

## DEPARTMENT OF THE EARTH SCIENCES

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Directly or indirectly, beneficially or adversely, humanity affects and is affected by the physical processes occurring within the earth system, which encompasses the air we breathe, the water we drink, and the land that sustains us. The sphere of knowledge known as the earth sciences includes the study of all physical aspects of the earth system, including how its composition, properties, resources and processes change over time. By applying physical, chemical, mathematical and biological principles, earth scientists strive to enhance the understanding of the earth system so that humanity is better prepared to properly use its resources, and anticipate, detect, and mitigate the adverse impacts of its processes.

Students who major in *geology*, *meteorology* or *water resources* focus their study on the geologic, atmospheric, or hydrologic components of the earth's environment. They also study the interrelationships between these environments, enabling them to expand the breadth of their expertise. In contrast, students who major in earth science acquire a broadly based and integrated understanding of the knowledge and methodologies of geology, meteorology, and hydrology. Regardless of the academic major, the departmental curricula render science accessible, relevant, and meaningful to students. Students are also afforded the opportunity to explore and discover the processes and interactions occurring within the earth system through research with faculty assistance.

Academic majors: *earth science*, *geology*, *meteorology* and *water resources*.

Academic minors: *earth science*, *geology*, *meteorology*, *water resources*, and *interdisciplinary communication meteorology*.

### Major in Geology

Geology majors must earn a minimum of 42 credits in required core courses and complete two semesters each of physics, calculus and chemistry. This major offers sound training in the study of the earth and its resources, and equips the student for graduate studies in geochemistry, petroleum exploration, paleontology, hydrogeology, ground water, environmental geology, or sedimentology/stratigraphy. It also provides a strong background in geology for those who seek employment at the bachelor's level, e.g., as a laboratory or environmental technician, in regulatory agencies, and as field geologists.

Required Core:		Credits
GEL 201	Introduction to Physical Geology	4
GEL 302	Historical Geology	4
GEL 306	Paleontology	4
GEL 312	Mineral Science	4
GEL 408	Structural Geology	4
GEL 411	Stratigraphy and Sedimentology	4
ESC 350	Computational Methods in the Field Sciences	3
ESC 391	Writing in the Earth Sciences	1
ESC 493	Seminar on Earth Science Problems	2
	Designated electives by advisement	12

**Total:** 42

<b>Designated Electives:</b>		<b>Credits</b>
GEL 415	Geomorphology	4
GEL 457	Geochemistry	4
GEL 462	Groundwater	4
ESC 455	Introduction to Soils Science	3

<b>Required Corequisite Courses:</b>		<b>Credits</b>
CHM 205–206	College Chemistry I and II with Lab	8
MTH 201–201	Calculus I and II	6
PHS 201–202	College Physics I and II with Lab	8

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**Total: 22**

**Note:** ESC and GEL courses other than the designated electives may NOT be taken as credit toward the geology major without written departmental approval. To make normal progress toward the degree, GEL 201 and 302, and ESC 350 and 391, physics, calculus and college chemistry should be completed before entering the junior year. ESC 493 should be taken in the senior year. Most required courses are taught once every two years.

A career as a professional geologist requires knowledge of all the natural sciences. Students who intend to pursue graduate studies should consider a minor in chemistry, physics, mathematics, or biology, depending on their specific field of interest within geology. Recommended supporting courses include:

ESC 200	Introduction to Oceanography
ESC 230	Introduction to Geographic Information Systems (GIS)
ESC 351	Lab Experiences in Scientific Programming
ESC 412	Hydrology
ESC 418	Watershed Science
ESC 431	Environmental Applications of GIS
CHM 303	Analytic Chemistry
CHM 305	Organic Chemistry I
BIO 436	Water Quality Analysis
BIO 419	Limnology
MTH 203	Calculus III

### **Minor in Geology**

Eighteen credits are required and must include GEL 201 Introduction to Physical Geology, and GEL 302 Historical Geology, and other courses as advised.

### **Major in Meteorology**

Meteorology majors must earn a minimum of 41 credits in required core courses, complete one year of college-level physics with lab, two semesters of calculus, differential equations and chemistry. Additional supporting work in the sciences and mathematics is strongly recommended.

This major prepares students for careers in weather forecasting, atmospheric research, environmental consulting and air quality management. The strong physical science orientation of the program allows students to compete in related fields, such as environmental and computer science, hydrology and alternative energy utilization. The major meets the federal guidelines for meteorologists, enabling graduates to begin careers in federal, state and private employment.

<b>Required Core Courses:</b>		<b>Credits</b>
ESC 211	Introduction to Meteorology	4
ESC 311	Synoptic Meteorology	4
ESC 312	Weather Forecasting	4
ESC 391	Writing in the Earth Sciences	1
ESC 350	Computational Methods in the Field Sciences	3
ESC 351	Laboratory Experience in Scientific Programming	1

ESC 412	Hydrology with Laboratory	
	<b>OR</b>	
ESC 313–314	Environmental Climatology and Lab	4
ESC 415	Physical Meteorology	3
ESC 416	Thermodynamics and the Boundary Layer	3
ESC 417	Dynamic Meteorology	3
ESC 420	Atmospheric Sensing Methods	3
ESC 493	Seminar on Earth Science Problems	2
	Designated electives by advisement	6
<b>Total:</b>		<b>41</b>

**Designated Electives:**

ESC 200	Introduction to Oceanography	3
ESC 421	Air Pollution Meteorology	3
ESC 412	Hydrology with Laboratory	4
ESC 313	Environmental Climatology	3
ESC 314	Climatology Lab	1
ESC 432	Tropical Meteorology	3
ESC 452	Mesoscale Meteorology	3
ESC 460	Meteorology Internship	1–3
ESC 490	Weather Briefing	1
ESC 399/499	Independent Study	1–3

**Required Corequisite Courses:**

MTH 201–202	Calculus I, II	6
MTH 255	Differential Equations	3
PHS 201–202	College Physics I, II	8
CHM 205	Chemistry I	4

**Total: 21**

ESC 350 and 391 should be taken by the end of the sophomore year.

ESC 493 should be taken in the senior year.

Be aware that most required courses are offered once every two years.

Additional mathematics, computer science, or science courses are recommended, depending on individual goals. In some cases, these may be applied toward the major with written departmental approval. Recommended supporting courses, outside of meteorology, include:

CHM 206	College Chemistry II
CSC 203	Fundamentals of Computer Science I
CSC 205	Fundamentals of Computer Science II
MTH 203	Calculus III
MTH 281	Discrete Mathematics I
MTH 346	Probability and Statistics I
MTH 456	Advanced Differential Equations
MTH 471	Numerical Analysis
PHS 300	Classical Physics
PHS 301	Mathematical Methods of Physics
PHS 302	Dynamical Systems

**Minor in Meteorology**

Eighteen credits are required, to be selected from the ESC courses required for the meteorology major; includes ESC 211 (or its equivalent) and 311.

**Minor in Communication Meteorology**

Information on the interdisciplinary communication meteorology minor is found following the communication course descriptions.

**Major in Water Resources**

Water resources majors must earn a minimum of 43 credits in required core courses. Additional requirements are two semesters each of calculus, college chemistry with lab, and college physics with lab.

This major prepares students for careers in hydrology, resource management, and pollution control; the course of study includes most courses recommended for federal employment as a hydrologist. The major is offered to meet the growing demand for hydrologists and other water resources professionals by federal, state and local government agencies; private sector environmental and consulting firms; and industrial and educational institutions.

<b>Required Core Courses:</b>			<b>Credits</b>
ESC	211	Introduction to Meteorology	4
ESC	350	Computational Methods in the Field Sciences	3
ESC	351	Laboratory Experience in Scientific Programming	1
ESC	391	Writing in the Earth Sciences	1
ESC	412	Hydrology	4
ESC	418	Watershed Sciences	3
ESC	493	Seminar in Earth Science Problems	2
GEL	201	Introduction to Physical Geology	4
GEL	462	Groundwater	4
		Designated electives by advisement	17

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**Total: 43**

<b>Designated Electives:</b>			<b>Credits</b>
ESC	313	Environmental Climatology	3
ESC	325	Wetlands Systems	3
ESC	431	Environmental Applications of GIS	3
ESC	455	Introduction to Soils Science	3
GEL	312	Mineral Science	4
GEL	363	Environmental Geology	3
GEL	411	Stratigraphy and Sedimentology	4
GEL	415	Geomorphology	4
GEL	457	Geochemistry	4
BIO	419	Limnology	3
BIO	436	Water Quality Analysis	4

**Required Corequisite Courses:**

MTH	201–202	Calculus I, II	6
CHM	205–206	Chemistry I, II	8
PHS	201–202	College Physics I, II	8

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**Total: 22**

ESC 350, ESC 391, physics, calculus and college chemistry, should be taken by the end of the sophomore year.

ESC 493 should be taken in the senior year.

Be aware that most required courses are offered once every two years.

The study of hydrology and water resources depends strongly on skills and knowledge from physics, chemistry, geology, meteorology, mathematics and computer science. A professional career in water resources is supported by additional course work in these disciplines. Recommended supporting courses outside of water resources include:

BIO 303	Ecology
BIO 422	Pollution Biology
CHM 303	Analytical Chemistry I
CHM 305–306	Organic Chemistry I and II
ESC 200	Introduction to Oceanography
ESC 311	Synoptic Meteorology
ESC 420	Atmospheric Sensing Methods
ESC 431	GIS Applications in Earth and Environmental Science
GEL 363	Environmental Geology
MTH 455	Differential Equations
PLS 466	Environmental Politics

### Minor in Water Resources

Nineteen credits are required and must include ESC 211, ESC 412, ESC 418 and GEL 201. Select one elective course from the following: GEL 462, GEL 457 or GEL 415.

### Major in Earth Science

Earth science majors must earn a minimum of 32 core and elective credits and an additional 19 credits in related lab sciences and mathematics. The core and elective courses that constitute the curriculum of this interdisciplinary major embody the knowledge base and methodologies of geology (solid earth and its resources), meteorology (the atmosphere and its movement), and hydrology (water and its cycling through the environment). As such, this major offers a flexible and broadly based program of study that is well suited for students who are preparing for school teaching (elementary or secondary) or planning for a career in environmental regulation, resource management or park service. By supplementing the major-related course work with additional electives, or an appropriate minor, a student may structure her/his study toward a special interest area, such as journalism, technical writing business, or graduate study in geography, resource management, urban planning, or museum science.

#### Required Core (17 Credits):

		Credits
GEL 201	Introduction to Physical Geology	4
ESC 200	Introduction to Oceanography	3
ESC 211	Introduction to Meteorology	4
ESC 350	Computational Methods in the Field Sciences	3
ESC 391	Writing in the Earth Sciences	1
ESC 493	Seminar in Earth Science Problems	2

#### Geology Elective (choose one of the following)<sup>1</sup>:

GEL 302	Historical Geology (4)	3-4
GEL 312	Mineral Science (4)	
GEL 363	Environmental Geology (3)	

#### Meteorology Elective (choose one of the following)<sup>1</sup>:

ESC 313	Environmental Climatology (3)	3-4
ESC 420	Atmospheric Sensing Methods (3)	
ESC 421	Air Pollution (3)	

#### Water Resources Elective (choose one of the following)<sup>1</sup>:

ESC 325	Wetland Systems (3)	3-4
ESC 412	Hydrology (4)	
GEL 462	Groundwater (4)	

<b>General Electives:</b>		3-6
	Chosen from ESC/GEL courses with advisement	
	<b>ESC/GEL Minimum Total:</b>	<b>32</b>
<b>Science Corequisites (8 Credits):</b>		
CHM 205-206	College Chemistry I and II	8
MTH 201	Calculus I	3
PHS 115-116	General Physics I and II	8
	<b>OR</b>	
PHS 201-201	College Physics I and II	
	<b>Total:</b>	<b>19</b>

Please note: ESC 350 and 391 should be taken by the end of the sophomore year. ESC 493 should be taken in the senior year.

Many electives are offered only once every two years.

<sup>1</sup>An upper-division course from the major requirements corresponding to that elective area may be substituted with written permission, i.e. another course required for the geology major may be used in place of GEL 302, 363, or 312.

#### **Minor in Earth Science**

Eighteen credits are required and must include ESC 200, ESC 211, and GEL 201.

#### **Policy on Majors and Minors in the Earth Sciences**

Majors within the Department of the Earth Sciences are strongly encouraged to have second majors or major/minor combinations with chemistry, physics, biology, mathematics or computer sciences rather than within the department. Upper division courses applied towards fulfilling the major cannot also be applied to a minor within the department. Where the same courses are required, only the lower division courses can apply to the minor. Upper division credit for the minor must be in addition to courses applied to the major.

#### EARTH SCIENCES COURSES

**ESC 102 Elements of Geography (A).** Covers locating, describing, and explaining physical processes and features of the earth; and relating them to cultural, economic, and political activities of people. Includes location and characterization of places; human-environment interactions; and unifying features of regions. Seeks to understand how earth processes and features affect and are affected by human activities. Not acceptable credit toward any major or minor offered through the Department of the Earth Sciences. *3 Cr.*

**ESC 110 Weather (A,N).** An introduction to scientific inquiry in atmospheric investigations, emphasizing weather study as it demonstrates relationships between directly-observed weather and weather systems as depicted on weather maps. Lecture only. Students taking this course may not take ESC 211 for credit. *3 Cr.*

**ESC 195 Natural Disasters (A,D,L).** Examines the causes, effects, and options available to respond to and potentially mitigate the effects of natural disasters such as earthquakes, volcanic eruptions, tsunami, landslides, severe weather, and floods. Differing impacts in developing and industrialized countries will be discussed. *4 Cr. Every Semester.*

**ESC 200 Introduction to Oceanography (A,N).** Covers fundamental knowledge concerning the oceans, techniques and instruments utilized in the study of the oceans, and environmental problems relating to oceans and their resources. Lecture only. *3 Cr. Fall.*

**ESC 211 Introduction to Meteorology (A,L).** Studies the composition of the atmosphere, motions and forces, energy flow, clouds, precipitation, weather systems, violent weather and atmospheric electricity, and sound and light phenomena. Explores the bases and limitations of scientific

inquiry in atmospheric investigations. Includes a laboratory component to construct and analyze weather maps and charts involving surface and upper-level atmospheric soundings. Students taking this course may not take ESC 110 for credit. *4 Cr. Every Semester.*

**ESC 230 Introduction to Computer-Geographic Information Systems (A).** *Prerequisite: Computer Literacy.* Provides an introduction to the use of computer-geographic information systems (GIS). Examines the geographic and information data processing methods associated with earth systems science studies. Covers geographic data selection, analysis and presentation using spatial data processing hardware and software techniques. Requires use of earth systems data to develop an individual hands-on study application. *3 Cr. Every Spring.*

**ESC 311 Synoptic Meteorology (A).** *Prerequisite: ESC 211 or equivalent.* Qualitative and quantitative evaluation of mid-latitude weather systems via conceptual models and theoretical ideas. Covers meteorological data and analysis products, scales of atmospheric motion, kinematic properties of the wind field, fronts and frontogenesis, and extratropical cyclones and cyclogenesis. Lab emphasizes subjective/objective analysis and application of meteorological data. *4 Cr.*

**ESC 312 Weather Forecasting (A).** *Prerequisite: ESC 311.* Application of qualitative and theoretical concepts to the prediction of mid-latitude weather systems. Covers geostrophic and ageostrophic winds, upper-level jet streak dynamics, methods of computing vertical motion, quasi-geostrophic theory, quantitative evaluation and verification methods, and numerical weather prediction products. Lab emphasizes real-time diagnosis and prediction of local, regional, and large-scale weather systems. *4 Cr.*

**ESC 313 Environmental Climatology (A).** *Prerequisite: ESC 211 or BIO 303.* Discusses the physical, chemical, and biological factors regulating the climate of the earth. Covers radiation and energy balance, climatic elements, atmospheric and oceanic circulations, natural and anthropogenic climate change and variations. *3 Cr. Spring.*

**ESC 314 Climatology Laboratory (A).** *Prerequisite or corequisite: ESC 313.* Covers principles and analytical techniques used to study global, regional, and local climate. *1 Cr. Spring.*

**ESC 319 Biological Oceanography (A).** *Cross-listed as ENV 319. Prerequisite: ESC 200 or instructor's permission.* Review of the ocean's physical, geological and chemical properties followed by study of the classification, biology and life

history of marine animals and plants. Concludes with ecology of selected marine ecosystems such as intertidal, deep sea and coral reef. *3 Cr.*

**ESC 325 Wetland Systems (A).** *Prerequisites: One of the following: BIO 202, GEL 201, ESC 211, ENV 400, or ESC 364.* Covers the soils, plants, and hydrology that are characteristic of wetland systems; the history of attitudes towards and use of these areas; methods of classification of wetlands; legal and regulatory issues; management and preservation strategies; and design and use of constructed wetlands. *3 Cr. Fall.*

**ESC 327 Broadcast Meteorology (A).** Learn: 1) how to improve weather presentation skills by developing a plain language weather presentation and forecast using the National Weather Service Forecast Discussion and Model Output products; 2) the common meteorological terminology and concepts used in weather broadcasts; 3) how television viewers process weather information, and the reasoning skills associated with scientific information processing. *3 Cr. Fall.*

**ESC 350 Computational Methods in the Field Sciences (A).** *Prerequisite: One or more courses in the natural sciences and mathematics.* Discusses methods of collecting, analyzing, and visualizing field data. Covers descriptive statistics, graphical and exploratory data analysis techniques, data transformations, parametric and nonparametric hypotheses testing, relational statistics, and linear modeling. *3 Cr.*

**ESC 351 Laboratory Experiences in Scientific Programming (A).** *Prerequisite or corequisite: ESC 350.* Provides laboratory activities concerning writing scientific computer programs in FORTRAN or C. Covers basic features of FORTRAN or C programming languages, including arithmetic computations, control structures, data files, array processing, and modular programming. Also familiarizes students with commonly used numerical methods in earth sciences. *1 Cr.*

**ESC 362 Climate Change & Global Warming Issues (A,I).** Explores various aspects of the global warming debate, including the present understanding of the science of climate change, uncertainties associated with future climate predictions and how developed, developing and underdeveloped countries perceive potential impacts of climate change. Assesses how science impacts and is impacted by politics. *3 Cr. Odd Fall.*

**ESC 364 Water Resources Issues (A,I).** Studies water and hydrologic perspectives on problems of politics, economy and environment. Addresses issues involving the water resource by case studies ranging in scope from local to international.

Requires participants to address and debate points of view in selected issues involving water resources. (Does not apply to the requirements for the earth science major.) 3 Cr. Fall.

**ESC 391 Writing in the Earth Sciences (A).** Covers style and the conventions of scientific writing including letters, memoranda, proposals, data reports, abstracts, as well as longer technical papers. Emphasizes style requirements of major professional earth science societies and their journals. 1 Cr. Every Semester.

**ESC 399 Independent Study in Earth Science (A).** Prerequisites: ESC 200 or 212. To be defined in consultation with the instructor-sponsor and in accordance with College procedures. 1-3 Cr. By Arrangement.

**ESC 412 Hydrology with Lab (A).** Prerequisites: MTH 201, ESC 211 or GEL 201, ESC 350 and 391 or instructor's permission. Covers the water cycle, including precipitation, runoff, streams and lakes, ground water, snow and other hydrologic topics. Also covers water storage and processes, analytical skills dealing with hydrologic events, and the utilization and conservation of water resources in terms of its distribution, quality and flow. 4 Cr. Odd Fall.

**ESC 415 Physical Meteorology (A).** Prerequisites: ESC 311, ESC 350, ESC 391, PHS 201, PHS 202 and MTH 202. Covers atmospheric thermodynamics; physical processes of condensation; electrical phenomena in the atmosphere; radiative transfer. 3 Cr.

**ESC 416 Thermodynamics and the Boundary Layer (A).** Prerequisites: ESC 311, ESC 350, ESC 391, MTH 201 and PHS 201. Covers thermodynamic processes and stability in the lower atmospheric layers; transfer of mass, energy and momentum in the boundary layer. 3 Cr.

**ESC 417 Dynamic Meteorology (A).** Prerequisites: ESC 312, ESC 350, ESC 391, PHS 201, MTH 203 and MTH 455 or PHS 301. Covers the development of the governing equations of motion and simplifications, introduction to concepts of divergence, circulation, vorticity; mid-latitude synoptic scale motions; numerical methods and linear perturbation theory. 3 Cr.

**ESC 418 Watershed Sciences (A).** Prerequisite: ESC 412 or GEL 462, ESC 350 and ESC 391. Covers the art and science of evaluating water, air and land resources in a watershed to provide scientific information for management policy decisions. Utilizes maps and other physical resource information, sampling, data processing and analysis. 3 Cr.

**ESC 420 Atmospheric Sensing Methods (A).** Prerequisites: ESC 211 or equivalent, ESC 350 and MTH 122, ESC 391 pre- or corequisite. Theory and applications of conventional and remote sensing instruments: in situ instruments, radars, Doppler radars, and satellites. Emphasizes applications to National Weather Service networks and weather forecasting. Laboratory exercises will include basic electrical circuits, instrument calibration, launching and analyzing soundings, and interpreting radar and satellite imageries. 4 Cr.

**ESC 421 Air Pollution Meteorology (A).** Prerequisites or corequisites: ESC 350 and ESC 391. For students, engineers and professional people training to measure air pollution levels or measure and evaluate meteorological parameters which affect the diffusion and concentration of pollutants in the atmosphere. Provides knowledge of the effects of meteorology in air pollution. Covers factors related to site selection, control programs, and interpretation of surveys. Also studies diffusion using mathematical models. 3 Cr.

**ESC 431 GIS Applications in Earth and Environmental Science (A).** Prerequisite: ESC 230. Introduces students to spatial analysis theories, techniques, and issues associated with ecological and environmental applications. Provides hands-on training in the use of spatial tools while addressing a real problem. Students will be able to experience linking GIS analyses to field assessments and monitoring activities. 3 Cr.

**ESC 432 Tropical Meteorology (A).** Prerequisites: ESC 311, ESC 350, ESC 391, MTH 201 and PHS 201. Provides a comprehensive understanding of the climatology and weather systems of the tropics. Also covers the atmosphere-ocean interaction at various time scales and discusses the possible influence of the tropical tropospheric processes on the weather and climate of the middle latitudes. 3 Cr.

**ESC 452 Mesoscale Meteorology (A).** Prerequisites: ESC 312, ESC 350, ESC 391, MTH 201 and PHS 201. An introduction to mesoscale processes and precipitation systems, with an emphasis on deep convection and severe weather. Covers severe storm type, structure, and organization, radar and satellite signatures of mesoscale and convective features, and the roles of atmospheric instabilities in the growth of mesoscale phenomena. Diagnosis and short-term prediction of severe storms via lecture and exercises. 3 Cr.

**ESC 455 Introduction to Soils Science (A).** Prerequisites: GEL 201, CHM 205, ESC 350 and ESC 391 or instructor's permission. Covers the formation, properties and characterization of soils, especially

those found in New York state; measurement of physical and chemical properties in field and classroom; and management, conservation, and applications of Soil Survey. 3 Cr.

**ESC 457 Marine Geology-Bahamas (A).** *Cross-listed as BIO 457. Prerequisite: Instructor's permission.* Prepare in the fall semester for a two-week January intersession field experience in coral reef biology and geology on San Salvador Island in the Bahamas. Study identification, behavior, and ecology of marine organisms in five habitats associated with coral reefs. Learn how to prepare a scientific field notebook and to design, conduct and write a paper on a personal research project. 3 Cr.

**ESC 460 Meteorological Internship (A).** *Prerequisite: Instructor's permission.* Provides first-hand knowledge and experience concerning the application of meteorology to industrial and governmental requirements. Requires group work in scientific fields. Allows students to design and conduct applied meteorological research. 1-3 Cr. *By Arrangement.*

**ESC 462 Hydro Meteorology (A).** *Prerequisites: ESC 350, ESC 211 and MTH 201.* The interface between meteorologic and hydrologic processes governs the impact that weather has on the human and natural environment. This course examines underlying processes behind extreme events such as flooding, storm surge, and desertification. In this course students will learn about the processes that govern them as well as the extent of their effects, their causes and the models used to predict them. 4 Cr. *Even Fall.*

**ESC 464 Environmental Internship (A).** *Prerequisite: ESC 412 and 455 or instructor's permission.* Allows for application of skills acquired in course work to selected environmental problems. Directed by professionals in the field; project work must meet their standards. 1-3 Cr. *By Arrangement.*

**ESC 490 Weather Briefing (A).** *Prerequisite: ESC 312.* Familiarizes students with state-of-the-art weather analysis and forecasting systems. Provides for observation and presentation of weather briefings and forecasts using these products. 1 Cr.

**ESC 493 Seminar in Earth Science Problems (A).** *Prerequisites: ESC 350 and ESC 391, senior status, and instructor's permission.* In-depth consideration of an earth sciences topic beyond formal course offerings; synthesis of material from background of courses taken to be applied in technical report. Requires the report to also be presented in a critical, professional setting to faculty and students. 2 Cr.

**ESC 499 Independent Study in Earth Science (A).** *Prerequisite: ESC 200, 212, 350 and 391.* To be defined in consultation with the instructor-sponsor and in accordance with College procedures. 1-3 Cr. *By Arrangement.*

#### GEOLOGY COURSES

**GEL 100 Our Earth (A,N).** Develops an understanding of our earth and of the processes that operate within it and upon its surface; and basic scientific principles and earth phenomena of importance including the observation of rocks, minerals, landforms, structures, volcanoes, earthquakes, water on and beneath the surface, and other natural processes that affect earth and life. 3 Cr. *Every Semester.*

**GEL 201 Introduction to Physical Geology (A,L).** Covers basic scientific principles and phenomena, including mineral and rock formation, volcanoes, earthquakes, landforms, structure, surface and groundwater and other natural processes which affect earth and life. Includes laboratory study of minerals, rocks, maps used by geologists, aerial photographs and up to two local field trips. 4 Cr.

**GEL 302 Historical Geology (A).** *Prerequisite: GEL 201.* Covers the origin and evolution of the earth and the historical development of life and the North American continent; and the background of the modern concepts of geology, including plate tectonics. Develops observational skills in the laboratory and field. Saturday field trip required. 4 Cr.

**GEL 306 Introduction to Paleontology (A).** *Prerequisite: GEL 302 or instructor's permission.* Covers the principles of paleontology and the study of fossils including facies and index fossils, environmental control of species morphology, the basis of taxonomy, general biostratigraphic concepts and practices, and the use of fossils in the economic and scientific world. Presents various invertebrate and vertebrate groups as examples of the concepts. 4 Cr. *Even Fall.*

**GEL 312 Mineral Science I (A).** *Prerequisites: GEL 201, CHM 205 and CHM 206.* Introduces the structure and properties of mineral materials with emphasis on principles of bonding, crystal chemistry, crystal symmetry and morphology. Covers composition, atomic arrangement, identification and classification of major mineral groups, their geologic occurrences, and their role in understanding the rock record. Focuses in laboratories on physical and chemical properties of minerals, and suites of minerals found in common rocks. Requires weekend field trip. 4 Cr.

**GEL 362 Energy and Mineral Resources Issues (A,D,I).** Examines the significance of energy and mineral resources to modern social, economic, and political forces. Covers current issues involving energy and mineral resources through local to global case studies. Requires participants to discuss perspectives on energy and mineral resource development and exploitation, present use and management, and alternatives to current utilization practices. (Does not apply to the earth science major.) 3 Cr. *Even Spring.*

**GEL 363 Environmental Geology (A).** *Prerequisites: GEL 201 and GEL 415, or instructor's permission.* Explores human interaction with the geologic environment; response of land and water systems; strategies of mitigation and management; emphasis on recognizing natural system behavior; developing solutions to current environmental questions. 3 Cr. *Odd Spring.*

**GEL 399 Independent Study in Geology (A).** To be defined in consultation with the instructor-sponsor and in accordance with the procedures of the Office of Academic Advisement prior to registration. 1-3 Cr. *By Arrangement.*

**GEL 408 Structural Geology (A).** *Prerequisites: GEL 302, ESC 350 and ESC 391 or instructor's permission.* Covers the principles of mechanical behavior of rocks during deformation; theories of origin of major and minor rock structures (folds, faults, rock cleavage, etc.) and their relationships to each other; and plate tectonics models for some major crustal structures. Emphasizes techniques of analyzing and solving three-dimensional problems, and gathering structural data in the field. Requires a weekend field trip and report. 4 Cr.

**GEL 411 Stratigraphy and Sedimentology (A).** *Prerequisites: ESC 350, ESC 391 and GEL 302.* Covers the physical, chemical and biological characteristics of sedimentary materials; sedimentary environments and geologic time; and the application of stratigraphic principles to a variety of problems involving sedimentary rocks in the geologic record. Employs techniques and instruments used in stratigraphy and sedimentology. 4 Cr.

**GEL 415 Geomorphology (A).** *Prerequisites: GEL 201, ESC 350 and ESC 391.* Covers the surface features of Earth and their origin. Emphasizes processes, both internal and external, which interact to produce landforms. Stresses an analytical approach to the formulation of valid inferences based on accurate observations. 4 Cr.

**GEL 457 Geochemistry (A).** *Course fee. Cross-listed as CHM 457. Prerequisites: CHM 205, CHM 206 and GEL 201.* Applies basic chemical principles of thermodynamics, kinetics, and

equilibrium to the investigation of common geologic problems ranging from the crystallization of silicate melts to surface reactions on soil minerals. Focuses on laboratory exercises on application of good laboratory practices to wet chemical and instrumental techniques involving geologic materials. Three hours lecture and three hours lab per week. 4 Cr.

**GEL 462 Groundwater (A).** *Prerequisites: GEL 201, ESC 350, ESC 391 and MTH 201.* Studies groundwater; and its occurrence, movement and use, and its place in the hydrologic cycle. Examines the origin of aquifers, use and effects of wells, and water quality and groundwater problems. Laboratory focuses on practical application of principles to solving hydrogeologic problems. 4 Cr.

**GEL 476 Geologic Techniques (A).** *Prerequisites: GEL 306 and GEL 312 or instructor's permission.* Covers techniques needed by the professional geologist, complex mineral and rock forms, interpretation of map and structure sections, thin-sectioning, surveying, photo-micrographic methods, and the use of seismograph methods. 2 Cr. *By Arrangement.*

**GEL 499 Independent Study in Geology (A).** *Prerequisite: ESC 350, ESC 391 or GEL 302.* Arranged in consultation with the instructor-sponsor and in accordance with the procedures of the Office of Academic Advisement prior to registration. 1-3 Cr. *By Arrangement.*

y of problems involving sedimentary rocks in the geologic record. Employs techniques and instruments used in stratigraphy and sedimentology. Requires a weekend field trip and report. 4 Cr. *Odd Fall.*

**GEL 415 Geomorphology (A).** *Prerequisites: GEL 201, ESC 350 and ESC 391.* Covers the surface features of Earth and their origin. Emphasizes processes, both internal and external, which interact to produce landforms. Stresses an analytical approach to the formulation of valid inferences based on accurate observations. 4 Cr. *Odd Spring.*

**GEL 457 Geochemistry (A).** *Course fee. Cross-listed as CHM 457. Prerequisites: CHM 205, CHM 206 and GEL 201.* Applies basic chemical principles of thermodynamics, kinetics, and equilibrium to the investigation of common geologic problems ranging from the crystallization of silicate melts to surface reactions on soil minerals. Focuses on laboratory exercises on application of good laboratory practices to wet chemical and instrumental techniques involving geologic materials. Three hours lecture and three hours lab per week. 4 Cr. *Even Spring.*

**GEL 462 Groundwater (A).** *Prerequisites: GEL 201, ESC 350, ESC 391 and MTH 201.* Studies groundwater; and its occurrence, movement and use, and its place in the hydrologic cycle. Examines the origin of aquifers, use and effects of wells, and water quality and groundwater problems. Laboratory focuses on practical application of principles to solving hydrogeologic problems. *4 Cr. Odd Spring.*

**GEL 476 Geologic Techniques (A).** *Prerequisites: GEL 306 and GEL 312 or instructor's permission.* Covers techniques needed by the professional geologist, complex mineral and rock forms, interpretation of map and structure sections, thin-sectioning, surveying, photo-micrographic methods, and the use of seismograph methods. *2 Cr. By Arrangement.*

**GEL 499 Independent Study in Geology (A).** *Prerequisite: ESC 350, ESC 391 or GEL 302.* Arranged in consultation with the instructor-sponsor and in accordance with the procedures of the Office of Academic Advisement prior to registration. *1-3 Cr. By Arrangement.*

## ECONOMICS—

**SEE BUSINESS ADMINISTRATION AND ECONOMICS**

## DEPARTMENT OF EDUCATION AND HUMAN DEVELOPMENT

**282 Albert W. Brown Building**  
**(585) 395-2205**

*Chair and Associate Professor:* Sue Novinger, PhD, University of Missouri-Columbia; *Distinguished Service Professor:* Betsy Ann Balzano, PhD, Florida State University; *Professor:* Thomas R. Gibling, EdD, University of Florida; *Associate Professors:* Mary Corey, PhD, University of Rochester; Moira Fallon, PhD, University of New Mexico; Conrad Van Voorst, EdD, Vanderbilt University; Peter Veronesi, PhD, University of Iowa; *Assistant Professors:* Jeremy Browne, PhD, Brigham Young University; Donald Halquist, MA, University of New Mexico; Eun-Joo Kim, PhD, University of Georgia; Holly Manaseri, MS, Syracuse University; Janka Szilagy, PhD, University at Buffalo; Jill Zarazinski, MS, University at Buffalo; *Lecturers:* Kathleen Cali, MS, University of North Carolina-Chapel Hill; Annette Hauenstein, CAS, MEd, SUNY College at Brockport; Frank Rossi, MS, SUNY College at Geneseo; Agnes Seneway, MS, Nazareth College; Andrew Steck, MS, SUNY Geneseo, Allison Wright, MSED, SUNY College at Brockport; *Director of Field Experience and Certification:* Diane Maurer, MEd, SUNY Buffalo; *Assistant Coordinator of Field Experience:* Michelle Mitchell, MA, Arizona State University; *Coordinator for Certification and Graduate Advisement:* Karen McCarthy, MA, Binghamton University; *Coordinator for Undergraduate Certification Programs:* Nancy Di Pasquale, MSED, SUNY College at Buffalo.

The Department of Education and Human Development offers teacher certification programs in Early Childhood Education, Childhood Education, and Adolescence Education. Students pursuing a degree program with certification must also complete an appropriate academic major.

### Admission Requirements

There are specific requirements for acceptance to all teacher education programs and additional requirements for maintaining eligibility. For all certification areas, admission to the program requires a separate application, usually prior to entering the junior year. Applications review dates are September 15 and February 15. Applications are available from the Department of Education and Human Development, the Office of Undergraduate Admissions, and from our Web page at [www.brockport.edu/ehd](http://www.brockport.edu/ehd). All programs require a minimum cumulative 2.5 GPA for entrance and for continued eligibility. All programs are very competitive and not all students meeting the minimum may be accepted in periods of high demand.

### Special Note

Many teacher preparation programs require more than 120 credits and may require more than eight semesters of full-time study. In addition, many programs require availability during school hours for completion of course and field experience requirements.

### Important Notice

New York State Board of Regents policies have led to changes in both certificate titles and certification requirements. These changes are reflected in this catalog and on our Web page. SUNY Brockport's revised programs have been approved and they provide teacher preparation for certification that is eligible for the College's recommendation for a New York state teaching credential. New programs satisfy New York state academic requirements and, under the terms of the Interstate Agreement, the academic requirements for an initial certificate in many other states.

The Department of Education and Human Development is a member of the Professional Education Unit at SUNY Brockport and is fully accredited by the National Council for Accreditation of Teacher Education (NCATE) for its teacher education programs.

Successful completion of the following New York State Teacher Certification Examinations are required for initial certification: Liberal Arts and Sciences Test (LAST), the Assessment of Teaching Skills—Written (ATS-W), and Content Specialty Exams. Upon program admission teacher candidates receive further information about state examination requirements. Please refer to Teacher Preparation at SUNY Brockport in this catalog and to our Web page for additional information on certification.

### Childhood Inclusive Education Program (Grade 1-6)

The Department of Education and Human Development offers a Childhood Education Program that includes initial dual certification in Childhood and Special Education (Grade 1- Grade 6) qualifying teacher candidates to teach in general and special education/inclusive classrooms. Certification in Childhood Inclusive Education requires an appropriate major in an academic area. Education is NOT a major at SUNY Brockport. Approved majors are listed under Program Requirements. Specific advisement is provided for both the academic major and the certification program. Students should contact the Department of Education and Human Development about education requirements and their academic department about major and general education requirements as early as possible when planning their programs.

#### Program Requirements

- I. General Education Requirements: Teacher candidates must meet the General Education requirements in effect at the time of matriculation.
- II. Pre-professional Preparation: Academic Major — Teacher candidates seeking certification in Childhood/Special Education must complete one of the following academic majors prior to graduation:
 

Arts for Children	French	Meteorology
Biological Science	Geology	Physics
Chemistry	Health Science	Political Science
Earth Science	History	Spanish
English	Mathematics	
- III. Pre-professional Preparation: Arts and Science Cognates. In addition to choosing one of the majors listed above, all Childhood/Special Education teacher candidates must complete the following cognate courses, some of which may also meet requirements in the major and/or General Education core. The following courses fulfill the liberal arts cognate requirements in the Childhood/Special Education Program and may be taken prior to acceptance into the program.

	<b>Credits</b>
A. Foreign Language-one year of college-level study or its equivalent of a language other than English with a minimum grade of “C” at the 112 level. American Sign Language can be used to fulfill this requirement.	3-6
B. English	6
English 482 Children’s Literature	3
An advanced writing course from one of the following:	3
ENL 210 Creative Writing	
ENL 303 Introduction to Literary Analysis (English majors)	
ENL 305 Advanced Composition	
ENL 405 Creative Writing for Teachers	
HLS 306 Contemporary Issues in Health (Health Science majors)	
HST 390 The History Seminar (History majors)	
C. Mathematics	6
MTH 313 Mathematics for Elementary Teachers I	3
MTH 314 Mathematics for Elementary Teachers II	3
D. Science	6-8
NAS 273 Investigation in the Physical Science	4
One course in field natural science or earth science	3-4
Choose either:	
BIO 111 Principles of Biology (4)	
<b>OR</b>	
GEL 100 Our Earth (3)	

E. Social Studies	6
ESC 102 Elements of Geography	3
HST 211 Early America <b>OR</b> HST 212 Modern America <b>OR</b>	3
AMS 327 Survey of American History (non-majors)	

## IV. Professional Preparation: Education Courses (46 credits)

<b>Phase 1</b>	<b>Credits</b>
<i>*PSH 384, PRO 370 and EDI 413 may be taken prior to program acceptance. PSH 384 and PRO 370 require a minimum grade of "C." All EDI courses require a minimum grade of "C+."</i>	
PSH 384 Child Psychology*	3
PRO 370 Health and Drug Education for Teacher Candidates*	1
EDI 330 Inquiry Into Learning**	3
EDI 413 Introduction to Special Education*	3
<b>Total:</b>	<b>10</b>

<b>Phase 2</b> (must be taken concurrently):	<b>Credits</b>
EDI 407 Emergent Language and Literacy	3
EDI 414 Methods in Special Education**	3
EDI 423 Diverse Learners in Social Studies	3
<b>Total:</b>	<b>9</b>

<b>Phase 3</b> (must be taken concurrently with the exception of EDI 430):	<b>Credits</b>
EDI 417 Language, Literacy, and the Learner**	3
EDI 419 Assessment in Special Education	3
EDI 424 Diverse Learners in Math	3
EDI 425 Diverse Learners in Science	3
EDI 430 Education and Society ( Once accepted, may be taken in any Phase prior to Phase 4)	3
<b>Total:</b>	<b>15</b>

\*\*School-based observations and participation beyond class time required in these courses.

**Note:** All pre-professional cognates and professional courses in Phases 1-3 must be completed prior to student teaching.

## V. Professional Preparation: Student Teaching with Seminar (12 credits)

<b>Phase 4</b>	<b>Credits</b>
EDI 455 Practicum and Seminar in Inclusive Childhood Education	12
<b>Total:</b>	<b>12</b>

**Note:** Teacher candidates are responsible for their own transportation for all off-campus field experiences, including student teaching.

## Adolescence Inclusive Education with Middle Childhood Education Extension (Grade 5-12)

### Program Requirements

The Department of Education and Human Development is pleased to offer a revised Adolescence Education Program that includes initial dual certification in Adolescence and Special Education (with Middle Childhood extension) in nine areas: English (Literature Track), in foreign language French and Spanish, mathematics, in science biology, chemistry, earth science, physics and social studies (history major). The four science areas include an optional general

science certification and an optional dual science major. Teacher candidates with initial dual certification will be qualified to teach in their content area of certification and in special education/inclusive classrooms in grade 5-12.

Students who complete a degree from SUNY Brockport that includes an approved program of teacher preparation for certification are eligible for the College's recommendation for a teaching credential. Approved programs satisfy New York state academic requirements and, under the terms of the Interstate Agreement, the academic requirements for an initial certificate in many other states. Initial certification in New York state requires satisfactory performance on the New York State Liberal Arts and Sciences Test (LAST) the written Assessment of Teaching Skills (ATS-W), and Content Specialty Tests. Please refer to the section on Teacher Preparation at SUNY Brockport in this catalog for additional information on certification.

Each Inclusive Adolescence Education certification area requires an academic major in the subject area of certification. Specific advisement is provided for both the academic major and the certification area. Students interested in teacher certification should contact the Department of Education and Human Development about education requirements and their academic department about major and General Education requirements as early as possible when planning their programs. Students are responsible for their own transportation for all off-campus field experiences, including student teaching.

Admission to the Inclusive Adolescence Education program requires a separate application and completion of at least 12-15 credits in the major at time of application.

### **English-Inclusive 5-12 Program Requirements**

- I. General Education Requirements: Teacher candidates must meet the General Education requirements in effect at the time of matriculation.
- II. Pre-professional Preparation: Academic Major — Students must formally declare a major in English (Literature track), and successfully complete all requirements for the major, described under the listing for the Department of English in this catalog. At least 12-15 credits in the English major (Literature track) must be completed prior to Phase 1.

#### III. Professional Preparation: Education Courses (43-46 credits)

<b>Phase 1</b>	<b>Credits</b>
<i>*Foreign Language, EDI 413, PSH 484 and PRO 370 may be taken prior to program acceptance. Foreign Language, PSH 484 and PRO 370 require a minimum grade of "C." All EDI courses require a minimum grade of "C+."</i>	
Foreign Language – one year of college-level study in a language other than English at 112 level*	3-6
EDI 445 Inclusive Middle Level Teaching in English**	3
EDI 431 Language Skills in Middle and High School	3
Content Area I	3
EDI 413 Introduction to Special Education*	3
PSH 484 Adolescence*	3
PRO 370 Health and Drug Education for Teacher Candidates*	3 1
	<b>Total: 16-19</b>
<b>Phase 2</b>	<b>Credits</b>
EDI 465 Teaching English Inclusively**	3
EDI 430 Education and Society (Once accepted can be completed in any phase prior to Phase 4)	3
EDI 432 Language Skills in the Middle and High School	3
Content Areas II	
	<b>Total: 9</b>

<b>Phase 3</b>	<b>Credits</b>
EDI 414 Methods in Special Education **	3
EDI 419 Assessment in Special Education	3
<b>Total:</b>	<b>6</b>

\*\*School-based observation and participation beyond class time are required for this course. Students are responsible for their own transportation for all off-campus field experiences, including student teaching.

**Note:** All professional preparation courses in Phases 1-3 must be successfully completed prior to student teaching.

IV. Professional Preparation: Student Teaching with Seminar (12 credits)	
<b>Phase 4</b>	<b>Credits</b>
EDI 475 Practicum in Inclusive Adolescence and Seminar	12
<b>Total:</b>	<b>12</b>

### **Foreign Language Inclusive 5-12 Program Requirements**

- I. General Education Requirements: Teacher candidates must meet the General Education requirements in effect at the time of matriculation.
- II. Pre-professional Preparation: Academic Major — Students must formally declare either a major in French or Spanish, and successfully complete all requirements for the major, described under the listing for the Department of Foreign Language in this catalog. At least 12-15 credits in either the French or Spanish major must be completed prior to Phase 1.
- III. Professional Preparation: Education Courses (43-46 credits)

<b>Phase 1</b>	<b>Credits</b>
<i>*Foreign Language, EDI 413, PSH 484 and PRO 370 may be taken prior to program acceptance. Foreign Language, PSH 48 and PRO 370 require a minimum grade of "C."</i>	
<i>All EDI courses require a minimum grade of "C+."</i>	
Foreign Language – one year of college-level study in a language other than English at 112 level*	3-6
EDI 449 Inclusive Middle Level Teaching in Foreign Language**	3
EDI 431 Language skills in the Middle and High School Content Area I	
EDI 413 Introduction to Special Education*	3
PSH 484 Adolescence*	3
PRO 370 Health and Drug Education for Teacher Candidates*	1
<b>Total:</b>	<b>16-19</b>

<b>Phase 2</b>	<b>Credits</b>
EDI 469 Teaching Foreign Language Inclusively**	3
EDI 430 Education and Society (Once accepted can be completed in any phase prior to Phase 4)	3
EDI 432 Language Skills in the Middle and High School Content Areas II	3
<b>Total:</b>	<b>9</b>

<b>Phase 3</b>	<b>Credits</b>
EDI 414 Methods in Special Education **	3
EDI 419 Assessment in Special Education	3
<b>Total:</b>	<b>6</b>

\*\*School-based observation and participation beyond class time are required for this course. Students are responsible for their own transportation for all off-campus field experiences, including student teaching.

**Note:** All professional preparation courses in Phases 1-3 must be successfully completed prior to student teaching.

IV. Professional Preparation: Student Teaching with Seminar (12 credits)	
<b>Phase 4</b>	<b>Credits</b>
EDI 475 Practicum in Inclusive Adolescence Education and Seminar	12
	<b>Total: 12</b>

### Mathematics Inclusive 5-12 Program Requirements

- I. General Education Requirements: Teacher candidates must meet the General Education requirements in effect at the time of matriculation.
- II. Pre-professional Preparation: Academic Major — Students must formally declare a major in mathematics, and successfully complete all requirements for the major, described under the listing for the Department of Mathematics in this catalog. At least 12-15 credits in the mathematics major must be completed prior to Phase 1.
- III. Professional Preparation: Education Courses (43-46 credits)

<b>Phase 1</b>	<b>Credits</b>
<i>*Foreign Language, EDI 413, PSH 484 and PRO 370 may be taken prior to program acceptance. Foreign Language, PSH 484 and PRO 370 require a minimum grade of "C." All EDI courses require a minimum grade of "C+."</i>	
Foreign Language – one year of college-level study in a language other than English at 112 level*	3-6
EDI 446 Inclusive Middle Level Teaching in Mathematics**	3
EDI 431 Language Skills in Middle and High School Content Area I	3
EDI 413 Introduction to Special Education*	3
PSH 484 Adolescence*	3
PRO 370 Health and Drug Education for Teacher Candidates*	1
	<b>Total: 16-19</b>

<b>Phase 2</b>	<b>Credits</b>
EDI 466 Teaching Mathematics Inclusively**	3
EDI 430 Education and Society (Once accepted can be completed in any phase prior to Phase 4)	3
EDI 432 Language Skills in Middle and High School Content Area II	3
	<b>Total: 9</b>

<b>Phase 3</b>	<b>Credits</b>
EDI 414 Methods in Special Education **	3
EDI 419 Assessment in Special Education	3
	<b>Total: 6</b>

\*\*School-based observation and participation beyond class time are required for this course. Students are responsible for their own transportation for all off-campus field experiences, including student teaching.

**Note:** All professional preparation courses in Phases 1-3 must be successfully completed prior to student teaching.

IV. Professional Preparation: Student Teaching with Seminar (12 credits)	
<b>Phase 4</b>	<b>Credits</b>
EDI 475 Practicum in Inclusive Adolescence Education and Seminar	12
	<b>Total: 12</b>

## Science Inclusive 5-12 Program Requirements

- I. General Education Requirements: Teacher candidates must meet the General Education requirements in effect at the time of matriculation.
- II. Pre-professional Preparation: Academic Major: Students must formally declare a major in one of the following sciences: biology, chemistry, earth science or physics and successfully complete all requirements for the major, described under the listing for the Department of Biology, Chemistry, Earth Science or Physics in this catalog. At least 12-15 credits in the major must be completed prior to Phase 1.
- III. To obtain the optional general science certification, teacher candidates must complete a minimum of 18 credits in at least two science areas other than the declared science major.
- IV. To obtain an optional dual science certification, teacher candidates must complete a minimum of 24 semester hours of study in a single science area outside their declared science major.
- V. Professional Preparation: Education Courses (43-46 credits)

<b>Phase 1</b>	<b>Credits</b>
<i>*Foreign Language, EDI 413, PSH 484 and PRO 370 may be taken prior to program acceptance. Foreign Language, PSH 484 and PRO 370 require a minimum grade of "C." "All EDI courses require a minimum of grade "C+."</i>	
Foreign Language – one year of college-level study in a language other than English at 112 level*	3-6
EDI 447 Inclusive Middle Level Teaching in Science**	3
EDI 431 Language Skills in Middle and High School Content Area I	3
EDI 413 Introduction to Special Education*	3
PSH 484 Adolescence*	3
PRO 370 Health and Drug Education for Teacher Candidates*	1
<b>Total:</b>	<b>16-19</b>

<b>Phase 2</b>	<b>Credits</b>
EDI 467 Teaching Science Inclusively**	3
EDI 430 Education and Society (Once accepted can be completed in any phase prior to Phase 4)	3
EDI 432 Language Skills in the Middle and High School Content Areas II	3
<b>Total:</b>	<b>9</b>

<b>Phase 3</b>	<b>Credits</b>
EDI 414 Methods in Special Education **	3
EDI 419 Assessment in Special Education	3
<b>Total:</b>	<b>6</b>

*\*\*School-based observation and participation beyond class time are required for this course. Students are responsible for their own transportation for all off-campus field experiences, including student teaching.*

**Note:** All professional preparation courses in Phases 1-3 must be successfully completed prior to student teaching.

VI. Professional Preparation: Student Teaching with Seminar (12 credits)	
<b>Phase 4</b>	<b>Credits</b>
EDI 475 Practicum in Inclusive Adolescence Education and Seminar	12
<b>Total:</b>	<b>12</b>

## Social Studies Inclusive 5-12 Program Requirements

- I. General Education Requirements: Teacher candidates must meet the General Education requirements in effect at the time of matriculation.
- II. Pre-professional Preparation: Academic Major — students must formally declare a major in history, and successfully complete all requirements for the major, described under the listing for the Department of History in this catalog. At least 12-15 credits in the history major must be completed prior to Phase 1.
- III. Pre-professional Preparation: Social Science Courses (12 credits)

	Credits
PLS 113 American Political Systems	3
ESC 102 Elements of Geography	3
Choose one course from the following areas:	3
African-American Studies, Anthropology, or Sociology	
ECN 100 Contemporary Economic Problems <b>or</b>	3
ECN 202 Macro Economics	

**Total: 12**

- IV. Professional Preparation: Education Courses (43-46 credits)

### Phase 1

*\*Foreign Language, EDI 413, PSH 484 and PRO 370 may be taken prior to program acceptance. Foreign Language, PSH 484 and PRO 370 require a minimum grade of "C." All EDI courses require a minimum grade of "C+."*

	Credits
Foreign Language –one year of college level study in a language other than English at 112 level*	3-6
EDI 448 Inclusive Middle Level Teaching in Social Studies**	3
EDI 413 Introduction to Special Education*	3
EDI 431 Language Skills in Middle and High School Content Areas I	3
PSH 484 Adolescence*	3
PRO 370 Health and Drug Education for Teacher Candidates*	1

**Total: 16-19**

### Phase 2

	Credits
EDI 468 Teaching Social Studies Inclusively**	3
EDI 430 Education and Society (Once accepted can be completed in any phase prior to Phase 4)	3
EDI 432 Language Skills in the Middle and High School Content Areas II	3

**Total: 9**

### Phase 3

	Credits
EDI 414 Methods in Special Education **	3
EDI 419 Assessment in Special Education	3

**Total: 6**

\*\*School-based observation and participation beyond class time are required for this course. Students are responsible for their own transportation for all off-campus field experiences, including student teaching.

**Note:** All professional preparation courses in Phases 1-3 must be successfully completed prior to student teaching.

- V. Professional Preparation: Student Teaching with Seminar (12 credits)

### Phase 4

	Credits
EDI 475 Practicum in Adolescence Inclusive Education and Seminar	12

**Total: 12**

EDUCATION AND HUMAN DEVELOPMENT  
COURSES

**EDI 330 Inquiry into Learning (A).** *Prerequisite: Acceptance in Inclusive Childhood Program.* Explores current theories of learning. Also explores how students and others learn and examines the implications for school learning experiences. Ties how one learns to how we teach and assess understanding. Attention is given to meeting the diverse needs of all learners. A 50-hour field component is required. *3 Cr. Every Semester.*

**EDI 360 America Reads I (B).** Provides opportunities for students to work with children to improve their literacy skills in a classroom setting (k-6). Students are placed primarily with the Brockport Central School District. Students have the opportunity to learn tutoring techniques, create lesson plans and grade papers. Includes a 60 hour field component. *3 Cr. Every Semester.*

**EDI 361 America Reads II (B).** *Prerequisite: EDI 360.* Provides opportunities for students to work with children to improve their literacy skills in a classroom setting (k-6). Students are placed primarily with the Brockport Central School District. Students have the opportunity to learn tutoring techniques, create lesson plans and grade papers. Includes a 60 hour field component. Requires students to serve as student mentors to help coordinate the activities of the first year students. *3 Cr. Every Semester.*

**EDI 407 Emergent Language and Literacy (B).** *Prerequisites: EDI 330. Corequisite: Phase II courses.* Explores universality and diversity in the development of oral and written language. Emphasizes constructivist, sociocultural, and sociopsycholinguistic perspectives. Examines language processes, strategies, and materials for supporting all young children's oral and written language development. Also examines national and state standards for literacy learning. Explores authentic assessment strategies. *3 Cr. Every Semester.*

**EDI 413 Introduction to Special Education (B).** Introduces teacher candidates to the characteristics of students with exceptionalities according to state and national standards and laws. Identification of students with diverse needs is an integral part of this course. Issues of diversity will be explored across race, culture, language, gender, religion, disability and socioeconomic status. An introduction will be required into issues of family/professional partnerships, learner-centered constructivism, collaboration and consultation skills, and community building. Addresses the philosophy of inclusion and collaboration for all students, effective teacher performance, and special education law for educators. *3 Cr. Every Semester.*

**EDI 414 Methods in Special Education (B).** *Prerequisite: EDI 413; Childhood Phase I EDI courses. Corequisite: Phase II courses. Adolescence/Special Education Prerequisite: Phase I and II EDI courses. Corequisite: Phase III courses.* Explores the selection, modification, application, and evaluation of inclusive curricular materials and instructional techniques for learners with disabilities. Addresses the learners' abilities, learning rates, and styles of learning. Includes the use of assistive technology services and devices. Emphasizes development of positive and supportive learning environment for all students. Includes a 50-hour field component. *3 Cr. Every Semester.*

**EDI 417 Language Literacy and the Learner (B).** *Prerequisites: Phase I and Phase II. Corequisite: Phase III courses.* Develops increasingly sophisticated understanding of and skill in implementing strategy support language and literacy learning of diverse learners in grades 1 through 6. Engages students continued inquiry into assessment strategies; develops skills linking assessment and instruction integration of language and literacy across all curricular areas; creates learning environments through children's language and literacy learning. Includes 50-hours of field experience. *3 Cr. Every Semester.*

**EDI 419 Assessment for Special Education (B).** *Prerequisite: EDI 413.* Prepares teacher candidates with the skills, theory, practice and knowledge to engage in quality assessment of special education students. Examines principles and criteria of evaluative and diagnostic techniques, norm referenced testing, criteria/referenced testing, and informal teacher-made tests. Explores the use and understanding of standardized tests and test scores in statewide assessments; necessary skills in the practical application of classroom assessment for special education students. *3 Cr. Every Semester.*

**EDI 421 The Bilingual Child (B).** Explores the social, emotional and cognitive implications of being a child who must function as a bilingual in a classroom setting. Relates theoretical knowledge to actual observations as teacher candidates observe and work with children in a bilingual setting. Requires a case study. *3 Cr.*

**EDI 422 TESOL: Materials and Techniques (B).** Covers the methods and materials used in teaching English as a second language to children and adults. Competency-based. *3 Cr. Fall.*

**EDI 423 Diverse Learners in Social Studies (B).** *Prerequisite: Phase I courses. Corequisite: Phase II courses.* Fosters a teacher candidate's ability to ap-

propriately design and deliver elements of social studies instruction in grades 1 through 6. Includes implementing social studies lessons for diverse learning needs, integrating technology and other content areas, and developing meaningful assessments. Addresses New York State Learning Standards and Social Studies Core Curriculum, and the Ten Thematic Strands from the National Council for the Social Studies. *3 Cr. Every Semester.*

**EDI 424 Diverse Learners in Mathematics (B).** *Prerequisite: Phase I, II courses. Corequisite: Phase III courses.* Allows teacher candidates to apply appropriate elements of instruction of mathematics in inclusive grades 1 through 6. Includes implementing problem-based mathematics lessons for diverse learning needs, integrating technology and other content areas, developing a range of meaningful assessments and addressing state and national learning standards in mathematics. In addition, teacher candidates will increase their content knowledge. *3 Cr. Every Semester.*

**EDI 425 Diverse Learners in Science (B).** *Prerequisite: Phase I, II courses. Corequisite: Phase III courses.* Allows teacher candidates to apply appropriate elements of instruction of science in grades 1 through 6. Includes implementing inquiry-based science lessons for diverse learning needs, integrating technology and other content areas, connecting to families through science, developing a range of meaningful assessments and addressing state and national learning standards in science. In addition, teacher candidates will increase their content knowledge in science. *3 Cr. Every Semester.*

**EDI 430 Education and Society (A,D,I,W).** *Prerequisite: Program admission.* Focuses on social, cultural, historical, and philosophical foundations of education; changing roles of teachers within contexts of contemporary schools; and other programs serving children. *3 Cr. Every Semester.*

**EDI 432 Language Skills in Middle and High School Content Areas II (B).** *Corequisite: Admission to Inclusive Adolescence Program; Phase I courses.* Builds on teacher candidates' study in EDI 431. Explores the notion that writing and speaking are fundamental to thinking about and learning content knowledge in all disciplines of study. Achieves an understanding not only of the teachers' own speaking and writing processes, but also of the kinds of experiences that help students write and speak with an authentic voice, develop a high degree of fluency, and produce writing and verbal presentations of consequence. Covers the following areas: using writing and verbal presentations to create and explore thinking, to make learning personal, to get ready to learn, to exercise intel-

lectual independence, to wonder, to struggle with difficult learning, and to engage the imagination in learning. *3 Cr. Every Semester.*

**EDI 445 Inclusive Middle Level Teaching in English (B).** *Prerequisites: Admission to Adolescence Inclusive Education Program. Corequisite: Phase I courses.* Introduces students to the methods and strategies involved in inclusive middle level English teaching. Explores the nature of teaching, instructional planning, designing unit and lesson plans, interdisciplinary approaches, assessment, and teaching portfolios. Includes practice teaching and reflection. Focuses on ability to work collaboratively as team members of teams clarify goals and construction of an educational philosophy. Requires 50 hours of field experience in a middle level inclusion classroom. *3 Cr. Fall.*

**EDI 446 Inclusive Middle Level Teaching in Mathematics (B).** *Prerequisites: Admission to Adolescence Education Program. Corequisite: Phase I courses.* Introduces students to the methods and strategies involved in inclusive middle level Mathematics teaching. Explores the nature of teaching, instructional planning, designing unit and lesson plans, interdisciplinary approaches, assessment, and teaching portfolios. Includes practice teaching and reflection. Focuses on ability to work collaboratively as team members of teams clarify goals and construction of an educational philosophy. Requires 50 hours of field experience in a middle level inclusion classroom. *Every semester. 3 Cr. Fall.*

**EDI 447 Inclusive Middle Level Teaching in Science (B).** *Prerequisites: Admission to Adolescence Education Program. Corequisite: Phase I courses.* Introduces students to the methods and strategies involved in inclusive middle level Science teaching. Explores the nature of teaching, instructional planning, designing unit and lesson plans, interdisciplinary approaches, assessment, and teaching portfolios. Includes practice teaching and reflection. Focuses on ability to work collaboratively as team members of teams clarify goals and construction of an educational philosophy. Requires 50 hours of field experience in a middle level inclusion classroom. *Every semester. 3 Cr. Fall.*

**EDI 448 Inclusive Middle Level Teaching in Social Studies (B).** *Prerequisite: Admission to Adolescence Education Program. Corequisites: Phase I courses.* Introduces teacher candidates to the methods and strategies involved in the teaching of middle and high school social studies. Begins the teacher candidates' exploration of the nature of teaching, instructional planning, designing unit and lesson plans, interdisciplinary approaches, assessment, and teaching portfolios. Requires teacher

candidates to practice teaching lessons they have designed and be reflective about their own and others' lessons. Focuses on teacher candidates' ability to work collaboratively as members of teams. Provides opportunities for teacher candidates to clarify their goals in pursuit of a teaching career and requires them to construct a personal statement of educational philosophy. *3 Cr. Fall Only.*

**EDI 449 Inclusive Middle Level Teaching in Foreign Language (B).** *Prerequisite: Admission to Adolescence Education Program. Corequisite: Phase I courses.* Introduces teacher candidates to the methods and strategies involved in the teaching of middle and high school foreign language. Begins the teacher candidates' exploration of the nature of teaching, instructional planning, designing unit and lesson plans, interdisciplinary approaches, assessment, and teaching portfolios. Requires teacher candidates to practice teaching lessons they have designed and be reflective about their own and others' lessons. Focuses on teacher candidates ability to work collaboratively as members of teams. Provides opportunities for teacher candidates to clarify their goals in pursuit of a teaching career and requires them to construct a personal statement of educational philosophy. *3 Cr. Fall Only.*

**EDI 455 Practicum and Seminar in Inclusive Childhood Education (B).** *Prerequisites: EDI 330, EDI 407, EDI 413, EDI 414, EDI 419, EDI 423, EDI 424, EDI 425. Supervised full-time teaching experience in childhood classrooms and settings.* The semester is divided into two placement; one in grades 1-3, the other in grades 4-6. Includes a two-hour weekly seminar, which provides on going support related to teacher candidates' work in childhood classrooms. Includes topics such as assessment, curriculum planning and implementation, creating and sustaining supportive classroom environments, certification, and career strategies. This is the final course taken in the childhood program. *12 Cr.*

**EDI 465 Teaching English Inclusively (B).** *Prerequisite: Phase I courses. Corequisite: Phase II courses.* Focuses on inclusive teaching strategies, lesson planning, instruction and assessment in English content areas. Emphasizes secondary curriculum content; New York State English Language Arts technological applications that apply to teaching and learning. Requires teacher candidates to become reflective practitioners, develop personal portfolios and become familiar with research in the field. Includes 50 hours of field experience in a high school inclusion classroom. *3 Cr. Spring Only.*

**EDI 466 Teaching Mathematics Inclusively (B).** *Prerequisite: Phase I courses. Corequisite: Phase II courses.* Focuses on inclusive teaching strategies, lesson planning, instruction and assessment in mathematics content areas. Emphasizes secondary curriculum content; New York State MST technological applications that apply to teaching and learning. Requires teacher candidates to become reflective practitioners, develop personal portfolios and become familiar with research in the field. Includes 50 hours of field experience in a high school inclusion classroom. *3 Cr. Spring Only.*

**EDI 467 Teaching Science Inclusively (B).** *Prerequisites: Phase I courses. Corequisites: Phase II courses.* Focuses on inclusive teaching strategies, lesson planning, instruction and assessment in science content areas. Emphasizes secondary curriculum content; New York State MST technological applications that apply to teaching and learning. Requires teacher candidates to become reflective practitioners, develop personal portfolios and become familiar with research in the field. Includes 50 hours of field experience in a high school inclusion classroom. *3 Cr. Spring Only.*

**EDI 468 Teaching Social Studies Inclusively (B).** *Prerequisites: Phase I courses. Corequisites: Phase II courses.* Focuses on inclusive teaching strategies, lesson planning, instruction and assessment in social studies content areas. Emphasizes secondary curriculum content; New York State social studies standards; technological applications that apply to teaching and learning. Requires teacher candidates to become reflective practitioners, develop personal portfolios and become familiar with research in the field. Includes 50 hours of field experience in a high school inclusion classroom. *3 Cr. Spring Only.*

**EDI 469 Teaching Foreign Language Inclusively (B).** *Prerequisites: Phase I courses. Corequisites: Phase II courses.* Focuses on inclusive teaching strategies, lesson planning, instruction and assessment in foreign language content areas. Emphasizes secondary curriculum content; New York State second language standards; technological applications that apply to teaching and learning. Requires teacher candidates to become reflective practitioners, develop personal portfolios and become familiar with research in the field. Includes 50 hours of field experience in a high school inclusion classroom. *3 Cr. Spring Only.*

**EDI 475 Practicum and Seminar in Inclusive Adolescence Education (B).** *Prerequisites: Phase I, II, III courses.* A full-time supervised teaching experience and seminar in inclusive middle level and adolescence classrooms and settings. The semester is divided into two placements; one in grades 5-8, the other in grades 9-12. This is the final course

226 Education and Human Development

taken in the Inclusive Adolescence Certification Program. *12 Cr. Every Semester.*

**EDI 490 Topics of Instruction (B).** Meets the needs of intact groups of clients at the upper-division undergraduate level. Transcript title, content, bibliography and assessment procedures vary with

the predetermined needs and interests of the group of clients served. *1-3 Cr.*

**EDI 499 Independent Study (B).** To be defined in consultation with the instructor-sponsor and in accordance with the procedures of the Office of Academic Advisement prior to registration. *1-3 Cr.*

## DEPARTMENT OF ENGLISH

211 Hartwell  
(585) 395-2503

*Chair and Professor:* Janie Hinds, PhD, University of Tulsa; *Professor:* Robert J. Gemmett, PhD, Syracuse University; *Graduate Coordinator and Associate Professor:* Miriam E. Burstein, PhD, University of Chicago; *Associate Professors:* Ralph W. Black, PhD, New York University; T. Gregory Garvey, PhD, University of Wisconsin-Madison; Jennifer Haytock, PhD, University of North Carolina; J. Roger Kurtz, PhD, University of Iowa, Anne Panning, University of Hawaii; *Assistant Professors:* Sharon Allen, PhD, Princeton University; Austin Busch, PhD, Indiana University; Brooke Conti, PhD, Yale University; Stephen Fellner, PhD, University of Utah; Stefan Jurasinski, PhD, Indiana University; Alissa Karl, PhD, University of Washington; Megan Norcia, PhD, University of Florida; Megan Obourne, PhD, New York University; Joseph Ortiz, PhD, Princeton University; Rashna Richards, PhD, University of Florida; James Whorton, PhD, University of Southern Mississippi; *Presidential Fellow:* Rynetta Davis, PhD, University of Kentucky; *Lecturers:* Jeanne Grinnan, MEd, SUNY Brockport; Teresa Lehr, MA, SUNY Brockport; Sidney Rosenzweig, PhD, University of Rochester.

The Department of English offers a wide range of courses in American, British, and world literatures, composition and creative writing — including workshops in poetry, fiction, and creative nonfiction. The English major is tailored for students who wish to pursue a passion for reading and writing, and for those who seek a general education in literary studies as they plan for careers in education, law, business administration, public relations, advertising, or government — indeed, any field where effective use of the English language and critical thinking skills are seen as essential to a broad humanistic perspective. Our majors choose between a literature or creative concentration (outlined below), where their course work is designed to develop analytical, research, and creative skills. As an alternative, the English minor gives students an opportunity to select courses appropriate to their individual needs and interests. Students majoring or minoring in English must complete at least 50 percent of their course work (18 credits for the major, nine credits for the minor) at SUNY Brockport.

### Major Specialties in English

Students who major in English must select a 36-credit major from one of two options: literature or creative writing.

#### Option 1: Literature

The English Major-Literature focuses on the origins and development of British and American literatures and cultural values and global issues reflected in world literatures and affords students extensive practice in critical analysis and writing. The literature track provides strong preparation for elementary and secondary teachers, for professional careers in business and law, and for the further study of literature at the graduate level.

**General Guidelines:** Literature courses include the genres of poetry, fiction, drama, and the essay. Most majors take about 42–45 credits in English. In selecting their required courses, electives, or other courses beyond the 36-credit minimum, students are encouraged to construct personal concentrations in such areas as: American, British, or world literature; film studies; women writers; modern literature, etc., or to explore the diversity of literary and language studies. Individual courses fulfill only one requirement in the major, and only liberal arts courses (designated by an A) can be used to satisfy the 36-credit minimum requirement.

#### Minimum Course Requirements:

	Credits
ENL 303 Introduction to Literary Analysis (minimum grade of “C”)	3
<b>British Literature</b>	
One course in British Literature before 1800 (Examples: ENL 202 British Literature I, ENL 322 British Novel I, ENL 411 Chaucer, ENL 416 British Renaissance, ENL 417 The Age of Dryden, Pope and Johnson)	3
One course in British Literature after 1800	3

(Examples: ENL 203 British Literature II, ENL 419 English Romantic Writers, ENL 420 The Victorians and Others, ENL 424 Modern British Literature, ENL 426 Contemporary British Literature, ENL 426 Irish Writers)

### **American Literature**

One course in American Literature before 1900

(Examples: ENL 204 American Literature I, ENL 374 American Novel I, ENL 429 Roots of American Literature, ENL 431 The Transcendental Movement)

One course in American Literature after 1900 3  
(Examples: ENL 205 American Literature II, ENL 435 Modern American Poetry, ENL 443 Contemporary American Poetry, ENL 434 American Literature of the Cold War Era)

### **World Literatures and Cultures** 6

Two world literature courses, only one of which may be at the 100 level

(Examples: ENL 165 International Fiction, ENL 353 The *Bible* and Modernism, ENL 367 African Novel, ENL 475 Post-Colonial Literature

#### **OR**

One world literature course and one British or American literature course which has a significant emphasis on cultural differences (Examples: ENL 235 Introduction to Afro-American Literature, ENL 237 Native-American Literature, ENL 327 Loss of Innocence)

ENL 315 Shakespeare 3

Linguistics and Language (ENL 450, ENL 451, ENL 455 or ENL 481) 3

Two elective courses in English at the 300/400 level 6

ENL 472 Critical Approaches to Literature 3

(prerequisites: ENL 303 and 9 credits of 300/400 level study in English)

**Total:** 36

**Teacher Certification Students:** Students preparing for teaching in elementary schools are strongly advised to take ENL 305 Advanced Composition and ENL 482 Children's Literature. Students preparing for teaching in secondary schools must take ENL 305 Advanced Composition and ENL 484 Young Adult Literature as electives.

**Preparation for Business, Law and Public Service:** Literature courses which emphasize psychological, social, and verbal analysis provide a solid basis for the type of critical thinking needed in professional positions, while courses in writing, business communications, journalism/publication, etc. provide a solid basis in communication skills central to these areas.

### **Option 2: Creative Writing**

The English Major-Creative Writing allows students to follow a program of study in English which will enable them to explore their talents and develop their skills in a series of writing courses and related literature courses.

**General Guidelines:** Literature courses include the genres of poetry, fiction, drama, and the essay. Most majors take about 42–45 credits in English. In selecting their required courses, electives, or other courses beyond the 36-credit minimum, students are encouraged to construct personal concentrations in such areas as American, British, or world literature; film studies; women writers; modern literature, etc., as well as taking additional courses in writing or literature. Individual courses fulfill only one requirement in the major, and only liberal arts courses (designated by an A) can be used to satisfy the 36-credit minimum requirement.

<b>Minimum Course Requirements:</b>	<b>Credits</b>
ENL 303 Introduction to Literary Analysis (minimum grade of "C")	3
ENL 210 Creative Writing (the prerequisite for ENL 301 and 302)	3
Literature Requirements (one course must be in literature before 1900)	
One course in British Literature	3
One course in American Literature	3
One course in World Literature	3
Workshop Requirements	
ENL 301 Fiction Writers Workshop	3
ENL 302 Poetry Writers Workshop	3
ENL 403 Writers Craft (may be repeated once)	3
One Advanced Writers Workshop (ENL 301 or 302 are prerequisites for the related Advanced Workshops; these 400 level Workshops may be repeated once)	3
ENL 491 Advanced Fiction Writers Workshop	
ENL 492 Advanced Poetry Writers Seminar	
ENL 493 The Creative Essay	
Two elective courses in English at the 300/400 level	6
ENL 472 Critical Approaches to Literature (prerequisites: ENL 303 and nine credits of 300/400 level study in English)	3
<b>Total:</b>	<b>36</b>

**Teacher Certification Students (elementary schools):** Students preparing for teaching in elementary schools are strongly advised to take ENL 305 Advanced Composition and ENL 482 Children's Literature.

**Preparation for Business, Law and Public Service:** Literature courses which emphasize psychological, social, and verbal analysis provide a solid basis for the type of critical thinking needed in professional positions, while courses in writing, business communications, journalism/publication, etc. provide a solid basis in communications skills central to these areas.

### **Minor in English**

The minor in English allows students majoring in other disciplines to construct a program of study in English that will be appropriate to their individual interests and prospective careers.

### **English Minor Requirements**

The minor requires 18 credits, including ENL 303 Introduction to Literary Analysis with a grade of "C" or better. Of the additional five elective courses (15 credits), at least two must be at the 300 level or above, and only one may be at the 100 level.

Students may wish to construct their individualized English minor around concentrations in such areas as American literature, British literature, film studies, women writers, cultural studies in literature, writing, and modern literature. It is also acceptable to simply choose five electives of interest.

### **Student Life**

The Writers Forum provides exposure to significant contemporary writers and critics. The English Club offers a variety of activities, including the publication of student writing. Sigma Tau Delta, an international honor society, recognizes significant academic accomplishment. Awards are available for student scholarship, and outstanding literary-critical, fiction, poetry, and non-fiction writing.

### **Study Abroad**

Study-abroad programs sometimes are available. Information is available in the Office of International Education.

**General Education Requirements**

The following courses may be taken to meet the lower-division Humanities (H) requirement:

ENL 165	International Fiction
ENL 166	Literature and Culture
ENL 202	British Literature I
ENL 203	British Literature II
ENL 204	American Literature I
ENL 205	American Literature II
ENL 235	Introduction to African-American Literature
ENL 237	Native-American Literature
ENL 244	Women and Courtly Love

The following course may be taken to meet the lower-division Fine Arts Performance (P) requirement:

ENL 210	Creative Writing
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The following course may be taken to meet the lower-division Fine Arts (F) requirement:

ENL 200	Art of the Film
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The following course may be taken to meet the lower-division Other Worlds (O) requirement:

ENL 166	Literature and Culture
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The following courses may be taken to meet the Diversity (D) requirement:

ENL 165	International Fiction
ENL 166	Literature and Culture
ENL 204	American Literature I
ENL 205	American Literature II
ENL 339	Writings by African-American Women
ENL 366	Arabic Culture and the West
ENL 367	African Novel
ENL 378	Women in American Literature
ENL 418	Significant Themes in British Literature
ENL 470	Women's Popular Culture
ENL 474	Caribbean Literature
ENL 475	Post-Colonial Literature
ENL 476	Magical Realism

The following courses may be taken to meet the Western Civilization (G) requirement:

ENL 163	Literature, Arts, and Western Culture I
ENL 164	Literature, Arts, and Western Culture II

The following courses may be taken to meet the Contemporary Issues (I) requirement:

ENL 339	Writings by African-American Women
ENL 353	The Bible and Modernism
ENL 357	Postmodern Culture
ENL 366	Arabic Culture and the West
ENL 367	African Novel
ENL 378	American Women Writers
ENL 439	Asian-American Literature
ENL 457	Women and Film
ENL 470	Women's Popular Culture
ENL 475	Postcolonial Literature
ENL 477	Issues in Science Fiction
ENL 496	Sex and Censorship in Literature and the Media

The following courses may be taken to meet the Perspectives on Women (W) requirement:

ENL 205	American Literature II
ENL 244	Women and Courtly Love
ENL 339	Writings by African-American Women
ENL 378	Women Writers in American Literature
ENL 427	Women in the Novel
ENL 439	Asian-American Literature
ENL 441	American Literature: 19th-Century Women's Novel
ENL 442	Topics in Women's Literature
ENL 457	Women and Film
ENL 470	Women's Popular Culture
ENL 496	Sex and Censorship in Literature and the Media

**Notes:** ENL 112 or equivalent is a prerequisite for any ENL course above 200. Subtitles and contents of topics, seminar, genre, mode, theme, and workshop courses vary by semester. Consult the department for information concerning offerings in any given semester. Each semester the department provides a booklet containing instructors' descriptions of courses they offer. The booklet may be obtained in the department office.

#### ENGLISH COURSES

**ENL 102 Fundamentals of College Composition (A).** For students who need practice in expository writing skills. Provides intensive work in writing standard, edited English as preparation for entering ENL 112. *3 Cr. Every Semester.*

**ENL 112 College Composition (A).** *Cross-listed as HON 112.* Emphasizes the development of written discourse with special attention to the writing process. Students generate, revise, and edit several short essays, as well as practice writing in ways that exercise their critical reading and thinking skills. *3 Cr. Every Semester.*

**ENL 163 Literature, the Arts and Western Culture I (A,G,W).** *Cross-listed as HON 209.* Explores how major literary works reflect significant ideas and issues from gender to power politics, from religious beliefs to racist prejudices, from heroism to hedonism, of the times when they were created. *3 Cr.*

**ENL 164 Literature, the Arts and Western Culture II (A,G).** *Cross-listed as HON 215.* Examines the intellectual, economic, and political trends in the arts which contributed to the shape and character of American culture. *3 Cr.*

**ENL 165 International Fiction (A,D,H).** Focuses on literary works from various cultures as vehicles for an examination of human nature. Assumes that, despite differences in nationality, race and culture, human beings share similar concerns, values, and attitudes. *3 Cr. Every Semester.*

**ENL 166 Literature and Culture (A,D,H,O).** Examines selected works of literature to illustrate comparative religious, political, scientific, and artistic issues as well as the conflicts inherent in individual, societal, and cultural values. *3 Cr. Every Semester.*

**ENL 200 Art of the Film (A,F).** An introduction to film as an art form combining visual, dramatic, and aural arts. Covers basic film vocabulary, elements of film art, trends in film esthetics, and analysis of style of important selected filmmakers; includes screening of short and feature films. Required for Film Studies minors. *3 Cr. Every Semester.*

**ENL 202 British Literature I (A,H).** Explores works from British literature written between 800 and 1800, including those of such writers as Chaucer, Shakespeare and Milton. Examines various styles, forms, and genres. *3 Cr. Every Semester.*

**ENL 203 British Literature II (A,H).** Explores British literature written from 1800 to the present, including works by writers such as Wordsworth, Browning, Yeats and Woolf. *3 Cr. Every Semester.*

**ENL 204 American Literature I (A,D,H).** Surveys texts written in or about America prior to the Civil War. May include exploration and captivity narratives, Puritan writing, writing of the American Revolution, and major romantic authors such as Emerson, Fuller, Hawthorne, Melville, Douglass, and Stowe. *3 Cr. Every Semester.*

**ENL 205 American Literature II (A,D,H,W).** Surveys texts written in or about America from the post-Civil War era to the present. Introduces students to literary movements of the period such as realism, modernism, the Harlem Renaissance, the Beat generation, postmodernism, and the rise of ethnic American writing. May include writers such as James, Stein, Hughes, Ginsberg, Pynchon, and Kingston. *3 Cr. Every Semester.*

**ENL 210 Creative Writing (A,P).** Examines techniques for writing poetry; prose, and/or creative nonfiction and requires students to critique each other's and to revise their own work. *3 Cr. Every Semester.*

**ENL 235 Introduction to Afro-American Literature (A,H).** *Cross-listed as AAS 235.* Provides an introductory survey of the literature of people of African ancestry in the Americas. Acquaints students with major literary figures and significant historical periods. Discusses issues regarding the relationship between the writers and socio-political and cultural movements and of questions concerning the socio-cultural function that the black writer serves for his/her community. *3 Cr.*

**ENL 237 Native-American Literature (A,C,H).** Surveys Native-American voices and visions on issues such as environment, sex roles, and the problems of mixed racial and ethnic people. Uses historical material to define the issues, but with an emphasis on Native-American writings of the 20th century. *3 Cr.*

**ENL 301 Fiction Writers Workshop (A).** *Prerequisite: ENL 210.* Develops mastery of the materials and techniques of writing fiction. Requires students to objectively criticize their own work and the work of others. *3 Cr. Every Semester.*

**ENL 302 Poetry Writers Workshop (A).** *Prerequisite: ENL 210.* Examines the substances and processes of writing poetry through contemporary study and objective workshop criticism of student writing. *3 Cr.*

**ENL 303 Introduction to Literary Analysis (A).** For English majors and prospective majors. Provides skills needed to understand literature in English. Includes close reading of selected texts and study of literary genres, critical terms, and the relationship between text and context. Provides practice in writing literary analyses. Emphasizes skills of generating, rewriting, and editing the documented critical essay and other nonfiction prose suitable to the needs and future careers of English majors. Majors and minors must earn a "C" or better. *3 Cr.*

**ENL 304 Creative Non-fiction Writers Workshop (A).** *Prerequisites: ENL 210.* Introduces students to the diverse subgenres of creative non-fiction such as domestic memoir, travel writing, graphic novels, critical reviews among others. Students develop a greater array of formal possibilities and areas of content in their own non-fiction writing. *3 Cr.*

**ENL 305 Advanced Composition (A).** A workshop course. Covers analytical, persuasive, and research writing and introduces advanced writing techniques. Revision is expected. Encourages participants to think critically and solve writing problems creatively. *3 Cr. Every Semester.*

**ENL 308 Business Writing and Computers (B).** Required for business majors. Allows students to expand word processing skills to prepare communications for the business world, including letters, memos, reports, and job applications. Emphasizes editing skills. Cannot be counted for the English major. *3 Cr. Every Semester.*

**ENL 311 Topics in Creative Writing (Flash Fiction) (A).** This workshop course will offer close study of flash fiction, a subgenre defined less by length than by its effects and techniques, as well as practice in conceiving, drafting, critiquing, and revising students' own flash fiction. Text will include considerations of the form by David Jauss as well as exemplars by such established contemporary writers as Alice Walker, Gabriel Garcia Marquez, grace Paley, Ron Wallace, and others. *3 Cr.*

**ENL 312 Tudor and Stuart Drama (A).** Studies plays by men and women in England from 1585-1685 in a cultural, historical and political context. Specific playwrights may include Marlow, Kyd, Beaumont, Fletcher, Jonson, Webster, Marston, Cary, Ford, Milton, Cavendish and Behm. *3 Cr.*

**ENL 315 Shakespeare (A).** Shakespeare plays, relating them to their cultural, historical, and political contexts. Play titles vary depending on the instructor. *3 Cr. Every Semester.*

**ENL 322 British Novel I (before 1800) (A).** Provides a study of the rise and development of the novel as an art form in 18th-century England from the works of Daniel Defoe to the emergence of the Gothic novel. *3 Cr.*

**ENL 327 Loss of Innocence (A).** Surveys American literary periods and literature within their historical, social, and cultural contexts. Focuses on the expansion of literary subjects, issues, and voices, particularly those of minorities. *3 Cr.*

**ENL 331 Modern American Drama (A).** Studies selected plays by 20th-century American authors, using a variety of critical approaches. 3 Cr.

**ENL 339 Writings By African-American Women (A,D,I,W).** *Cross-listed as AAS 339, WMS 339.* Surveys literary representations in Afro-American fiction from the Harlem Renaissance to the present. Examines the degree to which sexism, cultural stereotypes and racism influence the portrayals and function of women in black American literature. Explores concerns with women's issues and the emergence of the feminist movement in America. 3 Cr.

**ENL 350 World Literature I (A).** Explores literatures of the world from antiquity to the early modern world, with considerable attention to texts outside the Western tradition. 3 Cr.

**ENL 351 World Literature II (A).** Explores literatures of the world since 1700, with a focus on texts outside the British and American literary traditions. 3 Cr.

**ENL 353 The Bible and Modernism (A,C,I).** Provides an interdisciplinary investigation of controversies surrounding the Bible in the modern world. 3 Cr.

**ENL 354 Bible as Literature (A).** Provides an extensive examination of the design, moral, ethical and historical significance of the Bible, as well as its major literary forms, including short story, myth, proverbs, psalms, historical narrative and apocrypha. 3 Cr.

**ENL 355 Classical Mythology (A).** Studies Greek and Roman myths as background for Western culture, literature and fine arts. 3 Cr.

**ENL 356 World Mythologies (A).** Defines myths as prehistoric, preliterate narratives from an oral tradition and sees these narratives as fundamental in many ways, stemming from the earliest days of human thought, development and civilization. Considers myths from Africa, the Orient, American Indians, Europe and South America. Examines what myths say about death, creation, fertility, and the hero. 3 Cr.

**ENL 357 Postmodern Culture (A,I).** Explores the interrelationship between various aspects of contemporary culture, especially the cultural influences of technology and the mass media on literature, film, and other arts. Explores how social conditions, changing beliefs about human society, international capitalism, and recent technological changes have led to changes in culture, lifestyle, even thinking, that can best be described as postmodern. 3 Cr.

**ENL 366 Arabic Culture and the West (A,C,D,I).** The Middle East is arguably the area of the world that is most volatile and least understood by people from Western cultural backgrounds. Provides an interdisciplinary exploration of perceptions of the cultural "other," concentrating on cultural products of the Arabic-speaking world. 3 Cr.

**ENL 367 The African Novel (A,D,I).** *Cross-listed as AAS 367.* Examines major authors and movements in the development of the novel in Africa. Emphasizes the texts themselves, but with attention to their social and historical contexts. 3 Cr.

**ENL 374 American Novel I (A).** A historical survey of the American novel to 1900, with readings from a number of significant novelists. 3 Cr.

**ENL 375 American Novel II (A).** Examines selected American novels after 1900 according to thematic, stylistic, and chronological patterns. 3 Cr.

**ENL 378 Women Writers in American Literature (A,D,I,W).** *Cross-listed as WMS 378.* Examines the ways in which American women writers address the particular circumstances of women's lives during particular decades. Explores the diversity of women's writing by including the works of best-selling writers, women of color, working-class women, and radical experimentalists. Provides students with an historical, social and cultural context in which to locate various works. 3 Cr.

**ENL 388 Brockport Career Exploration Course (B).** *Cross-listed as BCE 338.* This course involves students in internships that employ writing, analyzing, researching, explaining, problem solving and/or other skills developed in English courses. Students work closely with Career Services and a faculty sponsor, as well as their internship director. 3 Cr.

**ENL 395 Introduction to Canadian Literature (A).** Covers the development of Canadian literature in English from 1867 to the present. Emphasizes 20th-century writing throughout Canada, from the Maritimes to British Columbia, and places it within its cultural heritage, which often parallels that of the US. 3 Cr.

**ENL 402 Poetry: Theory and Practice (A).** Explores issues in contemporary poetic theory, study of selected poets, and close readings of texts. Intended for creative writers and serious readers. 3 Cr.

**ENL 403 The Writer's Craft (A).** Allows students to meet with the directors of the Writers Forum and guest artists and critics to discuss contemporary literature and the creative process. Contact

the department for names of guests to appear in the semester and other details. May be repeated for credit. *3 Cr. Every Semester.*

**ENL 405 Creative Writing for Teachers (A).**

Explores how to stimulate writing and creative response to literature. Examines contemporary literature for models and requires students to develop writing exercises and to produce and discuss individual work. Reviews and analyzes current material on the teaching of creative writing. *3 Cr.*

**ENL 411 Chaucer and His Contemporaries (A).**

Examines a variety of works by Chaucer. Emphasizes *The Canterbury Tales*. *3 Cr.*

**ENL 412 Medieval British Literature (A).**

Studies medieval British literature in its principal forms: lyric, drama, allegory, and romance; its antecedents in Old English literature; its influence on 15th-century writers; and its connections to European and Middle Eastern literatures. *3 Cr.*

**ENL 416 The British Renaissance (A).**

Provides a study of selected poetry, fiction, criticism, and philosophy by British writers, from More to Milton. *3 Cr.*

**ENL 417 The Age of Dryden, Pope, and Johnson (A).**

Covers selected works from British literature written between 1660 and 1800, including samples from Dryden, Congreve, Pope, Swift, Defoe and Johnson. Examines some ways these writers resolve the tensions created by the competing demands of reason, tradition, and the imagination during this period. *3 Cr.*

**ENL 418 Significant Themes in British Literature (A,D).**

Studies the relation of British literature to Empire-building and Imperialism, with special focus on texts relating to the "high imperialism" of the late 19th century. *3 Cr.*

**ENL 419 English Romantic Writers (A).**

Covers major authors of the Romantic period (from Blake through Keats); examines significant figures in Romantic literature (such as Byronic heroes and Wordsworth's wanderers); and assesses Romanticism as a cultural phenomenon. *3 Cr.*

**ENL 420 Victorians and Others (A).**

Examines contributions of the era, such as the writings of Tennyson, Browning, Dickens and others from 1832 to World War I, to the development of British literary thought and artistry. *3 Cr.*

**ENL 421 Seminar in British Writers (A).**

Provides a study of significant authors treated singly or in coherent combinations. Content varies, with appropriate subtitles provided for the individual course. May be repeated for credit with significant change in focus. *3 Cr.*

**ENL 423 British Novel II (A).** Surveys major British novelists from the Victorian period to the present day. Authors covered may include Dickens, Eliot, Forster, Ishiguro, and McEwan. *3 Cr.*

**ENL 424 Modern British Literature (A).**

Studies major British dramatists, poets, and novelists of the 20th century. Usually includes Shaw, Woolf, Lawrence, and Auden. *3 Cr.*

**ENL 425 Contemporary British Literature (A).**

Provides a study of major British writers in the later 20th and 21st centuries. Usually includes Amis, Osborne, Pinter, Golding, Lessing, and Ishiguro. *3 Cr.*

**ENL 426 Irish Writers (A).**

Covers major contributions of Anglo-Irish authors to literature in English, including selected works of Beckett, Joyce, Synge, and Yeats. *3 Cr.*

**ENL 427 Women in the Novel (A,W).**

*Cross-listed as WMS 427.* Provides in-depth examination of select novels, with some touching upon novels from other countries, to consider their thematic forms and functions, their literary significance, and especially what they reveal about the roles of women and attitudes toward patriarchy. *3 Cr.*

**ENL 429 Roots of American Literature (A).**

Provides an intensive study of texts dealing with America between European contact and 1800. May include European fantasy writing, exploration and captivity narratives, Puritanism, texts of the American Revolution, and the origins of the American novel. May include authors such as John Smith, Bradstreet, Rowlandson, Occum, Winthrop, Franklin, Otis Warren, and Brockden Brown. *3 Cr.*

**ENL 430 American Literature: the Romantic Era (A).**

Provides an intensive study of the blossoming of American literature in the decades prior to the Civil War. Studies the growth of individualism and its impact on various groups of people by studying Transcendentalism, slave narratives, and women's novels. Features major authors such as Cooper, Dickinson, Melville, and Stowe. *3 Cr.*

**ENL 431 Transcendental Movement (A).**

Provides an intensive study of the influential Transcendentalist cultural and intellectual movement and its theories of aesthetics, spirituality, politics, and culture. May include readings from Emerson, Thoreau, Fuller, Parker, Very, as well as important peripheral figures who were influenced by the movement such as Noyes, Garrison, Dickinson, and Whitman. *3 Cr.*

**ENL 432 American Realism (A).** Examines American realism which, with its emphasis on the representation of everyday events and lives, chronicles the social fabric of late 19th- and early 20th-century America by tackling issues such as industrialization, race relations, women's rights, immigration, and class struggle. May include James, Chesnutt, Harper, Far, Dreiser, DuBois, and Perkins Gilman. *3 Cr.*

**ENL 433 The Jazz Age to World War II (A).** Study of selected American novelists and poets who deal with the cultural explosion of the period. May include Anderson, Hemingway, Fitzgerald, Faulkner, Steinbeck, Lewis, Eliot, Frost, and others. *3 Cr.*

**ENL 434 American Literature of the Cold War Era (A).** Examines the major literary movements in post-World War II America, paying special attention to the relationship between political, economic, and cultural changes both inside and outside the United States, and American writing. May include writers such as Hersey, Okada, Friedan, Sontag, Mailer, and Ginsberg. *3 Cr.*

**ENL 435 Modern American Poetry (A).** Provides an investigation into the formative period 1910 - 1945 of 20th-century American verse, emphasizing significant figures from Robinson, Lowell, and Frost to Cummings, Stein, and Eliot. *3 Cr.*

**ENL 436 Postmodern American Poetry (A).** Provides an investigation into American verse written after the mid-20th century, emphasizing figures such as Berryman and Lowell, as well as their contemporaries Plath and Sexton, and significant poets from more recent times. *3 Cr.*

**ENL 437 American Gothic (A).** Starting with Poe, Brockden Brown and Hawthorn, traces the evolution of the Gothic to the present day. Includes other writers who've struggled to portray "the power of darkness": Bierce, Gilman, Lovecraft, Faulkner, O'Connor, Oates and Koja. *3 Cr.*

**ENL 438 American Poetry: Bradstreet to Whitman (A).** A survey of American verse from its beginnings to the late 19th century, emphasizing representative poets such as Bradstreet and Whitman. *3 Cr.*

**ENL 439 Asian-American Literature (A,D,I,W).** Explores Asian-American literature and culture both historically and thematically with an emphasis on the development of Asian-American literary voices and identities from the mid-19th century to the present. Includes major works of fiction, poetry, drama, prose, film, and critical and theoretical essays to facilitate discussion. *3 Cr.*

**ENL 440 Literature of the American Family (A,I).** Focuses on the family, family interaction, and family problems in modern American literature. Uses primary and secondary readings in sociology and history will be used to provide a critical perspective on this topic. *3 Cr.*

**ENL 441 American Literature: 19th Century Women's Novel (A,W).** *Cross-listed as WMS 441.* Provides an intensive study of the novel as a form of women's self-representation and cultural criticism. May include novels about family life, abolition and temperance, slave narratives; historical novels; and representations of urban and industrial experience. *3 Cr.*

**ENL 442 Topics in Women's Literature (A,W).** *Cross-listed as WMS 442.* Provides advanced study of women in literature and women's literature, focusing, for example, on some aspect of female lives, such as adolescence; on one or more female authors writing in a shared tradition, genre, or period; or on women writing on a common topic or from perspectives held in common. *3 Cr.*

**ENL 443 Contemporary American Poetry (A).** Examines the unique character of poetry after World War II: aesthetic theory, significant themes, prominent contributors. Improves critical analytical skills via written assignments of varying character. *3 Cr.*

**ENL 445 American Modernism (A).** Focuses upon writers of the first half of the 20th century who defined American modernism by consciously breaking away from artistic conventions of the 19th century through experimentation in language, form, style and a heightened awareness of writing itself. Writers may include Pound, Stein, Hemingway, Neale Hurston, Hughes, and Faulkner. *3 Cr.*

**ENL 446 American Writers and Travel, 1870-1930 (A).** Provides a study of significant American authors treated singly or in coherent combinations. Content varies, with appropriate subtitles provided. May be repeated for credit with significant change in focus. *3 Cr.*

**ENL 447 American War Literature (A).** Focuses on literature about American experiences in several wars: the Civil War, World War I, World War II, and/or Vietnam. Examines the relationship between history, fiction, and experience as well as authorial authority, and explores how the experience of war, at home and on the battlefield, changed the nature of American literature. *3 Cr.*

**ENL 450 Standard English and Its Varieties (A).** Examines the development of Standard English and other varieties from a sociolinguistic, his-

torical perspective. Provides a study of language acquisition, regional and social dialects, and the distinction between grammar and usage. Includes practice in and testing of contemporary usage. 3 Cr. *Every Semester.*

**ENL 451 Linguistics (A).** *Prerequisite: Junior or senior status.* Provides a study of phonology, morphology, syntax, semantics, and sociolinguistics. 3 Cr.

**ENL 455 Sociolinguistics (A).** *Prerequisite: Junior or senior status.* Provides a study of language in social context. Analyzes problems in social dialects and communications, jargons, slang, bilingualism and language of social conflict. 3 Cr.

**ENL 457 Women and Film (A,I,W).** *Cross-listed as WMS 457.* Focuses on films by women. Considers the following questions: Have women filmmakers depicted the world differently from “dominant” cinema? What possibilities exist for forms of “feminine” film discourse that are truly different from dominant film discourse? What has been the history of women filmmakers? How many of these women have indeed tried to speak a different “language”? 3 Cr.

**ENL 458 Great American Film Actors: Selected Topics (A).** Closely studies great actors of American film who have lent their unique talents to film tradition and analyzes the artistic, social, personal, and cultural aspects of these actors and their careers. Focus and actors selected may vary, but may not be repeated for credit. 3 Cr.

**ENL 460 Great American Film Directors (A).** Using various critical perspectives, provides an in-depth study of major films of selected American film directors—Hitchcock, Capra, Welles. Specific focus shown by subtitle. May be repeated for credit with significant change in focus. 3 Cr.

**ENL 462 Selected Topics in Film (A).** Explores significant themes and/or eras in film, for example: films of the 1950s, romantic couples, musicals, detective and western films, and film noir in cultural context. Specific topics shown by subtitle. May be repeated for credit with significant change in topic. 3 Cr.

**ENL 463 Great International Film Directors (A).** Using a variety of critical perspectives, provides for an in-depth study of major films of selected international film directors. Normally focuses on two or three directors such as Fellini, Ingmar Bergman, Truffaut, Renoir, Eisenstein, Sagawa, and others. Specific focus shown by subtitle; may be repeated for credit with significant change in focus. 3 Cr.

**ENL 464 The Film Star (A).** Focuses on the contribution of the actor to the film, differences between acting for silent and for sound films, and differences in acting on stage and in film. Screens films and provides for discussion. 3 Cr.

**ENL 465 American Film Comedy (A).** Surveys the development of American comic style in film from the silent era to today. Requires screenings of films from Sennett’s “Keystone” slapstick to Allen’s cerebral comedy. Explores the function(s) of comedy, the theory of laughter, comic visions of America, and personal style vs. genre in comedy. 3 Cr.

**ENL 466 Studies in Literary Modes (A).** Provides a study of an important literary mode through reading, analysis, and creation of selected works within selected mode. 3 Cr.

**ENL 467 Tragedy as A Genre (A).** Investigates tragedy as both a literary genre and a way of interpreting the world. Considers both personal and cosmic aspects of tragedy in literary works from differing eras and cultures. 3 Cr.

**ENL 469 American Environmental Literature (A).** This interdisciplinary course explores American environmental writing from both scientific and literary perspectives and investigates the relationship between natural science, natural history and environmental literature. Examines how subjective and objective investigations of the natural world enrich one another and lead to a more complete sense of place. Course includes lectures, discussions, group presentations and field exercises emphasizing description, measurement and aesthetic response. 3 Cr.

**ENL 470 Women’s Popular Culture (A,D,I,W).** *Cross-listed as WMS 470.* Explores women’s popular culture to engender a cultural analysis. Considers such questions as how women’s popular culture responds to women’s psychosocial needs and how it functions within the dominant culture. Examines samples of the fiction and films that represent 20th-century American women’s popular culture. 3 Cr.

**ENL 472 Critical Approaches to Literature (A).** *Prerequisite: ENL 303 and nine credits of 300/400 level literature courses.* Analyzes literary texts in terms of form and content. Requires students to write papers of analysis from at least three literary perspectives, classify and describe perspectives of various critics, and define critical terms. 3 Cr.

**ENL 474 Caribbean Literature (A,W).** Surveys 20th century literature from the Caribbean, including drama, poetry and narrative. Includes Anglophone writers as well as non-English works in

translation. Examines literature in the context of historical and cultural issues such as the nature of Caribbean identity, the role of language, and the reconstruction of history. *3 Cr.*

**ENL 475 Postcolonial Literature (A,D,I).** Surveys some of the most lively literature from areas of the world that were formerly European colonies: the Caribbean, Africa, and South Asia in particular. Introduces what is sometimes called the “post-Colonial condition,” exploring what it is and how writers have responded to it. *3 Cr.*

**ENL 476 Magical Realism (A,D).** Introduces the important 20th-century literary movement known as magical realism. Examines its roots in Latin America as well as its adoption in other locations, with particular attention to the historical context in each case. *3 Cr.*

**ENL 477 Issues in Science Fiction (A,I).** Covers significant developments in the history of speculative and science fiction. Explores major themes such as sex, science and prejudice. Includes representative authors such as Wells, Asimov, Heinlein and Le Guin. *3 Cr.*

**ENL 478 Seminar in World Literature (A,D,I).** Provides a study of significant authors or topics in world literature (i.e., other than British/American). Content varies, with appropriate subtitles for each individual course. May be repeated for credit with significant change in topic and content. *3 Cr.*

**ENL 481 English Grammar (A).** Provides a study of a variety of options writers have when they generate sentences. Also provides appropriate terminology for grammatical form and function. Introduces contemporary grammatical theories and analyzes passages of prose and poetry to illustrate the relationship between rhetoric and syntactic choice. *3 Cr.*

**ENL 482 Children’s Literature (A).** Explores the conventions of children’s literature; development of genres of children’s literature; and biographical, bibliographical and critical resources in the field. *3 Cr. Every Semester.*

**ENL 484 Young Adult Literature (A).** Examines the needs of the young adult reader. Surveys genre literature as well as literature in content areas. *3 Cr. Every Semester.*

**ENL 491 Advanced Fiction Writers Workshop (A).** *Prerequisite: ENL 301.* Focuses on the writing of fiction and the applied criticism of fiction. Requires students to bring manuscript to a polished state of form, style and content. May be repeated for credit. *3 Cr.*

**ENL 492 Advanced Poetry Writers Seminar (A).** *Prerequisite: ENL 302.* Focuses on original poetry writing and applied criticism. Requires intensive critical discussion, revision, and some consideration of work by selected contemporaries. May be repeated for credit. *3 Cr.*

**ENL 493 The Creative Essay (A).** Primarily a writing course in which students “workshop” essays. Explores the historical evolution of the essay and its new forms. Requires students to read a variety of essays and create their own. May be repeated for credit. *3 Cr.*

**ENL 496 Sex and Censorship in Literature and the Media (A,I,W).** *Cross-listed as WMS 496.* Considers the expression of sexual themes — and censorship of them — in contemporary literature, film and media. Includes topics such as the erotic in art, definitions of pornography and obscenity, evolution of censorship standards and practices, the Hollywood Code, the US Commission on Obscenity and Pornography (1970) and its critics, and recent feminist perspectives. *3 Cr.*

**ENL 499 Independent Study in English (A).** To be defined in consultation with the instructor-sponsor in accordance with the procedures of the Office of Academic Advisement prior to registration. *1-3 Cr.*