemistry, polymers, fibers and plastics, natural products, and some fundamentals of biochemistry. Not open to chemistry majors.

CHE 111
FUNDAMENTALS OF CHEMISTRY I
4, 3/3; NSIF
Fundamental principles of chemistry covering the nature and structure and properties of the atom, chemical bonding, geometry of molecules, the periodic table, states of matter, stoichiometry, and solution chemistry.

CHE 112
FUNDAMENTALS OF CHEMISTRY II
4, 3/3
Prerequisite: CHE 111. Continuation of CHE 111. The concepts of kinetics, equilibria, and energetics and preparative materials for further study in chemistry or other areas of science. Laboratory work in qualitative inorganic semimicroanalysis and physicochemical experiments.

CHE 201
ORGANIC CHEMISTRY I
3, 3/0
Prerequisite: CHE 112. Chemistry of carbon compounds. Bonding, stereochemistry, and structural theory. Fundamental reactions of the functional groups considered from the mechanistic standpoint.

CHE 202
ORGANIC CHEMISTRY II
3, 3/0
Prerequisite: CHE 201. Continuation of CHE 201. The reactions and mechanisms of organic functional groups including aromatic compounds, alcohols, aldehydes, carboxylic acids, and acid derivatives. Spectroscopic techniques (IR, UV, NMR) for the identification of organic molecules are also included.

CHE 203
ORGANIC CHEMISTRY LABORATORY I
1, 0/3
Prerequisite: CHE 112. Laboratory techniques in organic chemistry including distillation, crystallization, extraction, sublimation, and chromatography are learned by application to the synthesis and purification of organic compounds. Experiments chosen from a variety of possible topics such as isolation of natural products, separation of mixtures, and synthesis.

CHE 204
ORGANIC CHEMISTRY LABORATORY II
1, 0/3
Prerequisite: CHE 203. Prerequisite or concurrent registration: CHE 202. Continuation of CHE 203. Synthesis, isolation, purification, and identification of organic compounds with emphasis placed on spectroscopic methods of structure determination. Experiments chosen from a variety of possible topics such as multistep synthesis, mechanistic studies, and qualitative organic analysis.

CHE 301
ANALYTICAL CHEMISTRY
4, 2/6
Prerequisite: CHE 112. Theory and laboratory applications of quantitative analytical chemistry. Gravimetric, volumetric, electrochemical, and spectrophotometric methods.

CHE 305
PHYSICAL CHEMISTRY I
3, 3/0
Prerequisites: CHE 202 and PHY 112. Prerequisite or concurrent registration: MAT 263. The first semester of a two-semester sequence in physical chemistry. Topics include gas laws, laws of thermodynamics, state functions, thermochemistry, chemical equilibria, Maxwell relations, and chemical potential.

CHE 306
PHYSICAL CHEMISTRY II
3, 3/0
Prerequisite: CHE 305 and MAT 263. The second semester of a two-semester sequence in physical chemistry. Topics include quantum chemistry, atomic and molecular structure, molecular and atomic spectroscopies, kinetic theory of gases, and kinetics.

CHE 307
PHYSICAL CHEMISTRY LABORATORY I
1, 0/3
Prerequisites: CHE 204, CHE 301, and PHY 112, and MAT162, AND CWP/ENG 102. A laboratory study of the principles of physical chemistry covered in CHE 305. Topics include colligative properties, electrical conductance, azetotomic mixtures, adsorption equilibria, and determination of equilibrium constants. Data analysis is required. Equivalent course: CHE307W

CHE 308
PHYSICAL CHEMISTRY LABORATORY II
1, 0/3
Prerequisites: CHE 305 and CHE 307 and MAT 263 AND CWP/ENG 102. A laboratory study of principles of physical chemistry covered in CHE 306. Topics include determination of rate laws; ultraviolet, visible, and infrared spectroscopy; and photochemistry. Data analysis using statistical methods and error analysis is required.
CHE 310
LITERATURE OF CHEMISTRY
1, 1/0
Sources of chemical literature. Experiences in chemical information searching and retrieval, including examples of computer searching.

CHE 315
ENVIRONMENTAL CHEMISTRY AND TECHNOLOGY
3, 3/0; TSIF
Prerequisite: CHE 112 or CHE 102. Discussion of chemical reactions in air, water, and soil. Effect of human activities on the chemical environment. Alternative energy sources, pollution-control methods and devices.

CHE 321
PRINCIPLES OF ORGANIC CHEMISTRY
4, 3/3
Prerequisite: CHE 102 or CHE 112. Survey of organic chemistry including functional groups and their chemical behavior. Not open to chemistry or forensic chemistry majors.

CHE 322
BIOLOGICAL CHEMISTRY
4, 3/3
Prerequisite: CHE 202 or CHE 321. Structure and functions of the substances of biochemical interest found in living systems, supplemented by illustrative laboratory work. Not open to chemistry or forensic chemistry majors.

CHE 331
PRINCIPLES OF PHYSICAL CHEMISTRY
3, 3/0
Prerequisites: CHE 202, MAT 126 or MAT 162, PHY 108 or PHY 112, or permission of instructor. A one-semester survey course exploring the principles of physical chemistry, oriented toward the needs of forensic chemistry majors and students in environmental and health related sciences. Topics include thermodynamics, kinetics, quantum chemistry, and atomic and molecular spectroscopies.

CHE 360
INTRODUCTION TO INORGANIC CHEMISTRY
3, 3/0
Prerequisites: CHE 202. Descriptive inorganic chemistry of the main group and transition metal elements. Atomic structure and trends in the periodic table. Theories of chemical bonding. Introduction to crystal field, ligand field and molecular orbital theories. Inorganic chemistry of important industrial processes, including metallurgy. Role of metal ions in biological systems.

CHE 399
INTERNSHIP IN CHEMISTRY
1-6, 0/0
Prerequisite: Permission of instructor. Hands on experience in approved research and/or development project of current interest to local chemical industry.

CHE 403
INSTRUMENTAL ANALYSIS
4, 2/6
Prerequisites: CHE 301 and CHE 305 or CHE 331. Chemical analysis and structure determination through study of the theory and operation of instruments involving visible, ultraviolet, infrared, and atomic absorption spectrophotometry; emission spectroscopy, colorimetry, flame photometry; chromatography; nuclear magnetic resonance spectroscopy.

CHE 406
ANALYTICAL TOXICOLOGY
2, 1/3
Prerequisites: MAT 311 and CHE 301. Introductory analytical toxicology for pharmaceutical, forensic, and clinical analysis. Exploration of the main categories of inorganic and organic toxins, sample collection and treatment, chromatographic separation, spectroscopic and mass spectral determination of various toxic compounds in clinical, forensic, and environmental samples.
produce a working computer system. Focus is not solely on hardware but on architectures. How each of these levels and components interact to create a hierarchy of basic levels. Examination of CPU organization, digital logic level, micro-architecture level, and parallel architectures. How each of these levels and components interact to produce a working computer system. Focus is not solely on hardware but more broadly covers the interconnection between the fundamental building blocks of a computer and the relationship between hardware and software. Required for majors. Equivalent course: ISM315

CIS 361
FUNDAMENTAL CONCEPTS IN OBJECT-ORIENTED PROGRAMMING
3, 3/0
Prerequisite: CIS 151. An introduction to object-oriented programming. Introduces transfer students who have had the equivalent programming experience in a procedural-oriented environment to the paradigms of the object-oriented environment. Required for CIS majors who have no previous experience with object-oriented programming.

CIS 370
SYSTEMS ANALYSIS AND DESIGN
3, 3/0
Prerequisite: CIS 151. Introduction to information analysis and system design. Topics include the systems concepts, defining a system, systems analysis, hardware elements, software elements, case studies. Required for majors. Equivalent courses: CIS370W, ISM370

CIS 375
PROGRAMMING FOR THE INTERNET ENVIRONMENT
3, 3/0
Prerequisite: CIS 151 or equivalent. Overview of the Internet and its components, protocols, and software. Students create and maintain Web pages to distribute and collect information and to validate user input, and write applications specifically for the Internet environment.

CIS 376
PROFESSIONAL PRACTICUM
3, 3/0
Prerequisite: CIS 375. Experiences of students in the workplace. Required as part of a career education plan. Equivalent course: ISM376

CIS 380
MICROCOMPUTER APPLICATIONS
3, 3/0
Prerequisite: CIS 151 or equivalent. Overview of microcomputer software packages used to solve advanced business application problems. Hands-on lab projects form a significant component of the course. Systematic design principles emphasized. Analytical features and data management techniques applied. Integration of data from different packages are practiced. Required for majors. Equivalent course: ISM380

CIS 391
INFORMATION SYSTEMS PROJECT MANAGEMENT
3, 3/0
Prerequisite: CIS 370. An examination of current practices in Project Management as applied to Information Systems projects. Hands-on experience with the skills, tools, and techniques required in different phases of an information system project's life cycle, including project selection, project planning, project staffing and organization, task scheduling, project scope management, budgeting and progress reporting, risk management, quality management, project communications and use of appropriate project management software tools.

CIS 400
VISUAL BASIC PROGRAMMING FOR THE WINDOWS ENVIRONMENT
3, 3/0
Prerequisite: CIS 251 or CIS 361. Students gain experience with an object-oriented, event-driven programming language using a modern integrated development environment. Students write programs utilizing basic data types, control structures, multiple forms, user-defined classes, arrays, and collections, and access data from forms, files, and databases. Required for majors.

CIS 405
COMPREHENSIVE COBOL PROGRAMMING
3, 3/0
Prerequisite: CIS 251 or CIS 361. Intensive study of COBOL and its use in commercial applications, with emphasis on COBOL fundamentals and advanced features, program design and style, and file handling. Programming projects involve commercially-oriented applications programs. Equivalent course: ISM405
CIS 410
COMPUTER OPERATING SYSTEMS
3, 3/0
Prerequisite: CIS 315. Computer operating systems, their functions, components, scheduling and execution of jobs, task management, and interrupts. A comparison and exploration of contemporary operating systems. Required for majors.
Equivalent course: ISM410

CIS 411
DATABASE SYSTEMS
3, 3/0
Prerequisite: CIS 370. The basic concepts and uses of data and database systems. Topics include organization, analysis, and function of database systems. Components of representative relational, network and hierarchical databases will be presented along with programming and design. Required for majors.
Equivalent course: CIS411W

CIS 413
MULTIMEDIA WEB PROGRAMMING
3, 3/0
Prerequisites: CIS 251 or CIS 361, CIS 375. Integration of text, graphics, animation, and audio and video sources to create multimedia products deliverable via the World Wide Web. Programming with animation, data processing, dynamic content creation, and component manipulation. Emphasizes object-oriented capabilities of contemporary multimedia development tools, objects, methods, events, properties, and functions.

CIS 420
DATABASE MANAGEMENT SYSTEMS
3, 3/0
Prerequisite: CIS 411. Advanced concepts of database management, including data modeling, features and uses of database management systems, data and database administration, and data dictionary.
Equivalent course: ISM420

CIS 425
OBJECT-ORIENTED DEVELOPMENT
3, 3/0
Prerequisites: CIS 251 or CIS 361, CIS 370. Object-oriented approach to programming and design, including its history and rationale. Students gain hands-on programming experience using an appropriate object-oriented language.

CIS 427
E-COMMERCE SYSTEMS AND TECHNOLOGIES
3, 3/0
Prerequisites: CIS 370, CIS 375. Examines technological advancements along with business and organizational issues of electronic commerce. The technological context includes an understanding of tools and concepts such as Web servers, client/servers, communication networks, and e-commerce software. The business context includes components such as payment methods, fulfillment policies, privacy, security, and international issues.

CIS 435
COMPUTER SEMINAR
3, 3/0
Prerequisite: Permission of instructor. Selected topics from subjects not covered in formal courses.

CIS 442
ADVANCED SYSTEMS APPLICATIONS
3, 3/0
Prerequisite: CIS 411. Information systems in complex organizations. Techniques of information systems analysis and design. Detailed study of a representative real-world information system. Case studies, group work, and oral presentations.
Equivalent courses: CIS442W, ISM442

CIS 470
DATA COMMUNICATIONS
3, 3/0
Prerequisites: CIS 151, CIS 315. A comprehensive study of data transmission, packet transmission, and internetworking concentrating on principles. Topics include, but are not limited to, underlying hardware, packet switching, Internet protocols, and network applications.
Equivalent course: ISM470

CIS 471
NETWORKING LABORATORY I
3, 1/2
Prerequisites: CIS 410, CIS 470. Hands-on experience in installing, configuring, and administering a modern operating system in a networked environment. Topics include network topologies, paradigms, protocols, services, computer security, intrusion recovery and privacy.

CIS 473
ENTERPRISE SYSTEMS DESIGN AND ADMINISTRATION
3, 3/0
Prerequisites: CIS 251 or CIS 361, CIS 410, CIS 470. Knowledge and skills needed to be a successful member of an enterprise IT technology support group. Discussion includes roles, responsibilities, policies, procedures, and ethical issues. Projects include administration tasks, design issues, implementation plans, and performance-monitoring strategies. Installation and administration of enterprise-wide network hardware and software.

CIS 475
PROGRAMMING FOR THE INTERNET ENVIRONMENT II
3, 3/0
Prerequisites: CIS 251 or CIS 361, CIS 375, CIS 411. Server-side programming on the Internet. Contemporary server side-programming environment to distribute and collect information, validate user input, and provide dynamic Web content. Forms, databases, templates, cookies and session tracking and their use in dynamic site development examined.

CIS 478
INFORMATION SYSTEM SECURITY
3, 3/0
Prerequisites: CIS 410, CIS470. A survey of essential topics pertinent to modern computer, network and information security. Topics include fundamental security concepts; Organizational risk assessment and valuation; Attack strategies for operating systems, network and web services; Mitigation techniques, system strengthening (hardening), countermeasures and trade-offs.

CIS 488
INTERNSHIP
3-15, 3/0
Prerequisites: CIS 380, upper-division status, and permission of instructor. Qualified students are placed in functioning organizations to work as trainees, on special projects or studies, or in a relevant aspect of information systems.
Equivalent course: ISM488

CIS 495
SPECIAL PROJECT
1-3, 0/0

CIS 499
INDEPENDENT STUDY
3-12, 0/0

COM - COMMUNICATION

COM 100
MEDIA LITERACY
3, 3/0; HUIF, TSIF
Role of mass media in the lives of individuals and society; exploration of development structure and technology of media, as well as social, economic, ethical, and related issues; focuses on roles of both consumers and producers of media.
Equivalent courses: COM100W, JBS100

COM 210
CONVERGED MEDIA WRITING
3, 2/2
Prerequisites: CWP 101 and CWP 102. Writing lab with practice in organizing and writing for print and digital media; introduction to news, feature and advocacy writing; application to journalism, public relations and advertising.
COM 215
INTRODUCTION TO VISUAL COMMUNICATION
3, 3/0
Prerequisites: COM 100 or SPC 103. Analysis of production and consumption of visual information; exploration of the role of images in the communication process; application to journalism, broadcasting, public relations, advertising and digital media.

COM 301
PRINCIPLES OF PUBLIC RELATIONS AND ADVERTISING
3, 2/2
Prerequisite: GPA of 2.6 in a communication major; SPC 205, COM 210, COM 215 or acceptance into upper-division major. Principles of strategic integrated communication (public relations and advertising); based on model of formative research, strategy, tactics, evaluation, exploration of public relations and advertising via theoretical base, ethical principles, social responsibilities, functions, and professional aspects.
Equivalent courses: COM301W, JBS301

COM 302
PRINCIPLES OF JOURNALISM
3, 2/2
Prerequisites: GPA of 2.6 in a communication major; COM 210, COM 215. Overview of journalism and its historical, ethical, and professional base; focus on news sources, with practice in information-gathering techniques.
Equivalent courses: COM302W, JBS302

COM 303
PRINT NEWS I: REPORTING
3, 2/2
Prerequisite: GPA of 2.6 in a communication major; ENG 191 or COM 210. Practice in news writing for print and online publications; theory, form, and techniques in writing news; focuses on leads and various types of reporting scenarios; experience in writing under deadline pressure.
Equivalent course: COM303W

COM 304
WRITING FOR BROADCAST (TV, RADIO, FILM)
3, 2/2
Prerequisite: COM 210 or TFA 301. Practice in organizing and writing for radio, audio media, television, and other visual media; writing in various formats, including commercials, promotional announcements, documentaries, corporate video, and narrative scripts.
Equivalent courses: COM201, COM304W, TFA304

COM 308
PUBLIC RELATIONS WRITING
3, 3/0
Prerequisites: GPA of 2.6 in a communication major; COM210. Intensive practice in writing for all types of public relations situations; focus on writing for both news media and organizational media for purposes of both information and advocacy.
Equivalent courses: COM308W, JBS308

COM 310
INTERNATIONAL COMMUNICATION
3, 3/0
Prerequisite: Upper-division status. Analysis of the role of international communication in today's global society through a comparative study of the world's press and broadcasting systems. Includes journalistic values of other countries, differing philosophies of broadcasting, and the process of international communication within the framework of North-South, social, economic, and political divisions of the late twentieth century.
Equivalent courses: COM310W, JBS310

COM 312
BASIC MEDIA PRODUCTION
3, 2/2
Prerequisite: COM 215 or TFA201. Exploration of basic concepts and processes of video and audio media production and editing, including hands-on experience in studio and field production, and both video and audio postproduction; Discussion of career options.

COM 317
MEDIA MANAGEMENT
3, 3/0
Prerequisite: Junior/Senior standing. Theory and practice in broadcast management for radio and television stations, cable networks, online digital media; focus on structure, budget, sales, regulations, and audience-building aspect of programming and management.
Equivalent course: JBS317

COM 319
PRINT NEWS II: EDITING
3, 2/2
Prerequisites: GPA of 2.6 in a communication major; COM 210. Theory and practice of copy editing, headline writing, and preparation of news for publication and online presentation; analysis and evaluation of news content; practice in working under time pressure.
Equivalent course: JBS319

COM 322
COMMUNICATION GRAPHICS
3, 2/2
Prerequisites: GPA of 2.6 in a communication major; COM 215. Theory and practice of information design for organizational and mass media; application for print, digital, and other communication media.
Equivalent course: JBS322

COM 325
FEATURE WRITING
3, 3/0
Prerequisites: GPA of 2.6 in a communication major; COM 210 or ENG 191. Theory and advanced practice in writing magazine articles, newspaper features, and similar stories for online publications; writing for specialized audiences; introduction to freelance procedures.
Equivalent courses: COM325W, JBS325

COM 327
LITERARY JOURNALISM
3, 3/0
Prerequisites: COM 100 and COM 210. Exploration of literary excellence in journalistic writing; classic journalistic authors and their stories; relationship of journalism and literature, as well as television and radio scripts and online, long-form narrative.
Equivalent course: HUM327

COM 328
INTERMEDIATE AUDIO PRODUCTION
3, 2/2
Prerequisite: COM 312. Continuing study of theory, aesthetics, and fundamentals of audio production; emphasis on commercial production for radio and other audio media; introduction to in-studio production setting.
Equivalent course: JBS328

COM 329
INTERMEDIATE VIDEO PRODUCTION
3, 2/2
Prerequisite: COM 312 or TFA 301. Continuing study of the theory, aesthetics, and fundamentals of video production; emphasis on visual, auditory, and motion elements of communication in television and video; practice in studio production setting.
Equivalent course: JBS329

COM 335
TALK RADIO/TALK TELEVISION
3, 3/0
Prerequisite: Upper-division status. Introduction to various aspects of talk radio and talk television; differences between news reporters and talk-show hosts; relationship with sales and audience analysis; attention to roles of producer, program director, and promotions.

COM 336
WEB AND SOCIAL MEDIA PRODUCTION
3, 2/2
Prerequisites: COM 215. Theory and practice of Web-based communication and social media; focus on strategy and design as well as writing for Web and social media.

COM 337
ELECTRONIC NEWS I: PRODUCING
3, 2/2
Prerequisites: GPA of 2.6 in a communication major; COM 210. News writing and producing for electronic media in studio setting; theory, form, and techniques of writing and presenting news for radio and television; practice in reporting, writing, and presentation under deadline pressure.
COM 338
ELECTRONIC NEWS II: REPORTING
3, 2/2
Prerequisite: COM 337. News reporting for electronic media in non-studio locations; practice in reporting, writing, and news presentation under deadline pressure; techniques of using cameras and editing equipment.

COM 340
PHOTOJOURNALISM
3, 4/0
Prerequisite: COM 303 or Basic techniques of news photography as practiced by newspapers and magazines, with laboratory and field assignment experience. Note: 35mm camera with meter and full manual controls required.

COM 341
FUNDRAISING
3, 3/0
Theory and practice of fundraising and organizational philanthropy; focus on planning, organization, management, marketing, and practical approaches that nonprofit organizations use to raise money from private sources.

COM 389
TOPICS COURSE
1-9, 0/0

COM 390
SPECIAL TOPICS: JOURNALISTIC WRITING
3, 3/0
Prerequisites: GPA of 2.6 in a communication major; COM 210 or ENG 191. Specialized reporting; includes extensive study, research, analysis, and journalistic writing on a special topic, such as sports, business, health, technical, or environmental reporting. Equivalent course: COM390W

COM 392
PUBLIC RELATIONS IN SPORTS
3, 3/0
Prerequisite: CWP 101, CWP 102, COM 301, or admission to sports management minor. Sports public relations and its role in intercollegiate and professional athletics; process and practice of sports information and media relations; topics include writing formats, publications, crisis management, game management, current events, law, and ethics.

COM 400
COMMUNICATION LAW
3, 3/0
Prerequisites: GPA of 2.6 in communication major; upper-division status. Study of freedom of speech and the press in the United States, particularly the rights and responsibilities of the media and constraints placed on them under law: libel, privacy, journalistic privilege, free press/fair trial, obscenity, advertising law. Equivalent courses: COM400W, JBS400

COM 401
APPLIED COMMUNICATION RESEARCH
3, 3/0
Prerequisites: GPA of 2.6 in a communication major; COM 301. Applied research techniques in communication fields; students do original research using content analysis, focus groups, and/or surveys. Equivalent course: JBS401

COM 405
NEWS REPORTING
3, 2/1
Prerequisites: COM 303 and COM 337. Supervised reporting and editing experience through laboratory practice resulting in online publication; theory and practice in news gathering, writing, editing, capturing visual and audio elements of news stories, working under deadline pressure; emphasis on news judgment, research, accuracy, data gathering, interviewing, editing, diversity, legal issues and journalistic ethics.

COM 408
PUBLIC RELATIONS CASE STUDIES
3, 3/0
Prerequisite: COM 301. Exploration of various genres of public relations; application of strategic principles, techniques, and programs to real-life organizational problems and opportunities. Equivalent courses: COM408W, JBS408

COM 410
MASS COMMUNICATION HISTORY
3, 3/0
Prerequisite: Upper-division status. Historical survey of the technology and social evolution of journalism and the broadcasting industries, including an analysis of their roles in American society. Equivalent courses: COM410W, JBS410

COM 418
CAMPAIGNS IN PUBLIC RELATIONS AND ADVERTISING
3, 2/2
Prerequisites: GPA of 2.6 in a communication major; COM 301, 308. Capstone experience in strategic integrated communication based on public relations and advertising; experience in developing campaigns for actual clients, with focus on formative research, strategy, tactics, and evaluation, as well as client presentation. Equivalent courses: COM418W, JBS418

COM 428
ADVANCED AUDIO PRODUCTION
3, 2/2
Prerequisite: COM328. Capstone experience in producing audio; emphasis on multi-track recording, mixing, music and voice editing.

COM 429
ADVANCED MULTI-CAMERA STUDIO PRODUCTION
3, 2/2
Prerequisite: COM329. Capstone experience in studio television production using news and/or other genres requiring advanced skills; requires hands-on practice in studio-based productions. Equivalent course: JBS429

COM 431
ADVANCED FIELD PRODUCTION
3, 2/2
Prerequisite: COM312. Capstone experience in producing and directing field video productions for on-campus/off-campus viewing; students specialize in field productions in non-studio locations; use of portable cameras, lighting and sound equipment; production in remote studio settings.

COM 432
ADVANCED POST-PRODUCTION
3, 2/2
Prerequisite: COM312. Capstone experience in video post-production; emphasis on post-production editing and editor’s role in visual storytelling; hands-on approach to developing both artistic insight and practical skills in editing.

COM 433
ADVANCED TV DOCUMENTARY PRODUCTION
3, 2/2
Prerequisite: COM312. Capstone experience in producing and directing television documentaries, with hands-on experience in planning, writing, shooting and editing; focus on analysis and evaluation of documentary productions.

COM 434
ADVANCED VIDEO PRODUCTION PRACTICUM
3, 2/2
Prerequisite: COM329. Capstone experience in producing video programming for client- and college-generated on-campus/off-campus uses. Students staff a full production team for public affairs, community service, promotions, entertainment, and other types of programming.

COM 450
COMMUNICATION AND SOCIETY
3, 3/0
Prerequisites: GPA of 2.6 in a communication major; completion of 90 credit hours. Role of communication in society; exploration of
contemporary issues in mass media and related disciplines; focus on ethical responsibilities of communication professionals. Equivalent course: COM450W

COM 488 INTERNSHIP
1-15, 1/0
Prerequisites: GPA of 2.6 in a communication major and permission of instructor. COM 301 and COM 308 for internships in public communication major. COM 304 and COM 328 or 329 for internships in media production major. COM 302 and COM 303 or 337 for internship in journalism major. Supervised field experiences in a professional setting for students who have completed extensive academic preparation in the discipline. Fifty hours of fieldwork per credit.

COM 495 SPECIAL PROJECT
1-3, 3/0
Prerequisites: GPA of 2.6 in a communication major and permission of instructor.

COM 499 INDEPENDENT STUDY
3-12, 3/0
Prerequisites: GPA of 2.6 in a communication major and permission of instructor.

**CRJ - CRIMINAL JUSTICE**

CRJ 101 INTRODUCTION TO CRIMINAL JUSTICE
3, 3/0; SSIF
An introductory analysis of the agencies and processes of the criminal justice system, including an examination of patterns of crime and victimization; underlying ideologies; procedures, functions and structure; fundamental legal concepts; interaction between various social groups and the criminal justice system; and organization, discretion and decision-making of police, criminal courts, and correctional services.

CRJ 201 CRIMINAL LAW
3, 3/0
Prerequisite: CRJ 101. The study of substantive criminal law through the analysis of judicial opinions and textual material. In-depth coverage of the elements of crime, such as intent, actus reus, and concurrence, examined within the statutory definition of several different offenses and studied within the context of defenses such as justifications, among others.

CRJ 202 THE POLICE PROCESS
3, 3/0
Comprehensive introduction to the basic elements of policing in the United States, designed to acquaint students with the most current knowledge about police organizations, police officers, police work, and police problems. Equivalent course: CRJ202W

CRJ 204 THE CORRECTIONAL PROCESS
3, 3/0
The correctional process from sentencing to parole. Examines legal and administrative processes used in establishing postconviction remedies, criminal sanctions, and social controls on adult offenders. Emphasis on understanding the structure and function of the American correctional system and the processes in establishing correctional custody and treatment.

CRJ 250 INTRODUCTION TO INTELLIGENCE ANALYSIS
3, 3/0
Survey course that introduces students to the discipline of intelligence in the areas of national security, business, and law enforcement. Provides students with an understanding of how intelligence systems function, how they are used by policymakers, and how they are managed and controlled. Covers such intelligence topics as history, ethics, psychology, and analytical techniques.

CRJ 301 POLICE ORGANIZATION AND MANAGEMENT
3, 3/0
Prerequisites: CRJ 101 or permission of instructor, upper-division status. Analysis of administrative theory and practice in police systems with emphasis on organization and function, and on issues unique to those systems.

CRJ 302 CRIMINAL JUSTICE AND THE COMMUNITY
3, 3/0
Patterns of crime in the community and the community’s response. Differences between urban and suburban areas, as well as by age, gender, and race. Practices and effects of diversion, community-based corrections, victim-witness programs, crime watch, court watch, restitution, mediation, and dispute-resolution programs. Equivalent course: CRJ302W

CRJ 303 CRIMINAL JUSTICE THEORY AND IDEOLOGY
3, 3/0; OCIF
Prerequisites: CRJ 101 and CWP 102. Examination of the social, political, cultural, and economic forces that shape the historical and contemporary theories and ideologies of crime and their interactive influences with criminal justice policies and practices. Equivalent courses: CRJ203, CRJ303W

CRJ 305 THE JUVENILE JUSTICE SYSTEM
3, 3/0
Prerequisites: CRJ 101, and upper-division status. The structure and function of the juvenile justice system. Statutes and court decisions used to determine jurisdiction over youth. Critical decision-making stages of the juvenile court process. Review of the research concerning the relative effectiveness of treatment and social control programs for youth. Emphasis on the historical, cultural, social, and legal influences governing the processes, priorities, and practices of juvenile justice.

CRJ 306 PROBATION, PAROLE, AND COMMUNITY CORRECTIONS
3, 3/0
Prerequisites: CRJ 101 and upper-division status. Review of probation, parole, and community corrections; their histories and organizational structures; the nature and effects of the process by which offenders are handled, as well as the dynamics and trends toward change in the field of probation, parole, and community-based corrections.

CRJ 307 COMPARATIVE CRIMINAL JUSTICE SYSTEM
3, 3/0
Prerequisite: CRJ 101. The major contemporary criminal justice systems and their operations under various cultural contexts. The social, economic, political, and ideological forces that have impacted present-day systems. Methodological issues of comparative research. Equivalent course: CRJ307W

CRJ 308 CRIME PREVENTION
3, 3/0
Prerequisite: CRJ 101. The nature and effects of three levels of efforts at crime prevention: those administered by the formal justice system to prevent offenders from repeating offenses, those designed to deal with people identified as likely to commit crime, and those designed to modify the physical and social environments that foster crime.

CRJ 315 RESEARCH METHODS IN CRIMINAL JUSTICE
3, 3/0
Prerequisites: CRJ 101 and (ECO 305 OR MAT 311 OR PSY 306 OR SOC 301), and upper-division status. Introduction to the research process as practiced in criminal justice: definition of problem, delineating theory, various methods of data collection, examination of validity and reliability. Research devices used in everyday criminal justice. Students participate in some aspect of research. Equivalent course: CRJ315W
CRJ 317
CONSTITUTIONAL ISSUES IN CRIMINAL JUSTICE  
3, 3/0
Prerequisites: CRJ 101 and upper-division status. Constitutional issues in criminal justice through a review of United States Supreme Court decisions regarding law enforcement, prosecution, defense, judicial process, corrections, and community supervision; additional constitutional issues related to the administration of justice.

CRJ 320
CRIMINAL COURTS  
3, 3/0
Prerequisite: CRJ 101. The trial criminal courts, with emphasis on courts for adult offenders. Legal, social, and political processes that affect the dynamics of the criminal trial process. Problems, possible reforms, and decision-making of the participants. Interrelationships that affect and influence court decisions and justice.

CRJ 355
CRIME ANALYSIS  
3, 3/0
Prerequisite: Junior level status or instructor permission. Crime analysis terminology, techniques, and methodologies. The role and responsibilities of a crime analyst, including the need for analysts to utilize cross-jurisdictional data and provide objective results to policymakers and law enforcement decision-makers.

CRJ 402
ADVANCED ADMINISTRATION IN CRIMINAL JUSTICE  
3, 3/0
Prerequisites: CRJ 101; upper-division status; and completion of introductory course in public administration, business management, or criminal justice administration. Advanced course in management concepts and issues applicable to the administration of criminal justice agencies. Emphasis on a systems model of organizational analysis. External environment of crime control policy and its impact upon agency operations. Internal agency management. The responsibilities and functions of crime control agency managers.

CRJ 404
WHITE-COLLAR AND CORPORATE CRIME  
3, 3/0
Prerequisites: CRJ 101, CRJ 303, and upper-division status. Physical and financial harm caused by wayward corporations, corporate officials, employees, and other white-collar offenders. Emphasis on ethical and legal decision making and regulatory monitoring, and control of white-collar and corporate activity.

CRJ 406
CORRECTIONAL INSTITUTIONS AND PROGRAMS  
3, 3/0
Prerequisites: CRJ 101, CRJ 204, and upper-division status or permission of instructor. Comprehensive survey of adult institutional corrections systems, their programs and services, and the policies and procedures governing the operational, legal, and structural context of correctional environments. Emphasis on the research literature focused on the impacts and outcomes of various correctional intervention strategies. Equivalent course: CRJ 406W

CRJ 408
PROSEMINAR IN CRIMINAL JUSTICE  
3, 3/0
Investigation, examination, and discussion of topics of current interest in criminal justice. Techniques and analysis of criminal justice research. Equivalent course: CRJ 408W

CRJ 409
ADVANCED ISSUES IN LAW ENFORCEMENT  
3, 3/0
Prerequisites: CRJ 101, CRJ 202, and upper-division status or permission of instructor. Advanced course on contemporary issues in law enforcement. Provides insight and depth into a broad range of topics and exposes students to experts and specialists from various relevant disciplines.

CRJ 410
ORGANIZED CRIME  
3, 3/0
Prerequisites: CRJ 101, CRJ 303, and upper-division status. Views on organized crime, the controversy surrounding the phenomenon, and efforts at control. Definition of organized crime, its developmental history, and models that define the structure of organized crime in the United States. Theories that explain the existence of organized crime, activities that constitute the "business" of organized crime, the relationship between organized crime and official corruption, techniques used to combat organized crime, and policy implications inherent in responses to organized crime.

CRJ 420
ADVANCED ISSUES IN PUNISHMENT AND CORRECTIONS  
3, 3/0
Prerequisites: CRJ 101, CRJ 204; upper-division status. Critical analysis of contemporary policies, practices, and issues arising from the control and punishment of criminal offenders. Emphasis on the complexity of current issues, such as disparity in criminal sentencing, use of the death penalty, institutional overcrowding, treatment of institutionalized people, and community supervision of nonincarcerated offenders. Focus of analysis will vary with interests of faculty and students.

CRJ 425
RACE, ETHNICITY, AND THE ADMINISTRATION OF JUSTICE  
3, 3/0; DIIF
Prerequisites: CRJ 101 and upper-division status. The current state of race relations in society and the criminal justice system; the historical experiences of different racial and ethnic groups in the United States and their relation to law and the criminal justice system as victims, offenders, and officials in criminal justice institutions. Equivalent course: AAS 425

CRJ 430
GENDER AND THE ADMINISTRATION OF JUSTICE  
3, 3/0; DIIF
Prerequisites: CRJ 101 and upper-division status. The mutual effects between gender and aspects of criminal justice, including victimization, criminality, and the criminal justice process. Includes perspectives on the historical subordination of women, and how law and the criminal justice system can be used to ameliorate that subordination.

CRJ 440
DRUGS, CRIME, AND DRUG POLICY  
3, 3/0
Prerequisites: CRJ 101 and CWP 102. The nature and impact of drug abuse in America and the relationship to criminal behavior. The historical and ideological foundations of national drug-control policy as well as contemporary control and intervention strategies.

CRJ 450
TERRORISM AND CRIMINAL JUSTICE  
3, 3/0
Prerequisites: CRJ 101 The phenomenon of terrorism from a criminal justice perspective. The history of the phenomenon and contemporary terrorism in both its domestic and international manifestations; theories about terrorism; analytic methods for investigating and combating it, whether perpetrated by state or non-state actors.

CRJ 455
ADVANCED INTELLIGENCE ANALYSIS  
3, 3/0
Prerequisite: CRJ 250. Advanced-level continuation of CRJ 250. Introduces a variety of analytical techniques; provides advanced knowledge, understanding, and application of these techniques; promotes critical thinking and report-writing skills. Equivalent course: CRJ 350

CRJ 470
ADVANCED SEMINAR IN CRIMINAL JUSTICE  
3, 3/0; OGIF
Prerequisites: CWP 102, CRJ 101, CRJ 303, CRJ 315, upper division status, and at least 24 credit hours of criminal justice coursework. Integration of knowledge acquired throughout the criminal justice curriculum into a holistic conception of criminal justice theory, practice, research, and planning. Emphasis on developing advanced scholarship, conceptualization, and critical thinking through writing within the discipline.
CRJ 485
MOOT COURT
3, 3/0; OCIF
Prerequisite: Upper-division status. Simulation of a trial court or appellate court proceeding involving teams of students acting as prosecutor/plaintiffs' attorneys, defense attorneys, and witnesses. Students develop case strategy, analyze evidence, integrate legal precedent, prepare a written brief, question witnesses, and present oral arguments to the court in opening and closing statements. Final project is a mock trial presentation held in a formal courtroom setting.
Equivalent courses: PSC485, SOC485

CRJ 488
INTERNERNSHIP IN CRIMINAL JUSTICE
3-15, 3/0
Prerequisites: Senior-level standing, 3.0 GPA, and permission of instructor. A comprehensive, supervised field experience in criminal justice and related social service agencies. Requires a minimum of 10 hours of work in the agency during a 14-week period (140 total hours) and a weekly academic seminar on campus. The purpose of the internship is to integrate knowledge learned in the academic environment with the experience of day-to-day work in a professional environment.

CRJ 495
SPECIAL PROJECT
1-3, 0/0

CRJ 499
INDEPENDENT STUDY
3-12, 0/0

CTE - CAREER AND TECHNICAL EDUCATION

CTE 100
COMPREHENSIVE THEORETICAL TRADE OR TECHNICAL SKILLS
15, 0/0
Credit is awarded for satisfactory completion of trade theory. Assessment of competency is based on verification of four years' employment in a trade normally taught in vocational high school programs. Graduates of community college technical programs in appropriate trades are required to verify two years' employment. The National Occupational Competency Testing Institute Examination and/or other assessment techniques may be used to determine credit of 15 semester hours.
Equivalent course: VTE100

CTE 200
COMPREHENSIVE TRADE OR TECHNICAL PERFORMANCE SKILLS
15, 0/0
Credit is awarded for satisfactory completion of trade theory. Assessment of competency is based on verification of four years' employment in a trade normally taught in vocational high school programs. Graduates of community college technical programs in appropriate trades are required to verify two years' employment. The National Occupational Competency Testing Institute Examination and/or other assessment techniques may be used to determine credit of 15 semester hours.
Equivalent course: VTE200

CTE 201
COMPREHENSIVE THEORETICAL TRADE OR TECHNICAL SKILLS
15, 0/0
Credit is awarded for satisfactory completion of trade theory. Assessment of competency is based on verification of four years' employment in a trade normally taught in vocational high school programs. Graduates of community college technical programs in appropriate trades are required to verify two years' employment. The National Occupational Competency Testing Institute Examination and/or other assessment techniques may be used to determine credit of 15 semester hours.
Equivalent course: VTE100

CTE 304
DEVELOPING CREATIVE PROBLEM-SOLVING FACILITATION SKILLS
3, 3/0
Prerequisites: CRS 205 and CRS 302. Develop and apply facilitation and leadership skills in a variety of settings. Participate in supervised practice using creative problem-solving techniques with groups and individuals.

CTE 305
EXPERIENCES IN LEADERSHIP
3, 3/0
As the culminating course in leadership, the capstone experience is designed to synthesize prior coursework and serve as a transition to professional leadership opportunities. This will be primarily achieved through an applied leadership experience in which students will be required to employ knowledge and skills gained from prior courses in the minor program. To enable students to develop an understanding of leadership in applied contexts, they will have the opportunity to interact with and learn from successful leaders in the Western New York region. Finally, students will be required to articulate a vision of themselves as future leaders in their respective professions and communities.

CTE 306
APPLYING INTERDISCIPLINARY PRINCIPLES
3, 3/0
This interdisciplinary course examines major principles of creativity and their applications to everyday life-personal, social, professional, avocational. Explores the nature of creative persons and those factors that encourage or inhibit creative expression. Examines research for its various implications and applications. Guest speakers from a variety of disciplines examine creativity from their diverse viewpoints. Participation in the creative process in a variety of ways.

CUT 308
APPLICATIONS OF CREATIVE APPROACHES TO PROBLEM SOLVING
3, 3/0
Prerequisites: CRS 205, CWP 101, and CWP 101. Creative problem-solving methods and techniques. Emphasis on the application of creative problem-solving to challenges, goals, and opportunities students face in their personal and professional lives.
Equivalent course: CRS302W

CUT 309
CREATIVE LEADERSHIP THROUGH EFFECTIVE FACILITATION
3, 3/0
Learn and practice creativity concepts as they relate to leadership; examination of individual leadership styles and specific methods and techniques to apply concepts and skills.
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>CTE 301</td>
<td>PRINCIPLES OF BUSINESS/MARKETING AND TECHNOLOGY EDUCA</td>
<td>3, 3/0</td>
<td>Introduction to the teaching of occupational education courses in public schools; principles, philosophy, and objectives; historical development of occupational education and the development of current issues for an occupational education program. Equivalent courses: BME301, BME301W, BUS301, FCS301</td>
</tr>
<tr>
<td>CTE 302</td>
<td>CURRICULUM AND EVALUATION IN BUSINESS/MARKETING AND TECHNOLOGY EDUCATION</td>
<td>3, 3/0</td>
<td>Introduction to the curriculum and evaluation in business/marketing and technology education. State curriculum and standards, lesson planning, student learning, and curriculum evaluation. Equivalent courses: BME302, BUS302, FCS302, VTE302</td>
</tr>
<tr>
<td>CTE 306</td>
<td>LABORATORY MANAGEMENT</td>
<td>3, 3/0</td>
<td>Organizational factors that influence the success of career-technical education teachers. Includes facility planning, redesign, and managerial phases of the career-technical teacher's responsibilities. Equivalent course: VTE306</td>
</tr>
<tr>
<td>CTE 311</td>
<td>CAREER MENTORING INTERNSHIP</td>
<td>3, 1/2</td>
<td>Prerequisite: CTE/VTE 302 Overview of career awareness for exploration, guidance, and workplace skills. Classroom pedagogy and field experiences provide mentoring opportunities with middle school and high school students or with adults seeking retraining for new career choices. Majors obtain teaching skills while providing service to the community at off-campus locations during class times. Includes demonstrations of various trade skills and career fairs. Classes meet on and off campus.</td>
</tr>
<tr>
<td>CTE 350</td>
<td>SCHOOL AND COMMUNITY RELATIONSHIP FIELD EXPERIENCE</td>
<td>3, 1/2</td>
<td>Prerequisite: CTE major Overview of school and community relations. Classroom and field experience involves students in the concepts of planning and executing a successful vocational – career promotional event. Students are placed off campus at community sites and/or middle school or high school locations. Thirty hours of internships and promotional events at off-site locations are required.</td>
</tr>
<tr>
<td>CTE 402</td>
<td>ASSESSMENT TECHNIQUES IN CAREER AND TECHNICAL SUBJECTS</td>
<td>3, 3/0</td>
<td>Prerequisite: CTE 302 Overview of assessment in classroom, laboratory, internship, and clinical situations. Principles of effective assessment include different approaches and methods of assessment, evaluation, and testing techniques. Addresses portfolio development, reflective journals, authentic and performance assessment, and objective testing as applicable to career and technical subjects.</td>
</tr>
<tr>
<td>CTE 404</td>
<td>APPLIED TEACHING METHODS IN BUSINESS/MARKETING</td>
<td>3, 3/0</td>
<td>Prerequisites: BME/CTE/FCS 301 and BME/CTE/FCS 302 Basic principles and methods of teaching business and marketing subjects. Prepares the student to effectively teach subjects in this area. Equivalent courses: BME411, BUS411, FCS404, VTE404</td>
</tr>
<tr>
<td>CTE 413</td>
<td>STUDENT TEACHING CAREER AND TECHNICAL EDUCATION</td>
<td>6, 0/6</td>
<td>Prerequisites: CTE 302, CTE 404, and NOCTI Trade Examination or equivalent. Career and technical education major and completion of at least 18 credits in CTE required courses. Supervised teaching in career-technical classes in selected career-technical schools, in various types of schools and communities. Three hundred hours of practice teaching in off-site campus programs required. Conferences and reports based upon teaching assignments are required. Seminar discussions consist of professional problems of the beginning teacher. Students should be prepared to accept assignment at any school designated by the student-teacher coordinator. Student-teaching assignments are located throughout Western New York. Equivalent course: VTE413</td>
</tr>
<tr>
<td>CTE 415</td>
<td>PROFESSIONAL DEVELOPMENT SEMINAR</td>
<td>3, 3/0</td>
<td>Prerequisite: Successful completion of the basic writing requirement. Synthesis of pedagogical courses and practice-teaching experience. Analysis of problems that confront teachers. Equivalent courses: CTE415W, VTE415</td>
</tr>
<tr>
<td>CTE 421</td>
<td>OCCUPATIONAL EDUCATION FOR INDIVIDUALS WITH SPECIAL NEEDS</td>
<td>3, 3/0</td>
<td>Planning, coordinating, and delivering programs for individuals with special needs found in secondary and postsecondary schools, rehabilitation centers, and correctional facilities. Development of methods and techniques for teaching and assessing the work potential of individuals with special needs. Development of self-help devices/adaptive equipment. Identifying instructional resources. Equivalent course: VTE421</td>
</tr>
<tr>
<td>CTE 435</td>
<td>CURRICULAR PROBLEMS OF CAREER AND TECHNICAL SCHOOLS</td>
<td>3, 3/0</td>
<td>Prerequisites: CTE 302 and CTE 404 Basic principles and foundations of curriculum development for trade and technical programs. Technological, sociological, and educational factors that effect change in curriculum. The integral parts of a curriculum and newer concepts of curriculum programs and materials. Emphasis on curricular problems of teachers and administrators in their individual schools.</td>
</tr>
<tr>
<td>CTE 479</td>
<td>POSTSECONDARY INSTRUCTION PRACTICUM</td>
<td>6, 1/5</td>
<td>Prerequisites: CTE 302, CTE 404, and NOCTI Trade Examination or equivalent; career and technical education major; completion of at least 18 credit hours in CTE required courses. Part- or full-time teaching assignment in a post-secondary-level, career-technical education program. Develops and refines skills and understandings of the teaching-learning process as it relates to career-technical teaching, under the guidance and supervision of college faculty. S or U grade only.</td>
</tr>
<tr>
<td>CTE 489</td>
<td>INDUSTRIAL TRAINER PRACTICUM</td>
<td>6, 3/3</td>
<td>Prerequisites: CTE 302, CTE 404, and NOCTI Trade Examination or equivalent; career and technical education major; completion of at least 18 credit hours in CTE required courses; CTE program coordinator approval. Part- or full-time assignment in a business or industrial training program. Develops and refines skills and understanding of occupational training practices, under the guidance and supervision of business and industry training personnel and college faculty. S or U grade only.</td>
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<tr>
<td>CTE 492</td>
<td>OCCUPATIONAL PRACTICUM</td>
<td>6, 3/3</td>
<td>Prerequisites: CTE 100 and CTE 200 (NOCTI Trade Examination) or equivalent; career and technical education major. Advanced specialization development for students with prior occupational experience such as on-the-job upgrading, occupational workshops, and in-service institutes. May be taken for credit more than once by advisement.</td>
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<td>CTE 495</td>
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<td>CTE 497</td>
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<td>CTE 499</td>
<td>INDEPENDENT STUDY</td>
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DAN 200  MODERN DANCE TECHNIQUE I  
3, 1/4; ARIF  
Basic tenets and fundamental principles of modern dance. Students develop an understanding of the dancer as the interpretive artist through technical dance instruction, historical introduction and significance, and aesthetic discovery. Students attend live dance performance.

DAN 201  TEACHING CREATIVE MOVEMENT FOR CHILDREN  
3, 1/4  
Preparation to teach creative movement to children, kindergarten through sixth grade. Emphasis on studio work directing noncompetitive creative play, cooperative group problem solving, and structured improvisations.

DAN 214  INTRODUCTION TO DANCE TECHNIQUES  
3, 3/0; ARIF  
Prerequisites: NoneA studio course designed to introduce the novice student to various artistic dance genres. Students will develop an understanding of the dancer as a performing artist through the physical practice of a variety of dance techniques: body as the instrument for dance, kinesthetic awareness, a codified terminology, and the influential aesthetic elements that define various dance techniques. Students will attend live dance performance.

DAN 220  BALLET TECHNIQUE I  
3, 1/4; ARIF  
Intensive introduction to basic principles of classical ballet. Students develop an understanding of classical dance through the instruction of basic ballet technique, a codified terminology, and the influential aesthetic and historical foundations. Students attend live dance performance.

DAN 224  DANCE APPRECIATION  
3, 3/0; ARIF  
Survey course examining the cultural and aesthetic values of ethnic, social, and concert dance; the significance of dance for ceremony, ritual, commercial entertainment, and artistic expression. Students attend live dance performance.
DAN 340
BALLET TECHNIQUE III
3, 3/0
Continuation of DAN 330. Intermediate-level ballet technique course with emphasis on applications of idiokinetcs.

DAN 350
TAP DANCE FOR THE STAGE: ELEMENTARY
1, 2/1
First course in a two-semester sequence for majors and minors in the performing arts. Minimum two hours of outside practice weekly plus familiarity with selected readings. Students comprehend and execute an elementary vocabulary of stage tap.

DAN 400
TEACHING DANCE
3, 3/0
The methods and materials used in teaching dance to students of various ages and backgrounds, explored through research and practical teaching experience. Anatomical and kinesiological principles, injury prevention and treatment.

DAN 450
TAP DANCE FOR THE STAGE: INTERMEDIATE
1, 2/0
Prerequisite: DAN 350 or permission of instructor. Advanced vocabulary, styles, and solo/duet work. Some creative work required. Comprehend and execute a substantial portion of traditional Broadway requirements.

DAN 495
SPECIAL PROJECT
1-3, 0/0

DAN 499
INDEPENDENT STUDY
3, 0/0

DES - DESIGN

DES 101
INTRODUCTION TO DESIGN TWO DIMENSIONAL I
3, 1/5
Basic skills and concepts in two-dimensional design. Logical and intuitive approaches to pure form and natural sources. Emphasis on development of individual solutions.

DES 102
INTRODUCTION TO DESIGN TWO DIMENSIONAL II
3, 1/5
Prerequisite: DES 101. Continuation of DES 101, involving in-depth assignments stressing composition and form, idea development, design process, and color dynamics, while strengthening skills and control.

DES 103
INTRODUCTION TO DESIGN THREE DIMENSIONAL I
3, 1/5
Fundamentals of three-dimensional design, with emphasis on the development of skills related to spatial manipulation via form and structure. Development of manipulative skills in various media.

DES 104
INTRODUCTION TO DESIGN THREE DIMENSIONAL II
3, 1/5
Prerequisite: DES 103. Advanced concepts and manipulation skills related to three-dimensional design. Conceptualization, visualization, and evaluation related to design objectives.

DES 114
WORKSHOP IN CRAFTS
3, 1/5; ARIF
Hands-on creative studio experience in ceramics, fibers, metals/jewelry, or wood/furniture design. Non-art majors only.

DES 190
DESIGN SYMPOSIUM
3, 3/0; ARIF
Introductory design course open only to non-majors. Basic concepts and language of design, the application of those concepts in the human environment, and the historical and cultural reference to those concepts.

DES 220
CERAMICS I
3, 1/5

DES 230
INTRODUCTION TO JEWELRY MAKING
3, 1/5
Prerequisite: DES 101. Exploration of materials and processes in jewelry making, emphasizing creative design. Equivalent course: DES230

DES 242
FIBERS I
3, 1/5
Introduction to traditional and current trends in weaving and surface design, including table-loom weaving, batik, and silkscreen printing. Assignments develop good design through creative expression. Equivalent courses: DES240, DES245

DES 250
WOOD DESIGN I
3, 1/5
Wood as a medium for expression and object design; technical and aesthetic problems. Equivalent course: DES250

DES 270
VISUAL COMMUNICATION I
3, 1/5
Prerequisites: DES 101, DES 102, DES 103. Introductory course in communication design involving basic design problems including logotype, stationary, and page layout. Examination of design and printing processes, as well as professional practices and issues. Equivalent course: DES270

DES 271
LETTERING AND TYPOGRAPHY I
3, 1/5
Prerequisite: DES 270. Uses of typographic forms in graphic design; problems in expression and appropriate application and layout; type specification, indication, copy fitting; origins of the Western alphabet.

DES 277
COMPUTER GRAPHICS I
3, 1/5
Prerequisite: DES 101. Introduction to the Macintosh computer as a graphic design tool. Develop a working understanding of a graphic design page-layout and drawing program. Class sessions include visual presentations, hands-on tutorials, and critiques of assignments.

DES 307
COLOR THEORY
3, 1/5
Prerequisite: DES 102. Origins, meaning, and dimensions of color; lectures and studio problems in various media, exploring the compositional effects of color. Equivalent course: DES307

DES 312
HISTORY OF CRAFT: INDUSTRIAL REVOLUTION TO THE PRESENT
3, 3/0
Prerequisite: FAR104. Historical and theoretical foundations of crafts from the Industrial Revolution to the present. Developments in crafts in traditional forms, hand-based production methods, new technologies, new media and new concepts of craft, and specific cultural and intellectual contexts. Equivalent course: DES312W
### FIBERS: JUNIOR STUDIOS

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<tbody>
<tr>
<td>DES 344</td>
<td>FIBERS: JUNIOR STUDIO</td>
<td>3, 1/5</td>
<td>DES 242 and DES 342.Study and experience in complex weaving and surface design, including multiple-harness weaving and application of printing techniques; aesthetic and functional considerations.</td>
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<td>DES 350</td>
<td>WOOD DESIGN II</td>
<td>3, 1/5</td>
<td>DES 250. Exploration into the design and fabrication of wooden objects. Emphasis on developing design and craftsmanship skills through assigned problems. Equivalent course: DES350</td>
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<tr>
<td>DES 351</td>
<td>WOOD DESIGN: JUNIOR STUDIO</td>
<td>3-12, 1-4/5-20</td>
<td>DES 350. Design and creation of a major project in wood, approached from the viewpoint of the designer-craftsperson, using a range of techniques and hand, power, and machine tools as needed. Equivalent course: DES351</td>
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### JEWELRY: JUNIOR STUDIO

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DES 421  
CERAMICS: SENIOR STUDIO  
3-12, 1-4/5-20  
Prerequisite: DES 321. Development and presentation of the student's personal direction in clay, culminating in a portfolio presentation and a final show.

DES 431  
JEWELRY: SENIOR STUDIO  
3, 1/5  
Prerequisite: DES 331. Concentration of studio work by the senior major in jewelry. Students plan and execute a series of problems and projects in consultation with the instructor.

DES 444  
FIBERS: SENIOR STUDIO  
3, 1/5  
Prerequisites: DES 242, DES 342, and DES 344. Concentration of studio work in surface design and weaving by senior fiber majors. Students plan and execute a series of problems and projects in consultation with the instructor, leading to an exhibition. Portfolio preparation for graduating seniors.

DES 451  
WOOD DESIGN: SENIOR STUDIO  
3-12, 1-4/5-20  
Prerequisite: DES 351. Concentration of studio work by senior wood majors. Students plan and execute a series of problems and projects in consultation with the instructor.

DES 473  
GRAPHIC DESIGN  
3-9, 1-3/5-15  
Prerequisite: DES 380. Advanced problems in advertising, publication, and packaging design. Materials, techniques, and computer processes used in preparation of visual and design presentations/mechanics. Emphasis on individual solutions to problems typical of those confronting the professional graphic designer.

DES 475  
GRAPHIC DESIGN PRACTICUM  
1-6, 1-6/5-30  
Prerequisite: Completion of all required courses in graphic design specialization. Practical experience in an advertising agency, design studio, or corporate design office under the sponsorship of an art director, working two days a week for 6 credit hours. Or experience with practical problems in a simulated agency situation, working 10 hours a week for 3 credit hours. Admission by permission of graphic design advisers after portfolio review.

DES 479  
MULTIMEDIA COMPUTER DESIGN  
3, 0/6  
Prerequisites: DES 277 and DES 377. Introduction to computer design and the authoring process in multimedia. Experience with digital images, video, and sound using current software, culminating in creative interactive presentations and Web page documents. Equivalent course: DES379

DES 480  
ILLUSTRATION II  
3, 1/5  
Prerequisite: DES 380. Advanced problems and creative solutions in editorial and advertising illustration using computer drawing software programs. In-depth examination of business issues and professional practice in the illustration field.

DES 488  
INTERNSHIP  
1-12, 0/0  
Prerequisite or corequisite: DES 460. Guided, supervised exposure to professional design operations through on-the-job experience in an authorized design firm, department, studio, or showroom. For 3 credit hours, student completes 120 contract hours, provides a written report of the work experience, and receives written evaluation from the employer.

DES 495  
SPECIAL PROJECT  
1-3, 1-3/5-15

DES 499  
INDEPENDENT STUDY  
3-12, 1-4/5-20

**DMP - DIGITAL MUSIC PRODUCTION**

DMP 221  
INTRODUCTION TO SOUND RECORDING AND REINFORCEMENT  
3, 3/0  
Prerequisite: Instructor permission. Introduction to the history, technology, and future of analog and digital audio systems and their application. The physics of sound and the art and science of live sound reinforcement and recording including acoustics, microphone selection and placement, signal processing, mixing, loudspeaker design, editing, digital audio workstation software, MIDI, and sound system design for live venues.

DMP 321  
RECORDING TECHNIQUES  
3, 3/0  
Prerequisite: DMP 221 or instructor permission. Examination of electronic audio systems and their application, including the art and science of sound recording and reinforcement of instrumental and vocal music in live and studio situations. Topics include practical applications of microphone selection and placement, signal processing, mixing, amplification, loudspeaker types, digital audio editing software, MIDI, and sound system design for live venues. Equivalent course: MUS222

DMP 331  
INTERMEDIATE RECORDING  
3, 3/0  
Prerequisites: Acceptance into DMP minor, DMP 321. A hands-on approach to digital audio recording and production techniques including recording, microphone techniques, editing, and mixing using professional recording software. Student led recording sessions.

DMP 341  
ADVANCED RECORDING  
3, 3/0  
Prerequisites: Acceptance into DMP Minor, DMP 331. In-depth study of recording techniques and tools used in the modern recording industry, advanced mixing techniques used in commercial music, critical listening and music analysis from contemporary recorded music. Student recording, performance and engineering.

DMP 350  
ELECTRONIC MUSIC COMPOSITION I  
3, 2/2  
Prerequisite: Acceptance into DMP Minor. The creative use of sound and music through the exploration of technology, history, theory, and practice of electronic music since the 1920s. Provides students with a wide range of technical, theoretical, and aesthetic concepts aimed at developing and strengthening music composition skills. The technological nature of the class encompasses the learning of fundamental software tools while favoring a critical-thinking approach to the unique expressive power of electronic music composition.

DMP 351  
ELECTRONIC MUSIC COMPOSITION II  
3, 3/0  
Prerequisites: Acceptance into DMP Minor, DMP 350. Focus on the creative use of sound, music and video through the exploration of key software tools for electronic music composition, music performance, mixed media, and sound installations. Advanced technical and theoretical knowledge of electronic music while developing music composition skills.

DMP 360  
DIGITAL MUSIC ENSEMBLE  
1, 3/0  
Prerequisite: Instructor Permission. Electronic music performance in an ensemble setting with analog and digital musical instruments, portable computing devices and custom digital controllers. Emphasis on new approaches and skills for the performance and composition of electronic and computer music.
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<td>THE ECONOMIC SYSTEM</td>
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<td>ECO 103</td>
<td>ECONOMIC HISTORY OF THE UNITED STATES</td>
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<tr>
<td>ECO 307</td>
<td>INTERMEDIATE MICROECONOMICS</td>
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<td>ECO 308</td>
<td>INTERMEDIATE MACROECONOMICS</td>
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<tr>
<td>ECO 312</td>
<td>URBAN ECONOMICS</td>
<td>3, 3/0</td>
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</tr>
<tr>
<td>ECO 320</td>
<td>MANAGERIAL ECONOMICS</td>
<td>3, 3/0</td>
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</tr>
</tbody>
</table>

**ECO 201: PRINCIPLES OF MACROECONOMICS**

- Major economic forces-consumer expenditure, business investment, and government spending-and their influence on national income. Money and banking, monetary and fiscal policies, inflation and recession, economic growth, and international monetary problems. Either ECO 201 or ECO 202 may be taken first.

**ECO 300: LABOR ECONOMICS**

- Prerequisite: ECO 202. Competing theories of labor-market operation in market economies. Problems of labor markets (such as unemployment and discrimination). History of the evolution of labor markets in the United States and the role of government in affecting outcomes. Current issues, including increasing international competition in product and labor markets, the impact of technological change in altering workforce skill and educational requirements, and structural change in compensation and occupational distribution.

**ECO 301: ECONOMICS OF LABOR RELATIONS**

- Present-day techniques in labor-management negotiations, the collective bargaining agreement, the development and structure of organized labor, labor law, and labor economics.

**ECO 302: WOMEN IN THE ECONOMY**

- Prerequisites: ECO 201 or ECO 202. Analysis of the economic status of women in the United States and other selected nations as compared to men's status and differentiated by age, race, ethnicity, and marital status. Equivalent course: ECO302W

**ECO 304: MONEY AND BANKING**

- Prerequisites: ECO 201. The nature and function of money. The American monetary system and the role of the banking system. The structure and functions of the Federal Reserve System. Fundamental monetary theory and its relation to monetary policy. Current problems relating to the impact of monetary policy on prices and employment.

**ECO 305: STATISTICS FOR ECONOMICS**

- Introduction to elementary statistical principles, descriptive statistics, and statistical inference. Applications in economics, business, and criminal justice. Required for majors. Equivalent course: ECO307W

**ECO 307: INTERMEDIATE MICROECONOMICS**

- Prerequisites: ECO 202 and MAT 114 or equivalent. Advanced study of individual units in the economy and how their decisions influence market prices and industry output. Includes the theory of consumer demand, the theory of the firm, resource allocation, income distribution, and welfare economics. Required for majors. Equivalent course: ECO308W

**ECO 308: INTERMEDIATE MACROECONOMICS**

- Prerequisites: ECO 202 and MAT 114 or equivalent. Advanced study of aggregate economic activity and its influence on national income. Includes Classical and Keynesian theory, monetary and fiscal policies, business cycles, forecasting, and economic growth. Required for majors. Equivalent course: ECO308W

**ECO 312: URBAN ECONOMICS**

- Prerequisite: ECO 202 or permission of instructor. Application of economic analysis to urban growth, land use, poverty, housing, segregation, pollution, congestion, and urban public finance. Equivalent course: ECO312

**ECO 320: MANAGERIAL ECONOMICS**

- Prerequisites: ECO 202, ECO 305, and MAT 114 or equivalent. Using economic analysis to formulate and provide guides to the solution of management decision and control problems, and the development of appropriate business policies.
ECO 325  
INDUSTRIAL ORGANIZATION  
3, 3/0  
Prerequisite: ECO 202 or permission of instructor. The links between economic theory and structure, conduct, and performance of national and international industry over time. Designed for economics and business majors. Emphasis on price theory, inter- and intra-firm relationships, and industrial policy.

ECO 350  
PUBLIC FINANCE  
3, 3/0  
Prerequisites: ECO 202. The nature and growth of public expenditures; principles of taxation; federal, state, and local revenue; introduction to fiscal policy and theory; significance of public debt; selected problems in intergovernmental fiscal relations.  
Equivalent course: ECO350W

ECO 355  
THE ECONOMICS OF ENERGY AND THE ENVIRONMENT  
3, 3/0  
Prerequisite: ECO 202 or permission of instructor. Micro- and macroeconomic activity imposed by the availability of energy resources and by environmental considerations. Alternative policy strategies relating to energy and the environment are evaluated in terms of their economic impact.

ECO 360  
INTRODUCTION TO THE ECONOMIC ANALYSIS OF LAW  
3, 3/0  
Prerequisite: ECO 307 or permission of instructor. Introduction to the study of law from an economic perspective. No prior knowledge of law is required, and all economic concepts needed are presented. Uses economic concepts and reasoning to explain and predict consequences of legal rules. Includes important issues found in court cases involving contracts, property law, liability, and environmental law.

ECO 389  
TOPICS COURSE  
1-3, 1-3/0  

ECO 401  
INTERNATIONAL ECONOMICS  
3, 3/0  
Prerequisites: ECO 201 and ECO 202; ECO 307 recommended. Basic theories of international trade. The international monetary mechanism and the institutions that facilitate its operation. Foreign economic policy and contemporary problems relating to tariffs, payments, balances, devaluation, and gold as a means of setting international payments in balances.  
Equivalent course: ECO401W

ECO 403  
COMPARATIVE ECONOMIC SYSTEMS  
3, 3/0  
Prerequisites: ECO 201 and ECO 202 or permission of instructor. Essential characteristics of different market economies as they have evolved to the present, their strengths and weaknesses, increasing social control, trading and monetary unions, contrast with socialist systems.  
Equivalent course: ECO403W

ECO 404  
ECONOMIC DEVELOPMENT  
3, 3/0  
Prerequisite: Minimum of two economics courses. The difficulties of economic development, industrialization, and worldwide poverty. Competing theories of economic growth and structural change. Problems of population, natural resources, and environment. The growing interdependency of the U.S. and lesser-developed countries' (LDCs) economies. The crucial role of women in development, as well as ethnic and other social and cultural relationships. LDCs debt crisis and international finance. Macro- and microeconomic planning models. The policy-making process, development strategies, and specific case studies of LDCs in Africa, Asia, and Latin America.  
Equivalent course: ECO404W

ECO 405  
HISTORY OF ECONOMIC THOUGHT  
3, 3/0  
Prerequisites: ECO 201 and ECO 202 or permission of instructor. The attempts of key economic thinkers from Aristotle to the present to analyze economic phenomena and provide guidance for economic policy.  
Equivalent course: ECO405W

ECO 407  
POLITICAL ECONOMY CLASSICS  
3, 3/0  
Prerequisite: ECO 301 or ECO 202. In-depth study of classic political economic thought, including Adam Smith's Wealth of Nations; David Ricardo's Principles of Political Economy and Taxation; Karl Marx's Das Kapital, Volume I; and John Maynard Keynes's General Theory. Relationships between these classics and modern economic thought and socioeconomic phenomena.

ECO 411  
REGIONAL ECONOMIC ANALYSIS  
3, 3/0  
Prerequisites: ECO 201 and ECO 202 or permission of instructor; MAT 110 recommended. Analysis of location on economic activity, urbanization patterns, and regional growth and development. Techniques in measuring the level of economic activity of a region, using Western New York as a model. The impact of the Buffalo urban area on the development of the surrounding region.  
Equivalent courses: ECO411W, GEG411

ECO 412  
URBAN ECONOMICS  
3, 3/0  
Prerequisite: ECO 201 or ECO 202 or permission of instructor. Application of economic analysis to urban growth, land use, poverty, housing, segregation, pollution, congestion, and urban public finance.  
Equivalent course: ECO412W

ECO 424  
ECONOMETRICS  
3, 3/0  
Prerequisites: MAT 126, ECO 201 or ECO 202, and ECO 305 or equivalent statistics course. Introduction to applied statistical analysis, with primary emphasis on business and economic applications. Provides quantitative background for graduate study in economics, business, public administration, and related social science, as well as for many types of employment.  
Equivalent course: ECO424W

ECO 488  
INTERNSHIP  
3-12, 0/0  
Prerequisites: ECO 201, ECO 202, and one relevant elective; minimum cumulative GPA of 2.75; upper-division status. Application and integration of economic concepts and methodologies in an off-campus field setting, under the direction of a faculty sponsor, with the cooperation of a designated field supervisor. A minimum of 3 credit hours of ECO 488, ECO 495, or ECO 499 may be applied toward the major.

ECO 490  
SENIOR SEMINAR  
3, 3/0; OCIF
Prerequisites: ECO 305, ECO 307, ECO 308, and senior standing. ECO 424 recommended. Capstone course required of all senior economics and finance majors. Investigation and oral presentation of findings of selected advanced topics in economics and finance. Senior thesis on a topic in economics or finance required.

ECO 495  
SPECIAL PROJECT  
1-3, 0/0  
Prerequisites: ECO 307 AND ECO 308 AND Permission of instructor. A maximum of 3 credit hours of ECO 488, ECO 495, or ECO 499 may be applied toward the major.
EDU 121  TUTORING STUDENTS WITH A DIVERSE LANGUAGE BACKGROUND  
3, 3/0  
Prerequisite: Completion of all GE2K general education/IF cognates in math and English with a minimum grade of C. Develops socio-cultural awareness and trains tutors for community-based experiences. Prepares students for experiences and unique interactions between culture and education while providing strategies to help second-language learners access the core curriculum.

EDU 201  INTRODUCTION TO EDUCATION  
3, 3/0  
Prerequisite: Majors; SPF 202. Introduction to elementary school teaching. Application of major theories, consideration of developmentally appropriate practices relative to New York State and Common Core Learning Standards. Introduction to classroom organization, classroom management, and multi-cultural education; participation in the reflective writing process emphasized. Field experience required, approximately 12 hours.
Equivalent course: SPF201

EDU 211  INTRODUCTION TO LITERACY  
3, 3/0  
Prerequisite: Majors, EDU 201 or equivalent. Current literacy theories and practices supportive of diverse populations and congruent with New York State Learning Standards. School-based or field placement activities that support course objectives are required, approximately 12-15 hours.

EDU 220  PROGRAMS FOR INFANTS AND TODDLERS  
3, 3/0  
Prerequisites: Majors; EDU201, SPF202, EDU211. Introduction to the field of early childhood education. Familiarity with the developmental needs and program requirements for infants and toddlers. Students plan developmentally appropriate activities to use with these age groups and implement them in a field placement. Special attention is given to the assessment of young children in the fifty hour field placement.
Equivalent course: ECS405

EDU 310  TEACHING SOCIAL STUDIES IN THE ELEMENTARY SCHOOL  
3, 3/0; DIIF  
Prerequisites: Majors, EDU 211 with a C or higher. Overall GPA of 2.5 or higher. Provides teacher candidates with culturally sensitive pedagogy for selecting, organizing, presenting, and evaluating elementary level social studies curriculum. The arts are used to enhance social studies content for more engaging, culturally responsive, and thoughtful instruction.
Equivalent course: EDU310W

EDU 311  THE TEACHING OF READING AND THE OTHER LANGUAGE ARTS IN THE ELEMENTARY SCHOOL  
6, 6/0  
Prerequisite: Majors; Overall cumulative GPA of 2.5 in these courses: EDF/SPF 202, EDF/SPF 203, EDF/SPF 302; EDU 201, EDU 211 (exceptional education students will substitute EXE 360 for EDU 201). EDU 211 must have a C or higher. Builds methodological practice from the theoretical scaffold of literacy knowledge and teaching established in EDU 211 and the survey course EDU 201. Participation in classroom practice while exploring in-depth curricular, theoretical, and practical educational frameworks. Junior participants apply skills and processes they have learned in previous courses to teach language arts across the curriculum. Students plan, implement and evaluate lessons incorporating the NYS and Common Core Standards for English Language Arts; practice and evaluate assessment tools and processes; become reflective practitioners; demonstrate effective techniques for instructional organization in a Professional Development School. Orientation required.
Equivalent course: EDU311W

EDU 312  THE TEACHING OF SCIENCE AND MATHEMATICS  
6, 6/0  
Prerequisites: Majors; overall cumulative GPA 2.5 or higher; cumulative GPA of 2.5 in the professional sequence, and a C or higher in EDU 311W. Basic curriculum course for elementary teachers. Students participate in classrooing in-depth curricular, theoretical, and practical educational frameworks. Students plan, implement, and evaluate lessons incorporating the NYS and professional organization standards for mathematics, science and technology; practice and evaluate assessment tools and processes; become reflective practitioners; demonstrate effective techniques for instructional organization in a Professional Development School.

EDU 326  EARLY LITERACY AND LANGUAGE DEVELOPMENT  
3, 3/0  
Prerequisites: ECE or ECC Majors; Overall and Professional Sequence GPAs of 2.5 or higher. EDU 220, C or higher in EDU 311W. May be taken concurrently with EDU 329. Exploration of principles, practices and materials for providing children, Birth-Preschool, with strong foundation to support early literacy skills and language development. Examines theoretical influences on language development, relationship between oral language and early literacy, children's literature, curriculum and assessment. Consideration of implications for enhanced literacy and language outcomes for all children.
Equivalent course: EDU426

EDU 329  INTEGRATED THEMATIC INSTRUCTION FOR YOUNG CHILDREN  
6, 6/0  
Prerequisites: ECE or ECC Majors; Overall and Professional Sequence GPAs of 2.5 or higher. EDU 211, EDU 220, EDU 311W with a grade of C or higher. Use of knowledge of child development and learning to provide opportunities that support the physical, social, emotional, cognitive, and aesthetic development of preschool, kindergarten, and primary-grade children. Lessons are taught in a Professional Development School.
Equivalent course: ECS329

EDU 375  INTEGRATION OF TECHNOLOGY IN EDUCATION  
3, 3/0; TSIF  
Prerequisites: Majors; EDU 211. Provides the pre-service teacher with an awareness of the current range of instructional and adaptive technologies. Emphasis on curricular integration of technology within the general and special education classroom, and connections between instructional technology and the broader role of technology in society.
Equivalent course: EXE375

EDU 400  PRACTICUM IN ELEMENTARY TEACHING I  
6, 0/6; OCIF  
Prerequisites: Majors; Minimum overall cumulative GPA of 2.5; minimum grade of C in teaching methods courses related to specific major (EDU 220, EDU 310W, EDU 311W, EDU 312, or EDU 329); Minimum GPA of 2.5 in major courses, successful completion of English composition/basic communication and mathematics competency requirements. Intended as the teacher candidate's culminating experience. This is the first supervised teaching experience of two school settings at two developmental levels five full days a week for approximately seven to eight consecutive weeks. Teacher candidates are required to effectively demonstrate content knowledge, pedagogical preparation, instructional delivery, classroom management, knowledge of student development, collaboration with school professionals, and reflective practice. Extension teacher candidates will take EDU 404 and their extension student teaching course. Exceptional Education majors will take EDU 404 and their EXE
student teaching course. Early Childhood and Combined Early Childhood/Childhood majors will take EDU 400 and EDU 410.

EDU 401 PRACTICUM IN TEACHING: INTERMEDIATE
6, 0/6
Prerequisites: Majors. Minimum cumulative GPA of 2.5; minimum grade of C in methods courses related to respective major (EDU 310W, EDU 311W, and EDU 312); minimum cumulative 2.5 GPA in major courses; successful completion of English composition/basic communication and mathematics competency requirements. Intended as the teacher candidate's culminating experience. Supervised teaching in elementary grades five full days a week for approximately seven to eight consecutive weeks. Individual conferences and seminars with college supervisor. Tutorial and group instruction. Daily and long-range planning, teacher-pupil planning, unit teaching, audiovisual aids, classroom management, record keeping, evaluation techniques.

EDU 402 SEMINAR IN EDUCATION
1-3, 1-3/0
Nature and function of a philosophy of education. Teaching research methods and techniques, crucial issues in education, problems of beginning teachers. To be taken concurrently with EDU 400, EDU 401 and/or EDU 410. Required for all childhood, early childhood, and combined education majors. Equivalent course: EDU402W

EDU 404 PRACTICUM IN ELEMENTARY TEACHING FOR EX ED & MIDDLE SCHOOL EXTENSION STUDENTS
6, 0/0; OCIF
Prerequisites: Extension and Exceptional Education majors only. Minimum cumulative GPA of 2.5; minimum grade of C in teaching methods courses (EDU 310W, EDU 311W, and EDU 312); Minimum GPA of 2.5 in professional sequence/major courses. For elementary education teacher candidates seeking certification in childhood/exceptional education, or childhood with a middle school extension. Intended as the teacher candidate's culminating experience. Supervised teaching experience in an elementary grade setting five full days a week for approximately seven to eight consecutive weeks. Teacher candidates are required to effectively demonstrate content knowledge, pedagogical preparation, instructional delivery, classroom management, knowledge of student development, collaboration with school professionals, and reflective practice.

EDU 410 PRACTICUM IN EARLY CHILDHOOD TEACHING
6, 0/6
Prerequisites: Early Childhood and Combined Education Majors only. Minimum cumulative GPA of 2.5; minimum grade of C in methods courses related to respective major (EDU 220, EDU 310W, EDU 311W, EDU 312, or EDU 329); minimum cumulative 2.5 GPA in major courses; successful completion of English composition/basic communication and mathematics competency requirements. Intended as the teacher candidate's culminating experience. Provides supervised teaching experience in an early childhood classroom five full days per week for approximately seven to eight consecutive weeks. Effective demonstration of content knowledge, pedagogical preparation, instructional delivery, classroom management, knowledge of student development, collaboration with school professionals, and reflectivity of practice.

EDU 411 PARENTS, SCHOOLS, AND COMMUNITY
3, 3/0
Prerequisite: Early childhood and combined childhood/early childhood majors only; this course may be taken concurrently with student teaching or in a previous semester. Designed to assist students in building partnerships among parents, schools, and diverse communities. Students will learn how to collaborate with families and implement family involvement strategies during student teaching. Special attention will be given to linking families with services offered in the school and community. Equivalent courses: EDU420, EXE411

EDU 416 TEACHING LITERACY IN MIDDLE AND SECONDARY SCHOOLS
3, 3/0
Prerequisites: Majors. Upper division status. Special problems in reading encountered in middle and secondary schools. Includes the reading process, reading skills, and techniques for assessing developing reading skills. Special emphasis on critical reading in content areas. Equivalent course: SED305

EDU 417 ADOLESCENT LITERACY
3, 3/0
Math and Science Teacher Education Majors. Prerequisites: EDU 416 or equivalent and fulfillment of English composition/basic communication requirement, upper-division status. The development of literacy in adolescents. Topics will include adolescents' multiple literacies, assessing reading and writing abilities, reading materials other than the textbook, teaching reading and writing across the curriculum, and strategies for working with struggling readers and writers. Equivalent course: EDU417W

EDU 499 INDEPENDENT STUDY
3-12, 0/0

ELS

ELS 099 ENGLISH LANGUAGE SECONDARY PROGRAM
0, 3/0
ELSP is a non-degree, non-credit developmental course designed to help students with varying levels of English proficiency through coursework, interaction with native speakers of English, and Individualized language practice. This program consists of six levels of English Language study. Each level has 30 hours of class time per week, plus an additional 3 hours of small conversation group practice.

ENG - ENGLISH

ENG 130 BIBLICAL AND CLASSICAL LITERATURE
3, 3/0; WCIF
Works selected from Biblical literature and from Latin and Greek literature before Constantine.

ENG 151 INTRODUCTION TO POETRY
3, 3/0; HUIF
Verbal and formal techniques of English and American poetry. Prosody, verse forms, conventions, genres, diction, and imagery. Social and historical contexts. Representative authors and periods. Equivalent course: ENG151W

ENG 160 INTRODUCTION TO LITERATURE AND FILM
3, 3/0; HUIF
Analysis of film as the creative and critical interpretation of fiction or drama; how such films respond to aesthetic, cultural, technological, political, and ideological influences, both in the source text and in the contemporary moment.

ENG 190 INTRODUCTION TO LITERARY INTERPRETATION
3, 3/0
Prerequisites: CWP 101 and CWP 102, or the equivalent. The basic types of responses to literature; the defining characteristics of poetry, fiction, and drama; as well as the skills of close reading of literary texts. Students should take this class immediately after completing the freshman writing requirement or within the first year of transferring into the English major. Equivalent course: ENG190W

ENG 200 FIELD EXPERIENCE IN SECONDARY ENGLISH EDUCATION
3, 3/0
Prerequisites: Standing in the English Education Major or Post Baccalaureate Certification Program.Introduction to the secondary school
as an institution and to the teaching of English as a profession. Required observations of teaching English and other areas, 7-12. Limited experimentation with teaching secondary English.

**ENG 201**  
THE CRAFT OF WRITING  
3, 3/0  
Prerequisite: Fulfillment of English composition/basic communication requirement. Demystifying the act of writing by studying, discussing, and practicing models of the composing process.

**ENG 205**  
HISTORY OF CINEMA I  
3, 3/0; HUIF  
This course provides the student with an understanding of cinema history from 1890 to 1960. Students will examine trends in cinema's aesthetic forms, technical breakthroughs, innovators, cultural antecedents, and impact.  
Equivalent course: ENG206W

**ENG 206**  
HISTORY OF CINEMA II  
3, 3/1; HUIF  
This course provides the student with an understanding of cinema history since 1960. Students will examine representative trends in cinema's aesthetic form, technical breakthroughs, key innovators, cultural antecedents and cultural impact.  
Equivalent course: ENG110

**ENG 210**  
BRITISH LITERATURE I: SPECIAL TOPICS  
3, 3/0; HUIF  
A study of selected topics, themes, and authors in British literature before 1700.  
Equivalent course: ENG111

**ENG 211**  
SURVEY OF BRITISH LITERATURE II: SPECIAL TOPICS  
3, 3/0; HUIF  
A study of selected topics, themes, and authors in British literature from 1700 to 1900.  
Equivalent course: ENG212

**ENG 212**  
SURVEY OF BRITISH LITERATURE III  
3, 3/0; HUIF  
An overview of important movements in British literature from the late Victorian period through contemporary literature, such as Fabianism, Modernism, Marxism, Aestheticism, The Movement and the Angry Young Men, postmodernism, post-Empire writing, Black British writing, and women's and queer literature.

**ENG 220**  
AMERICAN LITERATURE I: SPECIAL TOPICS  
3, 3/0; HUIF  
Survey of the various genres of influential American writing-including biographies, captivity and slave narratives, essays, poems, short stories and criticism, as well as Gothic, epistolary, sentimental, and Romantic novels-produced between the late seventeenth century and the mid-nineteenth century.  
Equivalent course: ENG140

**ENG 221**  
AMERICAN LITERATURE II: SELECTED TOPICS  
3, 3/0; HUIF  
A study of topics, themes, and authors in American literature after the Civil War.  
Equivalent course: ENG141

**ENG 230**  
COMPARATIVE LITERATURE  
3, 3/0; HUIF  
Prerequisites: None. Comparative analyses of the ways in which literary periods, genres, movements, and social forms are shaped by the languages and cultural contexts through which they come into being.

**ENG 231**  
WOMEN IN LITERATURE  
3, 3/0; DIIF, HUIF  
The images of women in literature as they reflect attitudes about women and their roles. Emphasis on authors and eras varies with instructors. May be taken for credit more than once.  
Equivalent course: ENG231W

**ENG 240**  
AFRICAN AMERICAN LITERATURE TO 1940  
3, 3/0; DIIF, HUIF  
African American slave narratives, poetry, fiction, essays, and drama from the eighteenth century to 1940; the influence of spirituals, gospel, blues, jazz, sermons, and folktales on African American writing; the Harlem renaissance of the 1920s and 1930s; and the development of African American revolutionary thought.  
Equivalent course: AAS240

**ENG 241**  
AFRICAN AMERICAN LITERATURE SINCE 1940  
3, 3/0; DIIF, HUIF  
Realism, naturalism, modernism, and postmodernism in African American literature; black revolutionary thought and artistry in the 1960s and 1970s; neo-slave narratives; African American poetry, fiction, essays, and drama from 1940 to the present; influence of spirituals, gospel, the blues, jazz, sermons, and folktales on contemporary African American writing.

**ENG 243**  
INTRODUCTION TO LATINO/A LITERATURE  
3, 3/0; DIIF, HUIF  
Introductory study of themes, ideas, and movements in Latino/a literature from the mid-nineteenth century to the present.

**ENG 247**  
NATURE WRITING  
3, 3/0  
Prerequisite: CWP 102Students develop an understanding of the nonfiction prose genre of nature writing and improve their ability to produce original works in the genre. Class focuses on reading and analyzing nature writing for its stylistic and thematic features and emphasizes specific writing skills. Explores the connection between the natural and human worlds and various attitudes toward nature as conveyed in examples of the genre.

**ENG 252**  
BRITISH MODERNISM  
3, 3/0; HUIF  
British modernism, roughly the period from 1900 to 1940. The historical, intellectual and cultural background as well as the study of some of the major literary figures and their work.

**ENG 253**  
TWENTIETH-CENTURY LITERATURE II  
3, 3/0  
Literature in English from 1945 to the present.

**ENG 255**  
3, 3/0; HUIF  
Various examples of influential short fiction produced around the world since the nineteenth century. Familiarizes students with various literary techniques involved in the craft of short fiction.  
Equivalent course: ENG355

**ENG 260**  
CHILDREN'S LITERATURE  
3, 3/0  
Prerequisite: Sophomore, junior, or senior status. Types of children's literature, with attention to the principles of book selection and reading interests of children.

**ENG 266**  
THE PERSONAL ESSAY  
3, 3/0  
The personal essay and how it both relates to and diverges from more objective forms of essays often encountered in academic contexts. Students practice close reading of essays and compose original essays with peer and instructor evaluations.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Equivalent Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 300</td>
<td>WRITING FOR THE PROFESSIONS</td>
<td>3, 3/0</td>
<td>Fulfillment of English composition/basic communication requirement. Practice for students who wish to improve their competence in writing and editing for a variety of professions.</td>
<td>ENG300W</td>
</tr>
<tr>
<td>ENG 301</td>
<td>ADVANCED COMPOSITION</td>
<td>3, 3/0</td>
<td>CWP 102. Practice in writing academic papers. Writing assignments emphasize stylistic strategies, diction, disciplinary conventions, revision, and research.</td>
<td>ENG301W</td>
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<tr>
<td>ENG 303</td>
<td>LITERATURE IN FILM</td>
<td>3, 3/1</td>
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<td>ENG303W</td>
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<tr>
<td>ENG 304</td>
<td>FORMS OF FILM</td>
<td>3, 3/1</td>
<td>Breadth and depth of selected film forms. Emphasis on the film as art, medium of communication, and social document. May be taken for credit more than once when content varies.</td>
<td>ENG304W</td>
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<tr>
<td>ENG 305</td>
<td>CREATIVE WRITING: NARRATIVE</td>
<td>3, 3/0</td>
<td>Fulfillment of English composition/basic communication requirement. The writing of narrative.</td>
<td>ENG305W</td>
</tr>
<tr>
<td>ENG 306</td>
<td>CREATIVE WRITING: POETRY</td>
<td>3, 3/0</td>
<td>CWP 102, or permission of the instructor. The craft of writing poetry, blending theoretical and practical approaches.</td>
<td>ENG306W</td>
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<tr>
<td>ENG 309</td>
<td>TEACHING AND EVALUATING WRITING</td>
<td>3, 3/0</td>
<td>Fulfillment of English composition/basic communication requirement. Methods for teaching and evaluating writing. Includes theories of composition and rhetoric, approaches to teaching composition, ways to respond to writing-in-progress and completed texts, methods of measuring growth, and means to evaluate writing performance.</td>
<td>ENG309W</td>
</tr>
<tr>
<td>ENG 310</td>
<td>MODERN EUROPEAN LITERATURE</td>
<td>3, 3/0</td>
<td>ENG 190 or permission of instructor. Selected European writers after 1600.</td>
<td>ENG310W</td>
</tr>
<tr>
<td>ENG 311</td>
<td>METHODS IN TEACHING LANGUAGE</td>
<td>3, 3/0</td>
<td>Fulfillment of English composition/basic communication requirement. English-language teaching strategies for secondary education majors. Grammar, usage, and mechanics instruction; the history of English; the right to one's own language; sociopolitical dimensions of language; discussions of correctness within a range of discourse levels; instruction in family-literacy practices.</td>
<td>ENG311W</td>
</tr>
<tr>
<td>ENG 313</td>
<td>MILTON</td>
<td>3, 3/0</td>
<td>ENG 190 or permission of instructor. A study of Milton's oeuvre with emphasis on Paradise Lost.</td>
<td>ENG313W</td>
</tr>
<tr>
<td>ENG 314</td>
<td>CHAUCER</td>
<td>3, 3/0</td>
<td>ENG 190 or permission of instructor. A selection of Chaucer's works, including some Canterbury Tales.</td>
<td>ENG314W, ENG411</td>
</tr>
<tr>
<td>ENG 315</td>
<td>SHAKESPEARE I</td>
<td>3, 3/0</td>
<td>ENG 190 or permission of instructor. Shakespeare's work to 1600: the sonnets, early tragedies, histories, and comedies.</td>
<td>ENG315W</td>
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<tr>
<td>ENG 316</td>
<td>SHAKESPEARE II</td>
<td>3, 3/0</td>
<td>ENG 190 or permission of instructor. Shakespeare's works after 1600: the problem plays, major tragedies, and romances.</td>
<td>ENG316W</td>
</tr>
<tr>
<td>ENG 317</td>
<td>SHAKESPEARE FOR FUTURE TEACHERS</td>
<td>3, 3/0</td>
<td>ENG 190 or permission of instructor. Intensive study of the Shakespeare plays most often taught in high school English classes. Emphasis on strategies for teaching Shakespeare and on particular needs of high school teachers in multicultural settings.</td>
<td>ENG317W</td>
</tr>
<tr>
<td>ENG 320</td>
<td>AUTOBIOGRAPHY AND MEMOIR</td>
<td>3, 3/0</td>
<td>ENG 201 or permission of instructor. A study of the genres of autobiography and memoir with an emphasis on developing mastery in producing written products of the forms. Students read and discuss examples of both autobiography and memoir, write informal and processed examples of the genres, and learn about the process of writing in the genres for publication.</td>
<td>ENG320W</td>
</tr>
<tr>
<td>ENG 321</td>
<td>REPRESENTATIVE WRITERS</td>
<td>3, 3/0</td>
<td>ENG 190 or instructor permission. Selected works of a single writer or group of related writers. Supplemental readings of other writers of the period.</td>
<td>ENG321W</td>
</tr>
<tr>
<td>ENG 325</td>
<td>CREATIVE NON-FICTION</td>
<td>3, 3/0</td>
<td>ENG 201 or permission of instructor. Reading and writing creative nonfiction, an essay form that consciously uses the stylistics features of fiction and poetry.</td>
<td>ENG325W</td>
</tr>
<tr>
<td>ENG 330</td>
<td>LITERATURE OF THE BIBLE</td>
<td>3, 3/0</td>
<td>ENG 190 or permission of instructor. The Bible as literature.</td>
<td>ENG330W</td>
</tr>
<tr>
<td>ENG 331</td>
<td>FRENCH LITERATURE IN TRANSLATION</td>
<td>3, 3/0</td>
<td>ENG 190 or permission of instructor. Selected masterpieces of contemporary French literature in translation. Knowledge of French not required. French majors must obtain permission of department chair and course instructor.</td>
<td>FRE331W</td>
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<tr>
<td>Course Code</td>
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<tr>
<td>ENG 332</td>
<td>RUSSIAN LITERATURE IN TRANSLATION</td>
<td>3, 3/0</td>
<td>Prerequisite: ENG 190 or permission of instructor. Writers such as Gogol, Pushkin, Turgenev, Goncharova, Tolstoy, Dostoyevsky, and Chekhov. Knowledge of Russian not required. Equivalent course: RUS332</td>
<td></td>
</tr>
<tr>
<td>ENG 335</td>
<td>MEDIEVAL AND RENAISSANCE EUROPEAN LITERATURE</td>
<td>3, 3/0</td>
<td>Prerequisite: ENG 190 or instructor permission. A study of selected themes, ideas, and movements of European literature in the medieval and Renaissance periods.</td>
<td></td>
</tr>
<tr>
<td>ENG 336</td>
<td>MODERN EUROPEAN LITERATURE</td>
<td>3, 3/0</td>
<td>Prerequisite: ENG 190 or instructor permission. Selected themes, ideas, and movements of European literature from the Renaissance to postmodernity. Equivalent course: ENG310</td>
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</tr>
<tr>
<td>ENG 345</td>
<td>WORLD LITERATURE AFTER 1945</td>
<td>3, 3/0</td>
<td>Prerequisite: ENG 190 or permission of instructor. Post-World War II literature around the globe. Poetry and fiction along with the cultural background of at least two continents. Equivalent course: ENG345W</td>
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<tr>
<td>ENG 346</td>
<td>NON-WESTERN LITERATURE AFTER 1945</td>
<td>3, 3/0</td>
<td>Prerequisite: ENG 190 or permission of instructor. Non-Western literature: poetry, fiction, and drama along with historical and cultural backgrounds of literature outside Europe and North America.</td>
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<tr>
<td>ENG 350</td>
<td>TWENTIETH-CENTURY DRAMA I</td>
<td>3, 3/0</td>
<td>Prerequisites: ENG 190 or permission of the instructor. Drama from the 1800s to 1950 in Europe and America.</td>
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<tr>
<td>ENG 351</td>
<td>TWENTIETH-CENTURY DRAMA II</td>
<td>3, 3/0</td>
<td>Prerequisites: ENG 190. Exploration of selected works from the extensively-varied ethnicities, nationalities, and styles of world drama in their literary and theatrical contexts since the absurdism of the 1950’s into the present.</td>
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<tr>
<td>ENG 353</td>
<td>AMERICAN INDIAN LITERATURE</td>
<td>3, 3/0; DIIF, NWIF</td>
<td>Prerequisites: Three credit hours of literature or permission of the instructor. Selected aspects of traditional sacred and secular tales and contemporary American Indian literature in its cultural, historical and aesthetic contexts.</td>
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<tr>
<td>ENG 354</td>
<td>ETHNIC AMERICAN MINORITY LITERATURES</td>
<td>3, 3/0; DIIF</td>
<td>Prerequisites: CWP 102 and three credit hours of literature or permission of the instructor. The background, development, and contemporary contribution of ethnic American minority literature (folklore, poetry, short story, novel, biography, and play) and individual authors. The literary characteristics of the literature, its contribution to the field of American literature, and its place in today’s society. Equivalent course: ENG354W</td>
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<tr>
<td>ENG 356</td>
<td>FUTURISTIC FICTION</td>
<td>3, 3/0</td>
<td>Prerequisite: ENG 190 or permission of instructor. The background, development, and present status of futuristic fiction. Short-story and novel forms. The quality of the literature and its place in today’s society. Equivalent course: ENG356W</td>
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</tr>
<tr>
<td>ENG 361</td>
<td>CONTEMPORARY LITERATURE</td>
<td>3, 3/0</td>
<td>Prerequisite: ENG 190 or permission of instructor. Reading, discussion, and analysis of literature written in the last 25 years. Literary features and literary theories.</td>
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<tr>
<td>ENG 370</td>
<td>FOUNDATIONS OF LANGUAGE</td>
<td>3, 3/0</td>
<td>The structure of language with emphasis on English, relation to speech and writing. Language families and their relationships. Language change. Significance of regional and social dialects. Equivalent courses: ENG370W, ENG470</td>
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<tr>
<td>ENG 380</td>
<td>THE HISTORY OF THE PRINTED BOOK</td>
<td>3, 2.5/0; TSIF</td>
<td>Prerequisites: CWP 102. Analysis of the printed book as a physical, historical, social, and literary object. Course requires original bibliographical research.</td>
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<tr>
<td>ENG 385</td>
<td>GENDER AND SEXUALITY IN LITERATURE</td>
<td>3, 3/0; DIIF</td>
<td>Prerequisite: ENG 190 or instructor permission. Elements of gender and sexuality in British, American, or world literature: themes, historical periods, philosophies, theories, and movements. May be taken for credit up to three times when content varies.</td>
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<tr>
<td>ENG 390</td>
<td>LITERARY CRITICISM AND THEORY</td>
<td>3, 3/0</td>
<td>Prerequisites: ENG 190, 3 credits of literature, English major status. The major movements, critics, and ideas that comprise modern literary theory, such as formalism, psychoanalytical theory, feminism, Marxism, new historicism.</td>
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<tr>
<td>ENG 402</td>
<td>ADVANCED CREATIVE WRITING: NARRATIVE</td>
<td>3, 3/0</td>
<td>Prerequisites: CWP 102; ENG 305; or permission of the instructor. A study of prose narrative and the craft of its writing. Equivalent course: ENG402W</td>
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<tr>
<td>ENG 403</td>
<td>ADVANCED CREATIVE WRITING: POETRY</td>
<td>3, 3/0</td>
<td>Prerequisite: CWP 102; ENG 306; or permission of instructor. Creative workshop for students experienced and/or talented in the writing of poetry. Equivalent course: ENG403W</td>
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<tr>
<td>ENG 410</td>
<td>COMPOSITION AND RHETORICAL THEORY</td>
<td>3, 3/0</td>
<td>Prerequisite: ENG 201. Trends in contemporary composition and rhetorical theory with an emphasis of the theory of discourse communities. Students develop skills in producing critical, theoretical, creative, and rhetorical discourse.</td>
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<tr>
<td>ENG 415</td>
<td>SEVENTEENTH-CENTURY ENGLISH LITERATURE</td>
<td>3, 3/0</td>
<td>Prerequisites: ENG 190 and 3 credit hours of literature, or permission of instructor. Literature of seventeenth-century England. Equivalent course: ENG415W</td>
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<tr>
<td>ENG 416</td>
<td>EIGHTEENTH-CENTURY ENGLISH LITERATURE</td>
<td>3, 3/0</td>
<td>Prerequisites: ENG 190 and 3 hours of literature or instructor permission. Literature of eighteenth-century Britain.</td>
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<td>Course Code</td>
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<tr>
<td>ENG 417</td>
<td>BRITISH NOVEL TO 1800</td>
<td>3, 3/0</td>
<td>ENG 190 and 3 credit hours of literature, or permission of instructor. Study of selected themes, issues, and authors in the novel in Britain before 1800.</td>
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<tr>
<td>ENG 418</td>
<td>THE BRITISH NOVEL, 1800-1900</td>
<td>3, 3/0</td>
<td>ENG 190, or permission of the instructor. An exploration of British novels written between 1800 and 1900.</td>
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<tr>
<td>ENG 419</td>
<td>ROMANTIC MOVEMENT IN ENGLISH LITERATURE</td>
<td>3, 3/0</td>
<td>ENG 190 and 3 credit hours of literature, or permission of instructor. Representative English romantic writers. Equivalent course: ENG419W</td>
<td>Equivalent course: ENG419W</td>
</tr>
<tr>
<td>ENG 420</td>
<td>EARLY VICTORIAN LITERATURE</td>
<td>3, 3/0</td>
<td>ENG 190 and 3 credit hours of literature, or permission of instructor. English writers 1832-1859. Equivalent course: ENG420W</td>
<td>Equivalent course: ENG420W</td>
</tr>
<tr>
<td>ENG 421</td>
<td>LATER VICTORIAN LITERATURE</td>
<td>3, 3/0</td>
<td>ENG 190 and 3 credit hours of literature, or permission of instructor. English writers 1859-1914.</td>
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<tr>
<td>ENG 422</td>
<td>JAMES JOYCE AND HIS CONTEMPORARIES</td>
<td>3, 3/0</td>
<td>ENG 190 and 3 credit hours of literature, or permission of instructor. The major fiction of James Joyce. Supplemental readings of other writers of the period. Equivalent course: ENG422W</td>
<td>Equivalent course: ENG422W</td>
</tr>
<tr>
<td>ENG 441</td>
<td>THE ROMANTIC MOVEMENT IN AMERICAN LITERATURE</td>
<td>3, 3/0</td>
<td>ENG 190 and 3 hours of English literature, or permission of the instructor. Texts that exemplify the American Transcendental and Romantic traditions of New England, and their impact on American literature, philosophy and politics. Equivalent course: ENG441W</td>
<td>Equivalent course: ENG441W</td>
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<tr>
<td>ENG 442</td>
<td>THE AMERICAN NOVEL TO 1900</td>
<td>3, 3/0</td>
<td>ENG 190 and 3 credit hours of literature or instructor permission. Representative American novels to 1900. Includes major modes of American fiction and the relationships among them. Historical, social, and artistic developments of the American novel to 1900.</td>
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<tr>
<td>ENG 443</td>
<td>AMERICAN POETRY AFTER 1900</td>
<td>3, 3/0</td>
<td>ENG 190 and 3 credit hours of literature, or instructor permission. The rich and diverse terrain of American poetry of the twentieth century from a historical perspective. Major figures, major movements, and the interrelationships among them.</td>
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<tr>
<td>ENG 444</td>
<td>THE AMERICAN NOVEL AFTER 1900</td>
<td>3, 3/0</td>
<td>ENG 190 and 3 credit hours of literature, or instructor permission. Representative American novels after 1900. Includes major modes of American fiction and the relationships among them. Historical, social, and artistic developments of the twentieth century.</td>
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<tr>
<td>ENG 445</td>
<td>AMERICAN REALISM</td>
<td>3, 3/0</td>
<td>ENG 190 and 3 credit hours of literature, or permission of instructor. A focused study of a major American literary movement, Realism, its major and minor figures, and the historical and cultural milieu of nineteenth-century America out of which Realism emerged.</td>
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<tr>
<th>Course Code</th>
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<tr>
<td>ENG 450</td>
<td>STUDIES IN POETRY</td>
<td>3, 3/0</td>
<td>ENG 190 and 3 credit hours of literature, or permission of instructor. A particular aspect of poetry: theme, motif, philosophy, concept, or literary movement in English, American, or world literature. May be taken for credit more than once when content varies.</td>
<td></td>
</tr>
<tr>
<td>ENG 454</td>
<td>TWENTIETH-CENTURY NOVEL I</td>
<td>3, 3/0</td>
<td>ENG 190 and 3 credit hours of literature, or permission of instructor. Major British and American novels from 1914 to 1945.</td>
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</tr>
<tr>
<td>ENG 455</td>
<td>THE BRITISH NOVEL AFTER 1900</td>
<td>3, 3/0</td>
<td>ENG 190 and 3 credit hours of literature, or permission of instructor. Literature appropriate to students in grades 7-12. Equivalent course: ENG455W</td>
<td>Equivalent course: ENG455W</td>
</tr>
<tr>
<td>ENG 461</td>
<td>YOUNG-ADULT LITERATURE</td>
<td>3, 3/0</td>
<td>ENG 190 and 3 credit hours of literature, or permission of instructor. Literature appropriate to students in grades 7-12.</td>
<td>Equivalent course: ENG461W</td>
</tr>
<tr>
<td>ENG 463</td>
<td>METHODS, MATERIALS, AND PROFESSIONAL DEVELOPMENT</td>
<td>6, 6/0</td>
<td>EDF 303, ENG 200; minimum cumulative GPA of 2.75 in major. Methods and materials necessary to become an effective teacher of English. Includes secondary school curriculum, New York State standards for the language arts, planning, assessment, and classroom management. Additional emphasis on professional development with on-site observations, practice teaching sessions, and interactions with public-school teachers and personnel.</td>
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</tr>
<tr>
<td>ENG 464</td>
<td>STUDENT TEACHING IN MIDDLE SCHOOL/JUNIOR HIGH</td>
<td>6, 0/0</td>
<td>ENG 200, ENG 309, ENG 462 or ENG 463, EDF 303, EDF 403, and EDU 416; minimum cumulative GPA of 2.0 or 2.75 in English; and professional education courses. Full-time practice teaching, five days a week for seven weeks in a middle school/junior high school situation. College supervision biweekly. Required for upper-division students in secondary English and elementary education extension students.</td>
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</tr>
<tr>
<td>ENG 465</td>
<td>STUDENT TEACHING IN SENIOR HIGH SCHOOL ENGLISH</td>
<td>6, 0/0</td>
<td>ENG 200, ENG 309, ENG 462 or ENG 463, EDF 303, EDF 403, and EDU 416; minimum cumulative GPA of 2.0 or 2.75 in English; and professional education courses. Full-time practice teaching, five days a week for seven weeks in a senior high school situation. College supervision biweekly. Required for upper-division students in secondary English.</td>
<td></td>
</tr>
<tr>
<td>ENG 488</td>
<td>INTERNSHIP</td>
<td>1-15, 0/0</td>
<td>Minimum cumulative GPA of 2.0; upper-division status. Field experiences that supplement departmental academic offerings; geared to students' interests. Faculty intern supervisor and department chair permission necessary.</td>
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</tbody>
</table>
**ENS - ENVIRONMENTAL SCIENCE**

**ENTS 100 URBAN ENVIRONMENT SCIENCE**
3, 3/0; NSIF, TSIF
Survey of environmental science exploring the consequences to Buffalo from environmental and technological changes over the past century. Strong interdisciplinary focus with emphasis on the connections between our urban environment and human health. Topics include air and water quality, environmental stresses in the urban ecosystem, and environmental exposure to urban pollution and human health.

**ENTS 300 ENVIRONMENTAL CASE STUDIES**
3, 3/0
Prerequisites: Completion of IF natural science requirement and upper division standing. BIO104 D AND CHE100 D OR SCT231 DExames environmental literature and case studies on historically important and current environmental issues. Distinctions between facts, opinions and value judgments to evaluate and judge real situations. Global in scope; social contexts and national and global environmental policies. Equivalent course: ENSTS410

**ENT - ENGINEERING TECHNOLOGY**

**ENTS 100 THE AGE OF ENERGY**
3, 3/0; TSIF
Energy needs of society and the drive to use renewable energy sources and more efficient forms of transportation; technological, societal, ethical, and economic impact of societies' energy needs; impact on quality of life issues; hands-on student team projects focusing on solar, wind, hydro; increased efficiency topics such as hybrid/electrical vehicles and house lighting.

**ENTS 101 TECHNICAL DRAWING**
3, 0/0
Survey of projection theory, multi-view projection, spatial relationships, and visualization of point, lines, planes and solids; size and shape description through sketching, and computer-aided drawing; standards and conventions, auxiliary views, revolutions, tolerance, dimensions, geometric tolerances, and pictorials.

**ENTS 102 INTRODUCTION TO EQUATION-SOLVING SOFTWARE**
1, 1/0
Use of current industry-standard computer software programs that allow users to enter and manipulate mathematical equations; perform calculations; and analyze, plot, and document data. These engineering software programs are invaluable tools to technology majors, who combine engineering principles with mathematics to describe physical phenomena.

**ENTS 104 ESSENTIALS OF ELECTRICAL ENGINEERING TECHNOLOGY**
3, 2/3
Prerequisites: None.Introduction to the field of Electrical Engineering Technology for majors and non-majors; Introduction to basic electricity, mathematical modeling of circuits, circuit breadboards, electrical instrumentation, computer analysis/circuit simulation and technical reporting. Emphasizes projects, project management and the need for teamwork by conducting projects in the areas of design, simulation and test. Required of all freshmen electrical engineering technology majors. Junior-transfer students will substitute a technical-elective course for ENT104.

**ENTS 201 ESSENTIALS OF ADVANCED MATERIALS PROCESSING**
3, 2/3
Prerequisites: ENT 101. A study of the processes and problems associated with the conversion of materials into useful forms and goods. Practical experience is acquired through laboratory activities exemplifying the major processes studies.

**ENTS 202 INTRODUCTION TO ENGINEERING ECONOMICS AND PROJECT MANAGEMENT**
1, 1/0
Prepares students to estimate, plan, and manage projects. Provides exposure to techniques to better prepare students for problems seen in industry.

**ENTS 300 ANALYTICAL METHODS FOR TECHNOLOGISTS**
3, 3/0
Prerequisite: MAT 127 or MAT 162 and MAT 164. Application of calculus and analytic geometry to problems in technology. Introduction to ordinary differential equations used to analyze mechanical and electrical quantities in technology.

**ENTS 301 MECHANICS I**
3, 2/3
Prerequisites: MAT 126 or MAT 161 and PHY 107 or PHY 111 or equivalentBasic principles and applications of statics; equilibrium of rigid bodies, freebody diagrams, friction, centroids, moments of inertia, trusses, frames and machines, and equilibrium of particles.

**ENTS 302 MECHANICS II**
3, 2/3
Prerequisites: ENT 300 or MAT 315Principles of dynamics applied to the forces on and motion of rigid bodies and particles; kinematics, kinetics, and energy and momentum methods for both particles and rigid bodies; introduction to mechanical vibration included.

**ENTS 303 KINEMATICS**
3, 2/3
Prerequisite: ENT 302Relative motion of machine parts; graphical and analytical techniques presented for position, velocity and acceleration analysis of linkages, chains, rolling bodies, gears and miscellaneous.

**ENTS 311 THERMODYNAMICS**
3, 2/3
Corequisite: ENT 301Basic principles of classical thermodynamics and their applications to various engineering technology areas; technical applications of heat-power systems, refrigeration systems, combustion and psychometrics, and HVAC systems.

**ENTS 312 FLUID MECHANICS**
3, 2/3
Prerequisite: ENT 311Introduction to the basic phenomena and principles of fluid flow; fluid properties, fluid statics, conservation of mass, and energy; study of the basic fluid mechanics concepts to the analysis of pipe and duct flow; measurement of fluid properties, pressures, velocities, and forces.
ENT 314
SOLID MODELING
3, 2/3
Prerequisites: TEC 101 or ENT 101. Three-dimensional (3-D) parts and assembly creation; defining high-level features like cuts and holes in addition to low-level geometry; using parametric modeling; 3-D solid modeling; introduction to finite element concepts for stress and heat testing.

ENT 321
ANALYSIS OF MANUFACTURING PROCESSES
3, 2/3
Prerequisites: TEC 201 or ENT 201 and MAT 126 or MAT 161 (or equivalent). Quantitative analysis of materials processing and manufacturing: casting processes; stress-strain relationships; bulk deformation; sheet metal forming; powder metallurgy; machining and joining processes; surface modifications and nontraditional manufacturing processes.

ENT 331
ELECTRICAL CIRCUITS AND DEVICES I
3, 3/2
Prerequisites: PHY 111 or equivalent, PHY 112 or equivalent. Basic concepts and components used in electrical circuits, both DC and AC, including resistors, capacitors, inductors, transformers; Electrical circuit theorems and their applications in industry; Electrical instrumentation and computer analysis tools used in performing laboratory experiments; required for engineering technology majors.

ENT 335
INDUSTRIAL ELECTRONICS
3, 2/3
Prerequisite: ENT 331. Essential industrial machines and automation topics, such as discrete and analog process control, switches and sensors, control systems, industrial controls, LabView, programmable logic controllers, and data acquisition. Laboratory exercises provide practical applications of the industrial electronics that engineering technology graduates are likely to encounter.

ENT 341
ELECTRONICS
3, 3/2
Prerequisite: ENT 331. Introductory analysis of electronic circuits, with emphasis on semiconductor devices.

ENT 342
NETWORKS
3, 3/0
Prerequisites: ENT 300 and ENT 331. Signal analysis, circuit parameter, time domain circuit, steady state and transient solution, Laplace transforms and applications, topics in frequency domain, network functions, theorems, sinusoidal steady state analysis from pole-zero plots. Introduction to network synthesis.

ENT 351
ANALOG ELECTRONICS
3, 2/3
Prerequisites: ENT 341. Analysis and design of electronic circuits (discrete and integrated) with emphasis on linear analog applications and use of computer simulation software.

ENT 352
DIGITAL ELECTRONICS
3, 3/2
Prerequisite: ENT 351. Analysis and design of electronic circuits, discrete and integrated, with emphasis on pulse and digital applications.

ENT 361
PROGRAMMABLE LOGIC CONTROLLERS (PLCS)
3, 2/3
Prerequisite: ENT 331 or TEC 314 or equivalent. A comprehensive treatment of programmable logic controllers (PLCs). Prior knowledge of PLCs is not required. Familiarity with the DOS or MS Windows operating systems is helpful. The standard PLC programming languages are examined: ladder logic, sequential function charts, function block diagrams, instruction lists, structured text, and high-level languages such as Basic, Pascal and C. Numerous laboratory exercises with four PLC brands give students broad exposure to programming, troubleshooting, networking, and PLC system design and startup.

ENT 365
MANUFACTURING SYSTEMS DESIGN
3, 3/0
Prerequisite: ENT 321. Introduction of product development; production control; requirements and selection of machines/labor; material handling equipment selection; storage and warehousing; computer-aided plant layout; site selection and location; facility location analysis and its impact on manufacturing.

ENT 371
ELECTRIC MACHINES
3, 2/3
Prerequisite: ENT 331. DC and AC machines and transformers are studied as an integral part of electric power systems. Single and three-phase induction and synchronous machines, DC motors and fractional horsepower motors, including stepper motors. Solid-state motor control; computer tools for study of motor performance. Laboratory experiments illustrate motor performance and measurement techniques.

ENT 372
MATERIAL SELECTION AND DESIGN FOR MANUFACTURING
3, 2/3
Prerequisites: ENT 301, ENT 321, and TEC 311. Introduction to materials properties for design of structures and components, design/selection/failure of materials, and selection of ferrous/nonferrous/ceramics and polymeric materials.

ENT 401
STRESS ANALYSIS
3, 2/3
Prerequisites: ENT 300 or MAT 315. Techniques used to predict stress and strain caused by loads or other effects in structural members and machine elements; use of analytical, numerical and experimental methods.

ENT 402
SHOCK AND VIBRATION ANALYSIS
3, 2/3
Prerequisites: ENG 302 AND ENT 401 AND junior or senior status. Theoretical, analytical, and experimental methods used in the analysis of shock and vibration in machine elements and structures; free and forced vibration of one and multidegree of freedom systems with introduction to lumped parameter systems and continuous systems; familiarity with instrumentation and experimental techniques developed by performing hands-on laboratory experiments.

ENT 404
DESIGN OF AUTOMATED MANUFACTURING SYSTEMS
3, 2/3
Prerequisites: ENT 361 and ENT 392. Design for automation; mechanization of parts handling; automated manufacturing and assembly; numerical control and CAD/CAM; industrial robots and implementation, machine vision, microprocessors, principles of lean manufacturing, computer integrated manufacturing, and automated factory.

ENT 411
HEAT TRANSFER
3, 2/3
Prerequisite: ENT 312. Heat transfer and its application to various engineering technology areas; extension of thermodynamics and fluid flow analysis. Topics include conduction, convection, radiation, and current areas.

ENT 414
MANUFACTURING ANALYSIS
3, 3/0
Prerequisite: Upper-division status in ENT or TEC. Analysis of product design and development, economic analysis, break-even analysis, life cycle approach, capital planning, manufacturing operations economy, allocation of resources, human factors, machines and maintenance, quality control and assurance, measurement of productivity and its effects on manufacturing economics.

ENT 420
PROFESSIONAL EXPERIENCE IN MECHANICAL ENGINEERING TECHNOLOGY
1, 1/0
Corequisites/Prerequisites: ENT 411, ENT 421, ENT 335. Prerequisites: ENT 401, ENT 331, ENT 311, ENT 312, ENT 301, ENT 302, TEC 311 and TEC 301. Exposure to professional engineering design
### Course Descriptions

**ENT 421**  
**MACHINE DESIGN I**  
3, 2/3  
Prerequisites: ENT 303 and ENT 401. Techniques used to design and specify machine elements, i.e., shafts, springs, fasteners, belts, clutches, brakes, chains, bearings, gears, cams, etc.  
Equivalent course: ENT421W

**ENT 422**  
**MACHINE DESIGN II**  
3, 2/3  
Prerequisite: ENT 420. Advanced topics in machine design. Students design a major project involving preliminary analysis, working drawings, fabrication, and testing of a prototype. Required for mechanical engineering technology majors.  
Equivalent course: ENT422W

**ENT 431**  
**DIGITAL SYSTEMS I**  
3, 3/2  
Prerequisite: ENT 331. Boolean algebra, combinational circuit analysis and design, gates, sequential circuits, flip-flops, counters, logic types, interfacing, A/D inverters, encoders/decoders, mux/demux, and memory devices. Experiments are designed to develop facility in analyzing, testing, troubleshooting, and designing digital circuits.

**ENT 432**  
**MICROPROCESSORS**  
3, 2/3  
Prerequisite: ENT 431. An introduction to the theory and application of microprocessors and microcontrollers, including programming, interfacing, prototyping and troubleshooting.

**ENT 433**  
**MICROPROCESSOR APPLICATIONS AND ROBOTICS**  
3, 3/2  
Prerequisite: ENT 432. Theoretical and practical background of the technology used in the application of microprocessors. Programming hardware, interfacing, and application of microprocessors. The elements of robotics with emphasis on the construction and programming of robots.

**ENT 441**  
**COMMUNICATION TRANSMISSION TECHNOLOGY**  
3, 2/3  
Prerequisite: ENT 331, PHY 108, or PHY 112. Introduction to the development and technology of digital, RF, microwave and optical fiber communications including transmission line types and characteristics, components, measurement of reflections, power, impedance, and wavelength. Signal structure and protocols used in data communications; computer analysis and design of digital and carrier communication circuits.

**ENT 442**  
**RF AND MICROWAVE COMMUNICATIONS**  
3, 2/3  
Prerequisite: ENT 441. Introduction to wireless communication technology. Free-space and near-earth propagation effects, including RF safety, multipath, and antennas are covered. Receiver and transmitter design, components, and performance. Emphasis on digital representation of signals and transmission of digital data, types of modulation and channel capacity; systems and applications.

**ENT 445**  
**POWER ELECTRONICS**  
3, 3/0  
Prerequisites: ENT 331, ENT 341 (could be taken as corequisite). The operation of modern, high-power electronic devices as applied to controls, electrical machines, and power systems; power diodes, silicon-controlled rectifiers, thyristors, BJTs, MOSFETS, and IGBTs; applications to rectifiers, inverters, controlled rectifiers. AC voltage control, DC step-up and step-down systems, high-voltage DC (HVDC), and flexible AC transmission systems (FACTS); perform laboratory experiments using electrical instrumentation and computer analysis tools; required for power/machines option of electrical engineering technology majors.

**ENT 461**  
**CONTROL SYSTEMS I**  
3, 3/2  
Prerequisites: ENT 341, ENT 342, ENT 302, and senior status. Applies frequency domain techniques to open-loop and closed-loop systems with emphasis on stability and performance. Classical methods of control engineering are presented: Laplace transforms and transfer functions, root locus analysis, Routh-Hurwitz stability analysis, steady-state error for standard test signals, and second-order system approximations. MATLAB is introduced and utilized extensively for computer-aided analysis. Laboratory exercises provide practical application of the control-system theory.

**ENT 462**  
**CONTROL SYSTEMS II**  
3, 2/3  
Prerequisite: ENT 461. Project centered. Students build, tune, simulate, and model a system (such as a magnetic levitation apparatus) for the purpose of demonstrating skills acquired during previous academic work. Project focuses on practical application of the control-system theory developed in Control Systems I.  
Equivalent course: ENG462W

**ENT 465**  
**ELECTRICAL DESIGN**  
3, 2/3  
Advanced topics in electrical and system design, the design process, and project management; a major design project that includes preliminary analysis, working drawings or schematics, fabrication, and testing of a prototype.  
Equivalent course: ENT465W

**ENT 471**  
**POWER SYSTEMS I**  
3, 2/3  

**ENT 472**  
**POWER SYSTEMS II**  
3, 2/3  

**ENT 481**  
**RENEWABLE DISTRIBUTED GENERATION AND STORAGE**  
3, 2/3  
Prerequisites: ENT 331 Electric Circuits or equivalent, and ENT 471 or instructor’s permission. This course introduces renewable and efficient electric power systems. It encourages self-teaching by providing numerous practical examples requiring quantitative analysis. Topics include historical, regulatory, and utility industry perspectives of the electric system as well as most of the electricity, thermodynamics, and engineering economics background needed to understand new power technologies.

**ENT 495**  
**SPECIAL PROJECT**  
1-3, 0/0

**ENT 497**  
**WORKSHOP**  
1-3, 0/0

**ENT 499**  
**INDEPENDENT STUDY**  
3-12, 0/0
EXE 100
NATURE AND NEEDS OF INDIVIDUALS WITH SPECIAL NEEDS
3, 3/0; DIIF
Prerequisite: EXE 100, Exceptional Education Major Status, at least 2.6 overall GPA. Corequisite: EXE 361. Characteristics and needs of individuals with severe disabilities, and implications-educational, social, and vocational-of individuals who deviate from the average or normal. Required for exceptional education majors.

EXE 245
COMMUNITY SERVICE WITH INDIVIDUALS WITH SPECIAL NEEDS
1-9, 0/1-9
Service in community agencies with individuals who are exceptional. May be taken for 1, 2, or 3 credit hours.

EXE 360
FOUNDATIONS OF TEACHING INDIVIDUALS WITH DISABILITIES
3, 3/0
Prerequisite: EXE 100, Exceptional Education Major Status, at least 2.6 overall GPA. Corequisite: EXE 361. Characteristics and needs of individuals with severe disabilities, and implications-educational, social, and vocational-of individuals who deviate from the average or normal. Required for exceptional education majors.

EXE 361
FIELD EXPERIENCE IN FOUNDATIONS OF TEACHING INDIVIDUALS WITH DISABILITIES
1, 0/1
Prerequisite: EXE 100, Exceptional Education Major Status, at least 2.6 overall GPA. Corequisite: EXE 360. Application of adaptations and instructional procedures necessary for effective instruction of students with disabilities in various educational settings. May be taken concurrently with EXE 361.

EXE 362
BEHAVIOR AND CLASSROOM MANAGEMENT
3, 3/0
Prerequisite: Exceptional Education Major Status, at least 2.6 overall GPA; OR Elementary Education Major Status. Managing the classroom environment to facilitate effective instruction. Various models of behavior management. Exceptional education majors must take this course concurrently with EXE 363.

EXE 363
FIELD EXPERIENCE IN BEHAVIOR MANAGEMENT
1, 0/1
Prerequisites: Exceptional Education Major Status; Application of principles of behavior management learned in EXE 362 through on-site participation. Must be taken concurrently with EXE 362. Required for exceptional education majors.

EXE 364
EDUCATING STUDENTS WITH SEVERE DISABILITIES
3, 3/0
Prerequisites: EXE 100; Exceptional Education Major Status, at least 2.6 overall GPA. Characteristics and needs of individuals with severe disabilities and those of their families. Methods to teach and support individuals and families.

EXE 365
EVALUATION AND ASSESSMENT IN SPECIAL EDUCATION
3, 3/0
Prerequisites: Completed EXE 100, EXE 360, EXE 361, EXE 362, and EXE 363 with grade of C or higher, Exceptional Education Major Status, at least 2.6 overall GPA. Corequisite: EXE 365W. Application of principles of evaluation and assessment learned in EXE 365W through on-site participation.

EXE 367
CURRICULUM FOR CHILDREN WITH MILD DISABILITIES
3, 3/0
Prerequisites: Completed EXE 360, EXE 361, EXE 362, and EXE 363 with a grade of C or better, Exceptional Education Major Status, at least 2.6 overall GPA. Corequisite: EXE 367. Description and discussion of curricular design and implementation for children with disabilities.

EXE 368
FIELD EXPERIENCE IN CURRICULUM FOR CHILDREN WITH MILD DISABILITIES
2, 0/2
Prerequisites: Completed EXE 360, EXE 361, EXE 362, and EXE 363 with a grade of C or higher, Exceptional Education Major Status, at least 2.6 overall GPA. Corequisite: EXE 367. Application of curriculum design and implementation for children with disabilities.

EXE 371
FOUNDATIONS OF TEACHING CHILDREN WITH DISABILITIES
3, 3/0
Prerequisite: EDU 211, Elementary Education Major Status. Adaptations, procedures, and management systems necessary for effective instruction of children with disabilities in general education settings.

EXE 372
FOUNDATIONS OF TEACHING ADOLESCENTS WITH DISABILITIES
3, 3/0
Prerequisite: EXE 100. Adaptations and instructional procedures necessary for effective instruction of adolescents with disabilities. Recommended for secondary education majors.

EXE 375
INTEGRATION OF TECHNOLOGY IN EDUCATION
3, 3/0; TSIF
Prerequisite: ED/F 202 or SPS 302. Exceptional Education Major Status, at least 2.6 overall GPA OR other education majors by permission. Can be taken during student teaching for childhood education majors. This course is designed to provide the pre-service teacher with an awareness of the current range of instructional and adaptive technologies. Emphasis is placed on factors relating to curricular integration of technology within the general and special education classroom. Students receive hands-on experience with the use of instructional software, websites, and adaptive/assistive technologies.

EXE 389
TOPICS COURSE
1-3, 0/0

EXE 420
PRACTICUM IN SPECIAL EDUCATION
6, 0/6
Prerequisites: Minimum grade of C in EXE 365, EXE 366, and EXE 368; minimum cumulative GPA of 2.6 (overall and in major courses). Practice teaching with students with disabilities in public school classes, private agencies, or residential settings.

EXE 495
SPECIAL PROJECT
1-3, 0/0

EXE 499
INDEPENDENT STUDY
3-12, 3-12/0

FAR - Fine Arts

FAR 100
INTRODUCTION TO FINE ARTS
3, 1/5; ARIF
The critical bases of procedures in the fine arts. Introductory problems in studio performance. Lecture and studio experience. Non-art majors only.
FAR 101  
DRAWING I  
3, 1/5; ARIF  
Prerequisite: FAR 100. The fundamentals of drawing based primarily on the study and representation of objects and nature forms, with problems of analysis, composition, and structure in various media. Includes both lecture and studio experience.

FAR 102  
DRAWING II  
3, 1/5  
Prerequisite: FAR 101. Drawing the nude using various media with an emphasis on proportion, anatomy, and pictorial structure. Lecture and studio experience.

FAR 103  
MODELING  
3, 1/5  
Modeling as an introductory experience in the exploration of three-dimensional form. Development of perceptual and analytical attitudes. Lectures and modeled work dealing with the human figure.

FAR 104  
THEMES AND ISSUES IN THE CONTEMPORARY ARTS  
3, 3/0  
Introduction to important figures, movements, and concepts in recent art, architecture, and design. Develops students' abilities to visually analyze works of art and to think critically about the role of art and the artist/designer in society. To be taken by all visual arts majors during their first year attending Buffalo State College.

FAR 189  
TOPICS COURSE  
3-6, 3/0

FAR 210  
INTRODUCTORY PAINTING  
3, 1/5  
Prerequisite: FAR 101. Introduction to the methods, techniques, standards, and values of painting. Exploration of color, form, and compositional problems. Lecture and studio experiences.

FAR 220  
INTRODUCTORY PHOTOGRAPHY  
3, 1/5  
Fundamentals of 35mm camera craft, black-and-white film developing, exposure metering, print finishing and presentation. Introduction to the use of Photoshop, Mac computer, film scanner, and ink jet printer for digital imaging. Lectures, darkroom and fieldwork. Note: 35mm camera with built-in exposure meter and manual mode capability required.

FAR 230  
INTRODUCTORY PRINTMAKING  
3, 1/5  
Prerequisite: FAR 101. Introduction to printmaking and its basic processes and techniques, involving demonstrations, lectures, and studio experiences in one or more areas such as intaglio, lithography, and relief.

FAR 240  
INTRODUCTORY SCULPTURE  
3, 1/5  
Prerequisite: FAR 101. The fundamentals of sculptural form. Additive, subtractive, and constructive approaches to sculpture through lecture and studio experiences.

FAR 250  
ART HISTORY I  
3, 3/0; ARIF  
World history of painting, sculpture, architecture, and related arts from the Paleolithic period to the end of the medieval period.

FAR 251  
ART HISTORY II  
3, 3/0; ARIF  
World history of painting, sculpture, architecture, and related arts from the thirteenth to the twentieth centuries.

FAR 300  
DRAWING III  
3, 1/5  
Prerequisite: FAR 102. Continuation of FAR 102, with emphasis on the human figure and its relationship to an environment and pictorial structure. Lecture and studio experience. Course may be repeated twice.

FAR 311  
INTERMEDIATE PAINTING I  
3, 1/5  
Prerequisite: FAR 210. Continuation of FAR 210, working toward a greater awareness of a personal statement. Lecture and studio experience.

FAR 312  
INTERMEDIATE PAINTING II  
3, 1/5  
Prerequisite: FAR 311. Continuation of FAR 210 and FAR 311, allowing opportunity for more thorough fundamental awareness at a more intensive concentration. Lecture and studio experience.

FAR 313  
ADVANCED PAINTING  
3-9, 1-3/5-15  
Prerequisite: FAR 312. Advanced painting, with media, style, and content based on individual needs. Concentration on individually selected areas of painting. Lecture and studio experience. Course may be repeated three times.

FAR 316  
PAINTING IN SIENA  
3, 1/5  
Prerequisite: FAR 210 (for art credit); no prerequisite for non-art credit. Upper-level painting course, taught in Siena, Italy. Students work at their level of experience, in the materials and techniques available in Siena.

FAR 321  
INTERMEDIATE PHOTOGRAPHY I  
3, 1/5  
Prerequisite: FAR 220. An intermediate course in photography emphasizing the making of creative images. Intermediate 35mm camera technique and the use of on-camera electronic flash are taught. The basic Zone system is taught to improve exposure metering skills, to introduce controls for monitoring the development of film, and to familiarize students with contrast curves used in Photoshop. Includes lectures, equipment demonstrations, computer instruction, and fieldwork. Note: 35mm camera with built-in exposure meter, electronic flash, and tripod required.

FAR 322  
INTERMEDIATE PHOTOGRAPHY II  
3, 1/5  
Prerequisite: FAR 321. Intermediate use of computer, Photoshop, film scanning, ink jet printing, and color management to make creative pictures. Builds upon intermediate skills and introduces digital camera use for computer-based imagemaking in photography. Introduces large format ink jet printing. Includes lectures, equipment demonstrations, and fieldwork. Note: Digital camera (5 mega-pixel or better), 35mm camera, electronic flash, and tripod required.

FAR 323  
ADVANCED PHOTOGRAPHY  
3-9, 1-3/5-15  
Prerequisite: FAR 322. Devoted to creative work in photography and its integration with digital technology. Advanced camera skills are taught using medium-format and digital cameras. Advanced film exposure and lighting techniques are taught, as well as basic use of Illustrator, Painter, and Poser software. A medium format camera (120/220 film size), tripod, hand-held exposure meter, on-camera and portable studio flash are required. An internship taken concurrently with the last semester of Advanced Photography is encouraged. Course may be repeated up to three times.

FAR 325  
HISTORY OF PHOTOGRAPHY  
3, 3/0  
The invention and development of photography from the early-nineteenth century to the present. Photography as art, science, communication, and influence upon social patterns and customs.
FAR 328
STUDIO PHOTOGRAPHY
3, 1/5
Prerequisite: FAR 220. Introduction to current studio practices used to produce still photographs for commercial and other uses. Medium-format camera, view camera, and studio-lighting techniques. Emphasis on directed and fabricated photographic images. Professional-quality camera, hand-held light meter, and tripod required.

FAR 331
INTERMEDIATE PRINTMAKING I
3, 1/5
Prerequisite: FAR 230. Continuation of FAR 230. Emphasis on personal expression and creative possibilities. Includes lecture, demonstrations, and studio experience.

FAR 332
INTERMEDIATE PRINTMAKING II
3, 1/5
Prerequisite: FAR 331. Continued exploration of printmaking with emphasis on personal expression and creative possibilities. Includes lecture, demonstrations, and studio experience.

FAR 333
ADVANCED PRINTMAKING
3-9, 1-3/5-15
Prerequisites: FAR 331 and FAR 332. Advanced printmaking. Media determined by the student in consultation with the instructor. Includes lecture and studio experiences. May be repeated three times.

FAR 335
PAPERMAKING
3-9, 1-3/5-15
Prerequisite: One studio course in fine arts or design. The theory and practice of handmade papermaking involving demonstrations, lectures, and studio experience. Required for B.F.A. printmaking majors.

FAR 341
INTERMEDIATE SCULPTURE I
3, 1/5
Prerequisite: FAR 240. Further exploration of sculptural form with more complete study of numerous sculptural approaches and techniques. Practice in planning and executing sculpture projects.

FAR 342
INTERMEDIATE SCULPTURE II
3, 1/5
Prerequisite: FAR 341. Continuation of FAR 341 with further emphasis on exploration of variations within each technique and approach. Development of personal modes of expression.

FAR 343
ADVANCED SCULPTURE
1-9, 1-9/5-45
Prerequisite: FAR 342. Concentration on individually selected areas of development in sculpture based on personal interest, needs, and experience. May be repeated three times.

FAR 345
FIGURE MODELING
3, 1/5
Prerequisite: FAR 240. Figure modeling as a basic sculptural discipline. Portrayal and interpretation of the human form. Anatomy lectures and work with live models.

FAR 346
SCULPTURE IN SIENA
3, 1/5
Prerequisite: FAR 240 (for art credit); no prerequisite for non-art credit. Upper-level course in sculpture taught in Siena, Italy. Students work at their level of experience, in the materials and techniques available in Siena.

FAR 352
ART AND CULTURE OF ISLAM
3, 3/0
Prerequisites: FAR 250 and FAR 251. The art of Islam in its cultural context, beginning in the seventh century A.D. and terminating in the twentieth century A.D. The development of Islamic art in relation to the Islamic system of life and belief and regional variations in Islamic art, both sacred and secular are explored throughout the eastern Mediterranean, the Medieval West and the Near East.
Equivalent course: FAR352W

FAR 353
ART AND CULTURE OF EGYPT AND THE NEAR EAST
3, 3/0
Prerequisites: FAR 250 and FAR 251. The ancient art and culture of Egypt and the Near East from their beginnings in the Neolithic period to the present. Prerequisites: FAR 250 and FAR 251. The history of art in the cultural and environmental context of Egypt from its beginnings in the Neolithic period, ca. 6000 B.C. through the Roman conquest (first century B.C.). The architecture, sculpture, painting, and minor arts of Greece studied in their cultural context.
Equivalent course: FAR353W

FAR 354
ART AND CULTURE OF GREECE
3, 3/0
Prerequisites: FAR 250 and FAR 251. The history of art in the cultural and environmental context of Greece from its beginnings in the Neolithic period, ca. 6000 B.C. through the Roman conquest (first century B.C.). The architecture, sculpture, painting, and minor arts of Greece studied in their cultural context.
Equivalent course: FAR354W

FAR 356
EARLY MEDIEVAL ART
3, 3/0
Prerequisites: FAR 250 and FAR 251. The art and culture of Europe, Byzantium, and the Near East in the context of the development of Christianity from its early roots through the early twelfth century A.D. Regional forms in art, including sacred and secular building construction, manuscript illumination, metalworking, enameling, and sculpture are examined with emphasis on historical context and religious and philosophical meaning.
Equivalent course: FAR356W

FAR 357
LATE MEDIEVAL ART
3, 3/0
Prerequisites: FAR 250 and FAR 251. The art and culture of Europe, Byzantium, and the Near East in the context of the development of Christianity from its early roots through the early twelfth century A.D. The new aesthetic of Gothic in the context of philosophical and theological developments in Western Europe, the Crusades, and the growth of cities.
Equivalent course: FAR357W

FAR 358
EARLY RENAISSANCE ART IN ITALY
3, 3/0
Prerequisites: FAR 250 and FAR 251, except in Siena. Painting, sculpture, and architecture of fifteenth-century Italy. Special attention to Donatello, Brunelleschi, and Alberti. Consideration of important earlier artists and movements, and of the aesthetic implications of the rebirth of classical tradition in Western civilization.

FAR 359
HIGH RENAISSANCE AND MANNERISM
3, 3/0
Prerequisites: FAR 250 and FAR 251. Introduction to stylistic changes and developments in Italian High Renaissance and Mannerist art. Examination of the aspirations, achievements and disappointments of major artists within their historical, social and cultural contexts.
Equivalent course: FAR359W

FAR 361
ITALIAN BAROQUE ART
3, 3/0
Prerequisites: FAR 250 and FAR 251. Architecture, sculpture, and painting in Italy during the seventeenth and eighteenth centuries. Emphasis on key centers such as Rome, Venice, Turin, and Naples.

FAR 362
NINETEENTH-CENTURY ART
3, 3/0
Prerequisites: FAR 250 and FAR 251. Architecture from the neoclassicism of the Adam brothers to the skyscraper. Painting from David to Cézanne in France, the Nazarenes, and Pre-Raphaelites in Germany and England.
Sculpture from Houdon and Canova to Rodin in relationship to the social, political, economic, and intellectual climate of the times.

FAR 363
TWENTIETH-CENTURY ART
3, 3/0
Prerequisites: FAR 250 and FAR 251. Major trends and works of the twentieth century. Emphasis on historical, artistic, judgmental, and cultural meanings as they reflect twentieth-century and past civilizations. Includes painting, sculpture, architecture, and other areas. Equivalent course: FAR363W

FAR 364
ART SINCE 1940
3, 3/0
Prerequisites: FAR 250 and FAR 251. Introduction to art since 1940 within its historical, social, political, and cultural contexts.

FAR 365
AMERICAN ART I
3, 3/0
Prerequisites: FAR 250 and FAR 251. Architecture, painting, and sculpture in the United States from the seventeenth century to World War II.

FAR 367
BAROQUE OF NORTHERN EUROPE
3, 3/0
Prerequisites: FAR 250 and FAR 251. Architecture, sculpture, and painting of the seventeenth and eighteenth centuries in Northern Europe. Emphasis on development in France, Holland, and Germany. Equivalent course: FAR367W

FAR 369
ART OF THE MIDDLE AGES
3, 3/0
Prerequisite: Junior status or permission of instructor. Art of the Middle Ages from the Early Christian period through the end of the Gothic period (ca. third century A.D. - fourteenth century A.D.). Reading, analysis, lecture and discussion of the styles, cultural contexts and regional variations in the medieval art of Europe, the Mediterranean, and the Near East.

FAR 371
ART CRITICISM AND THEORY
3, 3/0
Prerequisite: Junior status or permission of instructor. Modern and Post-Modern art criticism and theory in a historical context; reading, analysis, lecture, and discussion of selected texts pertaining to Formalism, Iconography and Semiotics, Modernism, Post-Modernism, Media and Communication, Gender, the "Other" and Institutional Critique.

FAR 372
MASTERWORKS OF ARCHITECTURE
3, 0/0
Introduction to masterworks of architecture, emphasizing architecture as a living organism. Buildings selected from various periods and cultures. Styles from early civilizations to the present day, including places of worship and interment, public and commercial structures, and private residences. Equivalent course: FAR372W

FAR 373
VENETIAN ART AND CULTURE, 1300-1800
3, 3/0
Prerequisites: Art History I (FAR 250) and II (FAR 251). The history of Venetian architecture, sculpture, and painting considered within historical, geographical and cultural contexts from the fourteenth through the eighteenth century. Students will undertake original research and will carry out individual projects.

FAR 375
INTRODUCTION TO ASIAN ART
3, 3/0
Prerequisites: FAR 250 and FAR 251; upper-division status. The principal concepts in the art of China, Japan, and India. The relevance of the philosophies of Hinduism, Buddhism, Jainism, Zen tradition, Taoism, and Confucianism to the development of Asian art. Brief histories of civilizations as frameworks for understanding aesthetic and philosophical Asian concepts.

FAR 376
INDIAN ART
3, 3/0
Prerequisites: FAR 250 and FAR 251; upper-division status. Introduction to the principal thoughts and concepts of the art of India and its relevance to the philosophies of Hinduism, Buddhism, and Jainism. Includes comparisons with Western art and a brief history of Indian civilization as a framework for the understanding of Indian aesthetic and philosophical concepts as presented in works of art.

FAR 380
ART OF AFRICA
3, 3/0
The history of art in Africa from prehistory through the twentieth century. Arts from diverse regions of the continent are examined in their cultural context, with an emphasis on local and regional variations in style and iconography in the domestic, sacred, and royal arts. African responses to the development of slavery, imperialism, and other external stimuli are considered in relation to the use and trade of raw materials and the creation of new symbolic forms.

FAR 389
TOPICS COURSE
3, 0/0

FAR 400
DRAWING IV
3, 1/5
Prerequisite: FAR 300. Advanced drawing with media and content based on individual needs. Concentration on individually selected area of development in drawing. Use of model. Lecture and studio experiences. Course may be repeated twice.

FAR 410
SENIOR STUDIO IN PAINTING
6, 2/10
Prerequisites: FAR 313, painting major, senior status. A 6 credit-hour concentration of studio work. Students plan and execute a series of problems and projects in consultation with major adviser.

FAR 420
SENIOR STUDIO IN PHOTOGRAPHY
6, 2/10
Prerequisites: FAR 323, photography major, senior status. A 6 credit-hour concentration of studio work by the senior major in photography. Students outline, plan, and execute a complex and related series of pictures to be made during the semester, which result in a skillful, intelligent, and coherent body of work.

FAR 430
SENIOR STUDIO IN PRINTMAKING
6, 2/10
Prerequisites: FAR 333, printmaking major, senior status. A 6 credit-hour concentration of studio work. Students plan and execute a series of problems and projects in consultation with major adviser.

FAR 440
SENIOR STUDIO IN SCULPTURE
6, 2/10
Prerequisites: FAR 343, sculpture major, senior status. A 6 credit-hour concentration of studio work. Students plan and execute a series of problems and projects in consultation with major adviser.

FAR 469
ART AND ARCHITECTURE IN SIENA
3, 0/0
Firsthand study of Gothic and Renaissance art in Siena, Italy. Includes classroom lectures and visits to the city’s major monuments and collections.

FAR 470
SENIOR SEMINAR IN FINE ARTS
3, 3/0
Prerequisites: FAR 313, FAR 323, FAR 333, or FAR 343; fine arts major. Final evaluative process regarded as a culminating experience in the program. Discussions and lectures in major areas. Theory and
significance of selected problems. Critical analysis of the student's work resulting in the preparation of a professional portfolio. Equivalent course: FAR470W

FAR 471
SENIOR SEMINAR IN ART HISTORY
3, 3/0
Prerequisites: FAR 454, FAR 457, and FAR 459; senior status; art history major; or permission of instructor. Readings, discussions, and research on selected problems in the history of art from antiquity to the twentieth century. Emphasis on gathering and interpreting source material.

FAR 488
INTERNSHIP
1-15, 0/0
Prerequisites: Permission of faculty supervisor; minimum cumulative GPA of 2.0; background of courses or experiences within area of interest; permission of student adviser or major department chair and supervising faculty member and chair of credit-granting department. Guided, supervised field experiences (experiential learning).

FAR 495
SPECIAL PROJECT
1-3, 0/0

FAR 497
WORKSHOP
3, 0/0

FAR 499
INDEPENDENT STUDY
3-12, 0/0

AAS - AFRICAN AND AFRICAN AMERICAN STUDIES

FCS 301
PRINCIPLES OF BUSINESS/MARKETING AND TECHNOLOGY EDUCATION
3, 3/0
Introduction to the teaching of occupational education courses in public schools; principles, philosophy, and objectives; historical development of occupational education and the development of current issues for an occupational education program. Equivalent courses: BME301, BME301W, BUS301, CTE301

FCS 302
CURRICULUM AND EVALUATION IN BUSINESS/MARKETING AND TECHNOLOGY EDUCATION
3, 3/0
Introduction to the curriculum and evaluation in business/marketing and technology education. State curriculum and standards, lesson planning, student learning, and curriculum evaluation. Equivalent courses: BME302, BUS302, CTE302, VTE302

FCS 303
INSTRUCTIONAL STRATEGIES IN BUSINESS AND MARKETING
3, 3/0
Instructional strategies dealing with classroom management, classroom environment, and educational technologies. 100 hours of field experience prior to student teaching required. Equivalent courses: BME303, BUS303

FCS 404
APPLIED TEACHING METHODS IN BUSINESS/MARKETING
3, 3/0
Prerequisites: BME/CTE/FCS 301 and BME/CTE/FCS 302. Basic principles and methods of teaching business and marketing subjects. Prepares the student to effectively teach subjects in this area. Equivalent courses: BME411, BUS411, CTE404, VTE404

FCS 415
STUDENT TEACHING IN BUSINESS EDUCATION
6, 0/0
Prerequisites: Senior standing; completion of business core area and BME 411; 2.5 cumulative average in major subject area; 2.0 cumulative average in total program; C or better in CWP 101 and CWP 101; satisfactory completion of (or exemption from) prerequisite EXE 100 Student Speech Clinic if referred. Full-time teaching in a public school for one semester under the supervision of a master teacher and a college supervisor. Equivalent courses: BME415, BUS415

FCS 416
STUDENT TEACHING IN BUSINESS EDUCATION
6, 0/0
Prerequisites: Senior standing; completion of business core area and BME 411; 2.5 cumulative average in major subject area; 2.0 cumulative average in total program; C or better in CWP 101 and CWP 101; satisfactory completion of (or exemption from) prerequisite EXE 100 Student Speech Clinic if referred. Full-time teaching in a public school for one semester under the supervision of a master teacher and a college supervisor. Equivalent courses: BME416, BUS416

FCS 499
INDEPENDENT STUDY
3-30, 0/0

FIN - FINANCE

FIN 110
PERSONAL FINANCE
3, 3/0
Prerequisite: Successful completion of mathematics basic skills competency requirement. Basics of personal and household finance. Saving, debt reduction, home and automobile financing, retirement planning, investment, and insurance. Equivalent course: ECO110

FIN 189
TOPICS COURSE
1-3, 1-3/0

FIN 314
CORPORATION FINANCE
3, 3/0
Prerequisites: ECO 201, OR ECO202 and BUS 312. Introduction to analytical techniques and terminology of corporate financial management. Includes the financial environment, yield-curve analysis, ratio analysis, the DuPont system, proforma balance sheets and income statements, the Capital Asset Pricing Model, the intrinsic value of stocks and bonds, the time value of money, capital budgeting, and working capital management. Equivalent course: ECO314

FIN 345
ESTATE PLANNING
3, 3/0
Prerequisite: Upper-division status. Provides financial security during retirement years and facilitates the intended and orderly disposition of property upon disability or death. Addresses concepts and techniques of lifetime financial planning that may lead to increases in one's estate and the conservation of existing assets. Includes a critical evaluation of traditional planning techniques and analysis of major advanced methods, including various living trusts, irrevocable life insurance trusts, charitable remainder trusts, and family-limited partnerships. Equivalent course: ECO345

FIN 370
TECHNICAL ANALYSIS OF FINANCIAL MARKETS
3, 3/0
Prerequisites: ECO202 D OR ECO201 D OR ECO101 D Study of the market action of financial products such as securities, bonds, futures, and derivatives through the use of charts and figures. Effects of business, economic, and social "realities" and perceptions on price in financial markets. Market models and theory and the practices and instruments of market players. Technical analysis as a forecasting tool of both market and economic trends in various time frames.

FIN 389
TOPICS COURSE
1-3, 1-3/0
FIN 400
INTERNATIONAL FINANCE
3, 3/0
Prerequisites: ECO 201 and ECO 202 and FIN 314. Basic theories in international finance and applications, including analysis of exchange-rate markets, international capital markets, multinational capital budgeting, cash management, and international banking. Provides a strong background in international financial markets and international financial policy.
Equivalent course: ECO400

FIN 414
INVESTMENT MANAGEMENT
3, 3/0
Prerequisite: FIN 314. Operating and efficiency characteristics of security markets. The application of institutional, technical, and theoretical approaches to security analysis and evaluation of investment portfolios.
Equivalent course: ECO414

FIN 415
CASES IN CORPORATION FINANCE
3, 3/0
Prerequisite: FIN 314; ECO 307 recommended. Application of the case approach to problems in business finance. Includes working capital financing, term borrowing, capital budgeting, and mergers and acquisitions.
Equivalent course: ECO415

FIN 416
ADVANCED CORPORATION FINANCE
3, 3/0
Prerequisites: FIN 314. Advanced study of the practice and theory of corporation finance, focusing on topics not covered in introductory corporation finance. Includes advanced debt policy, options, leasing, mergers, international financial management, and pension plans.
Equivalent course: ECO416

FIN 417
DERIVATIVE SECURITIES
3, 3/0
Prerequisite: FIN 314. How modern securities are created from their basic components. Includes swap contracts, artificial Treasury bills, synthetic puts, and portfolio insurance products.
Equivalent course: ECO417

FIN 418
BOND MARKETS
3, 3/0
Prerequisite: FIN 314. Introduction to bond management. Includes bond pricing, yield measurements, return measurements, duration, convexity, Treasury securities, agency securities, corporate debt, municipal bonds, the term structure of interest rates, mortgage loans, pass-through securities, CMOs, return characteristics of derivative products, and bond hedging using options and futures.
Equivalent course: ECO418

FIN 419
MERGERS AND ACQUISITIONS
3, 3/0
Prerequisites: FIN 314. Identification of firm valuation through mergers and acquisitions; drivers of successful and unsuccessful corporate restructurings; design and evaluation of structured transactions. Strategic planning, investment decisions, and other factors underlying mergers - deal tactics, law, accounting and taxation. Capital market reactions to control transactions; defensive measures against takeover bids.

FIN 499
INDEPENDENT STUDY
3-12, 0/0

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FLE 201
INTRODUCTION TO TECHNOLOGY IN FOREIGN LANGUAGE EDUCATION
3, 3/0; TSIF
Prerequisite: Official enrollment in French or Spanish foreign language education program. Introduction to the uses and limitations of technology in language instruction with particular emphasis on the principled use of computer-assisted instruction, situated within standards- and research-based language pedagogy.

FLE 240
INTRODUCTION TO LINGUISTICS
3, 3/0
A general introduction to the study of language, including syntax, morphology, phonetics, phonology, semantics, sociolinguistics, discourse analysis, and language change.

FLE 300
INTRODUCTION TO THE FOREIGN LANGUAGE CLASSROOM
3, 3/0
Prerequisites: FRE/SPA 302; consent of foreign language education coordinator. Introduction to the research and standards that inform professional foreign language teaching. Thirty-five clock hours in a middle, high, or senior high school in a variety of field-based tasks. Conducted by school and college staff.

FLE 340
SECOND LANGUAGE ACQUISITION AND LITERACY
3, 3/0
Prerequisites: Consent of foreign language education coordinator. Introduction to the main components that underpin second-language acquisition and literacy theory, including inter-language systems and sociocultural, psychological, and personality factors. Classroom observations in a middle, high, or senior high school. Conducted by school and college staff. Required for all B.S. French and Spanish Education majors (BS-AH-FRS/SPS) and Foreign Language Education Postbaccalaureate Teaching Certification (PBC-AH-FRS/SPS) students.

FLE 401
TEACHING FOREIGN LANGUAGE IN MIDDLE AND HIGH SCHOOLS
3, 3/0
Prerequisites or corequisites: Completion of the ACTFL Oral Proficiency Interview. FLE 300, EDF 303, and EDF 403. Exploration of the research and standards that inform professional foreign language teaching. Students in modern and classical languages teacher certification programs should take this course immediately before FLE 407 and FLE 408 (student teaching). Conducted by school and college staff.
Equivalent course: FLE401W

FLE 403
FOUNDATIONS OF FOREIGN AND SECOND LANGUAGE EDUCATION
3, 3/0
Prerequisites: FLE 300. May be taken concurrently with instructor permission. Introduction to the historical, psychological, social and philosophical foundations of foreign and second language instruction.

FLE 407
STUDENT TEACHING OF FOREIGN LANGUAGES IN THE MIDDLE/JUNIOR HIGH SCHOOL
6, 0/0
Prerequisites: Minimum GPA of 2.5 for all requirements in language specialization and in professional education; minimum grade of C in FLE 405 and FLE 406; consent of modern and classical languages education coordinator. Teaching under supervision in a middle school or junior high school five days a week, with additional participation in school program. Evaluation by college and school personnel.
Equivalent course: SED407

FLE 408
STUDENT TEACHING OF FOREIGN LANGUAGES IN THE HIGH SCHOOL
6, 0/0
Prerequisites: Minimum GPA of 2.5 for all requirements in language specialization and in professional education; minimum grade of C in FLE
405 and FLE 406: consent of modern and classical languages education coordinator. Teaching under supervision in a senior high school five days a week, with additional participation in school program. Evaluation by college and school personnel.

Equivalent course: SED 408

FLE 497
WORKSHOP
3, 0/0

FLE 499
INDEPENDENT STUDY
1-12, 0/0

FOR - FORENSIC SCIENCE

FOR 122
SCIENTIFIC CRIMINAL EVIDENCE ANALYSIS
3, 3/0; TSIF
Scientific techniques that have been adapted and applied to the detection and investigation of crimes. Collection techniques, analytical processes, and value of scientific evidence from the point of view of forensic scientists. Different disciplines, specialties, and careers available in forensic science.

FOR 312
CHEMISTRY AND CRIMINALISTICS
4, 3/3
Prerequisites: FOR 122, MAT 311 and CHE 201. Chemistry as an investigative aid in the process of criminal justice. Basic chemical, physical, and microscopic techniques used in criminal investigations. Relevant laws and legal issues that impact on scientific evidence. Professional practice and ethics in the field of forensic science. The overall function of the criminalist from the gathering of evidence to the final presentation of expert testimony.
Equivalent course: CHE 312

FOR 412
INTERNSHIP IN CRIMINALISTICS
3, 0/0
Prerequisites: FOR 312, CHE 403, permission of instructor, and senior status. Field experience in a forensic laboratory involving routine and research work in forensic chemistry. Note: Police laboratories sometimes require background checks and/or drug screens prior to placement. While not required by the college, these can affect students' abilities to complete the program.
Equivalent course: CHE 412

FOR 414
FORENSIC CHEMISTRY LABORATORY
3, 2/3
FOR 312 and CHE 403; BIO 303 or BIO 350, or concurrently. Instruction and laboratory experiences in a wide range of forensic chemistry topics, including experiments in DNA for human identification, identification of illicit drugs, determination of blood alcohol, materials analysis, and arson. Students also receive instruction on the practice of presenting scientific evidence in a courtroom setting.
Equivalent course: CHE 414

FOR 416
OPTICAL MICROSCOPY
2, 1/2
Prerequisites: FOR 312 and PHY 112. Introductory optical microscopy for forensic physical analysis; fundamental theory of microscopy; physical properties of materials (refractive index, density, etc.); basic topics in optics (electromagnetic radiation, refraction, reflection, interference, etc.); operation, variety, and capabilities of optical microscopes; and applications in analysis of physical evidence, such as pattern analysis, hair, fiber, and minerals.

FOR 460
INORGANIC CHEMISTRY
3, 3/0
Prerequisite: CHE 305 or CHE 331. Introduction to modern inorganic chemistry, with special emphasis on periodic variations of structural and bonding patterns among inorganic compounds of the main group and transition elements. Kinetic and thermodynamic factors that govern the preparation and stabilities of inorganic compounds.
Equivalent course: CHE 400

FOR 461
INORGANIC CHEMISTRY LABORATORY
2, 0/6
Prerequisite: CHE 301. Prerequisite or concurrent registration: CHE 460. Laboratory experience in the synthesis and characterization of selected inorganic compounds using a variety of techniques.
Equivalent course: CHE 400

FOR 495
SPECIAL PROJECT
1-3, 0/0
Prerequisite: Faculty project adviser permission.

FOR 497
QUESTIONED DOCUMENTS
1-3, 1-3/0
Examination of significant disciplinary issues, topics, or practices; offered occasionally.
Equivalent course: CHE 497

FOR 499
INDEPENDENT STUDY
3-12, 0/0
Prerequisite: Faculty project adviser permission.

FRE - FRENCH

FRE 101
BEGINNING FRENCH I
3, 3/0; FLA
Fundamentals of French with an emphasis on the spoken and written language.

FRE 102
BEGINNING FRENCH II
3, 3/0; FLA
Prerequisite: FRE 101. Continuation of FRE 101. Fundamentals of French with an emphasis on the spoken and written language.

FRE 201
INTERMEDIATE FRENCH I
3, 3/0; FLA
Prerequisite: FRE 102. Further development of basic skills with emphasis on reading and writing.

FRE 202
INTERMEDIATE FRENCH II
3, 3/0; FLA
Prerequisite: FRE 201. Continuation of FRE 201. Further development of basic skills with emphasis on reading and writing.

FRE 203
WORKPLACE FRENCH I
3, 3/0
Prerequisite: FRE 102. Taught in French. Common written and oral interactions in the French-speaking workplace. Language skills and proficiency practice at the intermediate-low level of the ACTFL (American Council on the Teaching of Foreign Languages) scale.

FRE 204
WORKPLACE FRENCH II
3, 3/0
Prerequisite: FRE 203. Taught in French. Common written and oral interactions in the French-speaking workplace. Language skills and proficiency practice targeted toward the intermediate-mid level of the ACTFL (American Council on the Teaching of Foreign Languages) scale.

FRE 301
INTRODUCTION TO FRANCOPHONE CULTURE
3, 3/0
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites and Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRE 305</td>
<td>PHONETICS AND ORTHOGRAPHY</td>
<td>3, 3/0</td>
<td>Prerequisites: FRE 301 and FRE 302. Introduction to French phonetics and applied linguistics.</td>
</tr>
<tr>
<td>FRE 306</td>
<td>FRENCH CULTURE: PREHISTORY TO THE RENAISSANCE</td>
<td>3, 3/0</td>
<td>Prerequisites: FRE 301 or 302. Survey of the literature of France from prehistory to the Renaissance and its relationship to French history and culture.</td>
</tr>
<tr>
<td>FRE 307</td>
<td>FRENCH CULTURE: RENAISSANCE TO REVOLUTION</td>
<td>3, 3/0</td>
<td>Prerequisites: FRE 301 and FRE 302. Taught in French. Introduction to key historical, social, cultural, and literary figures, works, ideologies, and events in France from 1515 to 1789.</td>
</tr>
<tr>
<td>FRE 308</td>
<td>FRENCH CULTURE: REVOLUTION TO BELLE EPOQUE</td>
<td>3, 3/0</td>
<td>Prerequisites: FRE302. Taught in French. Introduction to key historical, social, cultural, and literary figures, works, ideologies, and events in France from 1789 to 1890.</td>
</tr>
<tr>
<td>FRE 309</td>
<td>LITERATURE AND CULTURE OF FRANCE IN THE TWENTIETH CENTURY</td>
<td>3, 3/0</td>
<td>Prerequisites: FRE 301 or FRE 302. Survey of the literature of France in the twentieth century and its relationship to French history and culture.</td>
</tr>
<tr>
<td>FRE 321</td>
<td>ISSUES AND THEMES IN THE FRANCOPHONE WORLD</td>
<td>3, 3/0</td>
<td>Prerequisites: FRE 302 or equivalent; instructor permission. Taught in French. Development and practice of French language skills through exploration of current issues facing the Francophone world.</td>
</tr>
<tr>
<td>FRE 331</td>
<td>FRENCH LITERATURE IN TRANSLATION</td>
<td>3, 3/0</td>
<td>Selected masterpieces of contemporary French literature in translation. Knowledge of French not required. French majors and minors must obtain department chair and permission of course instructor. Equivalent courses: ENG331, FRE331W</td>
</tr>
<tr>
<td>FRE 341</td>
<td>FRANCOPHONE LITERATURE IN TRANSLATION</td>
<td>3, 3/0</td>
<td>Aspects of the Francophone world (French-speaking Europe, North America, Africa, and the Caribbean). Emphasis on historical, political, economic, and social changes resulting from colonial, neocolonial, and anticolonial periods. French majors and minors must obtain department chair and permission of course instructor. Equivalent course: FRE341W</td>
</tr>
<tr>
<td>FRE 402</td>
<td>PEDAGOGICAL FRENCH</td>
<td>3, 3/0</td>
<td>Prerequisites: FRE301 and FRE302 or equivalents. Instruction in classroom use of French and exploration of research in French pedagogy. Prepares candidates for the required American Council on the Teaching of Foreign Languages (ACTFL) Advanced-Low proficiency interview. Taught in French.</td>
</tr>
<tr>
<td>FRE 412</td>
<td>STUDIES IN THE FRENCH NOVEL</td>
<td>3, 3/0</td>
<td>Prerequisite: FRE 307, FRE 308, or FRE 309. French and Francophone novels from the Middle Ages to the present. Includes historical introduction to the novel as social phenomenon and introduction to the formal development of the French and Francophone novel. May be limited to one historical period. May be repeated once where content varies.</td>
</tr>
<tr>
<td>FRE 415</td>
<td>ADVANCED GRAMMAR AND COMPOSITION</td>
<td>3, 3/0</td>
<td>Prerequisites: FRE 301 and FRE 302. Advanced topics of French grammar with work in French composition.</td>
</tr>
<tr>
<td>FRE 416</td>
<td>ADVANCED CONVERSATION AND COMPOSITION</td>
<td>3, 3/0</td>
<td>Prerequisites: FRE 301 and FRE 302. Advanced conversation dealing with contemporary French civilization and institutions. Recommended for secondary education majors.</td>
</tr>
<tr>
<td>FRE 420</td>
<td>LITERATURE AND SOCIETY OF FRANCOPHONE CANADA: 1700 TO THE PRESENT</td>
<td>3, 3/0</td>
<td>Prerequisites: One 300-level FRE literature course and instructor permission. Taught in French. Study of the lasting impact of French colonialism on the society, literature, and self-identity of Francophone North America.</td>
</tr>
<tr>
<td>FRE 435</td>
<td>FRANCOPHONE AFRICAN LITERATURE IN POST-COLONIAL CONTEXT</td>
<td>3, 3/0</td>
<td>Prerequisites: One 300-level FRE literature course and instructor permission. Taught in French. Study the effects of colonialism on the society, culture, and self-identity of Francophone Africa.</td>
</tr>
<tr>
<td>FRE 440</td>
<td>ORIGINS OF MODERN FRANCE</td>
<td>3, 3/0</td>
<td>Prerequisites: FRE 306 or FRE 307 or FRE 308 or FRE 309, and instructor permission. Taught in French. An examination of the 19th – 20th century intellectual trends, scientific advances, and social welfare initiatives that made France what it is today, as portrayed in the novels of key authors of the period 1850-1890. The industrial Revolution and its impact on daily life. The influence of contemporary developments in germ theory, urban planning, and social welfare reform on the urban renewal campaign of Emperor Napoleon III. Evolutionary theory and its impact on the ideology and novels of key authors of the naturalist school or literature.</td>
</tr>
<tr>
<td>FRE 455</td>
<td>MOLIERE’S COMEDIES IN SOCIO-CULTURAL CONTEXT</td>
<td>3, 3/0</td>
<td>Prerequisites: Instructor permission. Taught in French. Analysis of the life and works of Moliere, the milieu for which he wrote, the conventions of 17th-century French drama, the influence of contemporary political rivalries, social conditions, and court practices on his work and career.</td>
</tr>
<tr>
<td>FRE 460</td>
<td>FRANCO-CARIBBEAN LITERATURE, HISTORY &amp; CULTURE</td>
<td>3, 3/0</td>
<td>Prerequisites: At least one previous upper-level, undergraduate literature course in French. History, social issues, syncretic aspects of the French Caribbean culture in literary context. Characteristic literary themes, conflicts, and symbolism in key works of major Franco-Caribbean authors. Taught in French.</td>
</tr>
</tbody>
</table>
FTT - FASHION AND TEXTILE TECHNOLOGY

FTT 100 CONSTRUCTION FUNDAMENTALS
1, 1/1
Fundamental construction techniques used in the apparel industry; proficiency in basic construction details using both domestic and industrial sewing equipment.

FTT 109 FUNDAMENTALS OF APPAREL CONSTRUCTION
3, 2/2
Basic beginning techniques of apparel construction using commercially available patterns; introduction to sewing equipment, measuring techniques, fabric selection, fit, and alterations; evaluation and comparison of garments completed as assignments to similar apparel available through retail sources.

FTT 110 SURVEY OF THE TEXTILE AND APPAREL INDUSTRY
3, 3/0
Introductory survey course of the global textile and fashion industry; overview of the textile/apparel design product development process; design principles and elements; quality of the finished product; how fashion designers, consumer groups, and marketing researchers influence design.
Equivalent courses: FST107, FTT107

FTT 150 INTRODUCTION TO FASHION MERCHANDISING
3, 3/0
An introduction to fashion merchandising, including basic market structure, operational patterns in merchandising, and the marketing of fashion.

FTT 200 INTRODUCTION TO HAND KNITTING
3, 2/2
Gain experience in beginning hand-knit design. Emphasis on the basic principles of hand knitting, structure and types of hand stitches, traditional and ethnic knit designs, and development of original hand-knit designs.

FTT 206 INTRODUCTION TO TEXTILES
3, 3/0
Equivalent course: FST206

FTT 208 INTRODUCTION TO FASHION TECHNOLOGIES
3, 2/2
Introduction to a variety of off-the-shelf software programs; preliminary multidisciplinary hands-on experience of how they are used in the fashion industry.
Equivalent course: FST208

FTT 224 PATTERN DRAFTING AND GRADING FOR INDUSTRY
3, 2/2
Prerequisite: FTT 109 or instructor permission. Introduction to technical patternmaking skills; emphasis on the development of basic traditional and computer drafting and grading skills; students produce a drafted sloper manually and on the computer that will be graded on the computer into a nested pattern.
Equivalent course: FTT325

FTT 250 FASHION BUYING AND MERCHANDISING PRINCIPLES
3, 3/0
Prerequisite: FTT 150. Mathematical factors involved in profitable merchandising; concepts, practices, and procedures, as well as the calculations and interpretations of figures related to operations of stores.

FTT 300 KNIT TECHNOLOGY I
3, 2/2
Prerequisite: FTT 206 or permission of instructor. Basic principles of computerized machine weft knitting; understanding the relationships of yarn, color, stitch types, and gauge; charting and producing stitch designs by machine.
Equivalent course: FTT414

FTT 303 SURFACE PATTERN DEVELOPMENT FOR INDUSTRY
3, 2/2
Prerequisites: FTT 208 or instructor permission. Creation of original motifs for prints that are targeted for the fashion products markets; professional methods for transforming original motifs into commercial digital surface patterns and/or graphic prints (using Adobe Photoshop & Illustrator); color reduction and cleaning; basic repeat development; colorway development based on manufacturer requirements, awareness of current color and graphic trends, marketability, and industry standards.

FTT 306 TEXTILE EVALUATION
3, 2/2
Prerequisites: FTT 110, FTT 206. Advanced-level course in textiles; provides an understanding of fabric-performance evaluation; emphasis on standard test methods used by textile/apparel industry; equipment and techniques used in determining selected physical and aesthetic properties of textile products.
Equivalent course: FTT336

FTT 308 FASHION CAD (COMPUTER AIDED DESIGN)
3, 2/2
Prerequisites: FTT 208 or instructor permission. Intermediate multi-faceted skill expansion for fashion product design, technical development, using Adobe Photoshop & Illustrator. Fashion product design line/collection development; electronics and Web-based portfolio presentation.

FTT 309 TECHNICAL FASHION SPECS
3, 2/2
Prerequisites: FTT 208. Expansion of Adobe Illustrator skills to gain advanced technical spec pack expertise for fashion product development. Encompasses detailed technical drawing and digital skills required for fashion technical designer positions.

FTT 310 SEWN PRODUCTS INDUSTRY
3, 3/0
Prerequisites: FTT 306 or permission of instructor. Overview of the apparel manufacturing industry: structure and organization of the industry, design sources, techniques of pattern development, selection of
raw materials, manufacturing processes, and quality specifications of the finished product.
Equivalent course: FTT310W

FTT 324
INDUSTRIAL APPAREL ASSEMBLY
3, 2/2
Prerequisite: FTT 109. Focus on design room techniques utilized in both couture and mass production of apparel. Emphasis on equipment; appropriate selection of style, color, and fiber content of construction materials; alteration techniques used to achieve proper-fitting garments and mastery of selected couture; and industrial construction processes.

FTT 326
TRADITIONAL/COMPUTER FLAT PATTERN
3, 2/2
Prerequisite: FTT 224 or instructor permission. Introduction to traditional and computer flat pattern method of pattern making; emphasis placed on design and completion of selected items of apparel developed from a basic sloper.

FTT 327
COMPUTER PATTERNMAKING
3, 2/2
Prerequisites: FTT 326 or instructor permission. Apparel patterns are modified and graded in 2D and simulated in 3D through the use of an industrial multidimensional software; hand pattern drafting techniques are adapted to the computer by creating a virtual custom dress from a body scan and applying pattern modifications in order to create a variety of intermediate to advanced garment style patterns that are simulated in 3D on a virtual avatar.

FTT 328
APPAREL DESIGN III: DRAPING
3, 2/2
Prerequisites: Prerequisites: FTT 109 and FTT 224 or permission of instructor. Clothing design using the draping technique is a pattern-making method that is visual and aesthetic. Emphasis is on the creation of basic garment patterns using draping method. Experience with the manipulation of a variety of two-dimensional fabrics to cover three-dimensional forms using a variety of fabrics to achieve individualized designs.

FTT 329
DESIGNING KNIT APPAREL
3, 2/2
Prerequisites: FTT 109, FTT 224, or permission of instructor. Design/construction of garments utilizing various types of knit fabrics. Pattern-making practices of the knitwear industry, including industrial methods of measuring, sewing, and finishing original knit designs.

FTT 348
HISTORY OF COSTUME
3, 3/0
Survey of dress from earliest period to the present with emphasis on the societal influences that evoke changes in and recurrence of fashion trends.

FTT 349
HISTORY OF TEXTILES
3, 3/0; NW/IF
Prerequisites: FTT 206 and junior standing or permission of instructor. Political, cultural, and economic effects of textile production throughout the world. Use of fibers, yarns, fabric construction, color application, and finishes in relation to development of technology, labor movements, and social issues during historic periods on a global basis. Equivalent courses: FTT349W, FTT449

FTT 350
FASHION MERCHANDISING APPLICATIONS
3, 3/0
Prerequisite: FTT 250. Hands-on experience with spreadsheet package used in the retailing industry for tasks, such as inventory management, pricing, assortment planning, etc. Strategies for next season/next year based on analysis and evaluation of data. Preparation of profit/loss and presentation of financial report using PowerPoint.

FTT 355
RESEARCH IN FASHION MERCHANDISING
3, 3/0
Prerequisite: FTT 150. Introduction to merchandising research; exploration of various research techniques; characteristics of qualitative and quantitative studies.

FTT 358
FASHION FORECASTING AND CONSUMER ISSUES
3, 2/2
Prerequisite: Prerequisite: FTT 110, FTT208 or permission of instructor. Study of designer's work; consumer segmentation and adoption process; analysis of current trends in apparel in order to forecast for specific markets; storyboard presentation.

FTT 359
VISUAL MERCHANDISING
3, 3/0
Prerequisites: FTT 250 or Instructor’s permission. Importance of visual merchandising in the landscape, with an emphasis on the principles and techniques needed to create strong, impactful visual presentations. Topics include a history of window display and its transition to visual merchandising; design and composition; tools and materials used in the field; mannequins and use of props; lighting and signage; installation of presentations; visual merchandising’s place in store and corporate hierarchy; store design and planning; computers and visual planning; safety.

FTT 410
ADVANCED PRODUCT DEVELOPMENT
3, 3/0
Prerequisite: Prerequisite: FTT 306, 310, or permission of instructor. Advanced apparel production: principles and practices of sourcing raw materials and the costing of finished garments; types of production systems and the sequence of construction operations used to produce selected items of apparel.

FTT 412
CAD: APPAREL AND TEXTILE DESIGN FOR INDUSTRY
3, 2/2
Prerequisite: FTT 206, FTT 208, or permission of instructor. Advanced techniques for off-the-shelf design software; development of basic understanding and design skills on an industrial print pattern design system; market research relative to textile/apparel coordinate product development; advanced textile/apparel coordinate product development; advanced apparel/textile design portfolio development for professional product presentation.

FTT 413
CAD: WEAVE FOR INDUSTRY
3, 2/2
Prerequisite: FTT 206, FTT 208, or permission of instructor. Transition of designing woven designs on paper to industrial design software; develop colorways for repeat designs on 8 harness looms; designs are applied to end products for merchandising collections targeting specific markets; advanced portfolio-quality presentations.

FTT 450
ISSUES IN FASHION AND TEXTILE INDUSTRY
3, 3/0
Prerequisites: FTT 110, FTT 206, FTT 306, FTT 310 or permission of instructor. Integration of tracks in fashion textile technology. Overview of global issues facing the textile and apparel industry. Differing methods of organization and their inherent structural characteristics; national and international scope of the industry related to textiles, merchandising, and apparel manufacturing companies. Discussion of contemporary issues in American textile and apparel industry, including governmental controls, global trade policies, and labor issues. Equivalent course: FTT450W

FTT 451
SENIOR PROJECT
3, 3/0
Prerequisites: FTT 308 and instructor permission. Fashion students must have completed: 1) up to and including all FTT 300 level core courses, and 2) all their 300 level required courses for their respective areas of concentration-apparel design and product development.
FTT 452
FASHION SHOW PRODUCTION
3, 2/2
Prerequisite: Upper-division status or permission of instructor. Planning and production of a fashion-promotion event. Utilization of fashion skills to participate in individual and group activities leading to the presentation of a major fashion show.

FTT 455
ISSUES IN MERCHANDISING AND FASHION RETAILING
3, 3/0
Prerequisite: FTT 250 or permission of instructor. Theory, principles, and practice of apparel merchandising to retail sector; marketing structures at retail level; responsibilities at management level; financial and control functions; case-study analysis.

FTT 461
SENIOR SEMINAR IN FASHION PRODUCT DEVELOPMENT
3, 2/4
Prerequisites: FTT 310 and FTT 326 or instructor permission. Capstone experience for Product Development students which requires the integration of design, production, and marketing of a fashion-related product. The class will utilize a team approach and emphasize decision-making skills.

FTT 475
SENIOR SEMINAR IN FASHION MERCHANDISING AND MARKETING
3, 3/0
Prerequisites: None. This course provides an in-depth examination of the strategies for writing a successful grant funding application in the field of education. Students participate in all aspects of the grant development process, including identifying agency strengths, researching potential funding sources and opportunities, writing application materials, developing budgets, and creating evaluation plans.

FTT 488
INTERNSHIP/FIELD EXPERIENCE
1-6, 0/0
Prerequisites: Upper-division status and permission of instructor. Provides an opportunity to integrate academic knowledge in guided and supervised field experiences (experiential learning) with institutions, businesses and educational organizations, social and/or government agencies in area of interest to students as part of their degree program. Approval for experiential learning situations must be obtained from either the student's adviser or the department chair within which the student is a major, the supervising faculty member, and the chair of the department within which the credit will be given. Internship includes structured, supervised field participation, meetings with instructor for response to experiences, and written or other assignments. Students must have at least a 2.5 GPA and background within the area of interest to be considered for this experience. May be taken for a maximum of 6 credits.

FTT 495
SPECIAL PROJECT
1-3, 0/0

FTT 497
WORKSHOP
1-3, 0/0

FTT 499
INDEPENDENT STUDY
3-12, 0/0

GEG 101
WORLD NATURAL ENVIRONMENTS
3, 3/0; NSIF
Nature of geography; earth-sun relationships; maps and map interpretation; and classification, distribution, and origins of the major elements of the natural environment: weather, climates, soils, natural vegetation, landforms, and developmental processes.

GEG 102
HUMAN GEOGRAPHY
3, 3/0; SSIF
Introduction to cultural geography through the application of five themes: religion, diffusion, ecology, interaction, and landscape. The distribution of value systems, ethnicity, language, religion, and population as indices of human variety. Cultural impacts of globalization.

GEG 120
CAVERN STUDIES
1, 1/0
The development and unique environment of solution caves. Students will explore caves while on a weekend field trip, studying cave development and the formation of depositional features. Other topics include cave climatology, biology, chemistry, and the application of survey/mapping techniques.

GEG 199
INTRODUCTION TO COMPUTER USE IN THE SOCIAL SCIENCES
3, 3/0
Hands-on introduction to the application of computers to applied social research problems. Includes review of past practices, current uses, and future trends. Students analyze data using computers to develop insight into the use of computers for social improvement.
 Equivalent course: SOC199, SST199

GEG 206
GEOGRAPHY OF NEW YORK STATE
3, 3/0
Landforms, regions, climates, and natural resources; distribution of population; location and functions of cities; development of transportation; utilization and conservation of soil, mineral, forest, wildlife, and water resources; industrial development.

GEG 241
METEOROLOGY
3, 3/0; NSIF
An introduction to weather, including the makeup of the atmosphere, seasonality, heat and radiation balance, temperature, humidity, and precipitation, atmospheric motion, atmospheric pressure and wind, air masses and fronts, severe weather, meteorological instrumentation, local weather, climate controls, and synoptic forecasting. Includes laboratory modules. Emphasis on the relationship between weather systems, technology, and humans.
 Equivalent course: GES241

GEG 300
WORLD REGIONAL GEOGRAPHY
3, 3/0
National and state geography standards; concept of region; map essentials; physical, cultural, economic, and political geography fundamentals within selected regions.
 Equivalent course: GEG200

GEG 303
GLOBAL CLIMATOLOGY
3, 3/0
Prerequisite: GEG 101. Study of the earth’s climate through analysis of climatic controls, classification schemes, and feedback cycles. Includes an examination of past climates and global climate change scenarios.
 Equivalent course: GEG303W

GEG 305
PRINCIPLES OF ECONOMIC GEOGRAPHY
3, 3/0
Prerequisite: ECO 202. Introduction to the theoretical study of economic geography; location theory; theoretical spatial distribution of economic activities, including agriculture, manufacturing, urban land use, services, and transportation.

GEG 307
CONSERVATION AND ENVIRONMENTAL MANAGEMENT
3, 3/0; TSIF
Prerequisites: One natural science course. Globalization, recent technological advancement, and effects on resource conservation and environmental management in the face of increased pressure from society. Current resources, globalization of environmental issues and pollution, new technologies and economic impacts.
GEG 309
URBAN GEOGRAPHY
3, 3/0; DIIF
Prerequisite: One social science course. Internal spatial structure of American metropolitan areas and their relationships. Spatial arrangements of land uses; ethnic, racial and economic composition of the population; dynamics of population growth and change; influence of minorities on cities and suburbs; geographic consequences of poverty and segregation on growth and change; transportation and fiscal problems confronting local governments.
Equivalent course: GEG309W

GEG 310
URBAN TRANSPORTATION PLANNING
3, 3/0
Prerequisite: GEG 309 or PLN 315. Comparative study of the modes of transportation, transportation planning, and the benefits and effects of transportation. Emphasis on application to urban transportation. The importance of accessibility to the development of a modern metropolitan transportation system.
Equivalent course: PLN310

GEG 316
WATERSHED POLLUTION
3, 3/0
Prerequisites: CHE 101 or equivalent. Important pollutants and toxic chemicals generated by anthropogenic activities and their transport, transformation, and fate within watersheds. Impacts of these pollutants on soil, forest, and aquatic ecosystems using specific case studies.

GEG 325
MAPS AND MAPMAKING USING GIS
3, 3/0
Prerequisites: GEG 199 or CIS 101 or competence in computing. Maps as essential form of communication. Geographic information systems (GIS) tools for creating digital and hardcopy maps. Spatial thinking concepts, principles and methods of mapmaking; map development and display using technology.
Equivalent course: PLN325

GEG 330
LAND RESOURCE ANALYSIS AND PLANNING
3, 3/0
Prerequisite: PLN 315. The principles of land resource management with emphasis on land-use patterns, controls, and policies. Attention to urban, suburban, and rural land-use situations.
Equivalent course: PLN330

GEG 345
BAHAMAS FIELD EXPERIENCE
3, 1/4
Prerequisites: Sophomore or higher standing. A 10-day field study of San Salvador, Bahamas. Coral reefs, sand flats, karst landscapes, vegetation, dunes, caves, indigenous peoples, Columbus' landfall, historic sites, island culture. Emphasis on lab and field activities.

GEG 359
ARCTIC GEOGRAPHY FROM AN INUIT PERSPECTIVE
3, 3/0; NWIF
Prerequisite: One Social Science Course. A study of the physical, political, economic and cultural environments of Arctic regions from an Inuit perspective. Topics focus on interaction between the Arctic environment and its peoples before and after Euro-American contact. Students will also study contemporary issues in today's Arctic.

GEG 360
GEOGRAPHY OF ASIA
3, 3/0; NWIF
Prerequisite: One social science course. A regional geographic analysis of south, east, and southeast Asia. Overview of the continent's natural environment. Examination of the principal elements of the cultural environment: demography and ethnicity, urbanization, economy, and political structure. Interaction between the physical and cultural environments.
Equivalent course: GEG205

GEG 362
GEOGRAPHY OF THE UNITED STATES AND CANADA
3, 3/0
Prerequisite: One Social Science Course. Basic geographic elements of North America including the natural environment, natural resources, economic activities, population, and urbanization.
Equivalent course: GEG202

GEG 364
GEOGRAPHY OF EUROPE
3, 3/0; WCIF
Prerequisite: One social science course. Physiographic regions, landforms, climate, vegetation, soils, and drainage patterns. Culture regions, language, religion, population, migration, politics, economics, and impacts on the natural environment. Interdependence of regions within Europe and within the global context. Excludes the former Soviet Union.
Equivalent course: GEG252

GEG 365
SOIL SCIENCE AND MANAGEMENT
3, 3/0
Prerequisite: GEG 101 or GES 101. Introduction to the study of soils, including physical and chemical properties, weathering and soil formation, productivity and management for agriculture, soil erosion and conservation, engineering properties, soil classification. Includes regular laboratory assignments and fieldwork to enhance understanding of soil properties.

GEG 375
PRINCIPLES OF HYDROLOGY
3, 3/0
Prerequisite: GEG 101 or GES 101. Principles of hydrology and its relationship to water resource management. Emphasis on describing the processes governing surface and groundwater movement. Field trip provides example of the practical application of hydrologic principles.

GEG 382
WEATHER FORECASTING
3, 3/0
Prerequisites: Upper-division status and GEG 101 or GEG 240 or GES 241. A focus on synoptic and dynamic meteorology, as applied to weather forecasting. Weather conditions will be diagnosed using various case studies. Learn how to develop and to present weather forecasts. Emphasis on practice and interpretation of daily weather and modeled data.
Equivalent course: GES445

GEG 383
SEVERE AND UNUSUAL WEATHER
3, 3/0
Prerequisites: GEG 101 or GEG 241 or GES 241 or equivalent. In-depth look at meteorological phenomena related to severe and unusual weather-related events and patterns, weather-analysis tools, climate-change outlooks, and social implications; planning and management strategies to prepare and respond to severe and unusual weather.

GEG 384
ATMOSPHERIC SCIENCE
3, 3/0
Prerequisite: Upper-division status. Study of the earth's atmosphere as a unique place. Emphasis on atmospheric structure and composition, dynamics of motion, moisture and clouds, atmospheric chemistry, regional and local air pollution, aurora displays, and optical phenomena. Includes a study of atmospheres ranging from those of other planets to indoor air.

GEG 385
PALEOClimatology
3, 3/0
Prerequisite: GEG 101. Methods and theories used in reconstructing and dating past climates. Focus on the past 2 million years, including proxies such as ice cores, sediment sequences, packrat middens, tree rings, corals, and historical data. Causes of climate change and human interactions emphasized.

GEG 386
APPLIED CLIMATOLOGY
3, 3/0
Prerequisites: Upper-division status; GEG 101, GEG 241 or GES 241. Use of climatic information in various aspects of our lives to solve
practical problems with environmental, social, and economic implications. The importance of climate on agriculture, human health, severe weather management, litigation, commerce, architecture, and city planning.

GEG 390 QUANTITATIVE METHODS IN GEOGRAPHY AND PLANNING 3, 3/0
Prerequisites: Upper-division status and GEG 199 or CIS 101 or competence in computing. Introduction to statistical methods with a focus on spatial and time-series data analysis in geography and planning applications. Statistical theory is reinforced through application of commonly used computer software to solve real-world problems. Equivalent course: PLN 390

GEG 396 RESEARCH METHODS 3, 3/0
Prerequisites: GEG 199, GEG/PLN 390, and GEG 101 or competence in computing. Research designs, methods relevant to conducting research in geography and planning. Research designs and methodologies for approaches with human subjects, human/social geography, physical geography, field-based research, and planning projects. Development of a research project proposal. Equivalent courses: GEG 396W, PLN 396, PLN 396W

GEG 405 URBAN ANALYSIS USING GIS 3, 3/0
Prerequisite: GEG or PLN 325. Growth of cities in a national system. Relationships among cities. Regional growth within the national system. Central place theory and urban hierarchies. Role of urban geography in urban planning. The role of planning on a regional scale.

GEG 409 INDUSTRIAL GEOGRAPHY 3, 3/0
Prerequisites: Upper-division status. The manufacturing sector, firms, and industrial location process and activities that have taken place in the United States; production methods and processes; industrial districts and the principal factors that affect the locations of firms; local and regional development; globalization. Equivalent courses: ECO 409, GEG 409W

GEG 415 PROSEMINAR 3, 3/0
Investigation, examination, and discussion of topics of current interest in geography. Techniques and analysis of geographic research.

GEG 416 GEOGRAPHIES OF DEVELOPMENT 3, 3/0
Prerequisites: Upper division status. Development theories, progress, issues, and challenges in developing regions around the globe. In-depth analyses of factors influencing development policies and outcomes; impact of globalization on development efforts and practices in developing areas around the world.

GEG 418 REMOTE SENSING 3, 3/0
Prerequisites: GEG or PLN 325. Concepts of remote sensing and its applications. Principles and methods of electromagnetic radiation, aerial and space remote sensing. Basics of digital image processing, spatial data capture and interpretations from remote sensors.

GEG 419 GLOBALIZATION, TECHNOLOGY, COMPETITION, AND SERVICE ECONOMIES 3, 3/0; TSIF
Prerequisite: GEG 101 Examination of globalization, technological advancements in recent years, and their effects on the service industry and competitiveness of firms and nations. In-depth studies of the U.S. service sector, competitive strategies, globalization, and new technologies.

GEG 421 WATERSHED ANALYSIS 3, 3/0
Prerequisites: Upper-division status; GEG 101 or GES 101. Introduction to the systematic analysis of stream dynamics of watersheds and the impact of humans on these dynamics. Emphasizes the importance of physical, chemical, and biological processes in watershed management. Class discussion and a class project will focus on a practical watershed assessment problem.

GEG 423 BIOGEOGRAPHY 3, 3/0
Prerequisite: Upper-division standing. Global patterns of species distributions and the historic, environmental, and biological processes underlying these patterns. Spatial patterns of nature's geographic variation at multiple levels, from individuals to ecosystems to biomes. Impacts of humans and climate change on biogeography.

GEG 425 FUNDAMENTALS OF GIS 3, 3/0
Prerequisites: GEG 199 or CIS 101 or competence in computing; and GEG/PLN 325. Principles and methods of spatial data capture, automation, models and structures of spatial databases, spatial analysis, visualization, and map display in Geographic Information Systems (GIS) environment. Fundamentals of spatial analytical methods including spatial database query, location and geographic coordinate concepts, spatial geocoding, buffering, map overlay, and spatial modeling.

GEG 427 CORPORATE APPLICATIONS IN GIS 3, 3/0
Prerequisites: GEG 199 or CIS 101 or GEG 325 or PLN 325. This course is composed of a series of lectures, class assignments and projects that are designed to teach students the fundamentals and application of Geographic Information Systems (GIS) and geographic analysis within a business environment. Students will learn how to conduct specialized business GIS-related projects. These projects range from data integration to market assessment and site assessment.

GEG 428 ENVIRONMENTAL ASSESSMENT AND PLANNING APPLICATIONS IN GIS 3, 3/0
Prerequisite: GEG 425 or equivalent. Advanced concepts of GIS with a focus on spatial analytical applications in GIS for environmental assessment and planning. GIS theories and software implementations are presented through lecture and hands-on practice to solve real-world environmental and planning problems.

GEG 429 ADVANCED TOPICS IN GIS 3, 3/0
Prerequisites: GEG 425 or equivalent statistics course with permission of instructor. Builds from the topics covered in GEG 425 Fundamentals of GIS, focusing more on digital representation of the human and physical environment, including location referencing from a human perspective, database design, data quality issues (how to identify and document errors), spatial statistical analysis using GIS, the fourth dimension (time) in GIS, and understanding spatial analysis algorithms and models. Introduces programming in a GIS environment.

GEG 430 SENIOR THESIS 3, 3/0; OCIF
Prerequisites: GEG/PLN 390 and GEG/PLN 396 C or better and senior geography or planning major. Research in geography or planning and presentation of selected research-related topics. Equivalent courses: GEG 430W, PLN 430, PLN 430W

GEG 461 ISSUES IN SOUTHEAST ASIA ENVIRONMENT AND SUSTAINABLE DEVELOPMENT 3, 3/0; OCIF
Prerequisite: GEG 360 and Junior or senior standing. Geography, environmental problems, and solutions using a sustainable development framework for countries of Southeast Asia. Sustainable development and
environmental management theory in the context of case studies for the region.

GEG 478
GLOBAL CHANGE
3, 3/0
Prerequisite: GEG 101. Interdisciplinary study of the principles needed to understand human impacts on the natural environment. Climate variability and global warming; nutrient cycling; land-use issues; connections and feedbacks among climate, ecosystems, and biogeochemistry; impacts of global change on society; policy measures; potential solutions.

GEG 480
AIR POLLUTION APPLICATIONS
3, 3/0
Prerequisites: Upper-division status; GEG 101; GEG 199 or an equivalent course, GEG 384, and GEG 390 or an equivalent course. Receptor, dispersion, and risk assessment modeling techniques to determine the source, fate, and impact of air pollutants. Overview of atmospheric deposition, regional transport, and global circulation models.

GEG 485
INTERACTIVE AND WEB-BASED MAPPING
3, 3/0
Prerequisite: GEG or PLN 325 Different approaches to communicating with maps on the Internet. How to create Web-based mapping applications.

GEG 488
INTERNSHIP
1-12, 0/0
Prerequisites: GEG 101 and 6 credit hours of geography or planning coursework at the upper-division level; minimum cumulative GPA of 2.5; background of courses or experience within area of interest; adviser and department chair permission. Guided, supervised field experiences that complement the academic program.

GEG 495
SPECIAL PROJECT
1-3, 0/0

GEG 499
INDEPENDENT STUDY
3-12, 0/0

GER - GERMAN

GER 101
BEGINNING GERMAN I
3, 3/0; FLA
Fundamentals of German with emphasis on the spoken and written language.

GER 102
BEGINNING GERMAN II
3, 3/0; FLA
Prerequisite: GER 101. Continuation of GER 101.

GER 201
INTERMEDIATE GERMAN I
3, 3/0; FLA
Prerequisite: GER 102. Further development of basic skills with emphasis on reading and writing.

GER 202
INTERMEDIATE GERMAN II
3, 3/0; FLA
Prerequisite: GER 201. Continuation of GER 201.

GER 301
GERMAN CONVERSATION AND COMPOSITION I
3, 3/0
Prerequisite: GER 202. Practice in spoken and written German with emphasis on the spoken language.

GER 302
GERMAN CONVERSATION AND COMPOSITION II
3, 3/0
Prerequisite: GER 202. Practice in spoken and written German with emphasis on the written language.

GER 337
MODERN GERMAN LITERATURE IN TRANSLATION
3, 3/0
Prerequisite: One literature course. Literary trends, ideas, and techniques of modern German literature as manifested in selected works of major German literary figures. German minors must obtain department chair and course instructor permission.

Equivalent courses: GER337W, HUM337

GES - GEOSCIENCES

GES 101
INTRODUCTORY GEOLOGY
3, 3/0; NSIF
Introduction to physical geology; the earth and the processes operating on and within it; the formation of rocks and minerals; volcanoes, earthquakes, mountain building, continental drift, plate tectonics, glaciers, and the ice ages. Concurrent registration in GES 103 is recommended for geology and earth science majors.

GES 111
GENERAL OCEANOGRAPHY
3, 3/0; NSIF, TSIF
Introduction to the science of the sea, including biological, physical, chemical, geological, and environmental aspects of oceanography. Equivalent course: GES111W

GES 131
INTRODUCTORY ASTRONOMY
3, 3/0; NSIF
Non-mathematical survey of the astronomical universe. Survey of the sun, planets, ns, comets, stars, and galaxies. Observation, planetarium, and laboratory sessions supplement lectures.

GES 223
ENVIRONMENTAL EARTH SCIENCE
3, 3/0; NSIF, TSIF
An investigation of the impact of society on the natural environment. Examines natural resources; global climate change; and soil, water, and land use issues. The complex interrelationship of global systems and societies' attempts to control or alter them. The unique perspective of geoscientists to environmental issues.
GES 224
GEOLOGIC HAZARDS
3, 3/0; NSIF
Catastrophic geologic events, with an emphasis on earthquakes, volcanism, and landslides. Includes causes, physical effects, prediction, and social implications.

GES 232
THE SOLAR SYSTEM
3, 3/0; NSIF, TSIF
Makeup and characteristics of our solar system; formation hypotheses; geologic processes acting on solar system bodies; comparison of the planets; the search for other solar systems and life elsewhere. Expansion of solar system exploration due to advances in technology and its effect on society.

GES 241
METEOROLOGY
3, 3/0; NSIF
An introduction to weather, including the makeup of the atmosphere, seasonality, heat and radiation balance, temperature, humidity, and precipitation, atmospheric motion, atmospheric pressure and wind, air masses and fronts, severe weather, meteorological instrumentation, local weather, climate controls, and synoptic forecasting. Includes laboratory modules. Emphasis on the relationship between weather systems, technology, and humans.

GES 300
SEDIMENTOLOGY
3, 2/2
Prerequisites: GES 101 and GES 103. Introduction to the dynamics of erosion, transport, deposition of sedimentary particles, modern and ancient sedimentary environments.

GES 301
STRATIGRAPHY
3, 3/0
Prerequisites: GES 101, GES 103, and GES 300. Prerequisite or corequisite: GES 102. Basic principles and interpretation of the stratigraphic record, with emphasis on the practical application of stratigraphic data in interpretation of earth history and exploration for fossil fuels and groundwater resources.

GES 302
INVERTEBRATE PALEONTOLOGY
4, 3/2
Prerequisite: GES 101. Prerequisite or corequisite: GES 102. Invertebrate fossils and their stratigraphic distribution.

GES 303
MINERALOGY AND PETROLOGY
4, 3/3
Prerequisites: GES 101 and GES 103; one semester chemistry recommended. Crystals, minerals, and rocks, emphasizing description, identification, and origin.

GES 307
GEOMORPHOLOGY
4, 3/3; OCIF, TSIF
Prerequisite: GES 101 or GEG 101. Internal and external processes and structural controls that shape the surface of Earth and other solid solar system bodies. Emphasis on selected geologic environments. Field trips required.

GES 310
GREAT LAKES ENVIRONMENTAL ISSUES
3, 3/0
Prerequisite: Upper-division status or permission of instructor. Introduction to environmental problems and their causes in the Great Lakes region. Environmental history of the Great Lakes. Case studies of current environmental problems and ongoing restoration efforts.

GES 314
GEOLOGICAL OCEANOGRAPHY
3, 3/0
Prerequisite: GES 111 or equivalent. The sediments, structure, and history of the ocean basins.

GES 315
MARINE ENVIRONMENTS
3, 3/0
Prerequisite: GES 111 or equivalent. Survey of coastal and deep-sea environments, with focus on the interaction of physical, chemical, biological, and geological processes operating in each. Emphasis on coastal environmental issues, including shoreline erosion and sea-level rise, coastal development, and marine pollution.

GES 331
MODERN SOLAR SYSTEM ASTRONOMY
3, 3/0
Prerequisite: GES 131 or equivalent. The n and planets, their appearance, atmospheres, and surfaces. Planetary magnetic fields, asteroids, meteoroids, comets. Theories of the origin of the planetary system, the possibility of extraterrestrial life. Emphasis on recent problems in our understanding of the solar system.

GES 332
STELLAR AND GALACTIC ASTRONOMY
3, 3/0
Prerequisite: GES 131 or equivalent. How astronomers have determined the properties, energy, masses, and composition of stars, stellar evolution, the structure of the galaxy, and the movement of stars in the galaxy.

GES 335
METHODS OF OBSERVATIONAL ASTRONOMY
3, 3/0
Prerequisite: GES 131 or equivalent. Locating celestial objects in the night sky. Use of astronomical telescopes to locate, observe, and photograph stars, nebulae, and galaxies. Use of observing aids.

GES 339
ASTRONOMY AND COSMOLOGY
3, 3/0
Prerequisite: GES 131 or equivalent. Cosmology, the primeval fireball, quasars, pulsars, black holes, origin of the elements.

GES 332
ENVIRONMENTAL GEOCHEMISTRY
3, 3/0
Prerequisites: GES 101 and upper-division status. Chemical nature of the earth, emphasizing chemistry associated with the polluted environment.

GES 336
FORENSIC GEOSCIENCE
3, 2/2
Prerequisite: Upper-division status or permission of instructor. Application of the principles of earth science to the law. With a "hands-on" approach, and details from actual criminal cases, introduces a variety of geological subjects such as rock and mineral types, geological and topographical maps, fossils, sand and soil.

GES 401
IGNEOUS AND METAMORPHIC PETROLOGY
4, 3/3
Prerequisite: GES 303 or permission of instructor. Description, origin, and classification of igneous and metamorphic rocks.

GES 403
GLACIAL GEOLOGY
3, 3/0
Prerequisite: GES 307. Glacial processes, landforms, and landscapes, with emphasis on New York State. Develops a model for the sequence of glacial events and the causes of climate change. Field trips.

GES 404
FIELD GEOLOGY
3, 2/2
Prerequisites: GES 101, GES 303, and GES 308, or permission of instructor. Application of geological principles and techniques in the interpretation of earth features in the field.

Equivalent course: GES214
GES 405  
**GEOLOGY OF NORTH AMERICA**  
3, 3/0  
Prerequisites: GES 101 and GES 102. Major physical provinces of the United States and adjacent areas; their geologic history, structure, and topographic development.

GES 408  
**STRUCTURAL GEOLOGY**  
4, 3/3  
Prerequisites: GES 101 and GES 103. Folds, faults, and other structural features in sedimentary and metamorphic terrains. Introduction to rock mechanics, regional tectonics.  
Equivalent course: GES 308

GES 409  
**FLUVIAL GEOMORPHOLOGY**  
3, 3/0  
Prerequisite: GES 307. The variables that influence the behavior of water flowing on the surface of the earth. The effects of flowing water on the landscape. Emphasis on field and lab work.  
Equivalent course: GES 409W

GES 410  
**UNDERGRADUATE RESEARCH SEMINAR**  
1, 1/0  
Prerequisites: GES 101, GES 103, and instructor permission. Common topics related to undergraduate research in the geosciences including research methods, handling data, making interpretations, preparing for oral and poster presentations, and preparing for graduate school and professional geology. Must be engaged in (or planning) research with an Earth Sciences faculty member. May be taken more than once.

GES 431  
**PLANETARIUM SEMINAR**  
3, 2/2  
Prerequisites: Two semesters of astronomy. The celestial sphere; operating, maintaining, and administering the planetarium; audiovisual aids in the planetarium; planetarium programming; using the planetarium to teach. Includes supervised teaching experience.  
Equivalent course: GES 431W

GES 450  
**FIELD GEOLOGY**  
3, 2/3  
Prerequisites: GES 101, GES 303, and GES 408, or permission of instructor. Application of geological principles and techniques in the interpretation of earth features in the field.  
Equivalent courses: GES 404, GES 450W

GES 452  
**HYDROGEOLOGY**  
3, 3/0  
Prerequisites: GES 101 or GEG 101 and at least one 300-level GES course. Fundamentals of the occurrence, movement, and management of our largest resource of readily available fresh water. Includes groundwater protection and remediation of already contaminated supplies to increase environmental awareness.

GES 460  
**ENVIRONMENTAL FIELD METHODS AND ANALYSIS**  
3, 2/2; OJIF  
Prerequisites: GES 101, one 300-level GES course, and college algebra. GES 350 is strongly encouraged. Applied study of environmental contaminant migration and distribution with particular emphasis on sampling and detection methods. Discussion of federal and local environmental laws and regulations, classification of hazardous chemicals, and remediation approaches used by environmental professionals.

GES 465  
**TECTONICS**  
3, 3/0  
Prerequisites: GES 101, GES 308W (or equivalent), upper-division status. Advanced principles, evidence and examples of the plate tectonics paradigm as the unifying theory of geology. Topics include kinematics of plates, the nature of plate boundaries and the analysis of theories involved in the current and historical design of the paradigm. Required term project and oral presentations.

GES 488  
**INTERNSHIP**  
3-12, 0/0  
Prerequisites: Senior status as department major, 2.5 GPA overall. Requires department application and approval. Practical work on an individual basis with a participating organization.

GES 495  
**SPECIAL PROJECT**  
1-3, 0/0  
Prerequisite: Approval of a faculty sponsor. Environment-, energy-, geology-, or astronomy-related areas.

GES 498  
**HONORS RESEARCH**  
1-3, 0/0  
Prerequisite: Acceptance in geology or earth science honors program. Includes completion of honor's thesis and seminar. May be repeated for a maximum of 6 credit hours.

GES 499  
**INDEPENDENT STUDY**  
3-12, 0/0  
Prerequisite: Faculty sponsor permission. Environment-, energy-, geology-, or astronomy-related areas.

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**GRK - GREEK**

GRK 101  
**BEGINNING NEW TESTAMENT GREEK I**  
3, 3/0; FLA  
Fundamentals of Koine Greek with emphasis on reading.

GRK 102  
**BEGINNING NEW TESTAMENT GREEK II**  
3, 3/0; FLA  
Prerequisite: GRK 101. Continuation of GRK 101.

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**GST - GLOBAL STUDIES**

GST 100  
**INTRODUCTION TO GLOBAL STUDIES**  
3, 3/0  
Prerequisites: None. Introduction to key concepts, issues, and approaches used in Global Studies including social, political, historical, economic, and geographic perspectives. Topics include migrations, diasporas, the global image of the United States, intercultural conflicts, and study abroad programs. Required for Global Studies minor.  
Equivalent course: IST 100

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**HEW - HEALTH AND WELLNESS**

HEW 204  
**PERSONAL HEALTH**  
3, 3/0  
The many problems and advances in medicine and public health as they affect the health status of the individual, family, school, and community.  
Equivalent course: HSC 204

HEW 225  
**INTRODUCTION TO DISEASE PREVENTION**  
3, 3/0  
Introduction to the general principles of disease. Etiology, signs, symptoms, treatment, and management of diseases that affect individual organs in the various body systems.

HEW 279  
**PHYSICAL ADAPTATION TO EXERCISE**  
3, 3/0  
Prerequisite: BIO 100 or BIO 101. Introduction to concepts of human anatomy and physiology as related to exercise and human performance. Includes, but not limited to, an introduction to the major systems of the body as they relate to exercise. Functions and purpose of the musculoskeletal system and cardiorespiratory system in healthy
populations. Introduction to the roles of energy systems during physical activity and exercise.

HEW 301
KINESIOLOGY: APPLIED ANATOMY AND BIOMECHANICS
3, 3/0
Prerequisite: sophomore standing. Study of the skeletal, neural, and muscular systems and the biomechanical principles of human movement and their relationship to exercise, fitness, and athletic performance.
Equivalent course: HPR301

HEW 302
EXERCISE PRINCIPLES
3, 3/0
Prerequisite: HEW 279. Exercise and its effects on the human body. Practical knowledge of the principles of fitness testing and exercise prescription and application of knowledge to improve fitness and athletic performance in healthy human populations.
Equivalent course: HPR302

HEW 305
COMMUNITY HEALTH
3, 3/0
Prerequisite: HEW 225. Community health as it relates to world concerns, U.S. interests, and local community concerns. The interrelatedness of health care to various sociatal issues.

HEW 307
EXERCISE, FITNESS, AND NUTRITION
3, 3/0
Prerequisite: HEW 279. Basic concepts of nutrition and exercise training to improve fitness and athletic performance. The relationship of exercise and nutrition to the etiology and treatment of eating disorders and obesity.
Equivalent course: HPR307

HEW 308
WOMEN'S HEALTH ISSUES
3, 3/0
Prerequisite: Upper-division status. Gender differences in health outcomes, health-care practices, and health behavior, with primary emphasis on women. Historical and current perspectives on women's health issues. Part of Women and Gender studies minor.
Equivalent course: HPR308

HEW 310
HEALTH STANDARDS AND EMERGENCY CARE
3, 3/0
Prerequisites: BIO 100 or BIO101 or equivalent. Promotes health and safety standards and provides skills in advanced emergency care. Competencies in various areas of emergency medicine include bandaging, splinting, victim examination, bleeding/shock emergencies, and emergency childbirth. Includes competencies and proficiency in teaching OSHA safety standards for infectious agents.
Equivalent course: HSC310

HEW 312
METHODS AND MATERIALS IN HEALTH AND WELLNESS
3, 3/0
Prerequisite: HEW 204. Materials and instructional methodology necessary to create, select, and deliver health and wellness programs.
Equivalent course: HEW312W

HEW 320
PSYCHOACTIVE DRUGS AND HEALTH
3, 3/0
Prerequisite: Sophomore status. Widespread effects of drug abuse, its relationship to health and disease, and the implication and application for education and therapy.
Equivalent course: HSC320

HEW 327
INTRODUCTION TO MEDICAL ANTHROPOLOGY
3, 3/0; NW/F
Prerequisite: ANT 100 or ANT 101 or permission of instructor. An overview of the history and development of concepts and practices of medicine worldwide. Theories and procedures in illness, sickness, health and well-being in and from a variety of cultural perspectives, historical and contemporary, East and West, Stone Age, folk, shaman, traditional Western and herbal medicine, including healing and religion, homeopathy, and anthropological study of health-care institutions.
Equivalent course: ANT327

HEW 345
WELLNESS, FITNESS, AND AGING
3, 3/0
Prerequisite: Upper-division status. Acquaints students of gerontology with the implications of exercise and physical fitness for the quality of life of older citizens. Covers the aging process and its relationship to physiological factors associated with exercise and fitness. Differences in capacities for exercise. Principles for guiding the selection, programming, and supervision of activities.
Equivalent course: HPR345

HEW 389
TOPICS COURSE
1-9, 1-9/0
Equivalent course: HPR389

HEW 401
ASSESSMENT AND EVALUATION IN HEALTH WELLNESS
3, 3/0
Prerequisite: Upper-division status. Introduction of concepts surrounding assessment and evaluation of health promotion programs. Topics include assessing genetic, social, personal behavioral, and environmental factors. Incorporates health promotion process and planning, such as needs assessment, evaluation measures, research design, and measurement evaluation.
Equivalent course: HPR401

HEW 411
CRITICAL ISSUES IN HEALTH AND WELLNESS
3, 3/0
Prerequisite: Upper-division status. Study of one's interaction with his or her many environments and the implications for health behaviors. Emphasis on current facts and attitudes important in confronting critical health issues.
Equivalent courses: HEW411W, HPR411

HEW 412
HEALTH/WELLNESS PROGRAMS
3, 3/0
Prerequisite: HEW 312. Provides an opportunity to use health/wellness concepts. Covers general principles used in the development of health-promotion programs. Specific procedures involved in a fitness profile analysis. Guidelines for implementing physical fitness, nutrition, and weight-control programs. Procedures for stress-management and smoking-cessation programs. Principles presented in class during practical health-planning experiences used.
Equivalent courses: HEW412W, HPR412

HEW 425
ALCOHOL PROBLEMS
3, 3/0
Prerequisite: Upper-division status. A seminar designed for students as prospective citizens, teachers, supervisors, and voluntary government personnel concerned with individual and community health problems. Emphasis on understanding the widespread effects of alcohol, its relationship to health and disease, and implications for health and therapy.
Equivalent courses: HEW425W, HSC425

HEW 488
INTERNSHIP
1-15, 0/0
Prerequisites: HEW 412W and application to the department. Additional prerequisites apply to selected areas of health/wellness; check with the Health and Wellness Department. The integration of theoretical knowledge with practical field experience in related areas of health and wellness.
Equivalent course: HPR488

HEW 495
SPECIAL PROJECT
1-3, 0/0
Equivalent courses: HPR495, HSC495
international urban development.

technology, and technology as a competitive factor in national and
impact, reforms in housing and health, leisure and consumption
reindustrialization.

Indian villages and colonial towns to high technology
Development and interaction of technology and urban America, from
3, 3/
HISTORY OF AMERICAN
HIS 120

the Atlantic Community. The challenge of the nuclear age.

collective security and the

The Russian Revolution and the rise of communism. Collapse of
socialism, and the concern for political ideology.

and/or similarities between women from various ethnic, racial, religious,
Society's regard for women in a historical context
perceptions of women about society. Political growth and women.
the present. Effects of history on the roles and status of women. Chang
The impact of women on American development from colonial times to

HEW 497
WORKSHOP
1-3, 0/0
Equivalent course: HPR497

HEW 499
INDEPENDENT STUDY
3-12, 0/0
Equivalent courses: HPR499, HSC499

HIS - HISTORY

HIS 106
HISTORY OF AMERICAN LIFE I
3, 3/0; AHIF
Exploration and colonization: the meeting of cultures; colonial America; shaping an identity; contest for the continent; prologue to independence; independence and the new nation; framing a constitution; religious, ethnic, and cultural diversity in the new nation; Jeffersonian Republicanism; nationalism and economic expansion; the emergence of social strains; Jacksonian democracy; religion and reform; expansion and sectional crisis; American life and culture in the mid-nineteenth century; a decade of crisis; the Civil War; aftermath of war. Equivalent course: HIS106W

HIS 107
HISTORY OF AMERICAN LIFE II
3, 3/0; AHIF
The new South; reunion, readjustment, and constitutional freedoms; the West; the economic revolution; the urban society; politics in the Gilded Age; America's emergence as a world power; the Progressive Era; World War I and its aftermath; the 1920s; the New Deal; from isolationism to globalism; World War II; postwar adjustments; the Kennedy and Johnson years; resurgent Republicanism. Equivalent courses: HIS101, HIS107W

HIS 115
FOUNDATIONS OF WESTERN CIVILIZATION
3, 3/0; WCIF
Major contributions of the Greek, Roman, and medieval civilizations to the creation of Western heritage in philosophy, art, literature, science, political structure, economy, and law. Equivalent course: HIS115W

HIS 116
EUROPE SINCE 1500
3, 3/0; WCIF

HIS 117
TWENTIETH-CENTURY EUROPE
3, 3/0; WCIF
Political, social, cultural, and intellectual history of twentieth-century Europe. Factors contributing to World War I. The Versailles settlement. The Russian Revolution and the rise of communism. Collapse of collective security and the rise of fascism and national socialism. Western democracies between the wars. The road to World War II. Restoration of the Atlantic Community. The challenge of the nuclear age. Equivalent course: HIS117W

HIS 120
HISTORY OF AMERICAN URBAN TECHNOLOGY
3, 3/0; TSIF
Development and interaction of technology and urban America, from Indian villages and colonial towns to high technology reindustrialization. American Indian and European traditions, early urban production and planning, industrialism and infrastructure, electricity's impact, reforms in housing and health, leisure and consumption technology, and technology as a competitive factor in national and international urban development.

HIS 189
TOPICS COURSE
1-9, 1-9/0

HIS 204
GLOBAL HISTORY OF THE TWENTIETH CENTURY
3, 3/0
The history of the twentieth century, emphasizing the interrelationship of events and interaction of movements and ideas within a global context.

HIS 210
HISTORY OF MODERN ASIA
3, 3/0

HIS 230
WORLD CIVILIZATIONS I
3, 3/0; NWIF
Origins, cultural achievements, and interrelationships of the various civilizations of the world to approximately 1500 C.E. Topics include the prehistoric era and the origins of human civilization; civilizations of the ancient Near East; early civilizations of Africa and the Americas; East Asian culture and civilization; Indian (South Asian) culture and civilization; Greek and Roman civilization; early civilizations of Southeast Asia; Islamic civilization; the Byzantine empire and medieval Europe.

HIS 231
WORLD CIVILIZATIONS II
3, 3/0; NWIF
Origins, cultural achievements, and interrelationships of the various civilizations of the world from approximately 1500 to 1914 (World War I). Topics include European culture and civilization from the Renaissance to World War I; Islamic civilization in Asia and the Middle East; East Asian culture and civilization in the late traditional era; African culture and politics in an era of European hegemony; colonial Latin American and the independent states of the postcolonial era; the U.S. and Canada; Western imperialism and global interactions in the modern era.

HIS 300
RESEARCH AND WRITING SEMINAR
3, 3/0; OGIF
Prerequisites: CWP 101 and CWP 102. History and social studies education majors only. In-depth instruction on the historical methods of research and writing according to the standards of the profession. Students research, analyze, and interpret historical materials; provide documentation; and communicate lucidly and effectively in writing. Should be taken before enrolling in other upper-division history courses. Equivalent course: HIS300W

HIS 302
HISTORY OF WOMEN IN AMERICA
3, 3/0; DIIF
The impact of women on American development from colonial times to the present. Effects of history on the roles and status of women. Changes in women's role in the family; economic contributions, legal status, struggle for equal rights. Women and demographic changes. Developing perceptions of women about society. Political growth and women. Society's regard for women in a historical context and the differences and/or similarities between women from various ethnic, racial, religious, and socioeconomic groups. Equivalent course: HIS302W

HIS 304
EUROPE FROM NAPOLEON TO THE FIRST WORLD WAR
3, 3/0
Major influences in nineteenth-century Europe; nationalism, imperialism, Industrial Revolution, democracy, and socialism; causes of World War I. Equivalent course: HIS304W

HIS 306
AFRICA TO 1800
3, 3/0; NWIF
Prerequisite: Upper-division status or instructor permission. African history from the Paleolithic period to 1800. Development of agriculture,
ancient civilizations of Africa, iron working societies, the trans-Saharan trade, the impact of Islam and Christianity, traditional African political and social arrangements, the slave trade, and the European presence in early modern Africa.
Equivalent courses: AAS306, HIS306W

HIS 307
HISTORY OF INDIA
3, 3/0; NWIF
Prerequisite: Upper-division status. The history of India from ancient times to the present. Topics include the early Indus civilizations; religion and society in the Aryan age; the birth of Buddhism; Ashoka and the Mauryan Empire; classical Hinduism; Gupta civilization; the impact of Islam; the Mughal Empire; the era of British colonialism; the emergence of modern nationalism; independent India, Pakistan, and Bangladesh.

HIS 308
HISTORY OF EARLY CANADA
3, 3/0
The early history of Canada, from before the commencement of European exploration to the end of World War I Confederation in 1867. Topics include cultural and religious heritage of Canada's native peoples, histories of New France and British North America, the fight for responsible government, Canadian confederation, the challenges facing the new nation, and Canada in World War I.
Equivalent course: HIS308W

HIS 309
AMERICAN LEADERS
3, 3/0
Selected leaders in critical periods or areas of American civilization, such as Benjamin Franklin and revolutionary America; John Marshall and federal power; Booker T. Washington and W. E. B. DuBois; contrasting black leaders; Lincoln Steffens and the muckrakers; Henry Ford and mass production.
Equivalent course: HIS309W

HIS 310
HISTORY OF EAST ASIA: THE TRADITIONAL ERA
3, 3/0; NWIF
Prerequisite: Upper-division status. China, Korea, and Japan before the coming of the West. Traditional cultures, geography, political and religious institutions. Impact of Western ideas and colonialism.
Equivalent course: HIS310W

HIS 311
AMERICAN IMMIGRATION AND EMIGRATION
3, 3/0; DIF
Immigration and ethnicity from the colonial period to the present. World population movements, shifts in governmental immigration policy, the changing meaning of ethnicity and race, and its impact on the immigrant experience. How and why immigrants came, degree of assimilation and alienation, work and leisure experiences, demographics, coping mechanisms, transmission of cultural traditions, and generational differences.
Equivalent course: HIS311W

HIS 312
HISTORY OF ITALY
3, 3/0
Classical and medieval foundation. Renaissance Italy. Prelude to unification. Italian nationalism, liberalism, and socialism. Italy under fascism. The Italian Republic, accomplishments and problems.

HIS 313
POLITICS AND HISTORY OF THE MIDDLE EAST
3, 3/0
Equivalent courses: HIS313W, PSC345

HIS 314
MODERN LATIN AMERICA
3, 3/0
Movements for independence; early political apprenticeship; age of dictators; nationalism and national development; Hispanic-American interrelations; growth of inter-American system; Latin America in world politics; revolution of rising expectations, guerrilla movements, turmoil in Central America; contemporary problems.
Equivalent course: HIS314W

HIS 315
HISTORY OF CLASSICAL AND MEDIEVAL THOUGHT
3, 3/0
Early Western intellectual tradition and the interaction of various modes and traditions of intellectual discourse (music, literature, history, philosophy, natural science) and their impact. Dynamics of cultural development and the influences that have shaped Western civilization.

HIS 316
HISTORY OF MODERN CANADA
3, 3/0
The history of Canada since Confederation in 1867. Topics include Canadian political and social history in the modern age, Canada's foreign policy since Confederation, Canada-U.S. relations, Quebec nationalism, twentieth-century Canadian cities, multiculturalism in modern Canada.

HIS 317
HISTORY OF RUSSIA TO 1917
3, 3/0
Social, political, and economic history of Russia from the Varangians state to the October 1917 Revolution. Effects of geographic locations. The Mongol conquest. Retarded reorientation toward the West in the eighteenth and nineteenth centuries. Participation in world politics. Expansion in Europe and in the East. Participation in World War I.
Equivalent course: HIS317W

HIS 318
HISTORY OF THE FORMER SOVIET UNION
3, 3/0
Economic and historical forces behind the Communist Revolution of 1917. The governmental system and its political, social, and economic theories. The evolving economic system. Soviet foreign policy, impact of the Revolution, and World War II. The church, educational systems, and other cultural developments.
Equivalent course: HIS318W

HIS 319
COLONIAL HISTORY OF THE AMERICAN PEOPLE
3, 3/0
Equivalent course: HIS319W

HIS 320
MODERN HISTORY OF JAPAN AND KOREA
3, 3/0; NWIF
Equivalent course: HIS320W

HIS 321
HISTORY OF MEDIEVAL EUROPE
3, 3/0
Transition from Graeco-Roman to medieval civilization; Islam, Charlemagne, and feudal Europe; crusades; cultural, economic, and political revival of the eleventh-century medieval church and papacy; medieval intellectual synthesis; rise of monarchies, decline of papacy; decline of medieval civilization.
Equivalent course: HIS321W

HIS 322
AFRICAN AMERICAN HISTORY
3, 3/0; DIF
Heritage of black Americans. African Americans' existence under slavery; their role in influencing historical events; activity in the Civil War period; freed men during reconstruction; migrations to the north and adjustment to urban life. African American leaders, institutions, and ideas, and their impact on modern America.
Equivalent courses: AAS322, HIS322W
and independence, the growth of the free state and the revival and religion in Victorian Ireland. Also the question of home rule movements like Young Ireland, the Fenians, and Sinn Fein; cultural eman

centuries: the impact of the union with Britain; the struggle for Catholic

Major factors that shaped Irish history in the nineteenth and twentieth

3, 3/0

Equivalent course: HIS335W

HIS 336
HISTORY OF EARLY MODERN IRELAND
3, 3/0
A focus on the political, economic, and social histories of Ireland in the Early Modern period, ca.1485-1800. An overview of the development of the Irish state, its constituent communities, and relations with England and the British mainland up to the union of 1800. Emphasis is placed on what it meant to "be Irish" in the Early Modern period, and how varying definitions of "Irishness" have affected Ireland's cultural and political history. Reading primary sources and leading and participating in discussions are emphasized.

HIS 337
AFRICA SINCE 1800
3, 3/0; NWIF

Equivalent course: HIS211

HIS 338
MODERN HISTORY OF CHINA
3, 3/0; NWIF
The history of China from the rise of the last imperial dynasty (Qing) in the mid-seventeenth century to the present. Topics include the fall of the Ming dynasty and the Manchu conquest of China, the Chinese state and society under the Qing dynasty, the development of relations between China and the West, the decline of the Qing imperial order, the emergence of modern nationalism and the rise of the Chinese Communist Party, Japanese imperialism and World War II, and the establishment of the People’s Republic of China.

HIS 340
HISTORY OF THE BUFFALO NIAGARA REGION
3, 3/0
The nature of the city, its growth, the dynamics of urban development, the enduring impact of its historical past in relation to its geographical presence. A case study of Buffalo.

Equivalent courses: GEG340, HIS340W

HIS 341
AFRICAN AMERICANS AND CIVIL RIGHTS
3, 3/0
History of the landmark court decisions, laws, and governmental policies regarding the civil rights of African Americans. The course examines some of the historic relationships among race, racism, law, and public policy in America. Focuses on resistance, protest, and the quest for equality in America.

Equivalent courses: AAS341, HIS341W

HIS 342
ENGLISH LEGAL HISTORY
3, 3/0
Origins of English law to 1066, growth of medieval common law, common law and its rivals in sixteenth and seventeenth centuries, consolidation and reform of law and courts, relation of law and equity, criminal and civil jurisdiction and procedure, the legal profession, changing legal concepts and the modern state.

Equivalent course: HIS342W
HIS 344
EMERGENCE OF INDUSTRIAL AMERICA: 1877 TO 1919
3, 3/0
Conservative reaction to reconstruction, decline of the presidency, the triumph of capitalism and industry, populist protest, the end of westward movement, socialization of immigrants, progressive impulse and leadership, rural vs. urban conflict, the United States and the race for empire, and the role of America in World War I. Equivalent course: HIS344W

HIS 345
HISTORY OF THE UNITED STATES SINCE 1941
3, 3/0
Political, diplomatic, social, and cultural history of contemporary America; World War II and the advent of the nuclear age; the Cold War and the policy of containment; the Korean War, McCarthyism, and domestic reform; the New Frontier and the Great Society; civil rights, civil disobedience, and the greening of America; war and peace in Southeast Asia; Watergate and the travail of liberalism. Equivalent course: HIS345W

HIS 350
LEFT AND RIGHT IN EUROPEAN HISTORY
3, 3/0
The evolution of Marxist, anarchist, state socialist, and right radical ideologies in European thought and politics. Equivalent course: HIS350W

HIS 351
MODERN FRANCE
3, 3/0
Selected problems in French political, social, economic, and diplomatic history emphasizing historiography and interpretation of such periods as the restored monarch, the revolution of 1848, the Second Empire, the Third Republic, and its successors. Equivalent course: HIS351W

HIS 354
HISTORY OF THE CARIBBEAN
3, 3/0
Spanish colonization of the Caribbean, pirates and the foreign threat, race relations and the development of colonial society, Cuba rebels against Spain, the Spanish-American War, Cuba and the United States, Castro's revolution, Puerto Rico under U.S. rule, the rise of Puerto Rican nationalism, Puerto Rico today. Equivalent course: HIS354W

HIS 355
HISTORY AND CULTURE OF ARGENTINA
3, 3/0

HIS 356
WORLD WAR I
3, 3/0
The causes, conduct, and implications of the First World War. Through a thematic and narrative treatment, students will study the war and its implications for global society in the twentieth century and beyond.

HIS 357
WORLD WAR II
3, 3/0
The issues that led to the outbreak of the Second World War and its global dimensions. Campaigns, theaters of operations, as well as the process of decision making by Allied and Axis Powers. Also, the social dimensions of the war: experiences on the home fronts, the Holocaust, and the impact of the war on the modern world.

HIS 358
HISTORY AND CULTURE OF PARAGUAY
3, 3/0
Prerequisites: Upper class standing. Paraguay’s pre-contact cultures and societies, isolated colonial era, the dramatic War of the Triple Alliance, the Chaco War, securing the vast Chaco region and the longest dictatorship in the hemisphere of Alfredo Stroessner.
HIS 370 AMERICAN DIPLOMATIC HISTORY TO 1898
3, 3/0
Independence from Britain and alliance with France; the Constitution and the formation of foreign policies; neutral rights and war with Britain; rise of manifest destiny, commercial and territorial expansion, diplomacy of slavery and the Civil War; diplomacy and isolationism in the post-Civil War period. Equivalent course: HIS370W

HIS 371 AMERICAN DIPLOMATIC HISTORY SINCE 1898
3, 3/0
War with Spain and the rise to world power; inter-American and Far Eastern relations; diplomacy of World War I; retreat to isolationism; road to World War II; global war and its aftermath; leadership in the United Nations and the Cold War; inter-American and Far Eastern affairs. Equivalent course: HIS371W

HIS 372 AMERICAN FOREIGN POLICY IN THE FAR EAST
3, 3/0
Dawn of America's Asiatic interests; early relations with China; opening of Japan; missionary activity and influence; war with Spain; America becomes a Pacific power; World War I and the rise of Chinese nationalism; American gunboat diplomacy; interwar naval conferences; Manchurian Incident; American-Japanese problems; road to war; Pearl Harbor and war in the Pacific; search for Pacific security; conflict in Korea; war and peace in Vietnam. Equivalent course: HIS372W

HIS 373 VIETNAM AND THE VIETNAM WAR
3, 3/0; NWIF
Introduction to the major issues associated with the history of Vietnam and modern Vietnam's wars with France and the United States. Origins and historical development of Vietnamese society and culture; French colonialism and the emergence of modern Vietnamese nationalism; Vietnamese communism under Ho Chi Minh; the Franco-Vietminh War; the American war in Vietnam; and postwar reunification and consolidation under the Vietnamese Communist Party.

HIS 375 HISTORY OF BYZANTINE EUROPE
3, 3/0
The history of the Byzantine Empire. Its influence on intellectual and cultural progress in Western Europe and among the Eastern and Balkan Slavs with special emphasis on internal, social, economic, political, and cultural developments. Equivalent course: HIS375W

HIS 379 MUSEUM AND CIVIC ENGAGEMENT
3, 3/0
In-depth study of how museums and cultural agencies define community identity. Internal operations of museums and cultural agencies. Minimum 20 hours in-service (fieldwork) activity required, with 15 percent of the grade dependent upon the resulting learning from that service.

HIS 380 INTRODUCTION TO THE MUSEUM
3, 3/0
History, theory, and practices of the historical agency or museum. Extensive reading, illustrated lectures, and exercises in museum and historical-agency problems. Field trips to area museums and agencies. Equivalent course: HIS380W

HIS 381 THE ROLE OF THE HISTORY MUSEUM
3, 3/0
Theory and practice of historical investigation and publication. Uses and procedures of research in historical museums and agencies. Evaluation of source materials. Preparation of historical essays and exhibits. Equivalent course: HIS381W

HIS 382 HISTORY OF CHRISTIANITY TO 1500
3, 3/0
Prerequisites: junior or senior status. Christianity in the East and the West from its origins to the dawn of the modern age. Development of Christianity, the Apostolic Era, the Patristic Era; Byzantine and medieval Latin Christianity until the fall of Constantinople and the Protestant Reformation. Political, intellectual and cultural significance of Christianity in world civilizations.

HIS 383 HISTORY OF CHRISTIANITY FROM 1500 - PRESENT
3, 3/0
Prerequisites: junior or senior status. Developments in Christianity in the Modern World from the collapse of the Byzantine Empire in the East and from the Protestant Reformation in the West through the twenty-first century. Challenges of Christianity with respect to the Scientific Revolution, the Enlightenment, liberalism, nationalism, socialism, capitalism and the Industrial Revolution, secularism, consumerism, and globalization.

HIS 385 AZTEC AND MAYA HISTORY
3, 3/0
The history of the Aztec and Maya empires in Mexico and Central America before and during the Spanish conquest. The political, economic, and religious motivations for empire building among indigenous cultures. Construction of rulership; Aztec and Maya historiography; systems of trade and tribute; imperial expansion; war and sacrifice; encounter with the Spanish.

HIS 386 HISTORY OF THE INCA EMPIRE
3, 3/0
The last great empire of the ancient Americans to fall under Spanish dominance, the Inca of Peru. The political, social, and economic functions of the Inca State. The foundations of the empire in earlier civilizations of the Andes. Inca system of government; strategies for expansion and consolidation of empire; the importance of recordkeeping and the counting device known as quipu; the function of textiles and their production; the role of ancestors and myths in state formation and function; new perspectives on the Spanish conquest.

HIS 389 HISTORICAL PERSPECTIVES (TOPICS)
3, 3/0
Examination of themes and unique developments in history that stand apart from the normal pattern; analytical and historiographical approach to such topics and phenomena as reform and reaction in American life; impact of ideology in European relations; clash of tradition and modernization in Asia; rise of nationalism in Latin America; emergence of a third world. Emphasis on class discussion of assigned materials and oral and written reactions to readings.

HIS 400 SENIOR SEMINAR IN HISTORY
3, 3/0
Prerequisites: Senior standing; HIS399 for history majors. Readings, discussion, and research on selected problems in history, which results in a substantial research paper. Fulfills seminar requirement for history majors and secondary social studies majors. Equivalent course: HIS400W

HIS 401 TWENTIETH-CENTURY EUROPEAN DIPLOMACY
3, 3/0
Causes and diplomatic problems of World Wars I and II; the Paris Peace Conference and interwar diplomacy; peacemaking in the Cold War era; the European movement; Gaullism and its consequences. Equivalent course: HIS401W

HIS 402 THE ITALIAN RENAISSANCE
3, 3/0
HIS 404
THE SOUTH SECTIONALISM, AND THE CIVIL WAR
3, 3/0
The structure of the American south; sectional development and states’ rights; slavery; the development of antislavery agitation and reform; the rise of Lincoln and the division of political parties; Civil War and the military; constitutional and diplomatic crises; economic and social impact of the war; reconstruction of the Union.
Equivalent course: HIS404W

HIS 405
REFORMATION
3, 3/0
Impact of the Renaissance and Reformation on intellectual, artistic, economic, and political development of Europe; social and religious problems; humanism, secularism, classicism, individualism in Italy and Northern Europe; Protestant reform and reformers; Catholic Reformation. Equivalent course: HIS405W

HIS 406
THE FRENCH REVOLUTION AND NAPOLEON
3, 3/0
Political, social, economic, and intellectual fabric of the Old Regime; the Revolution; dictatorship of Napoleon and spread of revolutionary ideas; rise of modern nationalism. Equivalent course: HIS406W

HIS 407
THE TEACHING OF HISTORY
3, 3/0
The curriculum and practice of teaching history, the historical perspective on the role of history in the social studies, and the political uses of the teaching discipline. Research foundation of historical meaning for instructional practice links material presented in various content and pedagogical courses in the program. Equivalent courses: SSE407, SST407

HIS 408
HISTORY OF AMERICAN THOUGHT
3, 3/0
Sources of major bodies of thought and ideas in American history; their impact upon American culture; the role ideas have played in producing a distinctive culture. Equivalent course: HIS408W

HIS 412
HISTORY OF EAST CENTRAL EUROPE
3, 3/0
Sources of major bodies of thought and ideas in American history; their impact upon American culture; the role ideas have played in producing a distinctive culture.

HIS 415
HISTORY AND GOVERNMENT OF NEW YORK STATE
3, 3/0
Aboriginal background; development of the colony; establishment of the state; rise of political parties; past and present structure and problems of New York State government; current economic and social growth. Equivalent course: HIS415W

HIS 418
FOOD AND GLOBAL HISTORY
3, 3/0
How food has influenced human society from hunter-gatherer societies to the present. Food rituals, famines, food and spice trade, national identity. How cultures from Asia, Africa, Europe, and the Americas understood their relationship to food.

HIS 419
CURATORSHIP
3, 3/0
Principles and techniques of collection and care of museum collection: the library, collections, audiovisual materials, archives, iconography, and historic sites; development of professional expertise in curatorship. Equivalent course: HIS419W

HIS 420
ADMINISTRATION OF THE HISTORICAL AGENCY OR ART MUSEUM
3, 3/0
Principles and practice of administration of museums. Problems of organization, collection, exhibition, public services, finance, special public relations, and trustee relations. Experience in the area of interpretation. Equivalent course: HIS420W

HIS 422
TUDOR AND STUART ENGLAND
3, 3/0
Henry VII and the new dynasty; religion and politics under the early Tudors; the age of Elizabeth I; the Stuarts and the Puritan revolt; restoration and revolution; limiting the monarchy and establishing the empire. Equivalent course: HIS422W

HIS 425
MUSEUM PRESERVATION AND PRACTICE
3, 3/0
Acquaints students who are non-conservation specialists with conservation principles of museum collections. Environmental, handling, and procedural issues; lecture, demonstrations, and practical work; examine exhibition and storage facilities at local institutions.

HIS 430
UNITED STATES: THE NEW NATION
3, 3/0
The United States following the American Revolution through Andrew Jackson’s administration; federal authority, political parties, industrial and sectional economic development during a period of territorial, social, and diplomatic transformation; the formative and foundational structure of American society during the periods of Washington, Jefferson, and Jackson.
Equivalent course: HIS430W

HIS 440
THE HOLOCAUST
3, 3/0
Persecution and murder of Jews and other victims of Nazi genocide. Historical anti-Semitism, the personality of Adolf Hitler, the traumas of Weimar Germany, birth and rise of the Nazi party, persecution and extermination of Jews, non-Jewish victims, the death camps, Jewish resistance, and world reaction to Nazi policies.

HIS 445
HISTORY OF WOMEN AND GENDER IN THE MIDDLE EAST
3, 3/0; NWIF
History of women and gender in the Middle East from Muhammad to present. Women and gender in the formation of Islam, medieval caliphates, and Islamic empires. Historical role of modernization, and colonization on early Middle Eastern feminist movements. The end of empires and influence of nation-building on social relations.

HIS 447
NINETEENTH CENTURY EUROPEAN INTELLECTUAL HISTORY
3, 3/0
Prerequisites: Upper-division status. European intellectual history 1789-1914. Topics include political and artistic responses to the French and Industrial revolutions; romanticism, liberal-democratic nationalism, and utopian socialism; the failed revolutions of 1848; modernism and realism in the arts; positivism in philosophy; conservative nationalism and scientific socialism; Darwin and Social Darwinism; the new imperialism and its critics, 1880-1914; racism, radical nationalism, political anti-Semitism; the Second International and syndicalism; the revolt against positivism and realism in philosophy and the arts; the birth of modern sociology.

HIS 448
TWENTIETH CENTURY EUROPEAN INTELLECTUAL HISTORY
3, 3/0
Prerequisites: Upper-division status. Main currents of European intellectual and cultural life from 1914-2001. Topics include psychoanalysis; intellectual and cultural responses to World War I, the Russian Revolution and the rise of fascism; Critical Theory, existentialism, feminism and postmodernism; decolonization and the protest movements of the 1960s; the Cold War and the collapse of the
Soviet communism; globalization, immigration and the new multicultural Europe.

**HIS 450**  
**MUSEUM INTERNSHIP**  
3-6, 0/0  
For students interested in gaining practical experience in museum work. Assignment to a particular museum is based on a student's major-related disciplines. Students in areas such as history, anthropology, art history, education, and the natural sciences are eligible.  
Equivalent course: MST450

**HIS 460**  
**PATTERNS OF HISTORY IN SOUTHEAST ASIA**  
3, 3/0  
Examination of key topics in the social and political history of the principal regions of Southeast Asia. Primary emphasis on the cultural heritage and political origins of the major modern Southeast Asian nations. Myanmar (Burma), Thailand, Malaysia, Cambodia, Vietnam, Indonesia, Singapore, and the Philippines.

**HIS 465**  
**IMPERIALISM IN THE 19TH AND 20TH CENTURIES**  
3, 3/0; NWIF  

**HIS 468**  
**READINGS IN AFRICAN AMERICAN HISTORY**  
3, 3/0  
The major historical writings on selected periods and topics in African American history. Readings, discussions, and writing book reviews and biographical essays.  
Equivalent courses: AAS468, HIS468W

**HIS 469**  
**BLACK PROTEST AND LEADERSHIP IN THE UNITED STATES IN THE TWENTIETH CENTURY**  
3, 3/0  
The black protest movements and leaders in twentieth century America.  
Equivalent courses: AAS469, HIS469W

**HIS 480**  
**DIGITAL MUSEUM COLLECTIONS**  
3, 3/0  
Digital technology enables museums to make their collections more accessible. Students investigate what is involved in digitizing museum objects through classroom instruction and a class project. To balance theory with practice, students work as a group to develop their own digital collection. Course is taught at Buffalo State College and a local cultural institution.

**HIS 488**  
**INTERNSHIP**  
1-12, 0/0  
Background of courses or experience within the area of interest; 6 credit hours of lower-division major courses; 6 credit hours of history and social studies education coursework at the upper-division level; minimum cumulative GPA of 2.5 (overall and in major coursework); approval of student adviser and department chair. Internships provide students with guided, supervised field experiences that complement the academic program.  
Equivalent course: SSE488

**HIS 490**  
**SENIOR SEMINAR IN HISTORIOGRAPHY**  
3, 3/0  
Acquaints history and social studies education majors and others with great works of historic literature in the Western and other traditions. Introduction to the development of historical writing from ancient times to the present. Students are encouraged to assess sources that have been used to record the past and to examine the various methodologies employed by historians in studying the past.  
Equivalent courses: HIS399W, HIS490W

**HIS 495**  
**SPECIAL PROJECT**  
1-3, 0/0

**HIS 497**  
**SPECIAL WORKSHOP**  
1, 0/0

**HIS 498**  
**HONORS RESEARCH**  
1-9, 0/0  
Prerequisite: Completion of 12 credit hours in the history honors program. An advanced research course for students in the history honors sequence.

**HIS 499**  
**INDEPENDENT STUDY**  
3, 0/0

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**HON - ALL COLLEGE HONORS PROGRAM**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HON 100</td>
<td>ALL COLLEGE HONORS SEMINAR</td>
<td>3, 3/0</td>
<td>Prerequisite: Acceptance into All College Honors Program. Introductory course. Introduces students to faculty from across the disciplines. Includes discussion of specific fields of study and their contributions to the betterment of humankind. Promotes student appreciation, critical examination, and application of interrelated concepts and values as defined by works of literature, art, music, scientific endeavor, technology, historical research, pedagogy, and political theory. Equivalent course: BSC101</td>
</tr>
<tr>
<td>HON 101</td>
<td>HUMANITIES SEMINAR</td>
<td>3, 3/0; HUIF</td>
<td>Prerequisite: Acceptance into All College Honors Program. Humanities core. Part of an integrated sequence of core courses. Focuses on great ideas and works of various cultures.</td>
</tr>
<tr>
<td>HON 102</td>
<td>NATURAL SCIENCE SEMINAR</td>
<td>3, 3/0; NSIF</td>
<td>Prerequisite: Acceptance into All College Honors Program. Natural science core. Part of an integrated sequence of core courses. Focuses on the role of science in contemporary society. Students enrolled in this course may not receive credit for SCI 100. Equivalent course: SCI100</td>
</tr>
<tr>
<td>HON 103</td>
<td>ARTS SEMINAR</td>
<td>3, 3/0; ARIF</td>
<td>Prerequisite: Acceptance into All College Honors Program. Arts core. Part of an integrated sequence of core courses. Focuses on great ideas and significant works in the arts.</td>
</tr>
<tr>
<td>HON 202</td>
<td>SOCIAL SCIENCE SEMINAR</td>
<td>3, 3/0; SSIF</td>
<td>A social science core course designed for All-College Honor Students as part of an integrated sequence of core courses. This course focuses on the central ideas, epistemology, issues and significant works in and among the disciplines of the social sciences. Equivalent course: HON302</td>
</tr>
<tr>
<td>HON 301</td>
<td>VALUES AND ETHICS IN THE PROFESSIONS</td>
<td>3, 3/0; TSIF</td>
<td>Prerequisite: Acceptance into All College Honors Program. Seminar. Theories of value development, value dilemmas. Implications of legal aspects of the ethical practice of human service, educational, and healthcare professions from a personal and professional viewpoint.</td>
</tr>
<tr>
<td>HON 400</td>
<td>ALL COLLEGE HONORS COLLOQUIUM</td>
<td>3, 3/0</td>
<td>Prerequisite: Acceptance into All College Honors Program. Culminating activity. Students complete original works of scholarship and creativity</td>
</tr>
</tbody>
</table>
HPR - COACHING AND PHYSICAL EDUCATION

HPR 100
SPECIAL PROJECT
1, 0/0
Limited for certain movement, exercise, and sport experiences.
Completion of form and approval of program coordinator required. Forms available in the Coaching and Physical Education Office.

HPR 114
JOGGING FOR PHYSICAL FITNESS
1, 0/2
Equivalent course: HEW114

HPR 154
FITNESS THROUGH SWIMMING
1, 0/2
Prerequisite: Completion of HPR 153 or demonstration to the instructor of equivalent aquatic ability. Activity aquatic class to increase student's cardio-respiratory fitness level. Swimming skills, workout planning and participation.
Equivalent course: HEW154

HPR 180
PHYSICAL FITNESS FOR WOMEN
1, 0/2
Equivalent course: HEW180

HPR 198
STRENGTH FITNESS
1, 0/2
Equivalent course: HEW198

HPR 201
TECHNIQUES AND THEORIES OF COACHING SPECIALTY SPORTS
3, 3/0
Lecture and discussion analysis of athletic coaching. Supervised independent study of the requirements for coaching an approved specialty sport.
Equivalent course: HEW201

HPR 202
TECHNIQUES AND THEORIES OF SOCCER
3, 3/0
Analysis of soccer with emphasis on history, present status, rules, techniques, and theories.
Equivalent course: HEW202

HPR 203
TECHNIQUES AND THEORIES OF FOOTBALL
3, 3/0
Analysis of football with emphasis on history, present status, rules, techniques, and theories.

HPR 205
TECHNIQUES AND THEORIES OF TRACK AND FIELD
3, 3/0
Analysis of track and field with emphasis on history, present status, rules, techniques, and theories.

HPR 207
TECHNIQUES AND THEORIES OF BASEBALL/SOFTBALL
3, 3/0
Analysis of baseball with emphasis on history, present status, rules, techniques, and theories.
Equivalent course: HEW207

and present their work in a colloquium forum to allow for the maximum exchange of ideas. Course provides closure to the objectives of the All College Honors Program.
Equivalent course: HON400W

HPR 499
INDEPENDENT STUDY
3-12, 0/0

HPR 208
TECHNIQUES AND THEORIES OF SWIMMING
3, 3/0
Analysis of swimming with emphasis on history, present status, rules, techniques, and theories.
Equivalent course: HEW208

HPR 209
TECHNIQUES AND THEORIES OF BASKETBALL
3, 3/0
Analysis of basketball with emphasis on history, present status, rules, techniques, and theories.
Equivalent course: HEW209

HPR 300
COACHING AND PHYSICAL EDUCATION
3, 3/0
Basic philosophy and principles of coaching interscholastic athletics; state, local, and national policies and regulations related to athletics. Partially fulfills New York State requirements for interscholastic coaching certification.
Equivalent course: HEW300

HPR 301
KINESIOLOGY: APPLIED ANATOMY AND BIOMECHANICS
3, 3/0
Prerequisite: Sophomore status. Study of selected anatomical, physiological, and mechanical principles of movement and their application to human motion.
Equivalent course: HEW301

HPR 306
ORGANIZATION AND ADMINISTRATION OF INTRAMURAL SPORTS
3, 3/0
Prerequisite: Sophomore status. Critical analysis of the organization and administration of intramural and recreational sports programs.

HPR 309
HEALTH SCIENCES FOR COACHING
3, 3/0
Interdisciplinary study of the health sciences as they apply to coaching interscholastic sports. Selected principles of anatomy, kinesiology, and physiology related to coaching; risk minimization; mixed competition; New York State Department of Education selection and classification of athletes; definition of age and maturity of athletes. Partially fulfills New York State requirements for interscholastic coaching certification.

HPR 319
SOCIOLOGY OF SPORT
3, 3/0
Sport and related social phenomena of social status, norms, goals, values, and organizational network.
Equivalent courses: HEW319, SOC324

HPR 335
PREVENTION AND CARE OF ATHLETIC INJURIES
3, 3/0
Prerequisite: HPR/HEW 301 The relationships among conditioning, performance, and injury prevention. Includes techniques and programs of body conditioning for specific sports, and the possible treatment of athletic injuries. A required course for students choosing either to meet minimal standards for coaching certification or to meet the requirements of the coaching minor.
Equivalent course: HEW335

HPR 389
TOPICS COURSE
3, 3/0

HPR 488
INTERNSHIP
1-15, 0/0
Prerequisites: Upper-division status and instructor permission. The integration of theoretical knowledge with practical field experience in coaching interscholastic sports.
Equivalent course: HEW488
HTR 100  MULTICULTURAL FOODS  
3, 3/0  
Cultural overview of the foods and food habits of selected groups. Common foods, meal patterns, special-occasion foods, and the role of food in society. The impact of the groups on the American lifestyle.

HTR 110  INTRODUCTION TO HOSPITALITY AND TOURISM  
3, 3/0  
Overview of the hospitality-tourism industry: hotels, resorts, tourism and travel, convention management, casinos and gaming, food service (commercial and noncommercial), and culinary arts. Emerging trends in the industry and available career opportunities.

HTR 200  SANITATION AND SAFETY IN FOOD SERVICE  
3, 3/0  
Causes of and conditions leading to food-borne illnesses. Evaluation of potential hazards of food service operations and measures to control them. Students take the SERVSAFE sanitation certificate examination, offered by the National Restaurant Association's Educational Foundation, at the end of the course.

HTR 300  FOOD AND BEVERAGE MANAGEMENT  
4, 1/6  
Students work at Campus House, the hospitality training facility. Students are required to apply various food production, purchasing, and sanitation principles while participating in labs. Emphasis on preparing high-quality products and providing high-quality service.
Equivalent course: NFS300

HTR 305  ADVANCED FOOD  
3, 2/2  
Prerequisites: HTR 100- Multicultural Foods. This course is designed to provide students with the progressive skills and knowledge needed to build on their existing culinary abilities in order to create advanced levels of haute cuisine.
Equivalent course: NFS305

HTR 318  CULTURAL TOURISM  
3, 3/0  
A practical approach to understanding regional cultural attractions and the economic impact they have on the community. The course examines the historical context of cultural tourism and the structure of local cultural attractions through guided tours, guest presentations, and participation in the regional cultural tourism efforts.

HTR 330  FUNDAMENTALS OF BAKESHOP PRODUCTION  
3, 1/4  
Designed to provide students with an overview of bakeshop concepts, which include knowledge base and production skills necessary to create fundamental bakery products.

HTR 335  WINE ESSENTIALS  
3, 3/0  
A presentation of the origins and history of wines. At the completion of the course, students will have had exposure to winemaking, wine service, and wine tasting. Students will learn to evaluate variations and quality of wines.

HTR 340  INDUSTRY EXPERIENCE  
1-3, 1/9  
Prerequisites: Completion of writing competency requirement; major GPA of at least 2.0. Opportunity to integrate technical knowledge with industry experience in hospitality and tourism enterprises. Supervised field experience, meeting with instructor, and structured written assignments. May be taken for a maximum of six credits.
Equivalent courses: HTR340W, NFS340

HTR 348  TOURISM AND WORLD TRAVEL  
3, 3/0  
Overview of world tourism and travel and the impact of tourism on world trade, geopolitical understandings, and cultural exchange. Introduction to career opportunities in the industry.

HTR 350  COMPUTER APPLICATIONS FOR HOSPITALITY  
3, 3/0  
Prerequisites: Hospitality administration major, upper-division status. Focuses on computer technology and application in the hospitality industry. Emphasis on computer hardware, available software, and the impact technology has played in the industry. A thorough exploration of Web-based information will enhance real-world applications.
Equivalent course: NFS350

HTR 361  PRINCIPLES OF MANAGEMENT IN FOOD SERVICE  
3, 3/0  
Application of management principles in food service systems.
Equivalent courses: HTR361W, NFS361

HTR 365  MENU DESIGN AND DEVELOPMENT  
3, 3/0  
Prerequisites: HTR 300- Food and Beverage Management. A complete study of restaurant menus including historic perspective, the current state of the food service industry, detailed menu analysis, pricing, mechanics, menu production and service. Financial planning and ethical management will also be covered.
Equivalent course: NFS365

HTR 368  HOTEL OPERATIONS  
3, 3/0  
Organization, function, and management of the rooms and divisions of hotels, resorts, and other lodging facilities; security; facilities management; front-office management.
Equivalent course: NFS368

HTR 370  COST CONTROLS IN HOSPITALITY  
3, 3/0  
Prerequisite: Successful completion of mathematics basic skills competency requirement. Relevant accounting and financial concepts and procedures. Interrelationships between costs and their impact on gross margins and net incomes. Strategies to control fixed and variable costs.
Equivalent course: NFS370

HTR 375  EVENTS MANAGEMENT  
3, 2/0  
The best practices in modern event management and the three dimensions of event leadership: event administration, an insider’s vocabulary, and industry certification standards. An overview of event projects, new product developments, business meetings, seminars and conferences and exhibitions. Fieldwork opportunities in special events on campus and off campus.

HTR 380  ADVANCED TRAINING IN HOSPITALITY  
3, 3/0  
Review of training principles used to design, implement, and evaluate administrative programs for the hospitality industry. Application of theoretical concepts to hospitality-tourism related situations.
Equivalent course: NFS380
HTR 385
PRIVATE CLUB MANAGEMENT
3, 3/0
This course is an in depth study of the private club industry. Emphasis is
on club needs assessment, development of programs for members and
other audiences, overcoming challenges that external and government
agencies pose for managers, golf course maintenance, and capital
improvement projects for club and resort facilities. Issues relative to
finance and board governance and structure will also be analyzed.

HTR 389
TOPICS COURSE
3, 0/0

HTR 390
STRATEGIC MARKETING IN HOSPITALITY
3, 3/0
Relevant principles and concepts of marketing; theories of market
segmentation and positions; various theories will be discussed using the
analysis approach. Students will be required to develop a marketing plan
and analyze hospitality case studies. Price, promotion, and consumer
behavior are discussed in detail.
Equivalent course: NFS390

HTR 400
CATERING MANAGEMENT
3, 1/4
Provides students with an understanding of catering principles as well as
management experiences through the execution of specially booked
functions; opportunities to apprentice in planning, organizing,
supervising, preparing, and serving food and beverage for planned catered
events.

HTR 408
CONVENTIONS, MEETINGS, AND EXPOSITIONS
3, 3/0
Introduction to the meeting, convention, and exposition industry. The
basic framework for planning a meeting, convention, or exposition.
Equivalent course: NFS408

HTR 418
TOURISM MANAGEMENT
3, 3/0
Tourism as a world export industry and its importance to the economy;
tourist behavior, motivation, and decision making; the interrelationship
of recreation and tourism; the system used to deliver tourism services; and
the products and services of the tourism industry.
Equivalent course: NFS418

HTR 455
ADVANCED HUMAN RESOURCE MANAGEMENT IN
HOSPITALITY
3, 3/0
Strategies used by the hospitality manager to create a more effective work
environment; application of advanced human resource concepts useful in
problem solving and decision making in the diverse and competitive
hospitality-tourism industry.
Equivalent courses: HTR455W, NFS455

HTR 468
HOTEL MANAGEMENT
3, 3/0
Prerequisites: HTR 368. An in-depth look at duties, responsibilities,
problems, and opportunities encountered by top management in
the lodging industry. This course emphasizes current global issues facing
hotel management today, linking advanced theory with real-world
problems and solutions. Explores the diversity in management through
cultural differences and leadership styles.

HTR 470
LEGAL ISSUES IN HOSPITALITY
3, 3/0
Prerequisite HTR 110Overview of local, state, and federal laws and
regulations that promote policies for effective hospitality organizations.
Case-study analysis.
Equivalent course: NFS470

HTR 480
PRACTICUM IN HOSPITALITY OPERATIONS
4, 1/6
Prerequisites: HTR 300 and senior status. Culminating experience in
hospitality administration at Campus House requiring students to apply
various theories and concepts learned in previous courses. Students
develop marketing, strategic, and financial plans.
Equivalent course: NFS480

HTR 485
SEMINAR IN HOSPITALITY
1, 1/0
Prerequisite: Senior status. Investigation of contemporary issues relevant
to the hospitality industry. Students research and present topics of their
choice and participate in career-related activities.
Equivalent course: NFS485

HTR 495
SPECIAL PROJECT
1-3, 0/0
Prerequisite: Instructor and department chair permission, using
department forms available in Caudell Hall 207.

HTR 499
INDEPENDENT STUDY
3-12, 0/0
Prerequisite: Instructor and department chair permission, using
department forms available in Caudell Hall 207.

HUM - HUMANITIES

HUM 100
INTRODUCTION TO HUMANITIES
3, 0/0; HUIF
Introduction to some central topics in the humanities. Humans' attempts to
give meaning to their lives through literary, philosophical, and creative
expression.

HUM 490
SENIOR SEMINAR
3, 3/0
Prerequisites: HUM 100, HUM 300, and upper-division status. Research
methodologies and examples of research in the humanities. Students may
choose to research and develop their own articulated areas of engagement
in the humanities by taking HUM 495 concurrently with this culminating
course. Senior-level course; required for humanities majors.
Equivalent course: HUM490W

HUM 495
SPECIAL PROJECT
3, 0/0

HUM 499
INDEPENDENT STUDY
3, 0/0

IDE - INTERIOR DESIGN

IDE 101
INTRODUCTION TO INTERIOR DESIGN
3, 3/0
Introductory survey of the theory and practice of interior design.
Emphasis is given to the impact of interior space upon the physical,
social, psychological, and aesthetic needs of people.
Equivalent course: DES260

IDE 103
DIGITAL PRESENTATION METHODS
3, 1/5
Prerequisite: None. Introductory course integrating basic research
methods, digital file management, presentation techniques, and three-
dimensional massing models. Creation of e-portfolios of student work
using introductory research methods, 2D graphics, desktop publishing,
and 3D modeling software programs.
IDE 151
MECHANICAL AND PERSPECTIVE DRAWING
3, 1/5
Prerequisites: IDE 101, IDE 102, DES 101. Corequisites: IDE 152, IDE 153.Studio introduction to architectural drafting conventions and the methods to produce mechanically generated descriptive drawings, including orthographic, isometric, and perspective drawings. Skills are utilized in practical application and collaboration with the IDE 151 and IDE 153 studios.
Equivalent course: DES309

IDE 152
INTRODUCTION TO COLOR RENDERING
3, 1/5
Prerequisites: IDE 101, IDE 102, DES 101. Corequisites: IDE 151, IDE 153.Studio introduction to interior design problem-solving processes, design analysis techniques, conceptual ideation, and spatial studies utilizing communication methods in various two-dimensional media.

IDE 153
SPATIAL EXPLORATIONS AND MODEL BUILDING
3, 1/5
A series of small experimental projects introduce, explore, and apply three-dimensional design elements and principles to the creation and representation of the built environment and interior design problems. Different media methods of building sketch, study, and scale models are introduced as tools for designing and producing spatial representations.

IDE 201
INTERIOR DESIGN I
3, 1/5
Prerequisites: IDE 151, IDE 152, IDE 153, and successful completion of the skills competency exam. Corequisite: IDE 202.A series of small experimental projects explores how two-dimensional and three-dimensional design elements and principles are applied specifically to interior design concepts. Concept design, development, and articulation are emphasized and represented through the use of sketches, mechanical drawings, and perspective tools, as well as models. Skills and knowledge are utilized in practical application and collaboration with IDE 202.
Equivalent course: DES110

IDE 202
CONSTRUCTION FUNDAMENTALS I
3, 3/0
Corequisite: IDE 201.Investigation of basic construction systems and materials related to the built environment. Covers the principles of structure and behavior (engineering principles) and enclosures and aesthetics (architectural design principles). With increasing specificity, material properties affecting installation and appearance are observed and knowledge is utilized in collaborative projects with IDE 301. Materials that are examined include wood, concrete, stone, metal, synthetics, and glass.
Equivalent course: DES364

IDE 203
FURNITURE THEORY AND APPLICATION
3, 3/0
Corequisites: IDE 251, IDE 252.Exploration of the furniture elements found within interior design; the interrelation of construction, strength of materials, and styles; and how modern-day furniture, theory, and applications have been influenced by and have evolved due to mass production, material development, and ergonomics.
Equivalent courses: DES363, IDE253

IDE 204
MATERIALS AND COLOR
3, 3/0
Corequisites: IDE 101, IDE 103.The study of interior finishes, materials, products, and color used for floors, walls, windows, ceilings, and various interior components as they apply to commercial and residential interior spaces.
Equivalent course: IDE102

IDE 205
HISTORY OF INTERIOR DESIGN AND ARCHITECTURE I
3, 3/0; WCIF
Prerequisites: None.A comprehensive survey of the major historical periods of architecture and interiors from antiquity to the advent of the Industrial Revolution.

IDE 251
INTERIOR DESIGN II
3, 1/5
Prerequisite: IDE 201 OR DES 310. Corequisites: IDE 252, IDE 253.Small- to medium-scale residential projects facilitate the exploration of functional criteria inherent in the design of interior spaces. Problem analysis, identification of client and user needs, selection of interior finishes and materials; a detailed, developed layout plus selection of furniture, fixtures, and equipment are emphasized.
Equivalent course: DES360

IDE 252
CONSTRUCTION FUNDAMENTALS II
3, 3/0
Prerequisite: IDE 202. Corequisite: IDE 251.Exploration of advanced construction techniques and materials used in the built environment, with specific emphasis on building systems. Illustrates the principles and philosophy of current building systems and how they relate to appearance, composition, and installation. Knowledge is utilized in practical application and collaboration with the IDE 251 studio course.

IDE 254
HISTORY OF INTERIOR DESIGN AND ARCHITECTURE II
3, 3/0
Prerequisites: IDE 205.A comprehensive survey of the major historical periods of architecture and interiors from the Industrial Revolution to the present.

IDE 301
INTERIOR DESIGN III
3, 1/5
Prerequisite: IDE 251 OR DES 360. Corequisites: IDE 302, IDE 303.Medium-scale design projects are used to explore the principles of retail design and merchandising, focusing on the translation of clearly stated program goals and objectives into unique spatial solutions.
Equivalent course: DES361

IDE 302
INTERIOR DESIGN COMPUTER APPLICATIONS
3, 1/5
Corequisites: IDE 301 and IDE 303. Intermediate-level course. Integrates computer presentation software to augment concept. Interior Design studio, professional practice, and stand-alone projects. Digital 3-D modeling and 2-D presentation tools, in conjunction with computer-aided design (CAD) software, are used to translate students' fundamental manual presentation techniques to digital drawing, modeling, and layout.

IDE 303
INTERIOR DETAILING
3, 1/5
Prerequisite: IDE 251. Corequisites: IDE 301, IDE 302.Interior designs are taken from concept to construction via micro-design projects. Emphasis on the exploration and marriage of materials, construction techniques, prototype modeling, and drawing conventions as professional communication tools. Material interfaces and transitions are designed; lighting is integrated; notes, reference marks, and key tag conventions are implemented; and professional project sets are completed. Course includes manual and computer-aided drafting techniques.
Equivalent course: DES369

IDE 351
INTERIOR DESIGN IV
3, 1/5
Prerequisite: IDE 301 or DES361. Corequisites: IDE 352, IDE 353.Information-gathering research and analysis is the basis to solve the functional and spatial requirements of complex public buildings, such as museums, libraries, health-care facilities, and cinemas. Special emphasis is placed on adjacencies, circulation, articulation, and the shaping of space.
Equivalent course: DES460

IDE 352
AUTOCAD FOR INTERIOR DESIGNERS
3, 1/5
Corequisites: IDE 351, IDE 353.Introductory through intermediate level of instruction on Autodesk's Architectural Desktop, with an emphasis on the production and efficiency implications of computer-aided drafting in interior design. The use and exploration of increasingly complex commands, both in 2D and 3D, and their application reinforces basic
drafting conventions and enhances the project design communication and construction document creation necessary in the practice of interior design.
Equivalent course: DES262

IDE 353
INTERIOR DESIGN PROFESSIONAL PRACTICE AND SPECIFICATIONS
3, 1/5
Corequisites: IDE 351, IDE 352. Introduction to the business principles, practices, and ethics of the interior design profession. Emphasizes regional standards, codes, means, methods, and client interaction. Professional specification creation guidelines cover product performance, code restrictions, and environmental concerns. Curriculum includes an integrated service-learning community service component. Equivalent course: DES367

IDE 354
GLOBAL DESIGN STUDY TOUR
3, 1/5
Prerequisites: open for visual arts sophomores, juniors, and seniors with a cumulative GPA of 2.5 or better, instructor permission required. The Global Design Study Tour provides an opportunity to travel and experience a wide range of different cultural and geographical settings and their impact on interior design, art and architecture. Students will study exemplary global designs with an awareness and respect for cultural and social diversity.

IDE 355
LIGHTING DESIGN
3, 1/5
Prerequisites: None. Concurrent Enrollment: IDE 351. Designing with light, illumination principles, design criteria, specifications, and systems applied to public and private interiors. Hands-on experience using a lighting lab, case studies, and 3-D projects reinforce lecture material in a studio setting. Equivalent courses: DES368, IDE402

IDE 389
TOPICS COURSE
3, 3/0

IDE 401
INTERIOR DESIGN V
1-3, 1-3/5-15
Prerequisite: IDE 351 OR DES 460. Corequisite: IDE 402. Large-scale office planning design projects are used to explore the functional and aesthetic requirements of complex administrative buildings. Anthropometric requirements; physical, sociological, and psychological needs; and the research, analysis, and programming skills needed for designing interior work-spheres are emphasized. Equivalent course: DES461

IDE 451
INTERIOR DESIGN VI THESIS STUDIO
3, 1/5
Prerequisite: IDE 401. Constitutes the final studio experience prior to graduation and features one major design project. Students focus their design initiative with increased objectivity and adopt a comprehensive approach to the interior design process utilizing proposal, research, schematic design, construction documentation, material selections, specifications, technical writing, and presentation.

IDE 488
INTERIOR DESIGN INTERNSHIP
3, 0/6
Prerequisite IDE 351. Guided and supervised exposure to professional interior design operations through on-the-job work experience in an authorized design firm, department, studio, or showroom. To earn 3 credit hours, students must complete 135 contract hours with the firm, provide a written report of the work experience, and receive a written evaluation from the employer. Equivalent course: DES488

IDE 499
INDEPENDENT STUDY
3-12, 0/0
Prerequisite: Faculty adviser permission.
and present. Offered in English or Italian, as noted in the master schedule. When in English, this course may not be applied to the Italian minor.

**LIB - LIBRARY**

**LIB 100**
**INTRODUCTION TO LIBRARY RESEARCH METHODS**
1, 1/0
Overview of library collections and services to maximize research efficiency. Research strategies and tools, including the online library catalog, periodical and reference databases, and Web resources. Open to all students. Recommended for freshmen and sophomores.

**LIB 300**
**ADVANCED LIBRARY RESEARCH METHODS**
3, 3/0
Advanced library research strategies with critical thinking and evaluation skills. Emphasizes selecting and using appropriate print and online sources to conduct specialized research. Recommended for students with upper-division status and those planning to pursue graduate studies.

**LIB 495**
**SPECIAL PROJECT**
1-3, 0/0
SPECIAL PROJECT

**LIB 499**
**INDEPENDENT STUDY**
3-12, 0/0

**MAT - MATHEMATICS**

**MAT 097**
**BASIC MATHEMATICS**
0, 3/0
Provides the necessary mathematics background needed to pass college-level algebra; covers polynomials, rational expressions, exponents and roots, solving equations and inequalities.

**MAT 098**
**BASIC MATHEMATICS**
0, 3/0
Computer-based instruction presentation. Information is presented primarily by computer program with instructor intervention. Instructor interacts with the program by evaluating pre-tests and placing students appropriately in the course continuum. Students are encouraged to complete the entire course of study, but may exit the course when they achieve a score at or above the minimum competency exam. One hour per week attendance is required.

**MAT 103**
**INTRODUCTION TO MATHEMATICS**
3, 3/0; MQIF
Some of the greatest achievements of mathematical thought, highlighting the beauty and creativity of these ideas. Topics include Fibonacci numbers; the golden rectangle; estimation; comparing infinities; fractals; the Pythagorean Theorem; the five platonic solids; and selected topics from probability and statistics. Designed for liberal arts majors who do not plan to take further math courses.
Equivalent course: MAT103W

**MAT 114**
**FUNCTIONS AND MODELING**
3, 3/0; MQIF
Prerequisite: 3 years high school mathematics or equivalent. Describe and explore real-world functions, data, and phenomena through graphic, numeric, symbolic, and verbal representations. Use elementary functions (linear, polynomial, power, and exponential) to investigate and analyze applied problems (supported by the use of appropriate technology).

**MAT 121**
**ELEMENTARY MATHEMATICS FROM AN ADVANCED STANDPOINT I**
4, 4/0
Prerequisite: 3 years high school math or equivalent. First course of a two-semester sequence on the fundamental concepts of elementary mathematics: positional numeral systems, number and operations, proportional reasoning, and number theory. Emphasis on problem solving, understanding the concepts and procedures of elementary mathematics, mathematical modeling, the use of manipulatives, and effective communication of mathematical ideas.

**MAT 122**
**ELEMENTARY MATHEMATICS FROM AN ADVANCED STANDPOINT II**
4, 4/0; MQIF
Prerequisite: MAT 121 or equivalent. Second course of a two-semester sequence on the fundamental concepts of elementary mathematics: 2- and 3-dimensional geometry, measurement, probability, statistics, linear and non-linear functions. Emphasis on problem solving, understanding the concepts and procedures of elementary mathematics, mathematical modeling, the use of manipulatives, and effective communication of mathematical ideas.

**MAT 124**
**FUNCTIONS AND MODELING II**
3, 3/0; MQIF
Prerequisite: MAT 114 with a minimum grade of C, or equivalent. A precalculus course designed for students who have completed a minimum of three years of New York State Regents high school mathematics or the equivalent. Topics include analysis of polynomial, rational, exponential, logarithmic, and trigonometric functions from graphical, symbolic, numerical, and verbal perspectives with an emphasis on modeling and applications of those functions in real-world contexts. No credit given to students who have previously completed MAT 126 or MAT 161 or equivalent.
MAT 126
APPLIED CALCULUS I
4, 4/0; MQIF
Functions; limits; continuity; techniques for differentiations; applications; summations; antiderivatives; definite integrals; fundamental theorem of calculus; techniques of integration; applications. Credit issued for either MAT 126 or MAT 161 (or equivalents), but not both.

MAT 127
APPLIED CALCULUS II
4, 4/0
Prerequisite: MAT 126 with a minimum grade of C, or equivalent. Continuation of MAT 126. Techniques of integration; applications of integration; introduction to differential equations including separation of variables, first order linear equations, and their applications; Taylor polynomials; Newton's method; partial derivatives; and optimization of functions of two and three variables. Graphical, symbolic, numerical, and verbal representations are used for all topics. Designed for students majoring in disciplines that use calculus as a tool. Credit issued for either MAT 127 or MAT 162 (or equivalents), but not for both. Equivalent course: MAT162

MAT 161
CALCULUS I
4, 4/0; MQIF
Prerequisite: MAT 124 with a minimum grade of C, or four years of Regents high school mathematics. Corequisite: MAT 163. Graphical, symbolic, and numeric representation and analysis of functions; limits; continuity; derivatives and antiderivatives of algebraic, trigonometric, exponential, and logarithmic functions; applications of the derivative and antiderivative. Appropriate for math majors and students in partner disciplines requiring understanding of fundamental principles of calculus with emphasis on deductive reasoning and proof.

MAT 162
CALCULUS II
4, 4/0
Prerequisite: MAT 161. Corequisite: MAT 164. A continuation of MAT 161. Area accumulation functions; definition of the definite integral; fundamental theorem of calculus; integration techniques; applications of integrals; improper integrals; sequences and series; function approximation. Graphical, symbolic, and numeric representations are used throughout the course. Appropriate for math majors and students in partner disciplines requiring understanding of fundamental principles of calculus with emphasis on deductive reasoning and proof.

MAT 163
USING TECHNOLOGY TO EXPLORE CALCULUS I
1, 1/0
Prerequisite or corequisite: MAT 161 or equivalent. Exploration of Calculus I using a programmable graphing calculator.

MAT 164
USING TECHNOLOGY TO EXPLORE CALCULUS II
1, 1/0
Prerequisite or corequisite: MAT 162 or equivalent. Exploration of Calculus II, using a computer algebra system.

MAT 202
INTRODUCTION TO LINEAR ALGEBRA
3, 3/0
Prerequisite: MAT 161 or MAT 126. Vectors and vector spaces; linear dependence, basis and dimension; matrices and determinants; linear systems; linear transformations; eigenvectors; invariant subspaces.

MAT 241
COMPUTATIONAL TOOLS FOR APPLIED MATHEMATICIANS I
3, 3/0
Prerequisite: MAT 161 and MAT 163 or equivalent or permission of instructor. Fundamental concepts of problem solving by computer as applied to mathematics. Computer organization, operations and functions, algorithm development, programming techniques. Numerical methods as used in calculus, linear algebra, geometry, etc. Uses a computer language to be applied in this and other mathematics classes. Equivalent course: MAT141

MAT 263
CALCULUS III
3, 3/0
Prerequisite: MAT 162. Corequisite: MAT 264. Vectors, partial differentiation, multiple integrals, and infinite series. Applications studied through algorithmic techniques and/or computer usage.

MAT 264
USING TECHNOLOGY TO EXPLORE CALCULUS III
1, 1/0
Prerequisite: MAT 164. Prerequisite or corequisite: MAT 263. Exploration of Calculus III using a Computer Algebra System.

MAT 270
DISCRETE MATHEMATICS
3, 3/0
Prerequisites: 4 years of high school mathematics or equivalent. Fundamental principles used in discrete mathematics. Topics include logic, mathematical induction, sets, relations, functions, permutations, combinations, recursion, and graph theory.

MAT 300
TECHNIQUES OF PROOF
3, 3/0
Prerequisite or corequisite: MAT 161 AND MAT 270A gateway to upper-division mathematics with an emphasis on mathematical structures, techniques of proof, and the effective written and oral communication of mathematical ideas. Designed to ease the transition from lower-division mathematics to more theoretical courses such as abstract algebra and real analysis. Students are required to submit written work and make oral presentations.

MAT 301
FUNDAMENTALS OF ABSTRACT ALGEBRA
3, 3/0
Prerequisite: MAT 202 and MAT 300. Fundamental concepts of abstract algebra: sets, mappings, binary operations, relations; algebraic structures of groups, rings, fields, and applications. Equivalent course: MAT301W

MAT 302
ABSTRACT ALGEBRA II
3, 3/0
Prerequisite: MAT 301. Quotient fields of integral domains, polynomials; Euclidean domains, ideals, and factorization; finite fields, extension fields, splitting fields. Applications to geometric constructions and solvability chosen from contemporary areas of coding theory, block designs, etc. Equivalent course: MAT302W

MAT 304
GAMES AND LINEAR PROGRAMMING
3, 3/0
Prerequisite: Three years of Regents high school mathematics. Elementary techniques for finding optimal choices among game strategies and in linear programming problems using the fundamental minimax theorem and the simplex method. Applications in such areas as business, industry, economics, social sciences, and behavioral sciences. Not open to BA-MAT, BS-NS-MAT, BS-NS-MTS or BS-NS-MTX majors.

MAT 309
DISCRETE MATHEMATICS II
3, 3/0
Prerequisite: MAT 270. Automata, modules, group codes, linear machines, polynomial rings, cyclic codes, minimum polynomials, context-free grammars, tree automata, polish notation, pushdown automata.

MAT 311
INTRODUCTORY PROBABILITY AND STATISTICS
3, 3/0; MQIF
Prerequisite: Three years of Regents high school mathematics. Descriptive statistics; probability and random variables; binomial, normal, and t distributions; estimation and tests of hypotheses concerning means, proportions, and differences between means and proportions. Does not count toward the BA-NS-MAT, BS-NS-MAT, BS-NS-MTS or BS-NS-MTX majors. Equivalent course: MAT111
MAT 315
DIFFERENTIAL EQUATIONS
3, 3/0
Prerequisite: MAT 263 or permission of instructor. Preliminary ideas on order, degree, and solutions; formation of differential equations; differential equations of first-order linear equations with constant coefficients; special high-order equations; simultaneous equations; linear equations of the second order; series solutions.

MAT 316
INTERMEDIATE DIFFERENTIAL EQUATIONS
3, 3/0
Prerequisite: MAT 315. Laplace transform; inverse Laplace transform and applications; partial differential equations; Fourier series; boundary value problems; transform methods application.

MAT 318
MATHEMATICAL MODELING
3, 3/0
Prerequisites: MAT 162 and MAT 202. Construction, interpretation and application of mathematical models; various modeling paradigms such as deterministic, probabilistic, discrete and continuous modeling. Models which provide valuable insights into contemporary topics from different fields that may include bio-medical applications, financial mathematics, cellular automata models, mathematical methods for data collection and analysis in geology, mathematical tools for GIS, and weather prediction.

MAT 319
MATHEMATICAL BIOLOGY
3, 3/0
Prerequisites: MAT 161 with a minimum grade of C, or equivalent. A project-oriented, introductory mathematical modeling course with an emphasis on the construction and analysis of mathematical models of biological events and phenomena. Mathematical topics include matrix algebra, difference and differential equations. Biological topics include population dynamics, dynamics of infectious disease and models of molecular evolution.

MAT 322
MODERN GEOMETRY
3, 3/0
Prerequisite: MAT 270. Euclidean constructions; theorems of Menelaus and Ceva; cross-ratio; harmonic points; orthogonal circles; isometrics and similarities in the plane; introduction of projective geometry. Equivalent course: MAT 322W

MAT 325
PROBABILITY AND STATISTICS
3, 3/0
Prerequisites: MAT 127 or MAT 162 and MAT 270, and MAT 311 or permission of instructor. Probability (graphic representations, descriptions of probabilistic events, combinatorics and combinatorial probability); discrete and continuous probability distributions; descriptive statistics; estimation and tests of hypotheses concerning means, proportions, variance and standard deviation and differences between means and proportions.

MAT 351
ELEMENTARY THEORY OF NUMBERS
3, 3/0
Prerequisite: Four years of Regents high school mathematics. Divisibility; Euclid’s algorithm; numbers; prime factorization theorem; Euler’s phi-function; Diophantine analysis; congruence; theorems of Fermat, Euler, and Wilson.

MAT 366
COMPUTATIONAL TOOLS FOR APPLIED MATHEMATICIANS II
3, 3/0
Prerequisites: MAT 164, MAT 241, and MAT 270; or permission of instructor. Structured programming, verification of program validity, data structures, combinatorial problems, flow network, algorithms, random number generators, simulation of random and nonrandom processes.

MAT 370
APPLIED NETWORKS
3, 3/0
Prerequisites: MAT 202 and MAT 270. Introduction to network and graph theoretic concepts. Properties with application in computational mathematics, social science, decision making, and physical science.
MAT 431
MATHEMATICAL LOGIC
3, 3/0
Prerequisites: MAT 270 and MAT 202. Validity, deductibility, and completeness in propositional and predicate logics; first-order formal theories and informal theories in the context of set theory.

MAT 461
NUMERICAL ANALYSIS
3, 3/0
Prerequisites: MAT 202, MAT 263, and MAT 264. Numerical solutions (and error analysis) to linear and nonlinear equations; interpolation; curve fitting; function approximation; numerical differentiation and integration; differential equations.

MAT 471
INTRODUCTION TO TOPOLOGY
3, 3/0
Prerequisites: MAT 270 and either MAT 301 or MAT 417. Introduction to topology: sets and functions; metric spaces; topological spaces; connectedness; compactness; separation.

MAT 481
STOCHASTIC PROCESSES
3, 3/0
Prerequisite: MAT 325 or MAT 381. Random walks, Brownian motion, Markov chains and applications, continuous-time processes including exponential distribution and Poisson processes, software applications.

MAT 484
APPLIED STATISTICS II
3, 3/0
Prerequisite: MAT 383. Logistic regression, survival analysis, time series analysis.

MAT 490
SEMINAR
1-3, 1-3/0
Prerequisite: Senior mathematics major or permission of instructor. Investigation of topics of current interest to mathematicians, such as group theory; game theory; differential geometry; measure theory; sampling theory. Emphasis on oral presentations and discussions.

MAT 491
CAPSTONE RESEARCH IN MATHEMATICS
3, 3/0; OCIF
Prerequisites: MAT 301 or MAT 417 and senior status; or permission of instructor. Independent research under the direction of the instructor. Composition of a research paper and presentation of results at a seminar for faculty and students.

MAT 495
SPECIAL PROJECT
1-3, 0/0
Equivalent course: AMT495

MAT 499
INDEPENDENT STUDY
3-12, 0/0
Prerequisite: Permission of instructor.

MCL 205
LANGUAGE, DICTION AND SOCIETY
3, 3/0
Prerequisites: None. The role of language perception in society; focus on how accent and pronunciation shape societal opinions of speakers, with respect to race, gender, socioeconomic standing, and other factors.

MCL 337
GREEK AND ROMAN MYTHOLOGY
3, 3/0
Prerequisite: One college-level literature course. Stories of the gods, goddesses, and heroes of Greece and Rome as presented in Greek and Roman literature. Emphasis upon determining possible origins and meanings of the myths studied.
Equivalent courses: FLA337, MCL337W

MCL 488
INTERNSHIP
1-15, 0/0
Prerequisite: Upper-division status and permission of instructor and department chair. Overall 2.5 GPA and 2.5 GPA in upper-division courses in specific language area. Guided and supervised field experiences (experiential learning) of degree programs. Supervised on-site activities for qualified students; training sessions, seminars and reports.

MCL 495
SPECIAL PROJECT
3, 0/0
Prerequisite: Permission of instructor.

MCL 499
INDEPENDENT STUDY
3-12, 0/0
Prerequisite: Permission of instructor.

MED - MATHEMATICS EDUCATION

MED 200
FIELD EXPERIENCE IN SECONDARY EDUCATION MATHEMATICS
3, 1/0
Classroom and field experience designed to help students contemplating careers in secondary mathematics education; provides important background for students' roles as citizens and as parents. Required for secondary education mathematics majors. Equivalent course: SED200

MED 300
FIELD EXPERIENCE: METHODS IN THE TEACHING OF SECONDARY SCHOOL MATHEMATICS
3, 2/0
Corequisite: MED 308. Supervised field experience at the middle and/or high school level. Emphasis on classroom implementation of knowledge, understanding, and practice consistent with state and national mathematics teaching standards discussed in MED 308.

MED 307
USES OF TECHNOLOGY IN THE TEACHING OF MATHEMATICS
3, 3/0; TSIF

MED 308
METHODS IN THE TEACHING OF SECONDARY SCHOOL MATHEMATICS
3, 3/0
Prerequisites: For BS-NS-MTS and BS-NS-MTX students, 30 credit hours of MAT courses with minimum GPA of 2.5. 6 credit hours of professional courses and MED 200 with minimum GPA of 2.5 and permission of instructor. BS-ED-CMT students, minimum of 24 hours of MAT courses with a GPA of 2.5, minimum of 6 hours of professional
MED 309
FIELD EXPERIENCE: METHODS IN TEACHING OF SECONDARY SCHOOL MATHEMATICS
3, 3/0
Prerequisites: Must be enrolled in BS-ED-CMT; a minimum of 24 hours of the math concentration completed with a GPA of 2.5 or higher; a minimum of 6 hours of professional education courses completed with a GPA of 2.5 or higher; permission of instructor. Corequisite: MED 308. Preparation to teach mathematics in grades 5-9. Includes techniques and models used to teach mathematics at the middle-school level in the context of current research on how children learn mathematics.
Equivalent course: MED308W, SED308

MED 383
LEARNING AND TEACHING PROBLEM SOLVING
3, 3/0
Prerequisites: MAT 162, MAT 127, MAT 270, and upper-division status. Experiences in mathematical problem solving; learning through problem solving; consideration of diverse perspectives and problem-solving approaches; strategies for teaching the use of a problem-based approach; the historical and current roles of problem solving in secondary mathematics.
Equivalent course: MED383W

MED 406
STUDENT TEACHING OF MATHEMATICS IN THE LOWER MIDDLE GRADES 5-6
6, 0/0
Prerequisites: Completion of MED 200, MED 307, MED 309, MED 383W, EDF 303, all required mathematics courses, and 6 credit hours of upper-division mathematics courses; minimum GPA of 2.5 in all mathematics and education coursework; senior status. Lower middle school laboratory experiences, goals of lower middle school education, psychological influences, teaching models, assessment techniques, classroom management, total involvement in lower middle school activities, practicum.

MED 407
STUDENT TEACHING OF MATHEMATICS IN JUNIOR HIGH/MIDDLE SCHOOL
6, 0/0; OCIF
Prerequisites: Completion of MED 308 and MED 300 or MED 309 with a minimum grade of C; completion of all mathematics coursework; minimum cumulative GPA of 2.5 in all major mathematics courses; completion of all education courses with a minimum cumulative GPA of 2.5; senior status; and instructor permission. Supervised teaching experience five full days a week for approximately eight consecutive weeks in an early secondary mathematics classroom. Effective demonstration of content knowledge, pedagogical preparation, instructional delivery, classroom management, knowledge of student development, collaboration with school professionals, and reflectivity of practice required.
Equivalent course: SED407

MED 408
STUDENT TEACHING OF MATHEMATICS IN HIGH SCHOOL
6, 0/0; OCIF
Prerequisites: MTS major; completion of MED 308 and MED 300 with a minimum grade of C; completion of all mathematics degree coursework; minimum cumulative GPA of 2.5 in all major mathematics courses; completion of all education courses with a minimum cumulative GPA of 2.5; senior status; and instructor permission. Supervised teaching experience five full days a week for approximately eight consecutive weeks in an early secondary mathematics classroom. Effective demonstration of content knowledge, pedagogical preparation, instructional delivery, classroom management, knowledge of student development, collaboration with school professionals, and reflectivity of practice required.
Equivalent course: SED408

MST 450
MUSEUM INTERNSHIP
3-6, 0/0
Prerequisites: Upper-division status and permission of instructor. For students interested in gaining practical experience in museum work. Assignment to a particular museum is based on a student's major-related disciplines. Students in areas such as history, anthropology, art history, education, and the natural sciences are eligible.
Equivalent course: HIS450

MST 488
INTERNSHIP
3-15, 3/0
Prerequisite: Approval of the faculty supervisor. Supervised field experience in a variety of settings to supplement classroom instruction.

MST 495
SPECIAL PROJECT
1-3, 0/0
Prerequisite: Faculty supervisor permission. Research conducted under the supervision of a faculty member.

MST 499
INDEPENDENT STUDY
3-12, 0/0
Prerequisite: Faculty adviser permission.

MST 498
HONORS RESEARCH
3, 0/0

MUS 110
ACCOMPANIST COACHING SESSION
1, 0/2
Corequisites: MUS 171, 173, 271, 273, 371, 373, 471, or 473 applied lessons. Provides students enrolled in the applied music lesson sequence the opportunity to meet and rehearse privately with a staff pianist and have an accompanist present in their applied lesson. Emphasis on memorization techniques, solo and ensemble performance techniques, and musical interpretation. Includes solo or chamber repertoire currently under preparation for conservatory, jury, or recital performance.

MUS 111
ACCOMPANYING FOR PIANISTS
1, 1/0
Prerequisite: Music Majors only. For piano students who wish to gain chamber experience. Students assigned to a vocalist, instrumentalist, or ensemble and will be required to attend weekly applied lessons or rehearsals as well as a coaching/masterclass session with an assigned coach.

MUS 112
APPLIED MUSIC
1, 1/0
Prerequisites: Permission of instructor. Previous performance experience; audition and ensemble participation required. Individual lessons for voice or instrument. Private lesson fee possible.

MUS 113
BRASS TECHNIQUES
1, 1/0
Prerequisite: Music education majors. Pre-professional training in performing and teaching methodologies for trumpet, horn, trombone, baritone, and tuba.
MUS 114  
Percussion Techniques  
1, 1/0  
Prerequisite: Music education majors. Pre-professional training in performing and teaching methodologies for percussion instruments.

MUS 115  
String Techniques  
1, 1/0  
Prerequisite: Music education majors. Pre-professional training in performing and teaching methodologies for violin, viola, violoncello, and contrabass.

MUS 116  
Woodwind Techniques  
1, 1/0  
Prerequisite: Music education majors. Pre-professional training in performing and teaching methodologies for flute, clarinet, oboe, bassoon, and saxophone.

MUS 119  
Vocal Pedagogy  
1, 1/0  
Develops knowledge and techniques for the teaching of voice, including posture, breathing, diction, repertoire selection at all levels, as well as the pedagogical processes for teaching secondary vocal students. Repeatable.

MUS 122  
Introduction to Music Studies and Careers  
2, 2/0  
Provides historical, philosophical, and practical foundations needed for a career in music. Experiences that integrate library, research, teacher observation and analysis, reading, and writing skills with regard to the profession will be utilized to assist students' exploration and confirmation of his or her decision to enter the field.

MUS 160  
Class Piano I  
1, 0/2  
This is the first in a sequence of four group piano courses designed for those music students who need to improve their piano skills. The first two semesters focus on developing general musicianship skills, such as sight reading from the grand staff, melody harmonization, technique, improvisation, ensemble performance, practicing, and use of basic theory skills at the keyboard.

MUS 162  
Class Piano II  
1, 0/2  
Prerequisite: C or better in MUS 161 or audition. Continuation of the skills acquired in MUS 161.

MUS 171  
Applied Music  
1, 1/0  
Prerequisite: Music Major and Audition. Individual lessons for voice or instrument. Required for music majors. Private lesson fee possible. Concert attendance required.

MUS 173  
Applied Music  
1, 1/0  
Prerequisite: Music Major and Audition. Individual lessons for voice or instrument. Required for music majors. Private lesson fee possible. Concert attendance required.

MUS 201  
Survey of Western Music History  
3, 3/0; ARIF  
Introduction to music from the Middle Ages to the present; study of forms and styles, composers and performers, cultural and social backgrounds, and parallel developments in other arts. Lecturer and listening assignments. Concert attendance required. Equivalent courses: MUS201W, MUS301, MUS329

MUS 206  
Foundations of American Popular Music  
3, 3/0; ARIF, DIIF  
This survey course studies the historical developments that helped formulate today's popular music, including the roots of blues, jazz, and rock music in America.

MUS 208  
Survey of World Music Cultures  
3, 3/0; ARIF  
Survey of representative art and popular music cultures of Africa, Asia, the Middle East, and Latin America. Lectures and listening assignments. Concert attendance required.

MUS 209  
Sub-Saharan African Music and Cultures  
3, 3/0; NWIF  
Study of the cultures of sub-Saharan Africa focused on the histories and musics from four specific regions. Two-thirds of class time is in lecture format; one-third is dedicated to learning and performing African rhythms on percussion instruments.

MUS 210  
Music Theory for Non-Majors  
3, 3/0; ARIF  
Music notation, aural and written. Scales, intervals, triads, seventh chords, rhythms, simple and compound meters, elementary ear-training, dictation, analysis, and composition.

MUS 218  
Aural Perception I  
1, 0/3  
Corequisite: MUS 230. Laboratory course for those with basic music-reading skills. Reinforces theoretical music concepts through sight singing, rhythmic, melodic dictation, and basic musicianship. A diagnostic test is given at the beginning of the semester. Required for music majors.

MUS 219  
Aural Perception II  
1, 0/3  
Prerequisites: MUS 218 and MUS 230. Corequisite: MUS 231. Continuation and development of the melodic, rhythmic, and musicianship skills acquired in MUS 218. Required for music majors.

MUS 220  
Technology Applications for Music Education  
2, 2/0  
Prerequisites: MUS 230 and MUS 231, or permission of instructor. Students gain knowledge of current technology applications suitable for music instruction, including administrative applications, software for notation and composition, and MIDI-based sequencing, as well as teaching methods and strategies for using technology in music classrooms and ensembles; incorporates extensive hands-on activities.

MUS 223  
Sacred Music in Western Society  
3, 3/0; HUIF  
Prerequisites: none. Examines the creation, use, influence and position of sacred music throughout the course of Western history. Analyze how this music reflects the cultural values of the society in which it was created and also demonstrates the beliefs and attitudes of the various institutions that supported its creation and provided the context for its performance; Explore how the understanding of this repertoire may be made more meaningful by reflective personal experience and inspire a broader awareness of humanity.

MUS 224  
Music and Political Action  
3, 3/0; WCIF  
Prerequisites: CWP 101 and CWP 102. Chronological overview of significant political, social, military, and religious events and along with the music associated with those important events. Students will be introduced to various composers, musical styles, musical forms and musical selections as they directly relate to historically significant circumstances, events, and movements within World and American History. While previous musical experience is helpful, it is not required.
MUS 230
MUSIC THEORY I
3, 3/0
Prerequisite: Music Majors only. Corequisite: MUS 218. Fundamentals of music, including notation, scales, modes, tonality, key signatures, intervals, basic chords, basic harmony, voice leading, melodic structures, and the general stylistic features of the various epochs of Western music. Required for Music Majors.

MUS 231
MUSIC THEORY II
3, 3/0
Prerequisites: MUS 230 and MUS 218. Corequisite: MUS 219. Continuation of the fundamentals of music, with emphasis on harmony, voice leading, and simple formal structures within the contexts of the various historical periods of Western music. Required for music majors.

MUS 261
CLASS PIANO III
1, 0/2
Prerequisite: C or better in MUS 162 or audition. This course and MUS 262 are designed for music students who are working toward successful completion of the piano proficiency exam. The skills developed are those used by music educators in the elementary or secondary classroom: Sight reading, melody harmonization, accompanying, score reading, and improvisation.

MUS 262
CLASS PIANO IV
1, 0/2
Prerequisite: C or better in MUS 261 or audition. Continuation of the skills acquired in MUS 261.

MUS 271
APPLIED MUSIC
1, 1/0
Prerequisite: Music Majors only and audition. Individual lessons for voice or instrument. Required for music majors. Private lesson fee possible. Concert attendance required.

MUS 273
APPLIED MUSIC
1, 1/0
Prerequisite: Music Majors only and audition. Individual lessons for voice or instrument. Required for music majors. Private lesson fee possible. Concert attendance required.

MUS 290
PHILHARMONIA ORCHESTRA
1, 1/0; ARIF
Prerequisite: Audition. Participation in the Buffalo State College Philharmonia Orchestra, a college-community ensemble composed of qualified Buffalo State student musicians and experienced community musicians. The orchestra serves as the principal vehicle for increasing students' awareness of symphonic repertoire, orchestral excerpts, and performance protocol as directly related to an orchestral ensemble. Repertoire is planned and organized to provide students with a diverse exposure to important classical, pops, and seasonal programming. May be taken more than once.

MUS 302
MUSIC HISTORY: ANTIQUITY THROUGH BAROQUE
3, 3/0
Prerequisite: One theory course or permission of instructor. Listening, identification, analysis, and study of musicological and socio-historical trends in the medieval, Renaissance, and Baroque style periods. Equivalent course: MUS302W

MUS 303
MUSIC HISTORY: CLASSIC THROUGH MODERN
3, 3/0
Prerequisite: MUS 302. Listening, identification, analysis, and study of musicological and socio-historical trends, with focus on the eighteenth, nineteenth, twentieth, and twenty-first centuries, including opera, oratorio, solo song, chamber music, symphony, and contemporary forms. Equivalent course: MUS303W

MUS 305
MODERN JAZZ
3, 3/0
Prerequisite: MUS 206. History and development of modern jazz from 1941 to the present. Equivalent courses: AAS304, MUS305W

MUS 306
URBAN BLUES AND ROCK
3, 3/0
Prerequisite: MUS 206. Sources and development of the idioms, style, and sound media of this music. Equivalent course: MUS306W

MUS 313
CHAMBER CHOIR
1, 1/0
Prerequisite: Audition. A select vocal ensemble of mixed voices that studies and performs art music from the medieval through modern genres.

MUS 313
WIND ENSEMBLE
1, 1/0
Prerequisite: Some prior performance experience on a wind or percussion instrument used in standard band instrumentation. Rehearsals and performances include historical and contemporary wind and percussion literature from around the world as well as transcriptions and arrangements of masterpieces from the Renaissance to the present. Open enrollment.

MUS 318
AURAL PERCEPTION III
1, 0/3

MUS 319
AURAL PERCEPTION IV
1, 0/3
Prerequisites: MUS 330 and MUS 318. Corequisite: MUS 331. Continuation and development of the harmonic, melodic, rhythmic, and musicianship skills acquired in MUS 318. Required for music majors. Equivalent course: MUS319W

MUS 321
COMPOSITION, IMPROVISATION AND ARRANGING
2, 3/0
Prerequisite: MUS 330. Corequisite: MUS 331. Class instruction and supervised training in basic instrumental and vocal improvisation, with study of associated notation styles for composition and group performance. Introduction to arranging and standard notation for choir, band, and orchestra.

MUS 322
INSTRUMENTAL CONDUCTING
2, 2/0
Prerequisite: Upper-level music major or equivalent. Introduction to the musical and technical aspects of directing and developing an instrumental ensemble. Use of baton, score reading, and observation. Ensemble work.

MUS 323
VOCAL JAZZ ENSEMBLE
1, 0/2
Prerequisites: Instructor permission. Study and perform vocal jazz music within an ensemble of 12-16 auditioned musicians. Traditional approaches and skills to the performance and study of vocal jazz music will be developed while significantly expanding the student’s knowledge of vocal jazz repertoire, performance practice and vocal techniques.

MUS 326
JAZZ ENSEMBLE
1-12, 0/0
Prerequisite: Audition. Training and supervised performance in jazz and dance band combination. May be repeated.
MUS 330  MUSIC THEORY III
3, 0/0
Prerequisites: MUS 231. Corequisite: MUS 318. Analysis and theoretical understanding of compositional techniques of Western art music of the late seventeenth, eighteenth, and nineteenth centuries. Required for music majors.

MUS 331  MUSIC THEORY IV
3, 3/3

MUS 333  CHORAL CONDUCTING
2, 0/2
Prerequisites: MUS 219 and MUS 119. Corequisite: MUS 335 or MUS 313. Fundamentals of rehearsing, developing, and conducting choirs for students with choral and vocal background. May require observation of off-site choral ensemble rehearsals and performances. Required for music education majors.

MUS 334  PERCUSSION ENSEMBLE
1, 1/0
Prerequisite: Audition or permission of instructor. An exploration of sophisticated percussion literature by modern composers or transcriptions of other works for percussion instruments. The ensemble performs on standard percussion instruments, such as timpani, marimba, vibraphone, snare drum, tom toms, and other struck objects. Repeatable.

MUS 335  BUFFALO STATE COLLEGE CHORALE
1, 0/2
Rehearsal and performance of representative choral music from a diverse repertoire including classical, pop, gospel, spirituals, jazz, folk, and show music. Presentation of the fundamentals of choral singing. May be repeated.

MUS 337  STRING ENSEMBLE
1, 1/0
Prerequisite: Audition or permission of instructor. A performing ensemble surveying standard chamber music repertoire for string instruments, such as quartet, quintet, or piano trios. Repeatable.

MUS 338  BRASS ENSEMBLE
1, 1/0
Prerequisite: Audition or permission of instructor. Chamber group consisting of trumpets, trombones, French horns, euphoniums, baritones and tubas. Explores body of chamber music written or transcribed for brass instruments. Repeatable.

MUS 339  WOODWIND ENSEMBLE
1, 1/0
Prerequisite: Audition or permission of instructor. Chamber group consisting of combinations of woodwind instruments, including clarinet choir, flute quartet, saxophone quartet, mixed trios, quartets, quintets, or larger. Explores body of chamber music written or transcribed for woodwind instruments. Repeatable.

MUS 345  ELEMENTARY MUSIC METHODS
3, 3/0
Prerequisites: Permission of instructor; music education interview. Gain knowledge and skills in the areas of teaching methods and strategies for elementary music education; extensive hands-on and writing activities.

MUS 346  FIELD EXPERIENCE IN ELEMENTARY MUSIC
1, 0/0
Corequisite: MUS 345. Observation and application of instructional procedures learned in MUS 345 through on-site participation in local schools.

MUS 347  THE HISTORY OF PSALMODY
3, 3/0
Prerequisites: None. A comprehensive survey of music based on the texts of the Biblical Book of Psalms. Analyses of the origins, literary structures, content and organization of the psalms; the development of various music performance practices; the tracing of the historical musical development of their settings; and the past and continuing influence of this repertoire on the cultural development of Western Civilization.

MUS 349  WEST AFRICAN DRUMMING ENSEMBLE
1, 1/0
Prerequisite: Instructor permission. Prerequisite or corequisite: MUS 209 or prior musical experience. Introduction to traditional West African rhythms on djembes, dundun drums, and iron bells. Students explore cultural contexts and learn to give and respond to rhythmic signals, learn to play different rhythms simultaneously, and learn culturally and rhythmically appropriate improvisation techniques.

MUS 353  FIELD EXPERIENCE IN MUSIC FOR EXCEPTIONAL LEARNERS
1, 0/0
Corequisite: MUS 345. Observation and application of adaptations and instructional procedures appropriate for music with exceptional learners through on-site participation in local schools.

MUS 360  SECONDARY INSTRUMENTAL MUSIC METHODS
3, 3/0
Prerequisites: MUS 345, MUS 362. Knowledge and skills in the areas of teaching methods and strategies for secondary instrumental music education; includes extensive hands-on and writing activities.

MUS 361  FIELD EXPERIENCE IN SECONDARY INSTRUMENTAL MUSIC
1, 0/0
Prerequisite: MUS 362 or permission of instructor. Corequisite: MUS 360. Observation and application of instructional procedures learned in MUS 360 through on-site participation in local schools.

MUS 362  SECONDARY CHORAL METHODS
3, 3/0
Prerequisite: MUS 345 or permission of instructor. Corequisite: MUS 363. Gain knowledge and skills in the areas of teaching methods and strategies for secondary choral music education; extensive hands-on and writing activities.

MUS 363  FIELD EXPERIENCE IN SECONDARY CHORAL MUSIC
1, 0/0
Prerequisite: MUS 345 or permission of instructor. Corequisite: MUS 362. Observation and application of instructional procedures learned in MUS 362 through on-site participation in local schools.

MUS 371  APPLIED MUSIC
1-2, 1/0
Prerequisite: Music Major only and audition. Individual lessons for voice or instrument. Required for music education majors. Private lesson fee possible. Concert attendance required.

MUS 373  APPLIED MUSIC
1-2, 1/0
Prerequisite: Music Major and audition. Individual lessons for voice or instrument. Required for music education majors. Private lesson fee possible. Concert attendance required.

MUS 410  RECITAL ACCOMPANIST
1, 0/1
Co-requisites: MUS 110 and MUS 171,173,271,273,371,373,471, or 473 applied lessons. For students enrolled in the applied music lesson sequence and preparing for a recital. Meet and rehearse privately with a staff piano accompanist. Emphasis on preparation for performance, solo and ensemble performance techniques, and musical interpretation.
MUS 440
ETHNOMUSICOLOGY
3, 3/0; OCIF
Prerequisites: MUS 302 and MUS 303 or permission of instructor. Lectures, readings, recordings, and hands-on participation in class, with emphasis on understanding the theories and methodologies used to study music as an aspect of human culture. Examination and discussion of case studies from different regions of the world, as well as independent fieldwork research. Required for music majors. Equivalent courses: MUS340, MUS340W, MUS440W

MUS 457
STUDENT TEACHING IN ELEMENTARY MUSIC
5, 0/0
Prerequisites: Successful completion of all music coursework, including 100 documented observation hours, the piano proficiency exam, the Music Department Student Teaching Application, and Criteria for Student Teaching. Corequisites: MUS 458 and MUS 460. Supervised full-time teaching internship for a half semester in an elementary school setting. Required culminating experience for music education majors seeking New York State certification.

MUS 458
STUDENT TEACHING IN SECONDARY MUSIC
5, 0/0
Prerequisites: Successful completion of all music coursework, including 100 documented observation hours, the piano proficiency exam, the Music Department Student Teaching Application, and Criteria for Student Teaching. Corequisites: MUS 457 and MUS 460. Supervised full-time teaching internship for a half semester in a middle or high school setting. Required culminating experience for music education majors seeking New York State certification.

MUS 460
STUDENT TEACHING SEMINAR
2, 2/0
Prerequisites: Permission of instructor. Corequisites: MUS 457 and MUS 458. Study of current issues in music education and the challenges of the beginning teaching experience. Students will participate in weekly discussions centered on such topics as music education philosophy in action; curriculum development and evaluation; assessment of musical behaviors; discipline (prevention and intervention); time management; and meeting state and national standards in music.

MUS 471
APPLIED MUSIC
1-2, 1/0
Prerequisite: Music Major and audition. Individual lessons for voice or instrument. Required for music education majors. Private lesson fee possible. Concert attendance required.

MUS 473
APPLIED MUSIC
1, 1/0
Prerequisite: Music Major and audition. Individual lessons for voice or instrument. Private lesson fee possible. Concert attendance required.

MUS 488
INTERNSHIP
1-6, 0/0
Prerequisites: Permission of Internship Coordinator; Minimum 2.5 GPA in Major; Minimum 2.0 GPA Overall. Guided and supervised exposure to professional artistic administration and/or operations through on-the-job work experience in an authorized administrative, business, or performance setting. Will write a written report of the work experience based on journal entries, and receive written evaluations from the Internship Site Supervisor and Internship Coordinator.

MUS 495
SPECIAL PROJECT
1-3, 0/0
Prerequisite: Permission of instructor. Required for B.A. music students in the final semester of study. For current music B.A. capstone guidelines, please visit www.buffalostate.edu/music/documents/capstoneproposaldraft.pdf.

MUS 499
INDEPENDENT STUDY
3-12, 0/0

NFS - DIETETICS AND NUTRITION

NFS 100
INTRODUCTION TO FOOD PREPARATION
3, 2/2; DIIF
A study of the composition of food and scientific principles of food preparation and cookery. Students learn food selection, storage, and preparation skills.

NFS 102
INTRODUCTORY NUTRITION
3, 3/0; NSIF
A basic science in human nutrition focuses on knowledge of chemical structure, dietary sources, requirements, functions, digestion, absorption, transportation, utilization, and excretion of essential nutrients and other substances.

NFS 105
FOOD AND PEOPLE
3, 3/0; TSIF
The use of technology and science for food production, preservation, processing, and safety profoundly influences nutritional, economic, social, ethical, legal, and personal issues. Concerns about the impact of technology on environment, health, culture, and hunger/malnutrition are addressed. Course prepares students to understand the concepts of food, nutrition, food culture, and food safety for optimal health.

NFS 108
FOOD CULTURE AND CIVILIZATION IN THE FAR EAST
3, 3/0; NWIF
A study of food culture in context with civilizations of the Far East. Focuses on the relationship between the development of food habits/culture and civilization as influenced by political, socioeconomic and cultural factors, and international relations.

NFS 110
APPLIED PRINCIPLES OF MANAGEMENT IN DIETETICS/FOOD SERVICES
3, 3/0
Management principles and concepts explored through class assignments that simulate real-world situations and prepare students for advanced study and application in management. Equivalent course: NFS361

NFS 111
APPLIED MANAGEMENT IN DIETETICS I
3, 3/0
Prerequisites: Majors only. First of a four course sequence, this course focuses on advanced management principles and concepts as they apply to health care, dietetics and food services. Student will engage in assignments that will prepare them to become skilled in specific areas of dietetics practice and food service management.

NFS 200
APPLIED FOOD CHEMISTRY
3, 2/2
Prerequisites: NFS 100, 2 semesters of Inorganic Chemistry. Recommended co-requisite: Principles of Organic Chemistry. A study of the structure, properties, and analysis techniques of food components: carbohydrates, fats, proteins, color, flavor, toxins, additives and evaluation of commercial food products and their role in the diet.

NFS 210
FOOD SERVICE SYSTEMS MANAGEMENT IN HEALTH CARE
3, 3/0
Prerequisite: NFS 110. In-depth analysis of the procurement process, menu development, food production and delivery, quality standards, and financial management of food service systems and related subsystems.

NFS 211
APPLIED MANAGEMENT IN DIETETICS II
3, 3/0
Prerequisites: NFS 111. Majors only. Second of a four course sequence, this course focuses on concepts and practices consistent with the practice of human resource management, financial management, safety, and infection control as they apply to health care food service management. Students will engage in assignments that will prepare them to become
skilled in specific areas of dietetics practice and food service management.

NFS 230
INTRODUCTION TO DIETETICS
2, 2/0
Prerequisites: None. Overview of the dietetics profession: career options, professional development, career portfolio development, professional organization, code of ethics, standards of practice, professional values, creativity, Academy of Nutrition and Dietetics position papers, introduction to legislative process, professional issues and trends, and professional references and resources.

NFS 280
INTRODUCTION TO COMPLEMENTARY AND ALTERNATIVE MEDICINE
3, 3/0
An overview of complementary and alternative medicine (CAM) that includes alternative medical systems, complementary use of CAM therapies, mind-body interventions, and biologically-based therapies such as herbal and natural products and physical therapies. Provides the opportunity to get acquainted with major types of CAM modalities and the regulatory and legal policies on CAM for safe use of the therapies. Students will learn how to search evidence-based information and scientific data on CAM and become familiar with the general topics on the subject.

NFS 300
FOOD PROCESSING I
2, 2/0
Prerequisite: NFS 200. A study of the commercial food preservation and packing techniques, storage, food safety and food laws, and genetic engineering.

NFS 302
ADVANCED NUTRITION
3, 3/0
Prerequisite: NFS 102, CHE 112, BIO 100 or BIO 211. This course lays the foundation for medical nutrition therapy courses and includes in-depth study of macronutrient intermediary metabolism with applications to practice; the study of macromolecules involved in bone metabolism, red blood cell information, antioxidant functions, and water and electrolyte balance; and evaluation of functional foods and their role in health. Equivalent course: NFS440

NFS 310
PERSONNEL MANAGEMENT IN DIETETICS/FOOD SERVICES
3, 3/0
Prerequisite: NFS 210. Management concepts and practices consistent with the management of human resources in a health care organizational setting. The application of operational strategy in terms of fulfilling the mission of an organization competing in today's market.

NFS 315
LIFE CYCLE AND COMMUNITY NUTRITION I
3, 3/0
Prerequisites: NFS 102 Introduction to Nutrition. A study of the physiological changes during pregnancy, lactation, and older adult aging; growth and development during infancy, preschool, school age and adolescence; the food and nutrition needs, specific nutritional concerns and nutritional services and nutritional programs available.

NFS 316
LIFE CYCLE AND COMMUNITY NUTRITION II
2, 2/0
Prerequisite: NFS 315. A study of nutritional issues and chronic-disease prevention in adult life; physiological changes in the older adult; nutritional needs and specific nutritional concerns of the older adult; community nutrition services and programs for the adult and older adult.

NFS 330
SEMINAR ON COMPLEMENTARY AND ALTERNATIVE NUTRITION
1, 1/0
Prerequisites: NFS 102 or NFS 334 or equivalent, and upper-division status or permission of instructor. Introduction to dietary supplements, functional foods, nutraceuticals/phytochemicals, and herbal therapies. Emphasizes implications for dietetic practice.

NFS 334
CONTEMPORARY NUTRITION
3, 3/0
Explanation of nutrition. The functions, requirements, food sources, and results of deficiency and excess for each nutrient. Topics of current interest, such as weight control. Food fads and government nutrition policies. Not open to dietetics majors.

NFS 389
TOPICS COURSE
3, 0/0

NFS 401
MEDICAL NUTRITIONAL THERAPY I
3, 2/2
Prerequisites: NFS 302, CHE 322, BIO 308, BIO 309. Corequisites for students in Coordinated Program in Dietetics: NFS 419 and NFS 445. First of a three-course sequence examining the interrelationships of physiology, biochemistry, and nutrition as related to medical nutritional therapy (MNT). Emphasizes general nutritional status assessment and the role of nutrition in preventing and treating diseases/disorders: malnutrition, obesity, disordered eating, anemia, cardiovascular disease, chemical dependency, psychiatric disorders, drug-nutrient interactions.

NFS 402
MEDICAL NUTRITIONAL THERAPY II
3, 2/2
Prerequisites: NFS 401. Co-requisite: For students in the Coordinated Program in Dietetics - NFS 446. Second of a three-course sequence examining the interrelationships of pathophysiology, biochemistry, genetics and nutrition as related to medical nutritional therapy. Emphasis on role of nutrition in preventing and treating disease/disorders: diabetes mellitus, hypoglycemia, renal, dysphagia, chronic obstructive pulmonary disease, and cystic fibrosis. Equivalent course: NFS442

NFS 403
MEDICAL NUTRITIONAL THERAPY III
3, 3/0
Prerequisites: NFS402. Co-requisites: for students in the Coordinated Program in Dietetics – NFS447. Third of a three-course sequence examining the interrelationships of pathophysiology, biochemistry, genetics, and nutrition as related to medical nutritional therapy (MNT). Addresses MNT for cancer, upper and lower gastrointestinal (GI) disorders, exocrine pancreas, hepatobiliary, and pulmonary disease, metabolic stress (including sepsis, SIRS, head trauma, and burns), acid/base disorders, acquired immune deficiency syndrome (AIDS), parenteral and enteral nutrition.

NFS 405
PRINCIPLES OF NUTRITION EDUCATION
2, 1/2
Prerequisites: NFS 316 and NFS 401. Theories and methods of learning, communication, and counseling as they apply to nutrition education and counseling settings; development, implementation, and assessment of an instructional unit using various forms of multimedia.

NFS 419
INTRODUCTION TO CLINICAL PRACTICE
2, 2/0
Introduction to medical terminology and abbreviations, use of medical records, medical- record documentation, applying principles of interviewing and counseling to clinical practice, usual hospital diets, and reimbursement for nutritional therapy.

NFS 420
DIETETIC EXPERIENCE
3, 1/0
Prerequisites: NFS 403. Formalized observation/experience in a variety of health care settings such as clinical, community, food service, regulatory agencies, etc.; research paper and consumer education.

NFS 430
INTRODUCTION TO NUTRITION RESEARCH
3, 3/0
Prerequisites: NFS 402, MAT 311. An introduction to nutrition research. Students explore various research designs and characteristics of quantitative nutrition studies. Places emphasis on the evidence analysis.
process with regard to clinical trials and use of information technologies to locate and apply evidence-based guidelines.

NFS 445
NUTRITIONAL CARE A
3, 0/9
Prerequisites: NFS 302 and NFS 315. Corequisites: NFS 401 and NFS 419. First in a series of nutritional care courses promoting professional development for dietetic practice. Emphasis on basic skills for a professional role and application of normal nutrition knowledge. Interviewing skills, use of dietary tools and techniques, and planning and teaching nutrition education classes are fostered through observation and practice. Clinical experiences with well individuals throughout the life span provide opportunities for learning and self-evaluation. Clinical dress code required.

NFS 446
NUTRITIONAL CARE B
4, 0/12
Prerequisite: NFS 445. Corequisite: NFS 402. Students are assigned patients in acute-care settings to correlate with Applied Nutrition II theory. Students assess nutritional status, define nutritional needs, plan for nutritional care, and implement care on a beginning level after establishing criteria for evaluation of care for selected patients. Clinical dress code required.

NFS 447
NUTRITIONAL CARE C
5, 0/15
Prerequisite: NFS 446. Corequisite: NFS 403. Students refine and apply knowledge and skills in providing nutritional care for individuals (adults and children) with acute and chronic nutritional problems or diseases. Clinical dress code required.

NFS 448
NUTRITIONAL CARE D
5, 0/10
Prerequisites: NFS 403 and NFS 447. Establish priorities among required activities to provide care for patients in an assigned hospital unit; provide nutritional care to groups of patients; integrate pertinent information about individual patients with theoretical knowledge to develop appropriate nutritional-care plans; make appropriate use of available resources; develop appropriate levels of nutritional care to patients independently and in concert with existing nutritional-care systems. Clinical dress code required.

NFS 449
NUTRITIONAL CARE E (NUTRITIONAL CARE OF LONG-TERM PATIENTS)
2, 0/0
Prerequisites: NFS 316, NFS 403, and NFS 447. Long-term care as a health delivery system; provide nutritional care to chronically ill patients in a long-term care facility. Clinical dress code required.

NFS 450
SENIOR PRACTICUM IN DIETETICS
4, 0/0
Prerequisites: NFS 447 and clinical faculty permission. Supervised planning, implementation, and evaluation of professional practice goals in a selected area of dietetic practice, such as acute care, long-term care, nutrition education, or community-service programs; minimal supervision. Clinical dress code required. Equivalent course: NFS450W

NFS 451
SPECIALTY PRACTICE
1, 0/3
Prerequisites: NFS 403 and NFS 447. Participation in dietetic practice for a selected area. Clinical dress code required.

NFS 471
EXPERIENCES IN HEALTH CARE FOOD SERVICE SYSTEMS
3, 0/0
Prerequisite: NFS 310. Permission of instructor. Application of knowledge and principles of food systems management in a health care facility. Emphasis on functions of a food service system, human resource management, quality assurance program, and cost analysis activities. Clinical dress code required.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHI 301</td>
<td>HISTORY OF POLITICAL PHILOSOPHY</td>
<td>3, 3/0</td>
<td>Upper-division status or one course in philosophy. Examination of moral presuppositions and justifications of forms of government and economic systems, as well as interrelations between government and economics.</td>
</tr>
<tr>
<td>PHI 302</td>
<td>PHILOSOPHY OF ART AND BEAUTY</td>
<td>3, 3/0</td>
<td>Upper-division status or one course in philosophy. The basic concepts presupposed in any critical examination of the arts, including painting, literature, and music.</td>
</tr>
<tr>
<td>PHI 304</td>
<td>PHILOSOPHY OF LAW</td>
<td>3, 3/0</td>
<td>Upper-division status or one course in philosophy. The nature and justification of legal institutions; emphasis on the problem of legal punishment and on the legal enforcement of morality.</td>
</tr>
<tr>
<td>PHI 305</td>
<td>PHILOSOPHY OF LANGUAGE</td>
<td>3, 3/0</td>
<td>Upper-division status or one course in philosophy. Recent works by analytical philosophers in the foundations of language; meaning, reference, and necessity.</td>
</tr>
<tr>
<td>PHI 307</td>
<td>SYMBOLIC LOGIC</td>
<td>3, 3/0</td>
<td>Upper-division status or one course in Instructor Permission. First-order logic with identity and its uses in evaluating ordinary language arguments. Syntax, semantics, and system of natural deduction.</td>
</tr>
<tr>
<td>PHI 308</td>
<td>PHILOSOPHY OF LOVE AND SEX</td>
<td>3, 3/0</td>
<td>Upper-division status or one course in philosophy. Classic and contemporary philosophic theories of the nature, value, and purpose of human love and sexuality; discussions of Plato, Aquinas, Ortega, Sartre, and Kierkegaard; value judgments implicit in the concepts of &quot;supervision,&quot; &quot;good sex,&quot; and &quot;true love,&quot; as well as problems encountered in finding clear definitions for such terms; considers certain moral arguments found in such areas as abortion and marital intercourse.</td>
</tr>
<tr>
<td>PHI 309</td>
<td>KNOWLEDGE AND JUSTIFICATION</td>
<td>3, 3/0</td>
<td>Upper-division status or one course in Instructor Permission. Investigation of knowledge and justification; topics may include perception, memory, consciousness, reason, and testimony as sources of knowledge and justification, the nature, structure, and scope of knowledge and justification, and skepticism.</td>
</tr>
<tr>
<td>PHI 310</td>
<td>HISTORY OF ETHICS</td>
<td>3, 3/0</td>
<td>Upper-division status or one course in philosophy. Historical study of the writings of great Western philosophers as they examine ethical questions about self-interest, freedom, duty, and happiness in regard to the moral life. Includes Plato, Aristotle, Kant, Mill, and Hume.</td>
</tr>
<tr>
<td>PHI 312</td>
<td>PHILOSOPHY OF MIND</td>
<td>3, 3/0</td>
<td>Upper-division status or one course in Instructor Permission. Investigation of the mind-body problem; Cartesian dualism, logical behaviorism, the identity theory, functionalism, eliminative materialism, property dualism, qualia, and intentionality.</td>
</tr>
<tr>
<td>PHI 314</td>
<td>CONTEMPORARY ETHICS</td>
<td>3, 3/0</td>
<td>Upper-division status or one course in philosophy. Historical and analytical study of important developments in twentieth-century ethical theory; naturalism, noncognitivism, prescriptivism, rationalism; the ideas of Rawls, Nozick, Gauthier, and Gewirth.</td>
</tr>
<tr>
<td>PHI 317</td>
<td>ANCIENT PHILOSOPHY</td>
<td>3, 3/0</td>
<td>Readings in selected primary texts (in translation) of significant philosophers of Ancient Greece and Rome. Particular emphasis on Plato and Aristotle and their contribution to the intellectual development of Western thought.</td>
</tr>
<tr>
<td>PHI 318</td>
<td>MODERN PHILOSOPHY</td>
<td>3, 3/0</td>
<td>Readings in selected primary texts from modern philosophers such as Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, and Kant; focus on the original visionary contribution of each thinker to the intellectual development of Western thought; learning to read a philosophical work.</td>
</tr>
<tr>
<td>PHI 324</td>
<td>ZEN BUDDHISM</td>
<td>3, 3/0</td>
<td>Upper-division status or one course in philosophy. Zen as a paradoxical method by which suffering of existence is transformed into everyday enlightenment; contemporary practices of Zen and its historical origins in Buddha's &quot;complete and unexcelled&quot; enlightenment and in Lao-tzu's living in harmony with the Tao.</td>
</tr>
<tr>
<td>PHI 333</td>
<td>PHILOSOPHY OF NATURAL SCIENCES</td>
<td>3, 3/0</td>
<td>Upper-division status or one course in CWP 102. The structure and nature of science. Epistemological and ontological implications of scientific theories (e.g. quantum mechanics, evolutionary biology). The role of evidence, confirmation, falsification in science.</td>
</tr>
<tr>
<td>PHI 334</td>
<td>PHILOSOPHY OF SOCIAL SCIENCES</td>
<td>3, 3/0</td>
<td>Upper-division status or one course in CWP 102. The structure and nature of the social sciences. Epistemological and ontological implications of social scientific theories. Analysis of socially constructed facts and institutions. Rational-choice and decision-theory models of explanation.</td>
</tr>
<tr>
<td>PHI 339</td>
<td>FRIENDSHIP</td>
<td>3, 3/0</td>
<td>Upper-division status or one course in philosophy. Conceptions of friendship, its value to the friends and to others, its moral justification, and the legitimacy of preferring friends to others.</td>
</tr>
<tr>
<td>PHI 347</td>
<td>WESTERN THOUGHT: HOMER TO ALEXANDER</td>
<td>3, 3/0</td>
<td>Upper-division status or one course in Instructor Permission. The development of Hellenic and Hellenistic thought and its influence on the modern world. Examination of tensions between naturalistic, conventional, and religious worldviews. Special emphasis on the role such tensions played in the development of philosophy.</td>
</tr>
</tbody>
</table>
| PHI 351     | ETHICS BOWL                                            | 3, 3/0  | Upper-division status or instructor permission. Preparation for a competition in which students are judged on their ability to deploy intricate ethical reasoning in addressing case studies from practical and professional ethics. Students develop well-informed opinions about ethically complex, everyday scenarios, orally present these opinions and
PHI 401
PROBLEMS IN PHILOSOPHY SEMINAR
3, 3/0
Prerequisite: Fulfillment of English composition/basic communication requirement, PHI 317 and PHI 318. Intensive analysis of selected topics in philosophy.
Equivalent course: PHH401W

PHI 402
SEMINAR IN HISTORY OF PHILOSOPHY
3, 3/0
Prerequisites: Fulfillment of English composition/b basic communication requirement, PHI 317, and PHI 318. Figures and periods in the history of Western and Eastern philosophy.
Equivalent course: PHH402W

PHI 495
SPECIAL PROJECT
1-3, 0/0

PHI 498
HONORS RESEARCH
1-3, 0/0

PHI 499
INDEPENDENT STUDY
3-12, 0/0

PHY - PHYSICS

PHY 100
PHYSICS FOR NON-SCIENCE MAJORS
3, 3/0; NSIF
A non-mathematical consideration of historical world views in physics and their relevance to society. May not be substituted for PHY 107, PHY 108, PHY 111, or PHY 112. Not open to physics majors.

PHY 103
UNDERSTANDING SOUND
3, 2/2; NSIF
The basics of sound, intended for non-science majors. Wave characteristics and behavior, applied to sonic phenomena. Interfaces of sound with humans and society (music, hearing, sound production and recording).

PHY 104
PHYSICS FOR K-8 TEACHERS
3, 2/2; NSIF
Prerequisite: Acceptance to Pre-K-8 teaching majors or pre-majors. High school algebra and writing. Nature of science, energy transfer, force interactions, systems, Newton's Laws, magnetic, gravitational, light, and thermal interactions, conservation of energy, and simple circuits as appropriate for teachers of K-8 science. Meets National Science Education Standards S (NRC, 1996) and the New York State Education Department (NYSED, 1996) learning standards for Math Science and Technology and elementary and intermediate physical setting standards (Standard 4). Inquiry-based classroom co-mingles laboratory with lecture.

PHY 105
INTRODUCTION TO PHYSICS
3, 3/0
Builds skills commonly in physics classes. Class activities designed to help students learn problem-solving skills using mathematical formulations, observation, data taking, data analysis, and theoretical interpretation in the context of physics.

PHY 107
GENERAL PHYSICS I
4, 3/2; NSIF
Algebra-based study of mechanics, measurement, kinematics, Newton's laws, gravity, conservation of energy and momentum, and rotation; laboratory.

PHY 108
GENERAL PHYSICS II
4, 3/2
Prerequisite: PHY 107. Algebra-based study of electricity and magnetism: static electricity (including electricity fields and potential), current electricity and circuits, magnetism and electromagnetic interactions; laboratory.

PHY 111
UNIVERSITY PHYSICS I
5, 4/2; NSIF
Calculus-based treatment for science majors of particle motion, kinematics, mechanics, Newtonian dynamics, energy transformation, conservation laws of energy and momentum, gravitation, and rotation; laboratory. Required for majors.

PHY 112
UNIVERSITY PHYSICS II
5, 4/2
Prerequisite: PHY 111 or equivalent. Continuation of PHY 111. Calculus-based introduction to heat, electricity, magnetism, and optics; laboratory. Required for majors.

PHY 189
TOPICS COURSE
1-3, 1-3/0

PHY 213
UNIVERSITY PHYSICS III
3, 3/0
Prerequisites: PHY 111 and PHY 112 or equivalent; calculus. Continuation of PHY 111 and PHY 112. Calculus-based introduction to physical optics, kinetic theory, classical wave motion, and interference phenomena; introduction to special relativity. Required for physics majors.

PHY 304
OPTICS AND VISION FOR TEACHERS AND ARTISTS
3, 2/2; TSIF
Prerequisites: Any college or high school introductory physics course; CWP101; any first-year MAT or instructor permission. Phenomena of light, vision, color, and photography, as appropriate for teachers of science and visual arts majors. Meets the National Science Education Standards S (NRC, 1996) and the New York State Education Department (NYSED, 1996) learning standards for Math Science and Technology and elementary and intermediate physical setting standards (Standard 4). Inquiry-based classroom co-mingles laboratory with lecture using handheld apparatus and demonstrations in the lecture theater and take-home laboratory activities using everyday materials. Can be used as a sequence with PHY 104.

PHY 305
MODERN PHYSICS I
3, 3/0
Prerequisites: PHY 111, PHY 112, PHY 213, and MAT 263 or equivalent. Principles of relativity; concepts of waves, particles, atomic structure; introduction to quantum theory. Required for physics majors.

PHY 306
MODERN PHYSICS II
3, 0/0
Prerequisite: PHY 305. Molecular structure; solid state; nuclear physics.

PHY 308
OPTICS
3, 3/0
Prerequisites: PHY 111 and PHY 112 or equivalent; calculus. Fundamentals of geometrical and physical optics; the nature and propagation of light; Fraunhofer and Fresnel diffraction, polarization; single, double slit and grating diffraction, lasers, and holography.

PHY 310
COMPUTATIONAL PHYSICS LABORATORY
2, 0/4
Prerequisites: PHY 111 and PHY 112. Corequisite: PHY 213. Introduction to basic computational techniques using physics material from intermediate-level courses. Required for physics majors.
PHY 315
HEAT AND THERMODYNAMICS
3, 3/0
Prerequisites: PHY 111 and PHY 112 or equivalent; calculus. First, second laws; entropy; chemical potential; enthalpy; free energy; Gibb's function; Maxwell relations; phase transitions; and statistical mechanics of classical and quantum distributions.

PHY 320
INTRODUCTION TO THEORETICAL PHYSICS
4, 4/0
Prerequisites: PHY 111, PHY 112, and MAT 263. Introduction to advanced mathematical applications: partial differential equations, complex numbers, special functions, boundary value problems, orthogonal functions and expansions, matrices, and integral transform techniques. Required for physics majors.

PHY 323
STATICS
3, 3/0
Prerequisites: PHY 111 and PHY 112. Application of mechanics to the study of static equilibrium of rigid and elastic bodies. Includes composition and resolution of forces; moments and couples; equivalent force systems, free-body diagrams; equilibrium of particles and rigid bodies; forces in trusses and beams; friction forces; first and second moments of area; moments and product of inertia; methods of virtual work and total potential energy.

PHY 324
ELECTRIC CIRCUIT ANALYSIS
3, 2/2
Prerequisites: PHY 213 and MAT 263. Calculus-based treatment of DC and AC circuits with introduction to commonly used analysis methods; laboratory. Equivalent course: PHY 324W

PHY 410
ADVANCED PHYSICS LABORATORY
3, 0/6; OCIF
Prerequisite: PHY 305 or equivalent. Selected advanced experiments chosen from the areas of mechanics, thermal physics, sound, optics, electricity and magnetism, and modern physics. Equivalent course: PHY 410W

PHY 412
PHYSICS SEMINAR
1-3, 1-3/0
Prerequisites: 15 credit hours in physics and MAT 162 or equivalent. Readings, reports, and discussion of current job opportunities and/or problems and research in physics. May be repeated up to three times.

PHY 425
CLASSICAL MECHANICS
4, 4/0
Prerequisite: PHY 320 or equivalent. Vectorial particle mechanics in one, two, and three dimensions; rigid body motions in three dimensions; motion in central force fields; moving reference frames; forced harmonic oscillators; and introduction to mechanics in Lagrangian and Hamiltonian formulation.

PHY 435
INTRODUCTION TO QUANTUM MECHANICS
3, 3/0
Prerequisite: PHY 305, PHY 320, or equivalent. Postulates of quantum mechanics with selected examples; uncertainty principle; operator formalisms; Heisenberg and Schroedinger representations; angular momentum; spin.

PHY 440
ELECTRICITY AND MAGNETISM I
3, 3/0
Prerequisite: PHY 320, MAT 263, or equivalent. Coulomb forces; electric fields and potentials; Laplace equation; boundary value problems and dielectrics; multipole distributions; magnetic induction; introduction to Maxwell's equations.

PHY 441
ELECTRICITY AND MAGNETISM II
3, 3/0
Prerequisite: PHY 440. Continuation of PHY 440. Vector potentials; Faraday's law; magnetism; electromagnetic wave propagation; radiation.

PHY 445
NUCLEAR PHYSICS
3, 3/0
Prerequisite: PHY 305, PHY 320, or equivalent. Nucleons and nuclei; radioactivity; detectors; interaction of nuclear radiation with matter; nuclear reactions; nuclear models and gamma emissions; introduction to high-energy physics.

PHY 448
INTRODUCTION TO SOLID STATE PHYSICS
3, 3/0
Prerequisite: PHY 320 or equivalent. Theory of the structure of solids: unit cell, lattice dynamics and phonons, specific heats, band theory, superconductivity, electron dynamics, and statistics.

PHY 450
SUPERVISED PHYSICS LABORATORY TEACHING
1-2, 0/0
Prerequisites: Physics major; upper-division status; minimum cumulative GPA of 3.0, 3.25 in major coursework; physics faculty permission based on academic performance, maturity, and potential. Supervised in-classroom introduction to college laboratory teaching techniques and procedures for selected upper-division physics majors.

PHY 495
SPECIAL PROJECT
1-3, 0/0
Prerequisite: Faculty sponsor approval. Physics and physics-related areas.

PHY 499
INDEPENDENT STUDY
3, 0/0
Prerequisite: Faculty sponsor approval. Physics and physics-related areas.

PLN 310
URBAN TRANSPORTATION PLANNING
3, 3/0
Prerequisite: GEG 309 or PLN 315. Comparative study of the modes of transportation, transportation planning, and the benefits and effects of transportation. Emphasis on application to urban transportation. The importance of accessibility to the development of a modern metropolitan transportation system. Equivalent course: GEG 310

PLN 315
PRINCIPLES OF URBAN AND REGIONAL PLANNING
3, 3/0
Introduction to community planning, historical survey, origin and growth of city-planning movement; role of various levels of government in community planning; factors currently involved in community planning theory and practice.

PLN 325
MAPS AND MAPMAKING USING GIS
3, 3/0
Maps as essential form of communication. Geographic information systems (GIS) tools for creating digital and hardcopy maps. Spatial thinking, concepts, principals and methods of mapmaking; map development and display using technology. Equivalent course: GEG 325

PLN 330
LAND RESOURCE ANALYSIS AND PLANNING
3, 3/0
Prerequisite: PLN 315. Principles of land resource management with emphasis on land-use patterns, controls and policies. Attention to urban, suburban and rural land-use situations. Equivalent course: GEG 330
PLN 340  
FUNDAMENTALS OF ZONING  
3, 3/0  
Prerequisite: PLN 315. Zoning as a method to implement comprehensive land use plans; process for adopting and amending zoning ordinances, legislative and legal constraints, and general content of a zoning ordinance; operation of zoning board appeals emphasized in class exercise and fieldwork.

PLN 341  
HOUSING AND REAL ESTATE  
3, 3/0  
Prerequisite: PLN 315. Housing elements relevant to the professional practice of planning, including the considerations of consumers in selecting communities, neighborhoods and sites; the description, conveyance, and marketable rights associated with real property, forms of home ownership, less conventional housing choices; government policy affecting housing. Investigation of local housing stock, both from the perspective of potential purchaser and historic preservationist.

PLN 360  
ENVIRONMENTAL IMPACT ASSESSMENT  
3, 3/0  
Prerequisites: Upper-division status and minimum of 9 credit hours in geography, planning, earth science, biology, or related environmental discipline. Introduction to the legislation and technical procedures involved with the development of Environmental Impact Statements (EIS) and Environmental Assessments (EA); emphasizes practical experience in conducting an EA and writing an EIS. Field trip.

PLN 370  
WATER RESOURCE PLANNING  
3, 3/0  
Prerequisite: GEG 375 or GES 452. Introduction to water resource planning in the United States. Emphasis on project management and planning processes used by federal water resources agencies. Field trip and group project required.

PLN 390  
QUANTITATIVE METHODS IN GEOGRAPHY AND PLANNING  
3, 3/0  
Prerequisites: Upper-division status and GEG199 or CIS101 or competence in computing. Introduction to statistical methods with a focus on spatial and time-series data analysis in geography and planning applications. Statistical theory is reinforced through application of commonly used computer software to solve real world problems. Equivalent course: GEG390

PLN 396  
RESEARCH METHODS  
3, 3/0  
Prerequisites: GEG 199 or CIS 101 or competence in computing, GEG/PLN 390, and 6 upper division credits in GEG/PLN courses. Research theories, designs, and methods relevant to conducting research in geography and planning. Research designs and methodologies for approaches with human subjects, human/social geography, physical geography, field-based research, and planning projects. Development of a research project proposal. Equivalent courses: GEG396, GEG396W, PLN396W

PLN 401  
COMPREHENSIVE PLANNING STRATEGIES  
3, 3/0  
Prerequisites: Upper-division status and PLN 315. The overarching role of comprehensive planning as it influences future patterns of municipal land use in both the natural and built environments; techniques for identifying primary issues; reaching consensus on goals and objectives for future physical development patterns within a community; recognizing basic comprehensive plan content and procedures for adoption.

PLN 412  
COMMUNITY PLANNING AGENCIES AND ISSUES  
3, 3/0  
Prerequisite: PLN 315 and GEG 199 or CIS 101 or competence in computing. The role of the professional planner in a range of government and private agencies; introduction to the tools needed by the professional planner; discussion of planning techniques and issues. Emphasis on professional ethics and the function of staff in a variety of planning agencies.

PLN 415  
SEMINAR IN PLANNING  
3, 3/0  
Prerequisite: PLN 315. Investigation, discussion, and research of topics of current interest in planning or economic development; techniques and methods of analysis used in planning process. Topics vary each semester.

PLN 430  
SENIOR THESIS  
3, 3/0; OCIF  
Prerequisites: GEG/PLN 390 and GEG/PLN 396 C or better and senior geography or planning major. Research in geography or planning and presentation of selected research-related topics. Equivalent courses: GEG430, GEG430W, PLN430W

PLN 488  
INTERNSHIP  
1-15, 0/0  
Prerequisites: PLN 315, 6 credit hours of geography or planning coursework at the upper-division level, minimum cumulative GPA of 2.5, background of courses or experience within area of interest, adviser and department chair permission. Guided, supervised field experiences that complement the academic program.

PLN 495  
SPECIAL PROJECT  
3, 0/0

PLN 499  
INDEPENDENT STUDY  
3, 0/0

PSC - POLITICAL SCIENCE

PSC 101  
INTRODUCTION TO GOVERNMENT AND POLITICS  
3, 3/0; SSIF  
The nature and scope of political science; ideological foundations of politics; comparative study of the governments of constitutional, totalitarian, and developing systems; the dynamics of politics and functions of political institutions.

PSC 102  
INTRODUCTION TO AMERICAN GOVERNMENT AND POLITICS  
3, 3/0; AHIF  
Historical development of American government and politics. Conceptual studies of the key transformative phases of institutions (U.S. Constitution, federalism, Congress, the courts, the presidency), politics (political parties, interest groups, media, social movements), political economy (regulation, federal bureaucracy) and political culture (citizenship and identity, public opinion, political behavior).

PSC 103  
GREAT POLITICAL ISSUES  
3, 3/0; SSIF  
Examines great political issues such as civic engagement, civil disobedience, democracy, freedom, equality, ideology, identity, law, morality, and political obligation and discusses them in light of their various historical contexts and political implications.

PSC 203  
POLITICAL ANALYSIS  
3, 3/0  
Prerequisite: PSC 102 or PSC 101. Design, execution, and interpretation of research in the field of political science including quantitative and qualitative research methods, theory building, and constructing and testing hypotheses; data collection techniques including survey research methods. Equivalent courses: PSC203W, PSC300

PSC 204  
POLITICAL STATISTICS  
3, 3/0  
Prerequisite: PSC 102. Introduction to quantitative political science research methods, univariate and bivariate analysis, statistical inference, sampling, hypothesis testing, measures of association and tests of statistical significance. Equivalent course: PSC301
PSC 210
THE AMERICAN PRESIDENCY
3, 3/0
The contemporary presidency, constitutional roles, political powers and the factor of personality, the executive and other political and social institutions, problems and prospects for the presidency.
Equivalent course: PSC210W

PSC 215
URBAN GOVERNMENT
3, 3/0
Introduction to the political economy of urban areas in the United States; focus on explanation of current urban public policies; public vs. private political power, bureaucracy, citizen organization.
Equivalent course: PSC215W

PSC 218
AFRICAN AMERICAN POLITICAL CULTURE
3, 3/0
Political beliefs, attitudes, and practices that pertain to African American politics in a cultural context; causality and linkage inherent in the reciprocal relationship between African Americans and the American political system.
Equivalent courses: AAS218, PSC218W

PSC 225
WOMEN IN AMERICAN POLITICS
3, 3/0; DIIF
Influences of female participation in the American political system; the political behavior of American women; the implications of these influences and behaviors.

PSC 230
INTERNATIONAL RELATIONS
3, 3/0; SSIF
Elements of national power, religion, global balance of power and collective security systems; instruments of international politics: diplomacy, propaganda, and war; forces of nationalism.

PSC 240
EUROPEAN POLITICAL SYSTEMS
3, 3/0
The structure and dynamics of politics in major European countries with emphasis on political behavior and political processes; issues of economic and political integration.

PSC 250
INTRODUCTION TO LAW
3, 3/0
Basics of law, the judicial system, courtroom procedures, distinctions between different kinds of law, and the importance of these distinctions. Constitution and rights defined in the Constitution. Responsibilities of attorneys in the judicial system and to their clients. Skills involved in learning and practicing law; writing legal briefs; oral presentation of legal arguments.
Equivalent course: PSC350

PSC 302
INTERNATIONAL CONFLICT AND PEACEFUL RESOLUTION
3, 3/0
Prerequisites: Junior or senior standing. Key theoretical traditions and research in international and intrastate conflict and conflict resolution through in-depth empirical analysis.

PSC 305
ENVIRONMENTAL POLICY
3, 3/0

PSC 306
POLITICS OF ENERGY
3, 3/0
The energy situation in both the United States and the international community from political viewpoints; U.S. energy policy, process, and strategies within their economic, physical, and political settings; conflict and cooperation among nations over the rational use of energy resources.

PSC 308
INTERNATIONAL ORGANIZATIONS AND INTERNATIONAL LAW
3, 3/0
Prerequisite: Junior or senior standing or instructor permission. Political and legal viewpoints of international organizations; political and administrative concepts and theories concerning international organizations and law such as roles and effects of international organizations and law in foreign policy making, international cooperation, and competition.

PSC 309
INTERNATIONAL POLITICAL ECONOMY
3, 3/0
Prerequisite: PSC 101 or PSC 102. A political analysis of the global economy. Emphasis on learning and using different theories of international political economy to explore contemporary global economic issues such as trade, trade agreements, monetary policies, and the impact of international finance organizations.
Equivalent course: PSC309W

PSC 310
AMERICAN POLITICAL PARTIES
3, 3/0
The American party systems; two-party competition and third party challenges, suffrage rules and electoral processes; changing patterns of party organization, nomination, campaigning, and finance; party identification and voter behavior; the role of parties in governing; parties and the future of American politics.

PSC 311
INTEREST GROUPS
3, 3/0
Introduction to the democratic political process, methods and operations of various interest groups; roles of citizens groups.

PSC 312
LEGISLATIVE PROCESS
3, 3/0
State and national legislatures with emphasis on the determinants of legislative decision making, the committee system, and the policy outputs of the legislative branch.
Equivalent course: PSC312W

PSC 315
STATE AND LOCAL GOVERNMENT AND POLITICS
3, 3/0
Functions of state and local governments, parties, interest groups, and elections; constitutional and governmental structures; intergovernmental relations; decision making, effects of metropolitanization; contemporary issues and problems; future trends and prospects.

PSC 316
URBAN ETHNIC POLITICS
3, 3/0
The development of ethnic politics in urban areas of the United States. Political development and conflict among major ethnic, racial, and religious groups, including African Americans, Irish, Italian, Jews, Latinos, Native Americans, and Polish. Contemporary patterns of organization, leadership, strategy, political mobilization; key issues examined, such as affirmative action, school desegregation, and welfare reform.

PSC 317
U.S. CONSTITUTIONAL LAW
3, 3/0
Prerequisite: Junior or senior standing or instructor permission. Foundations of American Constitutionalism; judicial review and its use throughout history; the Supreme Court’s interaction with Congress, the president, and the states; evolving concepts of federalism; development of governmental regulation of private property and contracts; the evolution of the principles of constitutional due process and equal protection.
Equivalent courses: PSC220, PSC317W
PSC 318
DEMOCRACY AND PEACE: PRINCIPLES AND PRACTICES IN THE URBAN EXPERIENCE
3, 3/0
Prerequisite: PSC 101 or PSC 102 or PSC 103. Development of politics, democracy, and justice from the experience of urban communities, particularly in light of economics, peace, and race issues.

PSC 319
GAY, LESBIAN, BISEXUAL, TRANSGENDER, QUESTIONING POLITICS
3, 3/0
Prerequisite: Upper-division status. This course provides a cross-cultural, longitudinal perspective of U.S. GLBTQ movements and interest-based organizations. It examines queer legal theory, human rights, and constitutional issues surrounding GLBTQ rights. The course considers GLBTQ politics in the context of federalism, with examination of federal legislation such as the Defense of Marriage Act and individual state laws with respect to GLBTQ rights.

PSC 320
U.S. CIVIL LIBERTIES
3, 3/0
Legal principles influencing the origin and development of our criminal laws and the way these principles have evolved by court interpretation to accommodate social change and attitudes; the Bill of Rights and due process clause of the United States Constitution. Equivalent course: PSC 320W

PSC 321
CIVIL PROCEDURE
3, 3/0
Prerequisites: PSC 101. Imparts knowledge of, interest in and an appreciation for the civil litigation process in the federal and state court systems of the United States and provides students with a guided tour of the litigation process including but not limited to: pre-complaint actions, subject and personal jurisdiction, complaints and answers, pre-trial motions, discovery, dispositive motions, trial preparation and organization, jury selection and appeal decisions.

PSC 325
POLITICS OF WELFARE
3, 3/0
America's mixed system of capitalism and socialism. Major welfare programs including social security, veterans' benefits, tax expenditures, food stamps, subsidized education, and military retirement; the costs and benefits of America's welfare system.

PSC 326
POLITICS AND MEDIA
3, 3/0
The relationship between the mass media and contemporary American politics, its impact on voting behavior, and the role of the media in the presidential and congressional elections.

PSC 327
PRACTICAL POLITICS
3, 3/0
Classroom and extra-classroom experience and interaction with political practitioners; participation in quasi-political organizing, campaigns and elections, and day-to-day operations of government and politics.

PSC 330
AMERICAN FOREIGN POLICY
3, 3/0
Prerequisite: PSC 102. Basic ideas that shape American foreign policy; isolationism, domestic and international pressures, cold war, peaceful coexistence and détente, major problems. Equivalent course: PSC 330W

PSC 333
AFRICAN INTERNATIONAL RELATIONS
3, 3/0
African international politics vis-à-vis international relations theory, models, and concepts; power, multipolarity, bipolarity, pan-Africanism; North-South debate; approaches to international politics; and state and international organizations as international actors. Equivalent course: AAS333

PSC 335
INTERNATIONAL RELATIONS OF THE MIDDLE EAST
3, 3/0
Patterns of interaction within the Middle East and with other states; problems of security and peace in the region; ideology, nationalism, and economic interests as factors influencing the behavior of the states. Equivalent course: PSC 335W

PSC 336
LATIN AMERICA IN WORLD POLITICS
3, 3/0
Prereq.: Jr./Sr. Status. Politics in the region of Latin America within the context of international relations theory. Development of the Latin American subsystem; major actors and movements within the region, including human rights and democratization; globalization and free trade; the influence of the United States; and the legacy of colonialism and the Cold War.

PSC 337
POLITICS OF GLOBALIZATION
3, 3/0
Prerequisite: Upper-division status. PSC 101 or PSC 102. Interdependent global political economy; complex process by which governments, corporations, individuals, and information technology are integrated and interconnected on a global scale; costs vs. benefits of globalization.

PSC 340
POLITICS OF DEVELOPING COUNTRIES
3, 3/0
Prerequisite: PSC 101 or PSC 230. Problems of developing countries, political process, and its relation to societal transformation; the role of the army and bureaucracy in political development; problems of nation-building and democracy in developing countries; and globalization.

PSC 341
GOVERNMENT, POLITICS, AND POLICIES OF THE EUROPEAN UNION
3, 3/0
Prerequisite: Upper-division status. PSC 101 or PSC 102. Interdependent political process and decision making, institutions and processes in light of Russian history; Soviet efforts to redirect that history; current political, social, and economic changes in Russia today.

PSC 345
POLITICS AND HISTORY OF THE MIDDLE EAST
3, 3/0
Geographic, cultural, and political settings; historical development since the nineteenth century; the disintegration of the Ottoman Empire and Western colonialism; nationalism, independence, and turmoil; Arab-Israeli question; oil and its impact and problems; great power and interarea politics. Equivalent courses: HIS 313, PSC 345W

PSC 351
HISTORY OF POLITICAL THOUGHT I
3, 3/0; WCIF
Prerequisite: PSC 101 or PSC 103. Main problems of political theory examined through the writings of major political thinkers from Plato to Aquinas. Equivalent course: PSC 351W

PSC 352
HISTORY OF POLITICAL THOUGHT II
3, 3/0; WCIF
Prerequisite: PSC 101 or PSC 103. Main problems of political theory examined through the writings of major political thinkers from Machiavelli to Rawls. Equivalent course: PSC 352W
PSC 355
AMERICAN POLITICAL THOUGHT
3, 3/0
American political thought from colonial to contemporary time; the
development of persistent political values and beliefs, how interpretations
and applications of these values and beliefs have changed through
different periods; the roots of contemporary American political culture
and ideology.

PSC 360
PUBLIC ADMINISTRATION
3, 3/0
Introduction to public administration: analysis of government
administration in its social, economic, and political settings; the role of
public administration in formulating public policy; organization and
management in public services; personnel and financial management.

PSC 364
AMERICAN PUBLIC POLICY
3, 3/0
Governmental policy with emphasis on the sources of policy, the policy-
making process in national political institutions, and the social impact of
policy choices.

PSC 368
COMPARATIVE PUBLIC ADMINISTRATION
3, 3/0
Introduction to cross-cultural, cross-national, or cross-institutional study
of public administration institutions and practices; the administrative
systems of European countries and the processes of administrative change
in developing countries; the evolution of bureaucracy.

PSC 370
CANADIAN PUBLIC ADMINISTRATION
3, 3/0
Canadian public administration institutions and processes and the
development of public policy; the federal level; secondary attention to
provincial and local administration and policy; similarities and differences
with other administrative systems, especially the United States.

PSC 375
RACE, SEX, AND POLITICS OF MYTH AND STORY
3, 3/0
Prerequisites: Upper-division status and successful completion of English
basic skills competency requirement.PSC 101 or PSC 103The institutional
and human force of story in race/sex/politics; legitimizing myths of the
U.S. political system; limits to the achievement of consensus in group
values and politics; standpoints of race/sex/political privilege and
disadvantage; difficulties posed to the regime by the refusal of consent;
and the transformation and assumption by citizens of self-government.
Equivalent course: PSC375W

PSC 389
TOPICS IN POLITICAL SCIENCE
3, 3/0
In-depth study of current issues of substantial political significance, such
as: public personnel administration, defense policy, computers and
political science, environmental policy, political communication, health
policy, and human rights.

PSC 390
THE ITALIAN-AMERICAN EXPERIENCE: POLITICS, SOCIETY, &
IDENTITY
3, 3/0; DIIF
Examination of the experience of Italians in the United States from an
interdisciplinary perspective beginning with the peak years of emigration
(1870-1920) including the culture, society, economy, and government of
Italy (push factors) and the promise of America (pull factors). Identity,
citizenship, worldview, family structure, expressive culture, politics,
economics, crime, and social relations in the Italian-American
community.
Equivalent course: PSC390W

PSC 399
RESEARCH SKILLS
1, 1/0
Prerequisites: PSC 203, PSC 204, and junior or senior standing; or
instructor permission. Preparation to study selected topics in political
science through in-depth examination and analysis.

PSC 410
POLITICAL BEHAVIOR AND PUBLIC OPINION
3, 3/0
Conditions of democratic political behavior, opinion formulation in
democratic systems, voting behavior and party affiliation in the United
States, mass political behavior and governmental institutions, mass
political behavior in selected western European societies.
Equivalent courses: SOC406, SOC440

PSC 415
URBAN PUBLIC POLICY
3, 3/0
Prerequisite: Upper-division status.Urban problems and government
policy responses to them; economic development, poverty, and crime;
roles of all levels of government; policy analysis.

PSC 420
CONTEMPORARY CONSTITUTIONAL ISSUES
3, 3/0
Recent developments in American constitutional law; comparison of the
Warren, Burger, Rehnquist, and Roberts courts; First Amendment
liberties and rights; the rights of the accused and criminal due process;
equal protection and African Americans; reapportionment and
representation; the president and national security.
Equivalent course: PSC420W

PSC 450
CONTEMPORARY POLITICAL THOUGHT
3, 3/0
Central problems of political philosophy (such as equality, freedom,
justice, and political obligation) as discussed by contemporary
philosophers.
Equivalent course: PSC450W

PSC 470
SENIOR SEMINAR
3, 3/0; OCIF
Prerequisites: PSC 203, PSC 204, PSC 399, and junior or senior standing;
or instructor permission. Selected topics in political science examined and
analyzed in depth.
Equivalent course: PSC470W

PSC 485
MOOT COURT
3, 3/0; OCIF
Prerequisite: Upper-division status or permission of instructor.Simulation
of a trial court or appellate court proceeding involving teams of students
acting as prosecutors/plaintiffs' attorneys, defense attorneys, and
witnesses. Students develop case strategy, analyze evidence, integrate
legal precedent, prepare a written brief, question witnesses, and present
oral arguments to the court in opening and closing statements. Final
project is a mock trial presentation held in a formal courtroom setting.
Equivalent courses: CRJ485, SOC485

PSC 488
INTERNSHIP
1-15, 0/0
Prerequisites: PSC 203, 204, and 399.Field experiences that supplement
departmental academic offerings; geared to students' interests. Faculty
intern supervisor and department chair permission necessary.

PSC 495
SPECIAL PROJECT
1-3, 0/0

PSC 497
WASHINGTON SEMESTER
1-16, 0/0
State University of New York's Washington semester program.
Class work, seminars, and internship work; selection based on college-
wide competition; contact Political Science Department chair for
information and application forms.

PSC 499
INDEPENDENT STUDY
3-12, 0/0

Introduction to the scientific study of psychology; research methodology; genetic, biological, cultural, and environmental influences on behavior; perception, learning; memory; intelligence; maturation; motivation; emotion; stress and coping; personality; social processes and psychopathology. Required for psychology majors.

Prerequisite: PSY 101. Introduction to human development and change throughout early, middle, and late adulthood; current psychological theory and empirical evidence on patterns of aging, problems of aging, and benefits of aging; social, psychological, and biological determinants of adult development; cognitive change; personality change; family relations; life satisfaction; the stigma of old age.

Equivalent course: PSY327W

The psychological power of language
3, 3/0

Prerequisites: PSY 101. Study of language from a psychological science standpoint. Properties of human languages; how language is represented in mind and brain; how it is acquired; whether it is specific to humans; relationship between language and culture; verbal and non-verbal aspects of how language is used to communicate.

PSY 340 COGNITIVE PSYCHOLOGY
3, 3/0

Prerequisite: PSY 101. Introduction to research and theoretical issues in cognitive psychology; history of memory and thought, acquisition of information, attention, short-term and long-term memory, pattern recognition, speech perception, space perception, and higher-order mental processes.

PSY 355 LIFESPAN DEVELOPMENTAL PSYCHOLOGY
3, 3/0

Prerequisite: PSY 101. Psychological, biological, and social factors that affect psychological development throughout the lifespan; physical development, language acquisition, cognitive development, social development, personality development, morality and changing life tasks; genetic, cultural, and experiential determinants of development.

PSY 356 CHILD DEVELOPMENT
3, 3/0

Prerequisite: PSY 101. Psychological, social, and biological factors that affect development from conception through preadolescence; comprehensive exposure to research findings and theories in child development. Physical development, language acquisition, cognitive development, social and emotional development, and moral development; mechanisms of developmental change such as genetic, cultural, historical, and experiential influences.

PSY 357 ADOLESCENT AND YOUNG ADULT DEVELOPMENT
3, 3/0

Prerequisite: PSY 101. Current theoretical and empirical understandings of the transitions from early adolescence to young adulthood; multidisciplinary approach; biological, psychological, and social factors emphasized. Biological, cognitive, interpersonal, self-concept, family, academic, and career transitions as well as psychosocial problems encountered.

PSY 365 PSYCHOLOGY IN THE WORKPLACE
3, 3/0

Prerequisite: PSY 101. Theory and research in industrial/organizational psychology emphasizing personnel selection, classification, placement, training, and development; work motivation, job satisfaction, factors that influence productivity, leadership, and organizational theory.

PSY 367 ORGANIZATIONAL BEHAVIOR
3, 3/0

Prerequisite: PSY 101. Organizational behavior from a psychological perspective; theories of and methods in organizational behavior and research; behavioral research in organizational settings, motivation, leadership, group dynamics, communication, and organization analysis and development.

PSY 370 ENVIRONMENTAL PSYCHOLOGY I
3, 3/0

Prerequisite: PSY 101. Environmental psychology and the role of physical environment on behavior; physical environment-behavior relations, research methods, territoriality, privacy, crowding, environmental perception and attitudes, pollution and behavior, buildings and behavior.
### PSY 375
**FORENSIC PSYCHOLOGY**
3, 3/0
Prerequisite: PSY 101. Application of psychological knowledge to the civil and criminal justice systems; research endeavors that examine aspects of human behavior as well as the professional practice of psychology within the legal system; clinical, applied and research activities of psychology and law.

### PSY 376
**HEALTH PSYCHOLOGY**
3, 3/0
Prerequisite: PSY 101. Theory and empirical research in the psychology of stress, coping, and health; health psychology, major physiological systems, components of stress, relationship of stress to health, physical and psychological consequences of stress, social support systems, coping with life crises, relaxation techniques, psychological intervention and treatment, and the holistic health model.

### PSY 381
**PSYCHOLOGY OF CULTURE**
3, 3/0
Prerequisite: PSY 101. Similarities and differences in behavior cross-culturally; the dimensions along which individuals vary between cultures; the issues involved in conducting cross-cultural research; differences and similarities between cultures in the areas of the self and personality, conformity, obedience, aggression, attachment and child-rearing; abnormal psychology and culture-bound syndromes, and interpersonal and group relations.

### PSY 382
**PSYCHOLOGY OF THE CONSUMER**
3, 3/0
Prerequisite: PSY 101. Psychology of consumer behavior; psychological theory and measurement techniques as tools for understanding consumer behavior. Relevant material from learning, perception, attitude formation, personality, and motivation literature as it describes consumer decision making.

### PSY 383
**THE PSYCHOLOGY OF HUMAN SEXUAL BEHAVIOR**
3, 3/0
Prerequisite: PSY 101. Psychosexual aspects of human sexuality; historical views of human sexuality; sex research; physiology of sex; gender identity; puberty; early learning of sexuality; heterosexuality, homosexuality, and bisexuality; ways of sex; sexual minorities; social and legal issues of sex; portrayal and handling of sex in the media; sexual difficulties; eroticism; social-psychological attitudes toward sex; future trends of sexuality.

### PSY 384
**PSYCHOLOGY OF AGGRESSION AND VIOLENCE**
3, 3/0
Prerequisite: PSY 101. Reasons for aggression; biological vs. environmental causes of aggression; definitions and scientific study of aggression; methods to control aggression.

### PSY 387
**PSYCHOLOGY OF GENDER**
3, 3/0; DIIF
Prerequisite: PSY 101. Empirical and theoretical issues of the psychology of gender issues; differences in female and male behavior in terms of such social factors as conformity to societal pressures, sex-role stereotyping, and gender-specific socialization patterns; biological influences on gender differences; development of sex differences; gender-role development; sex differences in cognition, personality, achievement, and leadership.

### PSY 388
**PSYCHOLOGY OF DEATH AND DYING**
3, 3/0
Prerequisite: PSY 101. Objective coverage of the relevant issues pertaining to death and dying; the stages of dying, counseling the dying person, attitudes of and reactions to death, psychological needs served by funeral and burial rituals, suicide, grief, bereavement, the child and death, effect of death on survivors, euthanasia, and medical and legal definitions of death.

### PSY 411
**ABNORMAL PSYCHOLOGY**
3, 3/0
Prerequisites: PSY 101 and PSY 311. Dimensions, theories, and empirical findings in psychopathology. Concept of abnormality, problems and schemes of classification, theories of neurosis and psychosis, etiology, and classification and treatment for selected disorders.

### PSY 412
**COMMUNITY PSYCHOLOGY**
3, 3/0
Prerequisites: PSY 101 and 3 credit hours of psychology; PSY 411 recommended. Theoretical and empirical literature regarding community mental health. Historical perspectives on the community mental health movement, assessment of psychological dysfunction, levels of evaluating institutional change, consultation, and program evaluation.

### PSY 415
**THE COMPETENT INFANT**
3, 3/0
Prerequisites: PSY 101, and PSY 355 or PSY 356. The psychological world of the normal human infant. Primary empirical research and theoretical problems relating to the field of infant development; biological processes of development, prenatal development, birth, characteristics of the neonate, speech and language, cognition and learning, interactions and socialization, sex differences in behavior, theoretical models of early development.

### PSY 416
**ABNORMAL CHILD PSYCHOLOGY**
3, 3/0
Prerequisites: PSY 101 and PSY 355 or PSY 356; PSY 411 recommended. Significant issues and problems related to child psychopathology. Taxonomy of childhood behavior disorders, role of the family, assessment of psychopathology in children, mental retardation, aggressive behavior, poverty and psychopathology, learning disorders, neurosis and psychosis in children, developmental disorders, therapeutic approaches.

### PSY 417
**THE ATYPICAL INFANT**
3, 3/0
Prerequisites: PSY 101 and PSY 355 or PSY 356. The psychological effects of developmental delay in infants. Screening, assessment, and intervention of high-risk infants; definition of at-risk and high-risk infants, biological trauma and defects, prenatal trauma, birth and perinatal trauma, psychological crises in infancy, psychological assessment of developmental delay in newborns and infants, early intervention for high-risk infants and their families; psychological issues of parenting the high-risk infant.

### PSY 421
**PHYSIOLOGICAL PSYCHOLOGY**
3, 3/0
Prerequisites: PSY 101 and 3 credit hours of psychology; The brain and nervous, endocrine, and immune systems, and their relationship to animal and human behavior; psychosurgery, physiological basis of language, intelligence, emotion, motivation, learning, sexuality, abnormal behavior, perception, and motor behavior.

### PSY 427
**ADULT DEVELOPMENT AND AGING II**
3, 3/0
Prerequisites: PSY 101 and PSY 327. Complex psychological issues pertaining to late-life development and adjustment; theoretical and applied issues, research methodologies, empirical data in relation to cognitive processes, personality, self-conceptions, social contexts, clinical assessment and intervention, and cultural influences on the behavior of older adults.

### PSY 430
**PSYCHOLINGUISTICS**
3, 3/0
Prerequisites: PSY 101 and PSY 330 or PSY 340. Empirical approach to how we produce and understand language. Major theories, looking at language sounds, words, sentences, conversation, and discourse. Integrates language representation and processing into the general framework of cognitive science. Includes laboratory exercises and final project.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Description</th>
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<tbody>
<tr>
<td>PSY 432</td>
<td>HUMAN MOTIVATION AND EMOTION</td>
<td>3, 3/0</td>
<td>PSY 101 and PSY 304 or PSY 376, Motivation and the fundamental, empirical, and logical basis for its postulation and use in psychological explanations of animal and human behavior; motivation and how motivational processes interact with other psychological processes.</td>
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<tr>
<td>PSY 440</td>
<td>ADDICTIVE BEHAVIORS</td>
<td>3, 3/0</td>
<td>PSY 101 and PSY 311; PSY 411 recommended. Etiology, prevention, and treatment of addictive behaviors, emphasizing biological, psychological, and social factors; dependence on alcohol, nicotine, and other drugs, as well as gambling, eating disorders, and compulsive sexual behavior.</td>
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<tr>
<td>PSY 441</td>
<td>INTRODUCTION TO NEUROPSYCHOLOGY</td>
<td>3, 3/0</td>
<td>PSY 101 and 3 credit hours of psychology. The relationship between human brain function and behavior; functional anatomy of the brain; experimental and clinical techniques employed by neuropsychologists to uncover brain-behavior relationships.</td>
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<tr>
<td>PSY 450</td>
<td>RESEARCH METHODS IN PSYCHOLOGY I: INTRODUCTION TO RESEARCH METHODS</td>
<td>3, 2/2</td>
<td>PSY 306 with a grade of C or better, and 3 credit hours of psychology. Laboratory investigation in the behavioral sciences; higher-order correlational and parametric statistics, various approaches to research, and the interpretation and communication of research findings. Laboratory experiences to illustrate course content. Requires minimum of five laboratory exercises and reports. Required for psychology majors. Equivalent course: PSY 450W.</td>
<td>Focus on research methods used in studying developmental psychology. Includes methods used in studying lifespan development in the areas of perception, learning, personality, cognition, and attention. Requires minimum of four research exercises and reports, including the formulation of at least one original experimental design. Equivalent course: PSY 458W.</td>
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<tr>
<td>PSY 458</td>
<td>EXPERIMENTAL PSYCHOLOGY II: METHODS IN DEVELOPMENTAL PSYCHOLOGY</td>
<td>3, 2/2</td>
<td>PSY 450; PSY 355 recommended. Continuation of PSY 450. Focus on research methods used in studying developmental psychology. Includes methods used in studying lifespan development in the areas of perception, learning, personality, cognition, and attention. Requires minimum of four research exercises and reports, including the formulation of at least one original experimental design. Equivalent course: PSY 458W.</td>
<td>Focus on research methods used in studying developmental psychology. Includes methods used in studying lifespan development in the areas of perception, learning, personality, cognition, and attention. Requires minimum of four research exercises and reports, including the formulation of at least one original experimental design. Equivalent course: PSY 458W.</td>
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<tr>
<td>PSY 460</td>
<td>ADVANCED LEGAL PSYCHOLOGY</td>
<td>3, 3/0</td>
<td>PSY 101 and PSY 375 or PSY 325. How behavior in legal contexts is influenced by social psychological, cognitive, and developmental processes. Social and cognitive influences on eyewitness testimony and memory, false confessions, jurors' decision making and evaluation of trial evidence, social influence among jury members, children's participation in the legal system, and discrimination in the legal system.</td>
<td>Problems, tools, and strategies involved in applying psychological principles to personnel selection, placement, training, and assessment in organizations; the roles of personnel psychologists, job analysis, developing performance criteria for jobs, performance appraisal, interviewing, the uses of employment testing, predicting job success, training programs, and social and ethical issues in personnel psychology.</td>
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<tr>
<td>PSY 466</td>
<td>PERSONNEL PSYCHOLOGY</td>
<td>3, 3/0</td>
<td>PSY 101 and PSY 365 or PSY 367. Problems, tools, and strategies involved in applying psychological principles to personnel selection, placement, training, and assessment in organizations; the roles of personnel psychologists, job analysis, developing performance criteria for jobs, performance appraisal, interviewing, the uses of employment testing, predicting job success, training programs, and social and ethical issues in personnel psychology.</td>
<td>Problems, tools, and strategies involved in applying psychological principles to personnel selection, placement, training, and assessment in organizations; the roles of personnel psychologists, job analysis, developing performance criteria for jobs, performance appraisal, interviewing, the uses of employment testing, predicting job success, training programs, and social and ethical issues in personnel psychology.</td>
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<tr>
<td>PSY 471</td>
<td>HISTORY AND SYSTEMS OF PSYCHOLOGY</td>
<td>3, 3/0</td>
<td>PSY 101 and 6 credit hours of psychology. History of the emergence of modern psychology from pre-Socratic thought to the present. Emphasis on systematic examination of psychology's historical roots as expressed in contemporary theories and models. Required for psychology majors. Equivalent course: PSY 445.</td>
<td>PSY 472 SEMINAR ON PSYCHOLOGY 3, 3/0; OCIF Prerequisites: PSY 101, PSY 306, PSY 450, and 6 credit hours of psychology. Topic areas for each course vary and are announced prior to student enrollment. Coursework involves the study of basic theoretical principles and empirical laws of different psychology content areas; individual presentations on relevant topics. Required for psychology majors. Equivalent course: PSY 472W.</td>
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<tr>
<td>PSY 480</td>
<td>PSYCHOTHERAPY: THEORY, RESEARCH, AND PROCEDURES</td>
<td>3, 3/0</td>
<td>PSY 101 and PSY 311; PSY 411 recommended. The contribution of psychology to the practice of psychotherapy; theory, research, and clinical applications; the scientist-practitioner model; major theories of psychotherapy; the social impact of therapy; research support for major therapy systems; ethical issues.</td>
<td>Issues and problems surrounding psychological testing. Test reliability, validity, construction, administration, norms, and interpretation; commonly used intelligence, personality, neuropsychological, and personnel-assessment techniques. Provides limited practicum experiences.</td>
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<tr>
<td>PSY 481</td>
<td>PSYCHOLOGICAL TESTS AND MEASUREMENTS</td>
<td>3, 3/0</td>
<td>PSY 101 and PSY 306. Issues and problems surrounding psychological testing. Test reliability, validity, construction, administration, norms, and interpretation; commonly used intelligence, personality, neuropsychological, and personnel-assessment techniques. Provides limited practicum experiences.</td>
<td>Issues and problems surrounding psychological testing. Test reliability, validity, construction, administration, norms, and interpretation; commonly used intelligence, personality, neuropsychological, and personnel-assessment techniques. Provides limited practicum experiences.</td>
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<tr>
<td>PSY 488</td>
<td>INTERNSHIP</td>
<td>3-15, 3/0</td>
<td>Approval of the faculty supervisor. Supervised field experience in a variety of settings to supplement classroom instruction.</td>
<td>Approval of the faculty supervisor. Supervised field experience in a variety of settings to supplement classroom instruction.</td>
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<td>PSY 495</td>
<td>SPECIAL PROJECT</td>
<td>1-3, 0/0</td>
<td>Faculty supervisor permission. Research conducted under the supervision of a faculty member.</td>
<td>Faculty supervisor permission. Research conducted under the supervision of a faculty member.</td>
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<tr>
<td>PSY 496</td>
<td>HONORS THESIS I</td>
<td>3, 0/0</td>
<td>PSY 450, 72 credit hours, and permission of instructor. Honors psychology students initiate research that is formally presented in thesis form. Formal research proposals (oral and written) presented to supervisors and honors thesis committee. Extensive library research. Required for students in the departmental honors program.</td>
<td>PSY 498 HONORS THESIS II 3, 0/0</td>
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<tr>
<td>PSY 499</td>
<td>INDEPENDENT STUDY</td>
<td>3-12, 0/0</td>
<td>Faculty adviser permission.</td>
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<tr>
<th>REL - RELIGIOUS STUDIES</th>
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<tr>
<td>REL 104 INTRODUCTION TO RELIGIOUS STUDIES 3, 0/0; HUIF</td>
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<tr>
<td>Introduction to the rational study of religion, including religious practices and philosophies and concepts basic to religious experience. Equivalent course: PHI 104.</td>
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SCI 100
CONTEMPORARY SCIENCE
3, 3/0; NSIF
Introduction to the role of science in contemporary society. Emphasis on
the process of science for solving problems and organizing information to
understand science and technology. Contemporary issues and case studies
illustrate the methods of science.
Equivalent course: HON102

SCI 105
PHYSICAL SCIENCE FOR NONSCIENCE STUDENTS
3, 3/0; NSIF
Activity-centered approach to the physical sciences. Extensive use of
materials designed for students interested in a non-technical analysis of
the nature and procedures of science.

SCI 125
INTRODUCTION TO COLLEGE SCIENCE AND MATHEMATICS
3, 2/2
Prerequisite: Participate in the Math Science Upward Bound Regional
Center Program. Six-week residential program in which high school
students are initiated into a college-level learning community. Introduces
scientific inquiry in the context of three college-level disciplines: aquatic
ecology, physics, and mathematics. Data collection and presentation,
scientific writing, and research techniques.

SCI 200
FIELD EXPERIENCE IN SECONDARY SCIENCE EDUCATION
3, 2/2
Classroom and field experience designed to help students make a better-
informe decision if they are contemplating a career in secondary science
education. A 30-hour field component is required for each student
enrolled. Required for all secondary science education majors.
Equivalent courses: FLE200, MED200, SED200

SCI 231
POLLUTION, THE ENVIRONMENT, AND SOCIETY
3, 3/0; NSIF, TSIF
Scientific and societal implications of present-day global environmental
problems, such as ecology, global warming, population, and pesticides.
Causes and effects of, and possible solutions to, worldwide environmental
problems, with implications from conservation, chemistry, health, and
society. Option in environmental major
Equivalent course: SCI231W

SCI 232
ENERGY, ENVIRONMENT, AND SOCIETY
3, 3/0; NSIF
Regional and global energy use and issues; environmental, economic,
individual, and societal perspectives; major energy alternatives.
Equivalent course: SCI232W

SCI 310
TEACHING SCIENCE IN THE MIDDLE SCHOOL
3, 3/0
Prerequisites: SED 200 or equivalent, enrollment in an elementary or
secondary education program, junior standing. Interaction with middle
school interdisciplinary teams of teachers and their students, other
members of the middle school, college faculty, and invited speakers.
Stakeholders work together to facilitate learning about diverse learners
and their preferred learning styles; develop a management plan and
prepare a variety of assessments, develop an appreciation for the
components of the middle school community, including interdisciplinary
teams, finding and using community resources, and the school as a
community. Field experience at the middle school level.
Equivalent course: SED310

SCI 311
PROBLEM SOLVING IN PHYSICAL SCIENCE
3, 3/0
Prerequisites: A college-level course in a science other than biology;
upper-division status Inquiry-based course for elementary preservice
candidates. Investigation of the physical sciences through problem solving,
laboratory activities, simulations, and explorations. Option in elementary
education science concentration.

SCI 312
PROBLEM SOLVING IN LIFE SCIENCE
3, 3/0
Prerequisites: A college-level course in biology; upper-division
status. Inquiry-based course for elementary preservice candidates.
Investigation of the life sciences through problem solving, laboratory
activities, simulations, and explorations. Option in elementary education
science concentration.

SCI 313
PROBLEM SOLVING IN EARTH SCIENCE
3, 3/0
Prerequisites: A college-level course in earth science; upper-division
status. Inquiry-based course for elementary preservice candidates.
Investigation of the earth sciences through problem solving, laboratory
activities, simulations, and explorations. Option in elementary education
science concentration.

SCI 323
SCIENCE AS INQUIRY
3, 3/0
The procedures of science as a search for knowledge of natural
phenomena; comparison with other methods of inquiry; implications for
non-scientists. Option in elementary education science concentration.
Required for 5-6 extension.
Equivalent course: SCI323W

SCI 335
OUTDOOR SCIENCE EDUCATION
3, 2/2
Prerequisite: One introductory environmental science
course. Interdisciplinary approach to outdoor science education; basic
concepts of natural history in classroom and field; extended field trips to
the college camp. Option in environmental science major.

SCI 340
SCIENTIFIC STUDIES IN ENVIRONMENTAL POLLUTION
3, 3/0
Prerequisites: 9 credit hours of science and 3 credit hours of
environmental science, or permission of instructor. In-depth examination
of various types of environmental pollution. A field-based project is used
to illustrate data-collection techniques. Option in environmental science
minor.
Equivalent course: SCI340W

SCI 445
LITERACY FOR TEACHING SCIENCE
3, 2/2
Prerequisites: SED 200, EDF 303, EDU 416, and accepted into a teacher
certification program. Study of literacy related to secondary science.
Candidates will practice promotion of literacy, conduct an action research
project on identifying literacy levels of students, and plan literacy
activities based on data collection.

SCI 495
PROJECT
1-3, 0/0
Prerequisite: Faculty sponsor permission. Environment, energy, science,
society, and science education-related areas.

SCI 499
INDEPENDENT STUDY
3, 0/0
Prerequisite: Faculty sponsor permission. Environment, energy, science,
society, and science education-related areas.
SED 310
TEACHING SCIENCE IN THE MIDDLE SCHOOL
3, 2/2
Prerequisites: SED 200 or equivalent, enrollment in an elementary or secondary education program, junior standing. Interaction with middle school interdisciplinary teams of teachers and their students, other members of the middle school, college faculty, and invited speakers. Stakeholders work together to facilitate learning about diverse learners and their preferred learning styles; develop a management plan and prepare a variety of assessments, develop an appreciation for the components of the middle school community, including interdisciplinary teams, finding and using community resources, and the school as a community. Field experience at the middle school level.
Equivalent course: SCI 310

SED 401
TECHNIQUES FOR TEACHING LABORATORY ACTIVITIES IN THE SECONDARY SCIENCE CLASSROOM
3, 0/6
Prerequisites: SED 200 (not to be taken concurrently), EXE 372 or concurrently, EDF 303, and two required courses in each of the cognate sciences (lab based); second course in sequence may be taken concurrently. Science education majors learn selected laboratory techniques necessary to teach New York State Regents secondary science classes. Topics include designing cognate science area lab activities, ordering and maintaining supplies/equipment, storage, safety, preparation of materials, lab set-up, and measurement techniques. Exploration of external influences and pressures in education. A field component of 30 science laboratory contact hours is required for each student enrolled.

SED 405
METHODS AND MATERIALS IN TEACHING SECONDARY SCHOOL SCIENCE
3, 2/2
Prerequisites: Minimum 2.75 GPA in science major (3.0 in earth sciences); SED 401, EDU 417 (may be concurrent). The components of an effective teaching-learning situation in a science (grades 7-12) classroom. Interrelation- ships of secondary science programs; micro-teaching experience and 40 hours of fieldwork.
Equivalent courses: FLE 405, SED 405W

SED 407
PRACTICE TEACHING SCIENCE IN THE MIDDLE SCHOOL
6, 0/0; OCIF
Prerequisites: SED 405 (minimum grade of B), minimum cumulative 2.75 grade point average in major coursework (3.0 in the earth sciences), completion of the NYSTCE LAST exam, successful completion of English and mathematics basic skills competency. If referred, satisfactory completion, or exemption from, SLA 100, Student Speech Clinic. Teaching under supervision at least five days a week for one quarter in a middle school science classroom; individual and group instruction; planning unit teaching; classroom management and routine classroom procedures; audiovisual aids, computer technology, evaluation and assessment of student progress; participation in total school program. A series of student teaching seminars.
Equivalent courses: FLE 407, MED 407

SED 408
PRACTICE TEACHING SCIENCE IN THE HIGH SCHOOL
6, 0/0; OCIF
Prerequisites: SED 405 (minimum grade of B), minimum cumulative 2.75 grade point average in coursework (3.0 in earth sciences), completion of the NYSTCE LAST exam, successful completion of English and mathematics basic skills competency. If referred, satisfactory completion, or exemption from SLA 100 Student Speech Clinic. Teaching under supervision at least five days a week for one quarter in the high school science classroom; individual and group instruction; planning unit teaching; classroom management and routine classroom procedures; audiovisual aids, computer technology, evaluation and assessment of student progress; participation in total school program. A series of student teaching seminars.
Equivalent courses: FLE 408, MED 408

SED 409
SEMINAR IN SECONDARY SCIENCE EDUCATION
3, 2/2
Prerequisites: SED 405 (minimum grade of B), 2.75 GPA in science major coursework (3.0 in earth sciences), secondary majors SED 407 and SED 408 concurrently; elementary science extension SED 407 concurrently. Assist student teachers in analysis of their "real" classroom experiences-from management issues to content presentation. Conflicting philosophies in current education. Portfolio development and ongoing development of personal teaching philosophy and practices. Develop interview techniques and make application for NYSTCE teacher certification. Taken concurrently with SED 407 and SED 408.

SED 488
INTERNSHIP
1-6, 0/0
Prerequisites: Minimum 2.75 GPA and a background of courses or experience within the area of interest. Faculty adviser and department chair permission. Provides guided and supervised field experiences to complement the academic program.

SLP - SPEECH LANGUAGE PATHOLOGY

SLP 100
STUDENT SPEECH CLINIC
1, 0/0
Accent reduction services for non-native speakers of American English. Hours by arrangement.
Equivalent course: SLA 100

SLP 101
AMERICAN SIGN LANGUAGE I
3, 3/0
Fundamentals of American Sign Language (ASL), including basic grammatical features, language functions, and finger spelling. Students will gain adequate receptive and expressive skills for communicating with deaf individuals using ASL. Supplemental lectures focus on issues related to deafness, deaf culture, and signed languages.

SLP 102
AMERICAN SIGN LANGUAGE II
3, 3/0
Prerequisite: SLP 101. Continuation of SLP 101. Students gain additional knowledge of American Sign Language (ASL) and the deaf community; increases competence in ASL conversational skills. NOTE: For some majors, SLP 101 AND SLP 102 serve as a foreign language equivalent.
Check with your department.

SLP 206
LANGUAGE DEVELOPMENT
3, 3/0; SSIF
Introduction to the nature and scope of language development in children; children's acquisition of language, speech sounds, words, sentence structure, and meaning; factors that influence language development. Not open to speech-language pathology majors except by advisement.
Equivalent course: SLA 206

SLP 220
INTRODUCTION TO COMMUNICATION DISORDERS
3, 3/0; NSIF
Classification and causes of speech, language, and hearing disorders in children and adults; methods of treatment for communication disorders and suggestions for prevention; basic information on typical and atypical speech, language, and hearing development; videotaped observation of individuals presenting various communication disorders. Not open to speech-language pathology majors except by advisement.
Equivalent course: SLA 220

SLP 302
CLINICAL PHONETICS
3, 3/0
Production, acoustic analysis, and representation of American English speech sounds, including the various English dialects; application of phonetics to deviations in speech. Students will use International Phonetic Alphabet (IPA) symbols to transcribe typical and atypical speech. Sophomores must obtain permission of instructor.
Equivalent course: SLA 302

SLP 303
LANGUAGE ACQUISITION
3, 3/0
Prerequisite: SLP 302. Corequisite: SLP 329. Children's acquisition of phonology, morphology, syntax, semantics, and pragmatics; structure and
function of language of normal children at different levels of development; comparison and contrast of theories of language acquisition. International and cultural variations are considered.
Equivalent course: SLA303

SLP 304
ANATOMY AND PHYSIOLOGY OF SPEECH AND HEARING MECHANISMS
3, 3/0
Anatomy and physiology of normal speech and hearing mechanisms; possible deviations; embryonic development; neurology associated with production and reception of oral language.
Equivalent course: SLA304

SLP 305
COMMUNICATION DISORDERS I
3, 3/0
Prerequisites: SLP302 and 304 DProvides students with knowledge of the scope and responsibilities of the speech-language pathologist; basic knowledge concerning etiology, assessment, and intervention techniques related to articulation, phonology, phonemic awareness in reading and writing, craniofacial anomalies, and fluency disorders, including bilingual and dialectal considerations.
Equivalent course: SLA305

SLP 314
AUDIOLOGY
3, 3/0

SLP 328
AUDIOLOGY LAB
1, 0/2
Corequisite: SLP 314. Operation and listening check of the pure-tone audiometer, pure-tone air-conduction threshold testing, screening, otoscopy, tympanometry, and reporting test results.

SLP 329
LANGUAGE ACQUISITION LAB
1, 0/2
Corequisite: SLP 303. Observation of language used by typical children. Practice with procedures to collect and analyze typical language.

SLP 400
LANGUAGE AND LITERACY FOR SPEECH-LANGUAGE PATHOLOGISTS
3, 3/0
Prerequisites: SLP 302 and 329. Elective. Connection between language and literacy; role of the speech-language pathologist relative to working with children with language-based literacy impairments; similarities and differences between spoken and written language; linguistic components required for spoken and written literacy.

SLP 401
AURAL REHABILITATION
3, 3/0
Prerequisites: SLP 302, SLP 303, SLP 314. Effects of hearing loss upon speech perception, speech production, and language development; amplification options and intervention strategies for the hearing impaired; classroom acoustics; definition, diagnosis, and management of central auditory processing disorders.

SLP 405
COMMUNICATION DISORDERS II
3, 3/0
Prerequisites: SLP 304, SLP 305, SLP 412. Etiology, assessment, and intervention techniques related to voice disorders, developmental and acquired motor speech disorders, aphasia, traumatic brain injury, dysphagia, and augmentative communication. Cultural and bilingual issues are considered.

SLP 411
LANGUAGE DIAGNOSIS AND REMEDIATION
3, 3/0
Prerequisite: SLP 303. Introduction to childhood language disorders, including the demographics and characteristics features of language disorders. Cultural and bilingual issues are considered.
Equivalent course: SLA411

SLP 412
SPEECH ACOUSTICS AND PERCEPTION
3, 3/0
Prerequisites: SLP 302, SLP 304, SLP 314. Corequisite: SLP 428. Study of the scientific principles underlying the physiology, acoustics, and perception of normal speech production as a basis for subsequent understanding of disordered speech. Topics include basic concepts of sound, motor and acoustic theories of speech production, speech perception, instrumentation used to measure speech processes, and application to speech pathology.
Equivalent course: SLP312

SLP 424
ORGANIZATION AND ADMINISTRATION OF SCHOOL SPEECH AND LANGUAGE PROGRAMS
3, 3/0
Prerequisites: SLP 305, SLP 314, SLP 405 and SLP 411. Organization and administration of school speech-language programs, including laws and regulations, ethics, case selection, caseload, scheduling, records, and facilities.
Equivalent course: SLA424

SLP 428
ACOUSTICS LAB
1, 0/2
Corequisite: SLP 412. Direct and guided use of special instrumentation essential to the collection, measurement, and/or analysis of the acoustic components of speech sounds. Focus areas are respiration, phonation, articulation, and resonance.

SLP 429
CLINICAL ACTIVITY
1, 0/3
Prerequisites: SLP 303, SLP 305, SLP 314. Observation of evaluation and treatment sessions in speech-language pathology.
Equivalent course: SLA429

SLP 495
SPECIAL PROJECT
1-3, 0/0

SLP 497
WORKSHOP
1-3, 0/0

SLP 499
INDEPENDENT STUDY
3, 0/0

SOC - Sociology

SOC 100
INTRODUCTION TO SOCIOLOGY
3, 3/0; SSIF
An introduction to the study of human society, its culture, institutions, processes, and change, including an examination of socialization, and relationships between and among individuals and groups in society. A prerequisite for all other undergraduate courses in sociology (except SOC 240, SOC 310, SOC 312, and SOC 320), and is required of all sociology majors. Useful for students planning careers in which they must interact with people of varying social and economic statuses.

SOC 199
INTRODUCTION TO COMPUTER USE IN THE SOCIAL SCIENCES
3, 3/0
Hands-on introduction to the application of computers to applied social research problems, including a review of past practices, current uses, and future trends; computer analysis of data to develop insights into the ways sociologists use computers in their work.
Equivalent courses: GEG199, SST199

SOC 208
SOCIOLOGY OF CONTEMPORARY CHINA
3, 3/0
Contemporary China from various sociological perspectives; brief history of China; recent developments of social structure, cultural values and norms in China; comparison of China and Western societies; practical outcomes of China studies.

SOC 240
ANALYZING SOCIAL PROBLEMS
3, 3/0; DIIF, SSIF
Analysis of several major social problems selected according to faculty and student needs and interests; a variety of approaches, techniques, and theories will be used.

SOC 250
SOCIOLOGY OF BUFFALO, NEW YORK
3, 3/0
Prerequisite: SOC 100. The city of Buffalo from the perspectives of socio-historical development, socioeconomic conditions, environmental conditions, and neighborhood development. Use of secondary data and field experiences to better understand the condition of the city and its neighborhoods. Includes a field component as part of regular class time and outside assignments. Students complete term papers based on readings, research, and field work.

SOC 300
METHODS IN SOCIAL RESEARCH
3, 3/0
Prerequisite: SOC 100. The nature of scientific evidence, induction, and deduction; the application of scientific methods to sociological data; the use of statistics and other means of data collection; case histories, narrative and descriptive methods; methods of writing for publication; use of social materials from journals and books as illustrative material. Equivalent course: SOC300W

SOC 301
SOCIAL STATISTICS
3, 3/0
Prerequisite: SOC 100. Statistical methods and reasoning will be used to analyze and clarify sociological information; Also, operationalizing variables; database management; probability; descriptive statistics; inferential statistics; and data presentation. Software applications, specifically SPSS and SAS, familiarize students with recent and powerful technology in the field.

SOC 302
QUALITATIVE METHODS
3, 3/0
Prerequisites: SOC 100. Introduces students to the basics of conducting qualitative field research. Requires original qualitative research projects. Prepares students for senior-level capstone coursework. Equivalent course: SOC302W

SOC 310
SOCIOLOGY OF SEX AND GENDER
3, 3/0; DIIF
Critical examination of the roles women and men play in society; social statuses of women and men will be analyzed historically, comparatively, demographically, theoretically, and biologically; sociological implications of sex inequality in the economy and political systems, marriage, family relationships, and other social roles.

SOC 312
WOMEN IN SOCIETY
3, 3/0; DIIF
Multifaceted analysis of women in society; women's issues in relation to the social and natural sciences; critical examination of modern societies in light of women's perspectives. Equivalent course: SOC210

SOC 320
SOCIOLOGY OF THE FAMILY
3, 3/0
Prerequisite: SOC 100. The family as a social institution, its historical development, function and structure, and interaction with other institutions; cross-cultural comparisons are made. The current status of the family, diversity in contemporary American families, as well as stability and change in the life course of families. Equivalent course: SOC320W

SOC 321
THE AFRICAN AMERICAN FAMILY
3, 3/0; DIIF
Prerequisite: SOC 100. The relationship of American social institutions and the African American family; familial relations within the African American family. Useful for students who will interact with a diverse population in their careers, e.g., education and service occupations. Equivalent course: AAS321

SOC 322
SOCIOLOGY OF CHILDHOOD AND YOUTH
3, 3/0
Prerequisite: SOC 100. The social construction of childhood and adolescence; interactive nature of the socialization process; children's production of peer culture; global social problems faced by children and youth.

SOC 323
SOCIOLOGY OF EDUCATION
3, 3/0
Prerequisite: SOC 100. The social organization of education in the U.S. and elsewhere, and schools as social institutions reflecting and influencing society; roles and behaviors of participants in the educational system, including educational goals, theories, philosophies, and methods; educational achievements, historical developments, and future trends. Equivalent course: SSE323

SOC 324
SOCIOLOGY OF SPORT
3, 3/0
Presents an application of the sociological perspective to sport; focuses on the social organization of sports-related activities; the norms, goals, and values of sport using theoretical frameworks and empirical tools of the social sciences. Equivalent courses: HEW319, HPR319

SOC 328
SOCIOLOGY OF RELIGION
3, 3/0
Prerequisite: SOC 100. Theories in the sociology of religion will be examined. Emphasis is upon religion and social change; religion in society; church and sect; social class and religion; the role of the minister, priest and rabbi. Equivalent course: SOC420

SOC 330
SOCIAL PSYCHOLOGY
3, 3/0
Prerequisite: SOC 100. Human motivation and the nature of attitudes, including attitude change and stability; social phenomena, such as interpersonal perception and behavior, role prescripts and role conflict, prejudice, and conflict resolution.

SOC 331
SOCIOLOGY OF GROUP DYNAMICS
3, 3/0
Prerequisite: SOC 100. The social structure and social dynamics of social groups, including the division of labor, types of leadership, communication and authority structures, social conflict, and social control mechanisms. The relationship of the individual to the group; comparisons of different types of “natural” groups such as family, peers, work groups; and the use of “experimental” groups to investigate various aspects of group life. Equivalent course: AAS331

SOC 333
SOCIOLOGY OF SOCIAL MOVEMENTS
3, 3/0; DIIF
Prerequisite: SOC 100. Social movements, their character, development, dynamics, and consequences; the relationship between discontent at the individual and wider social levels. Selected social movements and sociological theories.
SOC 340
SOCIOLOGY OF THE CITY
3, 3/0
Prerequisite: SOC 100. The social organization of urban life in the U.S. and elsewhere, with emphasis on the growth and development of cities and metropolitan areas; lifestyle in the city and suburbs; the relationship of power and social control to urban stratification and the distribution of wealth; racial and ethnic distribution and relationships in urban settings; such urban problems as poverty, blight, crime and violence; and urban planning and redevelopment.

SOC 350
POWER, CLASS, AND INEQUALITY
3, 3/0; DIIF
Prerequisite: SOC 100. Historical and contemporary dimensions of social inequality and power differentials in the United States and globally; contrasting theoretical interpretations of the origins and significance of social inequality, including the intersectional relationship between inequality on the basis of gender, race, ethnicity, and class; current trends and projected transformations in social inequality.

SOC 351
SOCIOLOGY OF RACE AND ETHNICITY
3, 3/0; DIIF
Prerequisite: SOC 100. The study of racial and ethnic groups in American and other societies; focuses on forms, causes, and effects of prejudice and ethnic conflicts, and the changing relationships of these groups to the larger society. Possible solutions to social problems involving issues of race and ethnicity are also explored. Equivalent course: AAS 351

SOC 352
SOCIOLOGY OF AGING
3, 3/0
Prerequisite: SOC 100. How society structures the experience of aging; major transitions and role changes experienced by the elderly within social institutions such as family, the economy, and religion; understanding the way these same institutions adapt to an aging population. Includes investigation of programs and policies aimed at assisting individuals at varying levels of independence throughout the aging process.

SOC 353
ENVIRONMENT AND SOCIETY
3, 3/0
Prerequisite: SOC 100 or 6 credit hours of sociology. Analyzes the relationship of society and the natural environment (global, national, and local levels) using empirical and theoretical methods. Specific topics include the "toxics crisis," Central America, work, and environmental racism. Interprets societal structures and processes that lead to ecological crises and responses to them.

SOC 360
SOCIOLOGY OF WORK
3, 3/0
Prerequisite: SOC 100. The social relations surrounding the world of work as the contours of modern urban-industrial society emerge, mature, and begin to decline; typical forms of work in industry; the functions of work organizations; changing of structures of social class; patterns of labor relations; the transfer of these forms to non-industrial and government contexts; how these factors influence the interest and meaning workers find in their work; the consequences for social action and social change.

SOC 366
CULTURAL PROFICIENCY AND PUBLIC ACHIEVEMENT
4, 3/0
Prerequisites: Completion of SPF 203. Public achievement serves as a framework for analyzing diverse student perspectives, opinions, and assets to identify and meet the needs of different cultural groups and to learn to work effectively in cross-cultural settings. Students will be provided with practical experiences in implementing a project with children in a local school district. Equivalent course: SPF 366

SOC 370
SOCIOLOGY OF DEVIAN'T BEHAVIOR
3, 3/0
Prerequisite: SOC 100. Deviant behavior in American society; its nature, theoretical perspectives, and societal reactions; deviance as both an interactive and political process, with special attention paid to the development of deviant identities; specific behaviors may include substance abuse, sexual deviance, crime and delinquency, mental illness, and social protest.

SOC 380
SOCIOLOGY OF CRIME
3, 3/0
Prerequisite: SOC 100. Crime, its nature, variation, and causation; social responses to crime; methods of crime prevention, punishment, and treatment of offenders. Theoretical perspectives and controversies are presented in social and historical context.

SOC 381
SOCIOLOGY OF VIOLENCE
3, 3/0
Prerequisite: SOC 100. An analysis of various manifestations of violence. Theories of violence will be presented, as well as investigation into such specific topics as child abuse, battered spouses, rape, violence in schools, and collective violence; programs which deal with violence.

SOC 382
SOCIOLOGY OF LAW
3, 3/0
Prerequisite: SOC 100. The numerous ways in which law permeates all forms of social behavior; focuses on the law itself and the social context within which it has been created and exists; dominant theoretical perspectives and sociological methods used to explain the interrelationships between law and society, including types and purposes of law, major legal organizations, the lawmaking process, law and social control, law and dispute resolution, law and social change, and the legal profession.

SOC 383
SOCIOLOGY OF PUNISHMENT AND CORRECTIONS
3, 3/0
Prerequisite: SOC 100. Recent theories and research findings regarding correctional practice; offender typologies, the nature and forms of treatment, and obstacles to treatment.

SOC 389
SOCIOLOGY OF JUVENILE DELINQUENCY
3, 3/0
Prerequisite: SOC 100. Juvenile delinquency; description, extent, and sociological theories of explanation; institutions and agencies dealing with and/or attempting to prevent delinquency, including courts, law enforcement agencies, social service agencies, and educational institutions; development of data.

SOC 390
SOCIOLOGY OF ADDICTION
3, 3/0
Prerequisite: SOC 100. Alcohol and drug abuse as a social problem and a sociological phenomenon; nature of drug and alcohol abuse; the situations in which this behavior occurs, and the characteristics of users; legal, medical, and other efforts made to influence addicts.

SOC 392
SOCIOLOGY OF SEXUAL BEHAVIOR
3, 3/0
Prerequisite: SOC 100. Recent sociological findings concerning sexual behavior as a social process; the nature of various sexual practices, such as homosexuality and sadomasochism in light of sociological theory; sociological literature concerning sexual behavior with special emphasis on the interactionist approach.

SOC 393
SOCIOLOGY OF MENTAL ILLNESS
3, 3/0
Prerequisite: SOC 100. Sociological perspectives on mental health and illness, including their social histories; includes evaluation of social factors and processes involved in modern approaches to the causes and treatment of mental illness; problems of definition and diagnosis; recent research findings in areas of epidemiology, institutional care and control of the mentally ill, the care of mental patients, and social issues.
SOC 400
FOUNDATIONS OF SOCIOLOGICAL THOUGHT
3, 3/0
Prerequisites: SOC 100 and 6 additional credit hours in sociology. Ideas developed by the early founders of sociology, including Karl Marx, Max Weber, Emile Durkheim, and their contemporaries. Equivalent course: SOC400W

SOC 408
CONTEMPORARY SOCIOLOGICAL THEORY
3, 3/0
Prerequisites: SOC 100 and 6 additional credit hours of sociology. The significance and uses of sociological theory; includes the major currents approaches to understanding society and social life, such as contemporary Marxism, conflict theory, functionalism, and the interpretive theories, such as symbolic interactionism, phenomenological sociology, and ethnomethodology; and theories of rational choice such as behavioral sociology and exchange theory. Newly developing perspectives such as feminist theory and postmodernism. Equivalent course: SOC408W

SOC 430
SOCIOLOGY OF INTERNATIONAL DEVELOPMENT AND UNDERDEVELOPMENT
3, 3/0
Prerequisites: SOC 100 and upper-division status. Societal development and change on an international level, with emphasis on the third world; topics include the major sociological theoretical models, conceptual frameworks and assumptions of development; the emergence and dynamics of the world system; the international division of labor; the interplay of development with gender, race, and ethnicity; social policy alternatives and strategies of social change and liberation.

SOC 484
PRACTICUM IN TEACHING SOCIOLOGY
3, 3/0
Prerequisites: SOC 100 and 15 additional credit hours in Sociology; 3.0 GPA and 3.0 in Sociology. How sociology classes are constructed and administered. Instruction in lecture development, exam construction, and record keeping. Experience in mentoring and helping to prepare students for exams. Required journal and analysis paper.

SOC 485
MOOT COURT
3, 3/0; OCIF
Prerequisite: Upper-division standing or permission of instructor. Simulation of a trial court or appellate court proceeding involving teams of students acting as prosecutor/plaintiffs' attorneys, defense attorneys, and witnesses. Students develop case strategy; analyze evidence; integrate legal precedent; prepare a written brief, question witnesses, and present oral arguments to the court in opening and closing statements. Final project is a mock trial presentation held in a formal courtroom setting. Equivalent courses: CRJ485, PSC485

SOC 486
PRACTICUM IN APPLIED SOCIOLOGY
3, 3/0
Prerequisite: SOC 100. The study of field research techniques in the classroom, subsequently applied during the completion of 75 hours of field experience working with an agency or organization in the community.

SOC 488
INTERNSHIP IN SOCIOLOGY
1-15, 0/0
Prerequisites: SOC 486; Faculty intern supervisor permission. Supervised fieldwork in appropriate agencies where students expand their knowledge of sociology and establish interactive ties in the job market. Academic components include orientation, training sessions, ongoing conferences with faculty/agency supervisor, log/journal of the field experiences, and final report.

SOC 490
SEMINAR IN SOCIOLOGY
3, 3/0; OCIF
Prerequisites: SOC 100; SOC 300W or SOC 302W; SOC 400W or SOC 408W. Research in selected area(s) of sociology. Required for B.A. sociology majors with senior status.
sound systems of English and Spanish. Exercises aimed at improvement of pronunciation and intonation.

SPA 306
CIVILIZATION AND CULTURES OF SPAIN
3, 3/0

SPA 307
SPANISH AUTHORS PRE-1800
3, 3/0
Prerequisites: SPA 302. Taught in Spanish. Overview of representative prose, poetry and theatrical works by authors from Spain from the eleventh through eighteenth centuries, studied in historical and broad artistic context. Further development toward the American Council on the Teaching of Foreign Languages Advanced-Mid language proficiency.

SPA 308
SPANISH AUTHORS 1800-PRESENT
3, 3/0
Prerequisites: SPA 302. Taught in Spanish. Overview of representative prose, poetry and theatrical works by authors from 19th century Spain to the present, studied in historical and broad artistic context. Further development at the American Council on the Teaching of Foreign Languages Advanced-Mid language proficiency.

SPA 309
CULTURE AND CIVILIZATION OF LATIN AMERICA
3, 3/0
Prerequisites: SPA 302. Taught in Spanish. Cultural diversity of the Latin American people, with emphasis on their achievements, customs and ways of life as affected by geographic, historical, political, and economic factors. Further development toward American Council on the Teaching of Foreign Languages Advanced-Mid proficiency level.

SPA 310
SURVEY OF SPANISH AMERICAN LITERATURE
3, 3/0
Prerequisite: SPA 301 or SPA 302. The colonial period through romanticism.

SPA 311
SURVEY OF SPANISH AMERICAN LITERATURE
3, 3/0
Prerequisite: SPA 301 or SPA 302. Realism to the present.

SPA 317
BUSINESS SPANISH
3, 3/0
Prerequisite: SPA 301, SPA 302, or equivalent. Introduction to Spanish commercial language. Extensive practice in translating and composing Spanish business communications.

SPA 389
TOPICS COURSE
3, 0/0

SPA 401
SPANISH FOR SPANISH TEACHING
3, 3/0
Prerequisites: Must be officially admitted to the Spanish Education BS or Post-Baccalaureate 7-12 Spanish Certification Program. Survey of classroom use of Spanish and professional literature on Spanish pedagogy.

SPA 404
CERVANTES
3, 3/0
Prerequisite: SPA 307. Reading and analysis of Don Quixote or the Novelas Exemplares.

SPA 410
LITERACY FOR SPANISH TEACHERS
3, 3/3
Prerequisites: SPA 301. Emphasis on the promotion of literacy skills in Spanish instruction.

SPA 411
SPANISH AMERICAN LITERATURE OF THE NINETEENTH AND TWENTIETH CENTURIES: NOVEL, SHORT STORY, AND ESSAY
3, 3/0
Prerequisite: SPA 310 or SPA 311. Major trends in these genres in the context of the cultural diversity of the hemisphere.

SPA 415
ADVANCED GRAMMAR AND COMPOSITION
3, 3/0
Prerequisites: SPA 301 and SPA 302. Elements of stylistics and selected grammar topics. Special attention given to common errors of English speakers.

SPA 416
ADVANCED CONVERSATION
3, 3/0
Prerequisite: SPA 415 and upper-division status, or permission of instructor. Development of speaking and aural comprehension at the advanced level. Required for secondary education majors.

SPA 421
STRUCTURE OF MODERN SPANISH
3, 0/0
Prerequisite: SPA 305. An analysis of the principles of modern Spanish from a linguistic perspective. A study of Spanish phonology, morphology, and syntax.

SPA 495
SPECIAL PROJECT
1-3, 0/0

SPA 496
SEMINAR I
3, 3/0
Prerequisite: Permission of instructor. Topic chosen by instructor.

SPA 497
SEMINAR II
3, 3/0
Prerequisite: Permission of instructor. Topic chosen by instructor.

SPA 499
INDEPENDENT STUDY
3, 0/0

SPC - SPEECH COMMUNICATION

SPC 103
INTRODUCTION TO HUMAN COMMUNICATION
3, 3/0; HUIF
Exploration of communication as the basis for personal and social interaction; focuses on roles of both consumers and producers of messages; investigation of various modes of communication. Equivalent course: COM103

SPC 205
INTRODUCTION TO ORAL COMMUNICATION
3, 3/0; OCIF
Basics of oral communication; examining the principles and contexts of communication; focus on the communication process, interviewing, public discussion, group problem solving, public speaking, and criticism of public messages. Equivalent course: COM205

SPC 306
PUBLIC SPEAKING
3, 0/0
Prerequisite: SPC 205. Organization, delivery, and evaluation of public speech from a performance and analytical framework for professional, social, public, and small group situations. Equivalent course: COM306
SPC 307 GROUP COMMUNICATION
3, 3/0
Prerequisite: SPC 205. Interdisciplinary approach to examination of the theoretical and practical dimensions of communication in small-group decision-making and problem-solving situations.
Equivalent course: COM 307

SPC 309 PERSUASION AND PROPAGANDA
3, 3/0
Theory and practice of persuasion in various media contexts; analysis of social implications, ethical base, and impact of persuasive messages; analysis of contemporary propaganda in media contexts.

SPC 311 INTERCULTURAL COMMUNICATION
3, 3/0; DIIF
Prerequisite: Upper-division status. Examination of theory and practice of intercultural communication; exploration of ways to bridge differences based on culture, ethnicity, religion, gender, age, and other potential social barriers.

SPC 315 MEDIA PERFORMANCE
3, 3/3
Prerequisite: SPC 205. Principles and theories of voice performance for radio and other forms of media technology; techniques for marking and reading written scripts; focus on body language and vocal nuance; application to animation, storytelling, and commercial voiceovers.

SPC 321 RHETORICAL CRITICISM
3, 3/0
Prerequisite: Upper-division status. Critical analysis of persuasive messages and strategies used by public persuaders; focus on social/political speeches, commercial advertising, music lyrics, and other forms of purposeful communication.
Equivalent course: SPC 321 W

SPC 333 MINORITIES AND THE MEDIA
3, 3/0; DIIF
Prerequisite: Upper-division status. Critical analysis of media representation of traditionally underrepresented groups (such as women, African Americans, Native American, Arabs and Muslims, and/or gays and lesbians).
Equivalent course: COM 333

SPC 407 ORGANIZATIONAL COMMUNICATION
3, 3/0
Prerequisite: Upper-division status. Theory and practice of communication within task-oriented organizations; focus on the interaction of structure, behavior, and message; role of communication in organizational change.
Equivalent courses: COM 407, JBS 407

SPC 422 MEDIA CRITICISM
3, 3/0
Prerequisite: Upper-division status. Critical analysis of mass media, including print, broadcast, and digital; application to news, documentaries, entertainment programming, and advertising; focus on social, cultural, and political impact of media messages from a rhetorical perspective.
Equivalent course: COM 422

SPC 424 SPECIAL TOPICS IN MEDIA CRITICISM
3, 3/0
Prerequisite: Upper-division status. Critical analysis of mass media, including print broadcast, and digital; focus on the role of media in a particular context (such as electoral politics or war).

SPF - SOCIAL PSYCHOLOGICAL FOUNDATIONS

SPF 202 CHILD DEVELOPMENT AND EDUCATION
3, 3/0
Introduction to the study of child behavior and development with emphasis on implications for teaching and learning. Focus on the child in school, from early childhood through preadolescence. Includes child study and observation methods; theories of development; nature and sources of individual development from biological, cultural, and behavioral perspectives, with emphasis on cognitive, social, emotional, and physical areas of development as they apply to the classroom. Required for elementary education and exceptional education majors according to program; elective for others beyond freshman level.
Equivalent course: EDF 202

SPF 203 SCHOOL AND SOCIETY
3, 3/0
Prerequisite: Successful completion of the basic writing requirement. Education as a function of a democratic society. Sociological and historical backgrounds of schools. Current issues and problems affecting schools. Objectives, control, and financial support of education in New York State and the United States. Directed observation. Required of elementary-education and exceptional-education majors according to program; elective for others beyond freshman level.
Equivalent courses: EDF 203, EDF 203 W, SPF 203 W

SPF 221 THE HISTORY OF BLACK EDUCATION IN AMERICA
3, 3/0
The role of blacks in the American educational system. Changes that have taken place in order to improve or retard education for blacks. Approaches for providing meaningful education for blacks now and in the future.
Equivalent courses: AAS 221, EDF 221

SPF 222 THE DEVELOPMENT OF MODERN EDUCATION IN AFRICA
3, 3/0
Educational changes in Africa from the colonial era to the present and their effect on social and political issues in Africa and abroad.
Equivalent courses: AAS 222, EDF 222

SPF 225 ETHNIC STUDIES IN THE ELEMENTARY SCHOOL
3, 3/0
Ethnic diversity in American life and education. Cultural minorities, e.g., Native Americans, blacks, Spanish-speaking groups, Jews, White ethnic groups and mainstream American life and education.
Equivalent courses: AAS 225, EDF 225

SPF 302 EDUCATIONAL PSYCHOLOGY: ELEMENTARY EDUCATION
3, 3/0
Prerequisites: EDF 202, CWP 101, CWP 102, upper-division status. Learners, the learning process, evaluating learning, and establishing a classroom environment to maximize learning.
Equivalent courses: EDF 302, EDF 302 W, SPF 302 W

SPF 303 EDUCATIONAL PSYCHOLOGY: MIDDLE AND SECONDARY EDUCATION
3, 3/0
Prerequisites: upper-division status. Psychological principles underlying learning and effective teaching. The effect of social and personality factors on learning, assessment, and evaluation of individual progress. Diagnosis of difficulties in learning, discipline, programming, and planning as related to instruction. Directed observation.
Equivalent courses: EDF 303, EDF 303 W, SPF 303 W

SPF 311 FAMILY VIOLENCE
3, 3/0
Prerequisite: Successful completion of the basic writing requirement. Comprehensive overview and critical investigation into the field of family violence. Includes child abuse, dating violence, spouse
abuse, sibling violence, adolescent maltreatment, parent abuse, and elder abuse. Explores history, prevalence, susceptibility factors, patterns of social interaction, demographics, sexual and emotional abuse, and the violence-prone personality. Theoretical perspectives on family violence, including cycle theory of violence, integrated within broader social science perspectives.
Equivalent courses: EDF311, EDF311W, SOC311, SPF311W

SPF 345
PARENTING
3, 3/0
Prerequisite: Successful completion of the basic writing requirement. Relevant issues facing parents and professionals who work with them in today's changing society. Includes classical and current research, with emphasis on practical application and implications. Developmental approach to understanding parent-child relationships. Working more effectively with parents of varied cultural backgrounds, family structures, lifestyles, and at-risk factors.
Equivalent courses: EDF345, EDF345W, SPF345W

SPF 346
TEENAGE SEXUALITY
3, 3/0
Teenage sexuality and factors influencing its emergence. The incorporation of sexuality education into the teaching-learning process at home and in school. Cooperative efforts by parents and teachers. Development of skills in communicating with teenagers about their sexuality. Strategies for teens to deal with sexuality concerns more effectively. Community resources for teens, parents, teachers. Special issues and problems.
Equivalent courses: CFS346, EDF346

SPF 353
HUMAN DEVELOPMENT DURING EARLY ADOLESCENCE AND ADOLESCENCE
3, 3/0
Introduction to preadolescent and adolescent behavior and development, with emphasis on implications for teaching. Includes the nature of adolescence, developmental and behavioral characteristics, learning and education, problems and issues of adolescents in today's society, ways teachers can study adolescents, and self-understanding.
Equivalent course: EDF353

SPF 366
CULTURAL PROFICIENCY AND PUBLIC ACHIEVEMENT
4, 3/0
Prerequisites: Completion of SPF 203. Public achievement serves as a framework for analyzing diverse student perspectives, opinions, and assets to identify and meet the needs of different cultural groups and to learn to work effectively in cross-cultural settings. Students will be provided with practical experiences in implementing a project with children in a local school district.
Equivalent course: SOC366

SPF 403
HISTORICAL AND PHILOSOPHICAL FORCES INFLUENCING SECONDARY EDUCATION
3, 3/0
Equivalent courses: EDF403, EDF403W, SPF403W

SPF 495
SPECIAL PROJECT
3, 0/0
Equivalent course: EDF495

SPF 497
WORKSHOP
1-3, 0/0
Equivalent course: EDF497

SPF 499
INDEPENDENT STUDY
3, 0/0
Equivalent course: EDF499

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SSE - SOCIAL STUDIES EDUCATION

SSE 200
INTRODUCTION TO SECONDARY TEACHING
3, 3/0
Classroom and field experiences designed to help students make better-informed decisions regarding careers in secondary social studies education. For the general student, provides important background for their roles as citizens and as parents. Required for social studies education majors.
Equivalent course: SST200

SSE 303
METHODS AND MATERIALS IN TEACHING MIDDLE SCHOOL SOCIAL STUDIES
3, 3/0
Prerequisites: 6 credit hours of professional education courses, SST 200, cumulative 2.75 GPA (overall and in major coursework), and achieve acceptable evaluations on the PRAXIS II: Subject Assessment in Social Studies Content Knowledge exam. May not be taken concurrently with SSE 309. Focuses on the problems of the teacher; techniques for teaching; analyzing classroom behavior; self-evaluation; and peer evaluation of teaching practices.
Equivalent course: SST303

SSE 309
METHODS AND MATERIALS IN TEACHING HIGH SCHOOL SOCIAL STUDIES
3, 3/0
Prerequisites: Upper-division status, SSE 200, minimum cumulative GPA of 2.75 (overall and in major coursework). May not be taken concurrently with SSE 303. The purposes, goals, curricular materials, methodologies, and instructional techniques of social studies education; students develop competency in designing and practicing instructional strategies drawn from methodologies and of the curricular materials of social studies education and the disciplines of history and the social sciences.

SSE 350
THE TRADITIONS OF THE PEOPLE OF THE LONGHOUSE (THE HO DE NO SAU NEE)
3, 3/0
An introduction to the traditions of the People of the Longhouse (The Ho De No Sau Nee); pre-Columbian founding of the League, clan system, early colonial relationships, role in American Revolution, state of the Nations, and primary current issues.
Equivalent course: SST350

SSE 363
AMERICAN IDENTITY IN TRANSITION: DIVERSITY AND PLURALISM IN THE UNITED STATES
3, 3/0; DIIF
Prerequisite: Upper-division status. The diverse, pluralistic makeup of American society; roots of pluralism and what it means for the daily experience of living in America; themes of diversity explored through history and literature; the activities of four major underrepresented groups in their struggle for liberation: African Americans, Native Americans, Latinos, and Asians.
Equivalent courses: HIS363, SST363

SSE 370
COMPUTER TECHNOLOGY IN THE SOCIAL STUDIES CLASSROOM
3, 3/0
Prerequisite: History and social studies education major. Familiarizes students with relevant software and methodology for its use in the social studies classroom. All students have the opportunity to participate on the microcomputer.
Equivalent course: SST370

SSE 402
HISTORICAL AND PHILOSOPHICAL FOUNDATIONS OF SOCIAL EDUCATION
3, 3/0
Prerequisite: Upper-division status. The development of the social studies curriculum in relation to the larger social, economic, educational, and political forces operating in American society; enduring philosophical issues as to what is the "good" society, the "good" citizen, and the best curriculum and instructional methods to create them.
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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites/Description</th>
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<tr>
<td>SSE 404</td>
<td>SEMINAR IN ELEMENTARY SOCIAL STUDIES</td>
<td>3, 3/0</td>
<td>Prerequisites: EDU 210 and EDU 352. Students learn to more effectively utilize their social science preparation for early secondary and elementary social studies instruction; make decisions concerning their tentative positions on the function of the school and society, the purpose of social studies, and the available alternatives to teachers in the areas of methodology, psychology, and curriculum.</td>
</tr>
<tr>
<td>SSE 407</td>
<td>THE TEACHING OF HISTORY</td>
<td>3, 3/0</td>
<td>Prerequisite: Upper-division status. The curriculum and practice of teaching history, the historical role of history in the social studies, the political uses of the teaching discipline; provides a research foundation as to how historical meaning is constructed as a base for instructional practice; serves as a link between the material presented in content and pedagogical courses in the program. Equivalent courses: HIS407, SST407</td>
</tr>
<tr>
<td>SSE 409</td>
<td>STUDENT TEACHING OF SOCIAL STUDIES IN THE MIDDLE SCHOOL</td>
<td>6, 0/0; OCIF</td>
<td>Prerequisites: Minimum cumulative GPA of 2.75 (overall and in major coursework), grade of C or higher in SSE 303 and SSE 309, successful completion of English composition/basic communication and mathematics competency requirements. Supervised teaching experience five full days a week for approximately seven consecutive weeks. Effective demonstration of content knowledge, pedagogical preparation, instructional delivery, classroom management, knowledge of student development, collaboration with school professionals, and reflectivity of practice required.</td>
</tr>
<tr>
<td>SSE 410</td>
<td>STUDENT TEACHING OF SOCIAL STUDIES IN SENIOR HIGH SCHOOL</td>
<td>6, 0/0; OCIF</td>
<td>Prerequisites: Minimum cumulative GPA of 2.75 (overall and in major coursework), grade of C or higher in SSE 303 and SSE 309, successful completion of English composition/basic communication and mathematics competency requirements. Supervised teaching experience five full days a week for approximately seven consecutive weeks. Effective demonstration of content knowledge, pedagogical preparation, instructional delivery, classroom management, knowledge of student development, collaboration with school professionals, and reflectivity of practice required.</td>
</tr>
<tr>
<td>SSE 488</td>
<td>INTERNSHIP</td>
<td>1-12, 0/0</td>
<td>Prerequisites: SSE 409 and SSE 410, Sophomore, junior, or senior status; background of courses or experience within the area of interest; 6 credit hours of lower-division major coursework; 6 credit hours of history and social studies education coursework at the upper-division level; minimum cumulative GPA of 2.5 (overall and in major coursework); Student adviser and department chair permission. Guided, supervised field experiences that complement the academic program. Equivalent course: HIS488</td>
</tr>
<tr>
<td>SSE 495</td>
<td>SPECIAL PROJECT</td>
<td>3, 0/0</td>
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<tr>
<td>SSE 497</td>
<td>WORKSHOP</td>
<td>1-2, 0/0</td>
<td></td>
</tr>
<tr>
<td>SSE 499</td>
<td>INDEPENDENT STUDY</td>
<td>3, 0/0</td>
<td></td>
</tr>
</tbody>
</table>
SWK 317  
RESEARCH IN SOCIAL WORK  
3, 3/0  
Prerequisites: SWK 307 and CWP102 and BIO101 or BIO308 and (MAT103 OR ECO305 OR MAT114 OR MAT122 OR MAT126 OR MAT161 OR MAT311. OR PHI107) Application of research methodologies and evaluative techniques to the field of social work. Restricted to social work majors.  
Equivalent course: SWK317W

SWK 319  
DYNAMICS OF POVERTY  
3, 3/0; DIIF  
Predominant theories, policies, and programs dealing with poverty in America; the historical treatment of the poor; views of poverty; poverty's effects on individuals, families, and communities; class, race, gender, and age; strategies of social change. Requires 20 hours of volunteer work in addition to coursework.  
Equivalent course: SWK319W

SWK 320  
SOCIAL SERVICES ORGANIZATIONS  
3, 3/0  
Prerequisite: SWK 220 and CWP102 and BIO101 or BIO308 and (MAT103 OR ECO305 OR MAT114 OR MAT122 OR MAT126 OR MAT161 OR MAT311. OR PHI107) Purposes, types, management, staffing, and funding of organizations that deliver social services; roles of the social work professional in such organizations; selected social work fields of practice and services for specialized populations. Restricted to social work majors.  
Equivalent course: SWK320W

SWK 321  
THE ELDERLY AND SOCIAL SERVICES  
3, 3/0  
Prerequisite: Upper-division status. Needs of and services for the elderly; services and programs; policy issues regarding the aging, such as health, housing, and finances; intervention strategies for working with the elderly.

SWK 335  
MENTAL HEALTH AND SOCIAL WORK  
3, 3/0  
Prerequisite: SWK 307 and CWP102 and BIO101 or BIO308 and (MAT103 OR ECO305 OR MAT114 OR MAT122 OR MAT126 OR MAT161 OR MAT311. OR PHI107) Theoretical perspectives concerning mental health and mental illness; history of the mental health movement; institutional and community mental health services; roles and functions of social workers and other personnel in the mental health system.

SWK 345  
CHILD WELFARE SERVICES  
3, 3/0  
Prerequisite: Upper-division status. Child welfare as a field of practice in social work; historical and philosophical bases; the impact of culture, ethnicity, and race on practice; current delivery of services; skills needed to practice in the field.

SWK 346  
CHILD ABUSE AND NEGLECT  
3, 3/0  
Prerequisite: Upper-division status. Major issues in child abuse and neglect from a social work viewpoint; the nature of abuse and neglect, the actual incidence, workings of the current child-protection system; intervention and treatment issues; the role of other disciplines and the larger society.

SWK 419  
SOCIAL WELFARE POLICY  
3, 3/0  
Prerequisite: SWK307 AND SWK308, AND SWK319 AND SWK320 AND SWK322 AND SWK422 AND CWP/ENG 102 AND (BIO308 OR BIO101) AND (MAT103 OR ECO305 OR MAT114 OR MAT122 OR MAT126 OR MAT161 OR MAT311 OR PHI107) Concurrent with field education. Institutional response of the American welfare state to individual and societal issues, problems; current social welfare issues, policies, and programs in their historic and philosophic context, with emphasis on critical thinking and policy practice. Restricted to social work majors.  
Equivalent course: SWK419W

SWK 422  
INTERVENTIVE METHODS I  
3, 3/0  
Prerequisites: SWK 220 and SWK 307 and CWP102 and (BIO101 or BIO308) and (MAT103 OR ECO305 OR MAT114 OR MAT122 OR MAT126 OR MAT161 OR MAT311 OR PHI107) Fundamental skills of social work practice; communication and assessment skills with individuals and families Restricted to social work majors.  
Equivalent course: SWK422W

SWK 423  
INTERVENTIVE METHODS II  
3, 3/0  
Prerequisites: SWK220 AND SWK307 AND SWK308 and SWK319 AND SWK320 AND SWK422 AND CWP102 and (BIO101 or BIO308) and (MAT103 OR ECO305 OR MAT114 OR MAT122 OR MAT126 OR MAT161 OR MAT311 OR PHI107) Continuation of SWK 422. Focus on models and strategies of intervention, resistances to change, and termination. Restricted to social work majors.  
Equivalent course: SWK423W

SWK 424  
INTERVENTIVE METHODS III  
3, 3/0  
Prerequisite: SWK423, SWK307, SWK220, SWK308, SWK317, SWK319, SWK320, SWK422 and CWP102 and (BIO101 or BIO308) and (MAT103 OR ECO305 OR MAT114 OR MAT122 OR MAT126 OR MAT161 OR MAT311 OR PHI107) Intervention with groups and communities; models of group work practice and phases of group intervention; major spheres of macro practice and methods to effect change at large- systems level. Restricted to social work majors.  
Equivalent course: SWK424W

SWK 425  
SOCIAL WORK WITH FAMILIES  
3, 3/0  
Prerequisites: SWK 308 and SWK 422 and CWP102 and (BIO101 or BIO308) and (MAT103 OR ECO305 OR MAT114 OR MAT122 OR MAT126 OR MAT161 OR MAT311 OR PHI107) Focus on family and family intervention; family theory and practice principles studied through examination of families in specialized problem contexts.

SWK 485  
SENIOR SEMINAR  
3, 3/0  
Intensive analysis of selected topics in social work.

SWK 493  
FIELD INSTRUCTION  
6, 6/0  
Prerequisite: SWK220 AND SWK307 AND SWK308 AND SWK319 AND SWK422 AND (BIO101 OR BIO308) AND CWP102 AND (MAT103 OR ECO305 OR MAT114 OR MAT122 OR MAT126 OR MAT161 OR MAT311 OR PHI107) First semester of supervised field experience in a professional social work setting. Concurrent weekly on-campus integrative seminar. Restricted to social work majors.
TEC 101  
TECHNICAL DRAWING  
3, 2/3  
Prerequisites: none. Drawing techniques and part modeling techniques for 3D parametric solid modeling systems; multiview projections using 2- and 3-D geometry, drawing annotation including text, dimensioning and layouts of a variety of drawing types suitable for plotting to scale; part modeling techniques including Industry-standard parametric modeling; introduction to geometric dimensioning and tolerancing; required for industrial technology, electrical engineering technology (smart grid), mechanical engineering technology, and technology education majors.

TEC 150  
TECHNOLOGY IN EVERYDAY LIFE  
3, 3/0; TSIF  
The applied physics and technology involved in everyday life in order to gain an understanding of basic science and engineering principles; Newton's laws of motion as they apply to an ice skater and bumper cars; principles of fluid mechanics like water flowing from a garden hose and the buoyancy of ships; heat transfer and phase transitions like water in its three phases and home heating systems; thermodynamic efficiency of automobile engines as well as air conditioners; resonance and mechanical waves developed by music instruments; basic electricity and its many applications from how it is produced by water and wind to how it is used to produce light; light and optics, for example, splitting the colors of sunlight to focusing light in a camera lens.

TEC 200  
TOTAL QUALITY MANAGEMENT  
3, 3/0  
Prerequisite: Sophomore status. Fundamental concepts of total quality management; managerial commitment; organization mission and structure; quality problem-solving tools; variation, quality costs; vendor-customer relationships; quality evaluation techniques; quality philosophies of Deming, Crosby, and others. Equivalent course: TEC200W

TEC 201  
MATERIALS PROCESSING  
3, 2/3  
Prerequisite: TEC 101. Processes and problems associated with the conversion of materials into useful forms and goods; laboratory activities exemplify the major processes studied.

TEC 260  
DEVELOPMENT OF TECHNOLOGY  
3, 3/0; TSIF  
The history of science and technology; the evolution of technology and its effects on humanity, for example, advances in agriculture and health care; era-specific technology such as weapons developed for defense and building processes to construct small communities and large cities; evolution of energy and power leading to current alternatives such as solar energy, wind power, hydroelectric power, fuel cells, and biomass energy; how technology has affected and been affected by ecology, climatology, health care, ethics, war, and politics. Equivalent course: TEC260W

TEC 301  
MATERIALS PROCESSING II  
3, 2/3  
Prerequisite: TEC 201. Continuation of TEC 201. Emphasis on numerical controlled and computerized numerical controlled materials processing.

TEC 302  
CAD/CAM (COMPUTER AIDED DRAFTING/COMPUTER AIDED MANUFACTURING)  
3, 2/3  
Prerequisites: TEC 101 and TEC 201. Using computers to facilitate the production processes of designing, drafting, production planning, cost estimating, and materials processing; using CAD software to create the database for part geometry, material selection, and process requirements; using CAM software to control machines, directly or indirectly, to produce the product.

TEC 311  
MATERIALS SCIENCE AND TESTING  
3, 2/3  
The origin of composition of industrial materials: metals and their alloys, woods, fuels, lubricants, cutting fluids, solvents, protective compounds or coatings, inks, adhesives, plastics, and ceramics; applications of testing procedures for identification and determination of physical and chemical properties suitable for specific industrial uses.

TEC 312  
MATERIALS MANAGEMENT  
3, 2/3  
Prerequisite: TEC 201. Production planning and control functions in industry; techniques and procedures of production planning, scheduling, dispatching, and control. Required for industrial technology majors.

TEC 313  
STATISTICAL QUALITY CONTROL  
3, 3/0  
Fundamentals of probability; sample space, events, probability distributions; binomial, Poisson, and normal distributions; application of probability in quality control; variable and attribute control charts; process capability studies; acceptance sampling; standard tables for sampling plans.

TEC 314  
ELECTROMECHANICS  
3, 2/3  
Fundamental laws of electric circuits; DC and AC circuits, application to electric power systems and electronics industry; fundamentals of electrical machinery, introduction to three-phase systems; laboratory experiments with electrical circuits and devices.

TEC 319  
TECHNOLOGY AND VALUES  
3, 3/0; TSIF  
Prerequisite: Upper-division status. Social and ethical impacts of technology; the often conflicting roles of historical and current creators and users of technology; examination of selected current technical-ethical issues of societal importance. Equivalent course: TEC319W

TEC 321  
MEASUREMENT SYSTEMS  
3, 3/0  
Prerequisite: TEC 313. Theory and application of measurement; tolerancing, variable, and attribute measurement devices; gauge variation, automated measurement input equipment, and gauge control systems.

TEC 323  
QUALITY IMPROVEMENT THROUGH DESIGN OF EXPERIMENTS  
3, 3/0  
Prerequisite: TEC 313. Various experimental designs applied to a manufacturing environment. One-, two-, and three-factor factorial designs; nested, partially nested, and repeated designs; simple and multiple linear regression techniques presented to enhance quality problem-solving ability.

TEC 351  
ENERGY SYSTEMS  
3, 3/0  
Prerequisites: MAT 124 and PHY 107. Energy and power from sources through conversion systems and mechanisms to the application of power for manufacturing. Equivalent course: TEC351W

TEC 400  
MARKETING  
3, 3/0  
Prerequisite: Upper-division status. Conceptual framework for marketing; the movement of goods and services through channels from source to consumer; product formulation; market research; prudent pricing; distribution channels; promotion systems. Industrial technology (manufacturing option) majors. Equivalent course: TEC400W
TEG 402
ERGONOMICS
3, 3/0
Prerequisite: Upper-division status. The interaction of people and machines; development and use of human factors information including sensory, cognitive, and psychomotor processes as they influence the design of displays, controls, and work space; environment and safety considerations necessary to achieve desired machine outputs.

TEG 403
SYSTEMS ANALYSIS
3, 3/0
Prerequisite: Upper-division status. Fundamental concepts and analytical techniques of systems analysis; trends related to modeling, computer technology, feedback, and information systems; quantitative methods and their use in decision making in practical situations involving industrial, managerial, and technological settings. Equivalent course: TEC 403W

TEG 404
INDUSTRIAL SYSTEMS APPLICATIONS
3, 2/3
Prerequisite: Upper-division status. Investigation of management science and communication principles leading to a series of hands-on laboratory projects, case studies, and group problem-solving/decision-making activities; building positive management communications abilities as applied to the components of contemporary work settings; cultivation and personalization of leadership behaviors such as team building, coaching, and conflict resolution. Equivalent course: TEC 404W

TEG 405
MANUFACTURING TECHNOLOGY
3, 2/3
Prerequisites: TEC 312 and final semester senior status. Hands-on experience in the manufacturing cycle of a product from the engineering drawing stage through project and processing planning, prototype manufacture and testing; experience in setting time standards and taking time studies. Equivalent course: TEC 405W

TEG 465
SAFETY MANAGEMENT
3, 3/0
Prerequisite: Upper-division status. Development of the industrial safety movement; psychology in accident prevention; appraisal of accident cost factors, severity, and frequency; job safety analysis and corrective measures; plant inspection and preventive maintenance; storage and handling of materials; fire prevention; education and training of employees. Equivalent course: TEC 465W

TEG 488
QUALITY INTERNSHIP
1-12, 3/0
Prerequisite: Completion of 12 credit hours in quality minor or all TEC-prefix courses in industrial technology quality option. Analysis of a quality problem at a local manufacturing/service organization on or off campus; evaluation is based on a formal written and oral report presentation. Equivalent course: TEC 488W

TEG 495
SPECIAL PROJECT
1-3, 0/0

TEG 497
WORKSHOP
3, 0/0

TEG 499
INDEPENDENT STUDY
3, 0/0

TED - TECHNOLOGY EDUCATION

TED 100
INTRODUCTION TO TECHNOLOGY EDUCATION
3, 3/0
Prerequisite: Major status. An introduction to technology education for students considering a career as a public school technology teacher; provides information relating to core issues such as New York State Learning Standards, contemporary ideas and practices in the technology classroom; introduces and prepares students for the field service requirement.

TED 101
RAPID VISUALIZATION
3, 2/3
Basic conceptual and technical skills in technical drawing and illustration; basic drawing techniques from sketching and rapid visualization to rendering and 3-D computer modeling; lectures, demonstration, and practice; intended as a technology foundation course and as a pre-mechanical drawing and pre-CAD course. Equivalent course: TEC 100

TED 123
PRINCIPLES OF MANUFACTURING
3, 2/3
Operative principles common to the majority of manufacturing industries; research and development, manufacturing, organization and management; industrial relations; engineering; production; labor; financial control; marketing; quality control. Presentations by leading industrialists. Equivalent course: TEC 123

TED 253
FUNDAMENTALS OF BOAT BUILDING
3, 0/6
Prerequisite: DES 105. Fundamentals of boat design, lofting, and construction through lectures, demonstrations, and the construction of a small boat. Equivalent course: TEC 253

TED 300
CONSTRUCTION SYSTEMS
3, 2/3
Exploration of habitable structures through hands-on laboratory experiences. For technology education majors and those who wish to meet certification requirements of New York for teaching technology education in the state's public schools. Equivalent course: TEC 300

TED 320
HISTORY AND THEORY OF WATERCRAFT DESIGN
3, 3/0
Prerequisite: DES 215 or permission of instructor. A survey of the history and theory of naval architecture and watercraft design with special attention to the development of design solutions within specific cultural contexts; special emphasis on American small craft and local traditional designs. Equivalent course: DES 319

TED 349
COMMUNICATIONS SYSTEMS
3, 2/3
Review of communication techniques throughout history; current techniques and modern communications programs and materials; broad spectrum of experiences with conversion and transfer of information from one form to another. Equivalent course: TEC 349

TED 360
TECHNOLOGY EDUCATION METHODS AND EVALUATION
3, 3/0
Prerequisites: OEC 301, OEC 302, and EDF 303. Basic principles and methods of teaching technology education subjects; strategies utilized in planning for instruction; strategies utilized in evaluating students, course content, and overall program; teaching and evaluating students with special needs; preparation of instructional materials. Equivalent course: TEC 360W
**TFA - TELEVISION AND FILM ARTS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TFA 189</td>
<td>TOPIC COURSE</td>
<td>3, 3/0</td>
<td>Topic course.</td>
</tr>
<tr>
<td>TFA 201</td>
<td>INTRODUCTION TO TELEVISION AND FILM ARTS</td>
<td>3, 3/0</td>
<td>Introduction to the history of storytelling and the various ways in which stories can be told today. Emphasis on television, film, theater, and other visual media.</td>
</tr>
</tbody>
</table>

**Equivalent courses:**
- TVA 201
- TVA 495
- TVA 499
- TVA 480
- TVA 481
INTRODUCTION TO THEATER ARTS
3, 3/0; ARIF
Introduction to the art of theater from the process of creating to the elements of production, history, genres, and styles of the art form. Attendance at live theater performance is required.

THEATER PERFORMANCE FOR NON-MAJORS
3, 2/2; ARIF
Prerequisite: Instructor permission. Participation in the rehearsal and performance of a Buffalo State College Theater Department production.

TOPICS COURSE
1-3, 0/0

VOICE I
3, 2/2
Introduction to basic voice and speech practice. Develop skills and knowledge associated with freeing the natural voice and extending vocal range and physical capacity for sound, and develop awareness of the potential for articulate, precise, and expansive vocal and physical presence.

THEATER FUNDAMENTALS
3, 3/0; ARIF
Introduction to the art of theater for department majors. Examines elements of production, history, genres, and styles of theater. Attendance at live theater performance required.

SCRIPT ANALYSIS I: PLAY READING
3, 3/0
Prerequisite: THA 216 or instructor permission. Pivotal plays, classic and modern, that have had an impact on theater. Play structure will be examined and analyzed. Attendance of live performances is required.

MOVEMENT I
3, 2/2
Prerequisite: Successful completion of THA 200. Introduction to basic movement for actors. Develop skills and knowledge associated with organic physical practice and the range and physical capacity of the moving body, and develop awareness of the potential for precise and expansive actor presence. Equivalent course: THA260

STAGE MANAGEMENT
3, 3/0
Prerequisites: THA 106 or THA 216 or Instructor Permission. Instruction of the student in the duties, responsibilities and techniques of a successful stage manager. Preparation of all materials needed to run a rehearsal and maintain a performance as the stage manager. Participation in one of the departmental productions to explore hands-on work and interactive experiences.

DRAFTING FOR THE THEATER
3, 3/0
Prerequisite: Instructor permission. A study of basic drafting principles as they relate to theatrical design. Computer-aided ground plans, elevations, and sections.

ACTING I
3, 2/2
Introduction to the fundamental demands of the acting process. Student actors will engage in focus and concentration development; improvisation, scene work, and performance as they identify and develop themselves in the artistic process of acting.
THA 325
THE BUSINESS OF PERFORMING ARTS
3, 3/0
Comprehensive overview of the numerous aspects of business relating to the performing arts of drama, dance and music.
Equivalent course: PAR325

THA 327
ACTING III: ADVANCED SCENE STUDY
3, 2/2
Prerequisite: Successful completion of THA 227. Apply previously learned acting skills to a variety of acting styles in a variety of environments. Student actors will specifically address the demands of physically, intellectually, and emotionally adapting their acting and artistic process. Student actors will also be expected to further define and identify themselves in each new style.

THA 329
ACTING IV: SOLO SHOW
3, 2/2
Prerequisite: Successful completion of THA 327, THA 350, or permission of instructor. Advanced acting course. Introduction to and participation in the process of creating and performing a solo show. Students apply and integrate previous theater training by exploring creative writing processes, including basic principles and research involved in the development, rehearsal, and performance of a 10-minute solo script.

THA 330
THEATER PRACTICUM III
1, 0/3
Laboratory experience as a crew leader for a departmental theater production.

THA 331
THEATER PRACTICUM IV
1, 0/3
Laboratory experience in the student's area of specialization for a departmental theater production.

THA 332
PERIOD STYLES FOR THE THEATER
3, 3/0; TSIF, WCIF
Prerequisite: Any THA course. Survey of architecture, décor, and fashion from pre-civilization to the early twentieth century. Students analyze the effects of nature, technology, politics, religion, and aesthetics on style. Provides vocabulary and identification of period style necessary to examine and evaluate the translation of a period style to the stage or screen.
Equivalent course: THA315

THA 333
SCENE PAINTING
3, 2/2
Prerequisite: College-level arts course or upper-division status. Basic scene-painting techniques applicable to theater, film, and video production; hands-on exploration; creating full-scale painted scenery from scaled drawings; paint mixing; faux finishes, including marble, wood grain, brick, and stone; and specialty paint finishes.

THA 334
COSTUME CONSTRUCTION II
3, 2/2
Prerequisite: THA 235. Continuation of Costume Construction I. Advanced costuming techniques emphasizing dyeing, painting, footwear/hosiery, undergarments, accessories, and hat and wig construction as they apply to theater, dance, opera, film, and television.

THA 335
COSTUME DESIGN FOR THEATER
3, 2/2
Hands-on introduction to costume construction and design; design theory, script analysis, fabric selection; studio sessions on shop equipment; costume construction for theater arts productions.
Equivalent course: THA311

THA 336
LIGHTING TECHNIQUES
3, 2/2
Introduction to lighting design for theater, dance, studio, and industrial applications; principles of optical systems, stage lighting equipment, color media, electricity, control systems, stage lighting, history, and the McCandless stage lighting system; assigned practical experience required.
Equivalent course: THA312

THA 337
SET DESIGN I
3, 2/2
Prerequisite: One theater or design course, or upper-division status. Introduction to theatrical set design: basic design components of line, form, mass, composition, balance, color, and texture as they relate to set design; script analysis, research, color theory, drafting techniques, and mechanical perspective drawing.
Equivalent course: DES318

THA 338
DIGITAL DESIGN MEDIA FOR THEATER
3, 3/0
Prerequisites: Instructor Permission. Introduction to fundamental skills in area current area-specific software programs for the realization and presentation of theatrical designs.

THA 340
PLAYWRITING
3, 3/0
Prerequisite: THA 106, THA 216, or permission of instructor. Development of critical capacities; productive work in playwriting.
Equivalent courses: THA319, THA340W

THA 350
DIRECTING I
3, 3/0; OCIF
Prerequisites: THA 226 and THA 234, or permission of instructor. Examination of the theater director's craft and responsibilities through lecture and hands-on projects.

THA 370
STAGE MAKEUP
3, 3/0
Prerequisite: THA 226. Principles and techniques of theatrical makeup application and design.

THA 400
VOICE AND MOVEMENT III
3, 2/2
Prerequisite: Successful completion of THA 300 and THA 326. Students will deepen movement and vocal practice, and integrate previously learned voice, movement, and acting vocabularies. Students will strengthen skills and knowledge associated with articulate, precise, and expansive vocal and physical presence. The students will deepen the application of movement and vocal practice to the acting process, acting styles, and character development. The students will deepen their physical, intellectual, and emotional investment in what they are saying and doing, and develop the skills required to consistently achieve a full, articulate, and compelling vocal and physical presence.
Equivalent course: THA322

THA 416
SEMINAR IN THEATER ARTS
1, 1/0
Prerequisite: 24 credit hours in theater arts. Development of skills including defining professional and personal goals, sharpening of critical capacities, and creating and sharing a portfolio or audition presentation.

THA 418
CREATIVE DRAMATICS
3, 3/0
History, philosophy, methods, and materials of informal playmaking with children; observation and participation.

THA 421
BLACK DRAMA IN AMERICA
3, 3/0
Thematic and technical development of black American drama.
THA 426
ADVANCED ACTING
3, 3/0
Prerequisite: THA 326. Styles, periods, and methods of acting.

THA 435
ADVANCED COSTUME DESIGN FOR THEATER
3, 3/0
Prerequisite: THA 335 or permission of instructor. Advanced studies in costume design and rendering techniques; drawing skills necessary. Design and construction project for performing arts production required. Equivalent course: THA 411

THA 437
SET DESIGN II
3, 2/2
Prerequisites: DES 318/THA 337 or permission of instructor. Continuation of DES 318/THA 337. Intensive exploration of advanced set-design techniques; continued development of set design skills, with concentration on different performance venues, model building techniques, portfolio-quality work, and presentation styles; advanced scenic considerations with the limits of budget, stage space, and technical support.

THA 450
DIRECTING II
3, 2/2
Prerequisite: THA 350. Practical application of directing theory and technique through class scenes and the public performance of a one-act play.

THA 470
ENSEMBLE THEATER
1-3, 3-9/0
Prerequisite: Audition. Examination of ensemble theatrical production through preparation and performance of plays. Equivalent course: THA 407

THA 488
INTERNSHIP
1-12, 0/0
Prerequisite: Upper-division status and permission of instructor. Supervised field experience in a professional setting for students who have completed extensive academic preparation in the discipline; 50 hours of fieldwork in theater per credit.

THA 495
SPECIAL PROJECT
1-3, 0/0

THA 499
INDEPENDENT STUDY
3-12, 0/0

UNC 100
MASTERING THE ACADEMIC ENVIRONMENT
3, 3/0
Strategies and skills for academic success at Buffalo State. Overview of the structure and benefits of a liberal arts education. Introduction to critical thinking. Application of critical thinking skills to various dimensions of college life to develop skills and increase likelihood of success. Equivalent courses: EDF207, INS207

UNC 101
LEARNING COMMUNITY INTEGRATED HOUR
1, 1/0
Integral aspect of each learning community; provides students the framework to see connections among seemingly disparate courses and to make connections across disciplines. Faculty and students explore the theme of the learning community, integrate course material, and relate both to their lives outside of the classroom. Equivalent course: INS101
ADMINISTRATION

SUNY Buffalo State

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James Brandys, ’71,’73
Melissa Brinson
Gary M. Brost
Linda A. Dobmeier, ’71
Myious A. Hairston, ’86
Charles J. Naughton, ’85
Alphonso V. O’Neil-White
Muhammed S. Sumbundu, Student Representative

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Susanne P. Bair, P.E.D. Vice President, Institutional Advancement and Development and Executive Director, Buffalo State College Foundation
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Scott L. Johnson, Ph.D. Dean, University College
Wendy Paterson, Ph.D. Dean, School of Education
Kevin J. Railey, Ph.D. Dean, Graduate School
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*Date indicates year award received.*

SUNY Distinguished Professors
Ann C. Colley, Ph.D., English Department (2009)
*Date indicates year award received.*

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Lisa Marie Anselmi, Ph.D., *University of Toronto*, Chair and Associate Professor (2004)
Lydia M. Fish, Ph.D., *Indiana University*, Professor (1967)
Dennis L. Gaffin, Ph.D., *University at Buffalo*, Professor (1989)
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Susan E. Maguire, Ph.D., *University at Buffalo*, Assistant Professor (2004)
Daniel J. Proctor, Ph.D., *University of Iowa*, Assistant Professor (2012)
Julie A. Wieczkowski, Ph.D., *University of Georgia*, Assistant Professor (2008)

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Patrick C. Ravines, M.L.S., *Columbia University*, Director and Associate Professor (2010)
Aaron N. Shugar, Ph.D., *University of Iowa*, Assistant Professor (2012)

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Lucy Andrus, M.S.Ed., *SUNY Buffalo State*, Professor (1982)
Michelle S. Bae, Ph.D., *University of Illinois*, Assistant Professor (2010)
Cheryl M. Hamilton, Ph.D., *University of Wisconsin-Milwaukee*, Associate Professor (1999)
Katherine B. Hartman, M.A., *University at Buffalo*, Associate Professor, SUNY Chancellor’s Award for Excellence in Teaching (1980)
Shirley Hayes, Ph.D., *Pennsylvania State University*, Associate Professor (2005)
Candace P. Masters, M.F.A., *Catholic University of America*, Assistant Professor (2008)
John F. Siskar, Ph.D., *University at Buffalo*, Associate Professor and Interim Director, Center for Excellence in Urban and Rural Education (1992)

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Gregory J. Wadsworth, Ph.D., *North Carolina State University*, Chair and Associate Professor (1992)
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Amy M. McMillan, Ph.D., *University of Kansas*, Associate Professor (2008)
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Alicia Perez-Fuentetaja, Ph.D., College of Environmental Sciences, Associate Professor (2006)
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Daniel L. Potts, Ph.D., *University of Arizona*, Assistant Professor (2007)
Howard P. Riessen, Ph.D., *Yale University*, Professor (1988)
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Edward A. Standa, Ph.D., *University of Georgia*, Professor (1985)
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Thomas D. White, Ph.D., *University of California*, Los Angeles, Professor (1991)

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Theodore E. Davis Jr., Ph.D., *Southern Illinois University*, Assistant Professor (2009)
Daniel E. Gaygen, Ph.D., University at Buffalo, Assistant Professor (2009)
Uma G. Gupta, Ph.D., University of Central Florida, Professor (2007)
Joseph M. Kelly, J.D., Northern Illinois University, Professor (1990)
Christine A. Lai, Ph.D., University at Buffalo, Associate Professor (2007)
Michael J. Littman, Ph.D., Ohio State University, Associate Professor (1986)
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Daniel S. Ricigliano, M.B.A., University at Buffalo, Assistant Professor (1979)
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William S. Durfee, Ph.D., Case Western Reserve University, Professor (1995)
Gregory W. Ebert, Ph.D., University of Nebraska, Professor (1985)
Jinseok Heo, Ph.D., Texas A & M University, Assistant Professor (2009)
Joonyeong Kim, Ph.D., Texas A & M University, Associate Professor (2005)
Alexander Y. Nazarenko, Ph.D., Kiev State University, Associate Professor (2000)
Maria D. Pacheco, Ph.D., University of Puerto Rico, Associate Professor (1985)
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Mark W. Severson, Ph.D., University of Minnesota, Professor and Dean, School of Natural and Social Sciences (2008)

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Sarbani Banerjee, Ph.D., University at Buffalo, Associate Professor (2000)
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Michael P. Barry, M.S., University at Buffalo, Associate Professor (1997)
John T. Favata, Ph.D., University at Buffalo, Associate Professor (1997)
Steven E. Gareau, Ph.D., University at Buffalo, Associate Professor (1997)
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Ramona R. Santa Maria, Ph.D., University at Buffalo, Assistant Professor (1999)
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James R. Gillham, Ph.D., University of Illinois, Professor (1977)
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Scott W. Phillips, Ph.D., University at Albany, Associate Professor (2001)
James J. Sobol, Ph.D., University at Albany, Associate Professor (2008)
John H. L. Song, Ph.D., University of California, Irvine, Professor (1988)
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JawJeong Wu, Ph.D., University at Buffalo, Assistant Professor (2009)

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Bruce G. Bryski, Ph.D., Pennsylvania State University, Associate Professor (1983)
Paul J. DeWald, M.A., University at Buffalo, Associate Professor (1967)
Annemarie Franczyk, Ed.D., D’Youville College, Associate Professor (1992)
Marguerite E. Knowles, M.F.A., Temple University, Associate Professor (2006)
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Jill M. D’Angelo, Ph.D., Irvine, Associate Professor (1991)
JawJeong Wu, Ph.D., University at Buffalo, Assistant Professor (2009)

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Shashi M. Gayadeen, Ph.D., University at Buffalo, Assistant Professor (2005)
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Scott L. Johnson, Ph.D., Pennsylvania State University, Associate Professor and Dean, University College (1994)
Dae-Young Kim, Ph.D., University of Nebraska, Assistant Professor (2012)
Scott W. Phillips, Ph.D., University at Albany, Associate Professor (2001)
James J. Sobol, Ph.D., University at Albany, Associate Professor (2008)
John H. L. Song, Ph.D., University of California, Irvine, Professor (1988)
Elizabeth Szockyj, Ph.D., University at Buffalo, Irvine, Associate Professor (1991)
JawJeong Wu, Ph.D., University at Buffalo, Assistant Professor (2009)

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Jorg Schnier, M.A., Dresden University of Technology, Chair and Associate Professor (2002)
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Richard J. Ross, M.F.A., University of Connecticut, Associate Professor (1995)
Stephen F. Saracino, M.F.A., Kent State University, Professor (1981)
Carol A. Townsend, M.F.A., Ohio University, Associate Professor (2000)
Robert L. Wood, M.F.A., Indiana State University, Professor (1987)

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Tina M. Colaizzo-Anas, Ph.D., University at Buffalo, Assistant Professor (1997)
Carol A. DeNysschen, Ph.D., University at Buffalo, Associate Professor (2008)
Donna M. Hayes, M.S., Ohio State University, Assistant Professor and Coordinated Program Director (1982)
Marie M. Murray, M.S., Emory University, Lecturer (2012)
Dennis K. Ponton, Ph.D., West Virginia University, Professor and Provost of SUNY Buffalo State (1977)
Tejaswini Rao, Ph.D., Pennsylvania State University, Associate Professor and Didactic Program Director (1976)

Earth Sciences and Science Education Department
Gary S. Solar, Ph.D., University of Maryland, Chair and Associate Professor, SUNY Chancellor's Award for Excellence in Teaching (2000)
Richard J. Batt, Ph.D., University of Colorado, Associate Professor (1989)
Elisa T. Bergslien, Ph.D., University at Buffalo, Associate Professor (2002)
Robin Lee Harris, Ph.D., University of Iowa, Associate Professor (1997)
Catherine Lange, Ph.D., University at Buffalo, Assistant Professor (2007)
Bettina Martinez-Hackert, Ph.D., University at Buffalo, Assistant Professor (2004)
Jude S. Sabato, Ph.D., University of Chicago, Assistant Professor (2008)
Jill K. Singer, Ph.D., Rice University, Professor and Director of Undergraduate Research, SUNY Chancellor’s Award for Excellence in Scholarship and Creative Activities (1986)
Kevin K. Williams, Ph.D., Arizona State University, Associate Professor (2006)
Joseph L. Zawicki, Ph.D., University at Buffalo, Associate Professor (2002)

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Susan M. Davis, Ph.D., New School for Social Research, Associate Professor (1985)
Bruce L. Fisher, J.D., University at Buffalo, Visiting Professor and Director, Center for Economic and Policy Studies (2008)
Frederick G. Floss, Ph.D., University at Buffalo, Professor (1983)
William T. Ganley, Ph.D., University of California, Berkeley, Professor (1972)
Curtis Haynes Jr., Ph.D., University of Massachusetts, Associate Professor (1993)
Tae-Hee Jo, Ph.D., University of Missouri, Assistant Professor (2007)

Victor Kasper Jr., Ph.D., Rutgers University, Associate Professor (2001)
Yung M. Kim, J.D./Ph.D., University at Buffalo, Professor (1968)
Joelle J. Leclaire, Ph.D., University of Missouri, Associate Professor (2004)
Xingwang Qian, Ph.D., University of California, Santa Cruz, Assistant Professor (2008)
Ted P. Schmidt, Ph.D., University of California, Riverside, Associate Professor (1990)

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Maryruth F. Glogowski, M.L.S., University at Buffalo, Librarian and Associate Vice President for Library and Instructional Technology (1975)
Marc D. Bayer, M.L.S., University at Buffalo, Senior Assistant Librarian (2007)
Donna J. Davidoff, M.L.S., University at Buffalo, Associate Librarian and Assistant Director, Information Commons (1987)
Daniel M. Dilandro, M.L.S., SUNY Buffalo State, Associate Librarian and College Archivist (2006)
Jeremy J. Floyd, M.L.S., Indiana University, Senior Assistant Librarian and Processing Archivist (2013)
Marianne Foley, M.L.S., University at Southern California, Associate Librarian (2001)
Ken Fujiuchi, M.L.S., University at Buffalo, Associate Librarian (2005)
Eugene J. Harvey, M.L.S., University at Buffalo, Senior Assistant Librarian (2012)
Constance C. Hsu, M.L.S., Emporia State University, Associate Librarian (1966)
Maureen A. Lindstrom, M.L.S., University at Buffalo, Librarian and Associate Director, Information Commons, SUNY Chancellor's Award for Excellence in Librarianship (1986)
Gail M. Marinaccio, M.L.S., University at Buffalo, Librarian and Associate Director for Technical Services (1972)
Marianne D. Muha, M.L.S., University at Buffalo, Associate Librarian (2001)
Albert F. Riess, M.L.S., University at Buffalo, Librarian, SUNY Chancellor's Award for Excellence in Librarianship (1979)
Amy D. Rockwell, M.L.S., University at Buffalo, Associate Librarian (1986)
Wanda M. Slawinska, M.L.S., Syracuse University, Associate Librarian (1973)
Barbara J. Vaughan, M.L.S., University at Buffalo, Associate Librarian (1982)

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Nancy A. Chicola, Ph.D., University of Colorado, Chair and Associate Professor (2000)
Rosemary Arioli M.S., SUNY Brockport, Lecturer (1999)
Maria A. Ceprano, Ph.D., University at Buffalo, Professor (1997)
Mary C. Cummings, M.A., University of Redlands, Lecturer (2006)
Pixita M. del Prado Hill, Ed.D., Harvard University, Associate Professor (1999)
Carla M. DiChristina, M.S., SUNY Buffalo State, Lecturer (1999)
Kathleen A. Falconer, M.S.Ed., Purdue University, Lecturer (2002)
Ellen S. Friedland, Ph.D., University at Buffalo, Associate Professor (1999)
Keli A. Garas-York, Ph.D., University at Buffalo, Associate Professor (2006)
David R. Henry, Ph.D., University at Buffalo, Associate Professor (1999)
Jевon D. Hunter, Ph.D., University of California, Los Angeles, Assistant Professor (2010)
Laura J. Klenk, Ph.D., University of Michigan, Assistant Professor (2009)
Peter W. Loehr, Ph.D., Kent State University, Associate Professor (1996)
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Stephen N. Andre, Ph.D., Syracuse University, Associate Professor (1979)
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Slade Gellin, Ph.D., Harvard University, Professor (1999)
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Clarke W. Greene, M.S.Ed., SUNY Buffalo State, Lecturer (2000)
Ilya Y. Grinberg, Ph.D., Moscow Civil Engineering Institute, Professor (1995)
Anthony J. Hotchkiss, Ph.D., Southampton University at England, Professor (1994)
David J. Kukulka, Ph.D., University at Buffalo, Professor (1982)
Steve M. Macho, Ed.D., West Virginia University, Associate Professor (2006)
James M. Shea, M.S.Ed., SUNY Buffalo State, Associate Professor (1967)
Richard A. Stempniak, Ph.D., University at Buffalo, Associate Professor (1974)

English Department
Lisa Berglund, Ph.D., University of Virginia, Chair and Professor (2001)
Barish Ali, Ph.D., University at Buffalo, Assistant Professor (2006)
Charles R. Bachman, Ph.D., Indiana University, Professor (1965)
David N. Ben-Merre, Ph.D., Brown University, Assistant Professor (2008)
Barbara T. Bontempo, Ed.D., Indiana University, Professor, SUNY Chancellor’s Award for Excellence in Teaching (1988)
Timothy J. Bryant, Ph.D., University at Buffalo, Assistant Professor (2011)
James E. Cercone, Ph.D., University at Buffalo, Assistant Professor (2011)
Kim K. Chinquée, M.F.A., University of Illinois, Associate Professor (2008)
Ann C. Colley, Ph.D., University of Chicago, SUNY Distinguished Professor (1985)
Adrienne M. Costello, Ph.D., University at Buffalo, Associate Professor (2006)
Heidi E. Dietz Faletti, Ph.D., University of California, Berkeley, Associate Professor (1984)
Mark K. Fulk, Ph.D., Miami University of Ohio, Associate Professor (2001)
Theresa A. Harris-Tigg, Ph.D., University at Buffalo, Assistant Professor and Coordinator of English Education (2006)
Terrence R. McDonald, M.F.A., Southern Methodist University, Associate Professor and CADET Co-Director (1972)
Michele Ninacs, Ph.D., Indiana University, Assistant Professor and Writing Program Director (2001)
Lorna L. Perez, Ph.D., University at Buffalo, Assistant Professor (2008)
Kevin Bailey, Ph.D., SUNY Stony Brook, Professor and Associate Provost and Dean, Graduate School, SUNY Chancellor’s Award for Excellence in Scholarship and Creative Activities (1991)
Peter J. Ramos, Ph.D., University at Buffalo, Associate Professor (2005)
Jennifer D. Ryan, Ph.D., University of Iowa, Associate Professor (2005)
Karen Sands-O’Connor, Ph.D., University of Wales, Professor (1997)
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Warren L. Gleckel, Ph.D., Syracuse University, Associate Professor (1975)
Theresa M. Janzak, Ph.D., University at Buffalo, Associate Professor (2005)
Michaelene M. Meger, Ph.D., University at Buffalo, Associate Professor (1993)
Angela L. Patti, Ph.D., University at Buffalo, Assistant Professor (2012)
David J. Pomerantz, Ph.D., University of Illinois, Associate Professor (1977)
Mark P. Roslowszy, Ed.D., University of Kentucky, Associate Professor (1985)
Lisa A. Rafferty, Ph.D., University at Buffalo, Assistant Professor (2007)
Sharon L. Raimondi, Ph.D., American University, Professor (1990)
Awilda Ramos Zagarrigo, Ph.D., University at Buffalo, Assistant Professor (2008)
Raquel J. Schmidt, Ph.D., University at Buffalo, Associate Professor (2001)
Krista M. Vince Garland, Ph.D., University of Central Florida, Assistant Professor (2012)
Jennifer M. Westover, Ph.D., University of Oregon, Assistant Professor (2010)

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Philip B. Ogle, M.F.A., Maryland Institute College of Art, Chair and Professor (2010)
Sylvia D. Bakos, Ph.D., Rutgers University, Associate Professor (1990)
Harriet Blitzer, Ph.D., Indiana University, Professor (1997)
Frances M. Gage, Ph.D., Johns Hopkins University, Assistant Professor (2008)
Anthony P. Gorny, M.F.A., Yale University, Associate Professor (2001)
Sarah B. Hinderliter, Ph.D., Columbia University, Assistant Professor (2008)
Lin Xia Jiang, M.F.A., University of Utah, Professor (1995)
Leslie R. Krims, M.F.A., Pratt Institute, Professor (1969)
Elena M. Lourenco, M.F.A., Arizona State University, Assistant Professor (2008)
Joseph A. Miller, M.F.A., Southern Illinois University, Associate Professor (1997)
Kenneth P. Payne, M.F.A., University of Wisconsin-Milwaukee, Professor (1990)

Geography and Planning Department
Kelly M. Frothingham, Ph.D., University of Illinois, Chair and Associate Professor (2000)
Camille A. Holmgren, Ph.D., University of Arizona, Associate Professor (2007)
Kimberly N. Irvine, Ph.D., McMaster University, Professor (1988)
Wende A. Mix, Ph.D., University at Buffalo, Associate Professor (2004)
Tao Tang, Ph.D., University of Wisconsin, Associate Professor (1998)
Vida Vanchan, Ph.D., University at Buffalo, Assistant Professor (2006)
Stephen J. Vermette, Ph.D., McMaster University, Professor (1993)
Veryan G. Vermette, M.S., McMaster University, Lecturer (1993)
William F. Wiczkorek, Ph.D., University at Buffalo, Professor and Director, Center for Health and Social Research, SUNY Chancellor’s Award of Excellence in Scholarship (1997)

Health and Wellness Department
Scott W. Roberts, Ed.D., Brigham Young University, Chair and Professor (1986)
Kristina M. Garcia, Ph.D., Texas A & M University, Assistant Professor (2011)

Higher Education Administration
Wanda M. Davis, Ph.D., Pennsylvania State University, Chair and Professor (1995)
Betty J. Cappella, Ph.D., University at Buffalo, SUNY Distinguished Service Professor (1983)
Richard J. Herdlein III, Ph.D., University at Buffalo, SUNY Distinguished Service Professor (1983)
Kimberly A. Kline, Ph.D., Indiana University, Associate Professor (2007)
Amy B. Wilson, Ph.D., University at Buffalo, Assistant Professor (2012)

History and Social Studies Education Department
Andrew D. Nicholls, Ph.D., University of Guelph, Chair and Professor (1996)
John D. Abromeit, Ph.D., University of California, Berkeley, Assistant Professor (2009)
Felix L. Armfield, Ph.D., Michigan State University, Professor (2000)
Daniel M. Blum, M.A., SUNY Buffalo State, Lecturer (2002)
David A. Carson, Ph.D., Texas Christian University, Professor, SUNY Chancellor’s Award for Excellence in Teaching (1983)
Bridget M. Chesterton, Ph.D., SUNY Stony Brook, Assistant Professor (2007)
Cynthia A. Conides, Ph.D., Columbia University, Associate Professor (2000)
Martin F. Ederer, Ph.D., University at Buffalo, Associate Professor (1998)
Jill M. Gradwell, Ph.D., University at Buffalo, Associate Professor (2004)
Donald R. Hetzner, Ed.D., University at Buffalo, Professor (1970)
Michael C. Lazich, Ph.D., University at Buffalo, Associate Professor (1997)
Kenneth S. Mennitz, Ph.D., University of Missouri, Associate Professor (1985)
Albert L. Michaels, Ph.D., University of Pennsylvania, Professor (2009)
William I. Mitchell, Ph.D., University of Missouri, Associate Professor (1991)
York A. Norman, Ph.D., Georgetown University, Assistant Professor (2007)
Kenneth J. Orosz, Ph.D., SUNY Binghamton, Associate Professor (2008)
Jean E. Richardson, Ph.D., University at Buffalo, Associate Professor (1995)
Misty D. Rodeheaver, Ed.D., West Virginia University, Assistant Professor (2010)
Edward O. Smith Jr., Ph.D., Lehigh University, SUNY Distinguished Service Professor and Director, Monroe Fordham Regional History Center (1963)

Hospitality and Tourism Department
Kevin F. Mulkay, Ed.D., University of California, Los Angeles, Chair, Associate Professor (1992)
Rebecca Dowsey, M.S.Ed., Niagara University, Lecturer (2002)
Chenchen Huang, Ph.D., University of Florida, Assistant Professor (2008)
Kathleen M. O’Brien, Ed.M., University at Buffalo, Lecturer and Campus House Director (1989)
Lori L. Till, Ed.D., University at Buffalo, Associate Professor (1985)

Interior Design Department
Terry Postero, M.F.A., University of Georgia, Chair and Professor (1993)
Jorg Schnier, M.A., Dresden University of Technology, Associate Professor (2002)
Bhakti Sharma, M.S., Arizona State University, Assistant Professor (2009)
Barry R. Yavener, M.F.A., Rochester Institute of Technology, Professor (1985)

International Center for Studies in Creativity
Gerard J. Puccio, Ph.D., University of Manchester, Chair and Professor (1990)
Cynthia Burnett, Ph.D., University of Toronto, Assistant Professor (2000)
John F. Cabra, Ph.D., University of Manchester, Associate Professor (2005)
Jon Michael Fox, M.S., SUNY Buffalo State, Lecturer (1997)
Susan M. Keller-Mathers, Ed.D., Argosy University, Associate Professor (1990)

Mathematics Department
Hongliang Xu, Ph.D., University at Buffalo, Chair and Associate Professor (2009)
Saziye Bayram, Ph.D., University at Buffalo, Associate Professor (2006)
Valentin E. Brimkov, Ph.D., University of Sofia, Bulgaria, Professor (2005)
Joaquin O. Carbonara, Ph.D., University of California, San Diego, Professor (1992)
Christina L. Carter, M.S., California State University, Lecturer (2004)
Daniel W. Cunningham, Ph.D., University of California, Los Angeles, Professor (1991)
Jane R. Cushman, Ph.D., University of Texas at Austin, Associate Professor (2006)
Kelly A. Delp, Ph.D., University of California, Santa Barbara, Assistant Professor (2007)
Chaitali Ghosh, Ph.D., University at Buffalo, Associate Professor (2000)
Tom M. Giambro, Ed.D., University at Buffalo, Professor (1990)
Jodelle S. W. Magner, Ph.D., University of Maryland, Associate Professor (2000)
Lorena D. Mathien, M.B.A., University at Buffalo, Assistant Professor (2011)
Susan E. McMillen, Ph.D., University at Buffalo, Professor (2000)
Peter R. Mercer, Ph.D., University of Toronto, Professor (1997)
Nirmala Nutakki, Ed.M., University at Buffalo, Lecturer (2009)
Robin Sue O’Dell, Ph.D., University at Buffalo, Assistant Professor (2007)
Robin Sue Sanders, Ph.D., University of Illinois, Associate Professor (1997)
Margaret Sherman, Ph.D., North Dakota State University, Lecturer (2002)
Bruce Q. Sun, Ph.D., University of Pittsburgh, Assistant Professor (2012)
Janine M. Viglietti, Ph.D., University at Buffalo, Assistant Professor (2012)
David C. Wilson, Ph.D., University at Buffalo, Associate Professor (2002)
Modern and Classical Languages Department
Michael Johnson, Ph.D., *University at Buffalo*, Interim Chair and Associate Professor, SUNY Chancellor’s Award for Excellence in Teaching (1975)
Andrea Guatia, Ph.D., *Rutgers University*, SUNY Distinguished Teaching Professor, Honors Program Director, SUNY Chancellor’s Award for Excellence in Teaching (1985)
Deborah L. Hovland, Ph.D., *University of Minnesota*, Associate Professor (1992)
Carol B. Kirby, Ph.D., *University of Kentucky*, Professor (1985)
Barbara D. Miller, Ph.D., *SUNY Binghamton*, Associate Professor (1990)
Raul F. Neira, Ph.D., *University of Texas at Austin*, Associate Professor (1991)
Mark K. Warford, Ph.D., *University of Tennessee*, Associate Professor (2000)

Music Department
Bradley J. Fuster, D.M.A., *University of Southern California*, Chair and Associate Professor (2005)
Benjamin C. Christy, A.Mus.D., *University of Michigan*, Professor and Dean, School of Arts and Humanities (2007)
Victoria J. Furby, Ph.D., *Ohio State University*, Assistant Professor (2008)
Carolyn Guzski, Ph.D., *City University of New York*, Assistant Professor (2009)
J. Tomas Henriques, Ph.D., *University at Buffalo*, Assistant Professor (2009)
Lisa R. Hunter, Ph.D., *University of Arizona*, Associate Professor and Associate Dean, School of Arts and Humanities (2006)

Philosophy and Humanities Department
Kimberly A. Blessing, Ph.D., *University at Buffalo*, Chair and Professor (2004)
Julian C. Cole, Ph.D., *Ohio State University*, Assistant Professor (2008)
John D. Draeger, Ph.D., *Syracuse University*, Associate Professor and Director, CASTL (2005)
Marianne C. Ferguson, Ph.D., *McMaster University*, Professor (1971)
Jason D. Grinnell, Ph.D., *Bowling Green State University*, Assistant Professor (2007)
George T. Hole, Ph.D., *University of Rochester*, SUNY Distinguished Teaching Professor (1965)

Physics Department
Michael J. DeMarco, Ph.D., *University of Cincinnati*, Chair and Professor (1981)
Dermot Coffey, Ph.D., *University of Illinois*, Associate Professor (2002)
David J. Ettestad, Ph.D., *Cornell University*, Associate Professor (1986)
Luanna S. Gomez, Ph.D., *University of Washington*, Assistant Professor (2007)
Daniel L. MacIsaac, Ph.D., *Purdue University*, Associate Professor (2002)
Ram C. Rai, Ph.D., *University of Kentucky*, Assistant Professor (2007)

Political Science Department
Michael S. Pendleton, D.A., *Idaho State University*, Chair and Associate Professor (1979)
Kyeonghi Baek, Ph.D., *University of Mississippi*, Assistant Professor (2008)
Laurie A. Buonanno, Ph.D., *Johns Hopkins University*, Professor, SUNY Chancellor’s Award for Excellence in Teaching (2006)
Anthony T. Neal, Ph.D., *Clark Atlanta University*, Associate Professor (1988)
Mayra Velez-Serrano, Ph.D., *University at Buffalo*, Associate Professor (2010)
Peter R. Yacobucci, Ph.D., *University of Arizona*, Assistant Professor (2010)

Psychology Department
Jill M. Norvilitis, Ph.D., *Wayne State University*, Chair and Professor, SUNY Chancellor’s Award for Excellence in Teaching (1997)
Robert P. Delprino, Ph.D., *Old Dominion University*, Associate Professor (1992)
Jean M. DiPirro, Ph.D., *University at Buffalo*, Associate Professor (1999)
Stephani M. Foraker, Ph.D., *New York University*, Assistant Professor (2008)
Dwight A. Hennessy, Ph.D., *York University*, Associate Professor (2000)
Jennifer S. Hunt, Ph.D., *University of Minnesota*, Associate Professor (2007)
Jurgis Karuza Jr., Ph.D., *Wayne State University*, Professor (1978)
Michael G. MacLean, Ph.D., *Arizona State University*, Associate Professor (1997)
R. Karen O’Quin, Ph.D., *Michigan State University*, Professor and Associate Dean, School of Natural and Social Sciences (1982)
Howard M. Reid, Ph.D., *University of Maine at Orono*, Professor, SUNY Chancellor’s Award for Excellence in Teaching, SUNY Chancellor’s Award for Excellence in Faculty Service (1977)
Pamela Schuetz-Pizarro, Ph.D., *Virginia Polytechnic Institute and State University*, Professor (1996)
Michael J. Zborowski, Ph.D., *Ohio University*, Associate Professor (1991)

Social Work Department
Carolyn M. Hilarski, Ph.D., *University at Buffalo*, Chair and Professor (2006)
Christopher B. Aviles, Ph.D., *University at Albany*, Associate Professor (1985)
Louis A. Colc, M.S.W., *University at Buffalo*, Associate Professor (1977)
J. Patrick Dexter, M.S.W., *University at Buffalo*, Associate Professor (1977)
Barbara A. Huddleston-Mattai, D.S.W., *University of California, Los Angeles*, Professor (1990)
Ronnie E. Mahler, Ph.D., University at Buffalo, Associate Professor (1977)
Phyllis B. Pomerantz, M.S.W., University of Illinois, Associate Professor (1977)
Kimberly M. Zittel-Palamara, Ph.D., University at Buffalo, Associate Professor (2005)

Sociology Department
Eric J. Krieg, Ph.D., Simmons College, Chair and Associate Professor (1997)
Gerhard J. Falk, Ed.D., University at Buffalo, Professor, SUNY Chancellor’s Award for Excellence in Teaching (1957)
Rosalyn A. Lindner, Ph.D., University of Minnesota, Professor and Associate Vice President, Assessment and Curriculum (1974)
Staci Newmahr, Ph.D., SUNY Stony Brook, Assistant Professor (2008)
Allen C. Shelton, Ph.D., University of Georgia, Associate Professor (1998)
Ron Stewart, Ph.D., Howard University, Professor (1990)
Amitra A. Wall, Ph.D., Texas Women’s University, Associate Professor, SUNY Chancellor's Award for Excellence in Teaching (2000)
Thomas S. Weinberg, Ph.D., University of Connecticut, Professor, SUNY Chancellor’s Award for Excellence in Teaching (1969)
Gary S. Welborn, Ph.D., University at Buffalo, Associate Professor (1993)
Jie Zhang, Ph.D., Brigham Young University, Professor and Director, Center for China Studies, SUNY Chancellor’s Award for Excellence in Faculty Service (1997)

Speech-Language Pathology Department
Constance Dean Qualls, Ph.D., University of Memphis, Chair and Professor (2005)
Sally A. Arnold, Ph.D., Northwestern University, Associate Professor (1995)
Deborah M. Insalaco, Ph.D., University of Arizona, Associate Professor (2000)
Barbara Weitzner-Lin, Ph.D., University at Buffalo, Associate Professor (1985)

Television and Film Arts Program
Jeffrey N. Hirschberg, M.A., Syracuse University, Associate Professor and Director (2006)

Theater Department
Donn M. Youngstrom, M.F.A., Brooklyn College, Chair and Associate Professor (1994)
Carol Y. Beckley, M.F.A., Southern Methodist University, Associate Professor (1994)
Ann R. Emo, M.F.A., New York University, Assistant Professor (2006)
Joy A. Guarino, M.F.A., Temple University, Assistant Professor (2004)
Carlos R. A. Jones, M.F.A., University of California, Irvine, Assistant Professor (2007)
Drew J. Kahn, M.F.A., Southern Methodist University, Professor (2000)
Janet Reed, M.A., University at Buffalo, Associate Professor (1993)

Writing Program
Michele Ninacs, Ph.D., Indiana University of Pennsylvania, Director and Assistant Professor (2001)
Janice A. Carello, M.S.W., University at Buffalo, Lecturer (2007)
John M. McKinnis, M.A., University at Buffalo, Lecturer (1987)
Wendy Scott, M.A., University at Buffalo, Lecturer (1990)
Irene S. Sipos, M.A., University at Buffalo, Lecturer (1999)
This list is compiled from records of the SUNY Buffalo State Human Resource Management Office and was current as of June 2013.

SUNY Chancellor's Awards for Excellence in Professional Service Recipients

Date indicates year award received.

Roswell Park IV, Ph.D. (1981)
Steven E. Shaffer, M.A. (1996)
Daniel C. Velez, Ph.D. (1999)

Date indicates year hired at Buffalo State.

David S. Abbott, Ph.D., North Carolina State University, Instructional Support Specialist, Physics Department (2006)
Josephine P. Adamo, M.Ed., University at Buffalo, Coordinator, First-Year Development Initiative, University College (1995)
Modupe A. Akin-Deko, Ph.D., University of Ibadan, Associate Director and Clinical Coordinator, Counseling Center (1997)
Patricia A. Alessandra, B.A., SUNY Buffalo State, Senior Staff Associate, Academic Affairs Office (1991)
Jon M. Alessandrello, B.S., SUNY Institute of Technology, Lead Programmer/Analyst (UNIX), Information Technology Exchange Center (2008)
David P. Alessi, Manager, Payroll Office (1998)
Ashley S. Allen, B.S., SUNY Buffalo State, Assistant for Mandated Programs, Weigel Health Center (2007)
Daniel C. Allen, B.S., SUNY Geneseo, Head Swimming and Diving Coach, Intercollegiate Athletics (2010)
Fajit Ansari, M.S., SUNY Brockport, Head Varsity Basketball Coach, Intercollegiate Athletics (1981)
Jane A. Armbruster, M.P.H., University of Michigan, Associate Vice President for Development, Institutional Advancement Office (2008)
Lisa A. August, M.S., Canisius College, Associate Director, Career Development Center (2001)

Phillip Auman, M.S., SUNY Buffalo State, Senior Career Counselor, Career Development Center (1999)
Karen E. Bailey-Jones, M.A., University at Buffalo, Clinic Director, Speech-Language Pathology (1992)
Anthony L. Bannon, Ph.D., University at Buffalo, Director, Burchfield Penney Art Center (2012)
Paul J. Bardak, Senior Programmer/Analyst, Information Technology Exchange Center (1986)
Judith B. Basinski, M.B.A., University at Buffalo, Associate Vice President, Computing and Technology Services (1981)
Paul D. Bauer, A.A.S., Erie Community College, Instructional Technology Technician, Instructional Resources (2001)
Robert L. Baumer, M.S.Ed., SUNY Buffalo State, Director, Accounts Payable and Travel Services (1991)
Mark T. Bausili, M.S., SUNY Buffalo State, Registrar, Registrar's Office (1985)
Clifford Bell, Senior Business Advisor, Small Business Development Center (1996)
William J. Benfanti, M.A., University of Maryland, Associate Vice President, Government Relations, Institutional Advancement Office (2007)
Elizabeth M. Benson, M.S., Niagara University, Assistant to the Vice President, Institutional Advancement Office (2008)
Todd R. Benzin, B.A., Canisius College, Classroom Technology Supervisor, Instructional Resources (2007)
Sherrie H. Bernat, D.N.S., University at Buffalo, Nurse Practitioner, Weigel Health Center (1989)
Teresa D. Bita, M.S., SUNY Buffalo State, Assistant Football Coach, Intercollegiate Athletics (1992)
Daniel S. Blachaniec, B.S., SUNY Buffalo State, Assistant Director, Systems Administration, Computing and Technology Services (1994)
John P. Bleeck, B.S., University at Buffalo, Environmental Programs Coordinator, Environmental Health and Safety (2007)
Josh S. Blumberg, B.S., SUNY Buffalo State, General Manager, Campus House, Hospitality and Tourism Department (2002)
Michael V. Bonfante, B.P.S., University at Buffalo, Facilities Project Manager, Facilities Planning (2010)
Kelly G. Boos, B.A., SUNY Buffalo State, Assistant to the Dean, School of Natural and Social Science (1990)
Barbara A. Bougard, M.S., SUNY Buffalo State, Business Manager, Information Technology Exchange Center (1988)
Christopher L. Bordeleau, Lead Programmer/Analyst, Information Technology Exchange Center (2000)
Lauren A. Bostaph, M.A., SUNY Buffalo State, Staff Assistant, Campus Services (2007)
Jerry S. Boyes, M.S., Ithaca College, Director and Head Football Coach, Intercollegiate Athletics (1986)
Joseph L. Brandy, Ph.D., Union Institute and University, Coordinator for Community Education, Continuing Professional Studies (1998)
Curtis L. Brickhouse, M.A., Indiana University, Associate Director, Residence Life Office (1989)
Maria B. Brickhouse, M.A., Indiana University, Coordinator, Academic Excellence Center, Educational Opportunity Program (2004)
Daniel W. Brint, B.A., Brock University, Supervising Analyst for Administrative Services, Information Technology Exchange Center (2001)
Booker T. Brooks, M.S., D'Youville College, Programmer/Analyst, Information Technology Exchange Center (2012)
Deepe Brown, M.A., English and Foreign Languages University, Lead Programmer/Analyst, Information Technology Exchange Center (2008)
Raffaello Brown, B.S., SUNY Buffalo State, NYS Regional Representative, Admissions Office (2013)
Carolyn E. Brunner, M.S., Union College, Director, International Graduate Programs (1997)
Sandra L. Burnham, M.L.S., University at Buffalo, Senior Admissions Advisor, Admissions Office (2000)
Colleen R. Callahan, M.S., Syracuse University, Associate Director, Web Community and Development, College Relations Office (2009)
Peter M. Carey, J.D., University at Buffalo, Chief of Police, University Police (1980)
Nicholas R. Carriere, B.S., Niagara University, Head Men's Ice Hockey Coach, Intercollegiate Athletics (2005)
Kristen J. Catalano, M.S., SUNY Buffalo State, Assistant Director, Student Life Office (2007)
Jeffrey D. Caughel, B.S., SUNY Brockport, Senior Programmer/Analyst (UNIX), Information Technology Exchange Center (2006)
Andrew B. Chambers, B.A., University at Buffalo, Information Commons Technology Administrator, E.H. Butler Library (2007)
Anthony J.W. Chase, Ph.D., University at Buffalo, Assistant Dean, School of Arts and Humanities (1988)
Ralph A. Chille, B.S., Niagara University, Project Manager, Information Technology Exchange Center (2010)
Mark D. Clapsadl, M.S., College of Environmental Sciences, Field Station Manager, Great Lakes Center (2008)
Thomas E. Coates, B.A., SUNY Buffalo State, Director, Events Management Office (1987)
Renee E. Conners, M.A., University at Buffalo, Transfer and Articulation Advisor, Admissions Office (2008)
Sean F. Connors, M.S.Ed., SUNY Buffalo State, Distance Learning and COED Coordinator, Continuing Professional Studies (2010)
Krista A. Constantino, B.S., SUNY Buffalo State, Guest Services Manager, Campus House, Hospitality and Tourism Department (2008)
Connie F. Cooke, M.S., SUNY Buffalo State, Director, Financial Aid Office (2011)
Paul M. Criswell, B.S., SUNY Buffalo State, Programmer/Analyst, Information Technology Exchange Center (2013)
Nancy A. Crown, M.S., Niagara University, Nurse Practitioner, Weigel Health Center (2000)
Marie C. Curran, M.L.S., University at Buffalo, Head Softball Coach, Intercollegiate Athletics (2011)
Jeron T. Dahlgren, M.P.A., Park University, Public Relations Director, College Relations Office (2007)
Brian M. Dawley, B.S., SUNY Buffalo State, Programmer/Analyst, Information Technology Exchange Center (2013)
Robert C. Dege, B.S., University at Buffalo, Systems Programmer, Computing and Technology Services (2006)
Patrick T. DeWind, B.S., SUNY Buffalo State, Senior Programmer/Analyst, Computing and Technology Services (1998)
Trish R. Dillenbeck, M.Ed., University at Buffalo, Assistant Director for Transfer Admissions, Admissions Office (2011)
Dustin A. Dimit, M.S.S., United States Sports Academy, Head Cross-Country and Assistant Track and Field Coach, Intercollegiate Athletics (2009)
Leslie D. Dixie-Smith, M.S., SUNY Buffalo State, Associate Director, Student Accounts Office (1990)
Ivan Docenko Jr., B.F.A., University at Buffalo, Accompanist, Music Department (1992)
Lynda H. Donati, B.F.A., University at Buffalo, Art Director, College Relations Office (2000)
Rock D. Doyle, M.S.Ed., SUNY Buffalo State, Associate Director, Weigel Health Center (1997)
Robert J. Dray, B.S., SUNY Buffalo State, Instructional Support Technician, Design Department (1992)
Brian D. Dubenion, M.S., SUNY Buffalo State, Complex Director, Residence Life Office (2010)
Bonita R. Durand, Ph.D., University at Buffalo, Chief of Staff, President's Office (1996)
Mary A. Durlak, M.A., University at Buffalo, College Relations Senior Writer, College Relations Office (2001)
Mary E. Dwyer, M.A., University of Michigan, Director, Corporate and Foundation Relations, Institutional Advancement Office (2010)
Susan J. Earshen, M.B.A., University at Buffalo, Associate Vice President, Human Resource Management Office (1973)
Scot R. Eckland, A.A.S., Niagara County Community College, Associate Director, Campus Services (1981)
Timothy R. Ecklund, Ph.D., University at Buffalo, Associate Vice President Housing and Auxiliary Enterprises, Campus Life Office (1997)
Cynthia D. Eggleston, M.S.Ed., SUNY Buffalo State, Special Assistant to the Chair, Elementary Education and Reading (1979)
Cynthia M. Fasa, M.S.W., University at Buffalo, Associate Registrar, Registrar’s Office (2005)
Kelly M. Ferguson, B.S., SUNY Buffalo State, Director, IFR Recharge Accounting (2006)
Marie M. Ferraro, M.S., SUNY Buffalo State, Coordinator, Academic Advisement Center (2000)
Erica S. Fire, B.A., Bennington College, Costume Director/Shop Manager, Theater Department (2008)
Joshua M. Fisher, B.S., College of Environmental Sciences, Field and Lab Research Technician, Great Lakes Center (2013)
Wynnne L. Fisher, M.S.Ed., SUNY Buffalo State, Senior Staff Assistant, English Department (2000)
Ellie A. Fleetwood, B.S., SUNY Buffalo State, Research Administrator, Center for Health and Social Research (1997)
Charlene M. Fontana SSI, M.S., SUNY Buffalo State, Assistant to the Director, Student Life Office (2005)
Brent D. Ford, B.S., SUNY Buffalo State, Athletics Facilities Manager, Intercollegiate Athletics (1999)
James C. Fowler, B.A., SUNY Fredonia, Athletics Budget and Ice Arena Manager, Intercollegiate Athletics (1996)
Christine A. Frezza, M.S., SUNY Buffalo State, Director, Special Programs Office (2005)
Carolyn S. Fusco, B.A., University at Buffalo, Executive Assistant to the Dean, School of Arts and Humanities (1989)
Yves M. Gachette, M.S., SUNY Buffalo State, Director, Institutional Research Office (1993)
Michael J. Gallo, B.S., SUNY Buffalo State, Instructional Support Assistant, Campus Services (2005)
Maria I. Garrett, B.A., University of Puerto Rico, Foreign Language Assistant, Modern and Classical Languages Department (1991)
Khaled M. Gathers, B.S., SUNY Buffalo State, Assistant Director, Web Technologies, Computing and Technology Services (1994)
Ronald A. George, M.S., Niagara University, Case Manager and AOD Coordinator, Counseling Center (1986)
Patricia D. Ghee, M.S., University at Buffalo, Academic Advisement Associate, Academic Support Programs (1993)
Kenneth C. Giangreco, B.A., SUNY Buffalo State, MultiMedia Specialist, Instructional Resources (2000)
Bernadette K. Gilliam, M.S., SUNY Buffalo State, Associate Manager for Student Events, Events Management Office (2002)
Jason F. Gilliland, B.S., SUNY Buffalo State, Coordinator for Veteran Services, Continuing Professional Studies (2011)
Mary Ruth F. Glogowski, M.L.S., University at Buffalo, Associate Vice President, Library and Instructional Technology, E.H. Butler Library (1975)
Heather J. Goltz, B.A., SUNY Buffalo State, Instructional Support Assistant, Copy Center (2007)
Jean F. Gouraud, Ph.D., University of Bordeaux, Director, International Student Affairs Office (1978)
Mary Jo Graham, B.A., University at Buffalo, Manager, User Account Services, Computing and Technology Services (2001)
Michele A. Graves, A.S., Empire College School of Business, Senior Staff Assistant, Career Development Center (2006)
Jeanne M. Guzy, M.B.A., Canisius College, Data Specialist, University College (1990)
Thomas J. Gwitt, M.P.A., SUNY Binghamton, Secretary to the President, President’s Office (2007)
Abdullah Hajikandi, M.A., University at Buffalo, Assistant Director, Academic Services, Educational Opportunity Program (1990)
Jeffrey R. Hammer, B.S., SUNY Buffalo State, Radiation Safety Officer, Environmental Health and Safety (2000)
Terry M. Harding, B.A., SUNY Buffalo State, Director, Campus Services (1977)
Margaret T. Harris, M.S., SUNY Buffalo State, Assistant to the Dean, Graduate School (2009)
Monica L. Heavey, B.S., University at Buffalo, Computer Lab Manager, Academic Skills Center (2000)
Paul J. Hebert, M.S.Ed., Medaille College, Senior Programmer/Analyst (DBA), Information Technology Exchange Center (2003)
Michael A. Heflin, M.S., SUNY Buffalo State, Associate Director, Residence Life Office (2007)
Tami R. Heflin, M.S., SUNY Buffalo State, EOP Counselor, Educational Opportunity Program (2007)
Christopher M. Heximer, M.A., University at Buffalo, Clinic Supervisor, Speech-Language Pathology (2002)
Ronald P. Hicks, B.S., SUNY Buffalo State, Programmer/Analyst, Computing and Technology Services (2001)
Emmanuel J. Hillery, M.S., SUNY Buffalo State, Associate Director, Small Business Development Center (1999)
Christina A. Horstman, M.S., SUNY Buffalo State, Assistant to the Chair, Elementary Education and Reading (1979)
Cynthia M. Fasa, M.S.W., University at Buffalo, Associate Registrar, Registrar’s Office (2005)
Kelly M. Ferguson, B.S., SUNY Buffalo State, Director, IFR Recharge Accounting (2006)
Marie M. Ferraro, M.S., SUNY Buffalo State, Coordinator, Academic Advisement Center (2000)
Erica S. Fire, B.A., Bennington College, Costume Director/Shop Manager, Theater Department (2008)
Joshua M. Fisher, B.S., College of Environmental Sciences, Field and Lab Research Technician, Great Lakes Center (2013)
Wynnne L. Fisher, M.S.Ed., SUNY Buffalo State, Senior Staff Assistant, English Department (2000)
Ellie A. Fleetwood, B.S., SUNY Buffalo State, Research Administrator, Center for Health and Social Research (1997)
Charlene M. Fontana SSI, M.S., SUNY Buffalo State, Assistant to the Director, Student Life Office (2005)
Brent D. Ford, B.S., SUNY Buffalo State, Athletics Facilities Manager, Intercollegiate Athletics (1999)
James C. Fowler, B.A., SUNY Fredonia, Athletics Budget and Ice Arena Manager, Intercollegiate Athletics (1996)
Christine A. Frezza, M.S., SUNY Buffalo State, Director, Special Programs Office (2005)
Carolyn S. Fusco, B.A., University at Buffalo, Executive Assistant to the Dean, School of Arts and Humanities (1989)
Yves M. Gachette, M.S., SUNY Buffalo State, Director, Institutional Research Office (1993)
Michael J. Gallo, B.S., SUNY Buffalo State, Instructional Support Assistant, Campus Services (2005)
Maria I. Garrett, B.A., University of Puerto Rico, Foreign Language Assistant, Modern and Classical Languages Department (1991)
Khaled M. Gathers, B.S., SUNY Buffalo State, Assistant Director, Web Technologies, Computing and Technology Services (1994)
Ronald A. George, M.S., Niagara University, Case Manager and AOD Coordinator, Counseling Center (1986)
Patricia D. Ghee, M.S., University at Buffalo, Academic Advisement Associate, Academic Support Programs (1993)
Kenneth C. Giangreco, B.A., SUNY Buffalo State, MultiMedia Specialist, Instructional Resources (2000)
Nicholas R. Horwitz Mahoney, M.S., SUNY Buffalo State, Assistant Director for Chapter Development, Alumni Affairs Office (2012)
Imon T. Hossain, B.S., Southeast Missouri State University, Programmer/Analyst, Residence Life Office (2006)
Mark D. Howlett, B.A., Judson College, Men's Soccer Coach, Intercollegiate Athletics (2013)
Timothy G. Hoyle, B.S., SUNY Buffalo State, Instructional Support Assistant, Copy Center (1996)
Sean D. Hudson, B.S., SUNY Buffalo State, Associate Registrar, Registrar's Office (2002)
Lisa R. Hunter, Ph.D., University of Arizona, Associate Dean, School of Arts and Humanities (2006)
Casey G. Iannone, M.S., Canisius College, Complex Director, Residence Life Office (2013)
Melanie Inda, B.S., University at Buffalo, Programmet/Analyst, Information Technology Exchange Center (2012)
Kim M. Jablonski, M.S.W., University at Buffalo, Assistant Director for Mandated Programs, Weigel Health Center (2004)
Eric L. Jackson, M.S., SUNY Buffalo State, Residential Student and Social Services Coordinator, Residence Life Office (2011)
Jennifer D. Jackson, B.S., North Carolina State University, Instructional Support Associate, Biology Department (2010)
Kimberly J. Jackson, Ed.D., University of Rochester, Assistant Dean, Strategic and Enrollment Planning, Graduate School (2005)
Mary-Jo Jagord, M.B.A., University at Buffalo, Director, Alumni Affairs Office (2013)
Yanick H. Jenkins, M.S., SUNY Brockport, Director, Educational Opportunity Program (2001)
Suzanne K. Johnson, M.S.W., University at Buffalo, Senior Counselor, Counseling Center (2006)
Barbara D. Jones, Procurement and Travel Card Administrator, Accounts Payable and Travel Services (2007)
Deborah Jones, Admissions Advisor, Admissions Office (1990)
Juanita Jones, B.A., University at Buffalo, Associate Counselor, Weigel Health Center (1997)
Patricia L. Jones, M.S., SUNY Buffalo State, Coordinator, Advisement Student Services, Academic Advisement Center (2007)
Karen L. Jurewicz, A.A.S., Erie Community College, Events Manager, Events Management Office (1977)
Laurie A. Kaiser, B.A., University of Missouri, Staff Writer, Public Relations, College Relations Office (2011)
Brian C. Kanz, B.A., Canisius College, Director of Publications, College Relations Office (2010)
Kris A. Kaufman, M.S., SUNY Buffalo State, Director, Residence Life Office (1992)
Maria L. Kendzierski, M.S., St. Bonaventure University, Admissions Advisor, Admissions Office (2005)
Mark J. Kent, B.A., SUNY Buffalo State, Senior Desktop Systems Engineer, Computing and Technology Services (2000)
Charles B. Kenyon, Ed.D., Harvard University, Associate Vice President and Dean of Students, Dean of Students Office (1992)
Melaine C. Kenyon, M.L.S., University at Buffalo, Director, Instructional Technology, Instructional Resources (2000)
Megan M. Keogh, B.S., SUNY Buffalo State, Assistant to the Dean, School of the Professions (2004)
Thomas D. Killian, B.A., SUNY Geneseo, Director, Networking and Operational Services, Computing and Technology Services (1998)
Karen B. Kloth, Foundation Accounting Office Manager, Accounts Payable and Travel Services (1996)
James E. Kolarich, A.A.S., Niagara County Community College, Instructional Support Technician, Technology Department (2001)
Thomas C. Koller, M.S., University at Buffalo, Senior Associate Director, Intercollegiate Athletics (2001)
Thomas J. Kostusia, B.A., University at Buffalo, Production Technical Manager, Performing Arts Center (1996)
Tammy L. Kresse, M.S., Canisius College, Assistant Director, Health Promotions, Weigel Health Center (2002)
Lisa H. Krieger, B.S., SUNY Geneseo, Assistant Vice President, Finance and Management Office (1994)
Sarah K. Kubiak, B.A., University at Buffalo, Instructional Support Assistant, Campus Services (2010)
Chantel D. Kutzbach, B.F.A., University at Buffalo, Assistant Graphic Designer, College Relations Office (2005)
Celeste M. LaBruna, Manager, Parking Services Office (1977)
Cairen Lajia, M.S., Rochester Institute of Technology, Programmer/Analyst, Information Technology Exchange Center (2005)
Meredeth A. Lavelle, M.A., University at Buffalo, Program Manager, Art Conservation Department (2002)
Valerie A. Lehman, M.S.Ed., SUNY Buffalo State, Senior Programmer/Analyst, Information Technology Exchange Center (1990)
Eugene R. Lewis, B.A., Youngstown State University, Head Track and Field Coach, Intercollegiate Athletics (2001)
Rosalyn A. Lindner, Ph.D., University of Minnesota, Associate Vice President, Assessment and Curriculum (1974)
Andrea L. Lizak, B.S., SUNY Buffalo State, Associate Director and Business Advisor, Small Business Development Center (1997)
Therese M. Locher, Facilities Procurement Coordinator, Campus Services (1986)
Joseph M. Loffit, B.S., University at Buffalo, Senior Programmer/Analyst, Information Technology Exchange Center (1996)
Jesse J. Lombardo, M.S., SUNY Buffalo State, Assistant Director, Career Development Center (2002)
John A. Lombardo, B.A., University at Buffalo, Assistant Chief of Police, University Police (1987)
Raymond K. Lonsdale, B.S., SUNY Buffalo State, Assistant Manager, CTS Purchasing, Computing and Technology Services (1997)
Margaret A. Loops, B.S., SUNY Empire State College, Senior Financial Aid Advisor, Financial Aid Office (1999)
Lori L. Mabry, B.S., SUNY Buffalo State, Assistant Director, Budget Office (1994)
Paula A. Madrigal, M.S.W., University at Buffalo, Coordinator, Health Education Programs, Weigel Health Center (2012)
Heather D. Maldonado, Ph.D., University at Buffalo, Assistant Dean, University College (2001)
John B. Malinowski, B.A., SUNY Buffalo State, Production Manager, Burchfield Penney Art Center (2010)
Marie Mance, M.S., SUNY Buffalo State, Associate Director, International Center for Studies in Creativity (1994)
Sara H. Mann Kahris, M.S.Ed., SUNY Buffalo State, Clinical Supervisor, Speech-Language Pathology (1996)
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