Agenda for the February 11, 2016 CAA Meeting

Items Approved:	16-11, Admission Requirements for the Health Studies Major (all options) (Revised Admission Requirements) 16-18, Organizational & Professional Development Major and Admission Requirements (Revised Major and Admission Requirements) 16-19, Organizational & Professional Development Major Core Requirements (Revised Core Requirements)
Items Pending:	15- 146, CTE 3000G, Consumers in the Marketplace (Revised Course) Executive Action: October 19, 2015 memorandum from Dean Izadi, LCBAS, requesting executive action to decouple FCS 3300 and CTE 3000, and delete CTE 3000 from the catalog. 16-12, HIS 4375, History Capstone Seminar (Revised Course) 16-13, History (B.A.) (Revised Major) 16-14, History with International Studies (B.A.) (Revised Option) 16-15, History Minor (Revised Minor) 16-16, SOC 2830, Family and Society (Revised Course) 16-17, PLS 3543, Civil Liberties in America (Revised Course)
Ongoing:	Multi-year plan regarding the University Learning Goals (For details concerning the plan, see agenda Item 13-83, CAA Learning Goals Committee's Recommendations & Resolution, which was approved by CAA at its 4/25/13 meeting)

Council on Academic Affairs
Minutes
February 11, 2016

The February 11, 2016 meeting of the Council on Academic Affairs was held at 2:02 p.m. in the Room 4440 at Booth Library.

Members Present: Mr. Aydt, Dr. Bruehler, Ms. Duffin, Dr. Gronnvoll, Dr. Martinez, Dr. Reid, Dr. Ruholl, Ms. Smith and Dr. Wilkinson.

Members Absent: Dr. Anthony, Mr. Simpson and Dr. Throneburg.

Staff Present: Provost Lord and Ms. Fopay.

Guests Present: Ms. Analicia Haynes, *Daily Eastern News*; Dr. Renee Kidd-Marshall, Nursing; Dr. Misty Rhoads, Health Studies; Dr. Luke Steinke; and Ms. Bonnie Wilson, College of Education & Professional Studies.

I. Approval of the January 28, 2016 CAA Meeting Minutes.
Ms. Smith moved and Ms. Duffin seconded the motion to approve the minutes. The minutes of January 28, 2016, were approved as written.

II. Communications:

a. College Curriculum Committee Minutes:

1. Minutes of the January 25, 2016 College of Education & Professional Studies Curriculum Committee meeting.
2. Minutes of the January 27, 2016 College of Arts & Humanities Curriculum Committee meeting.
3. Minutes of the February 5, 2016 College of Sciences Curriculum Committee meeting.
4. Minutes of the February 5, 2016 Lumpkin College of Business & Applied Sciences Curriculum Committee meeting.

b. Executive Actions:

1. January 29, 2016 executive action from Interim Associate Dean Mitchell, CAH, requesting executive action to change the terms of offering for several Theatre Arts' courses.
2. January 29, 2016 executive action from Interim Associate Dean Mitchell, CAH, requesting executive action to revise the prerequisites for MUS 1070.
3. January 29, 2016 executive action from Interim Associate Dean Mitchell, CAH, requesting executive action to revise the prerequisites for MUS 2070.
4. February 8, 2016 executive action from Interim Doug Klarup, COS, requesting executive action to change the course title for BIO 3850.

c. Waiver Reports:

1. Academic Waiver Reports for January 2016 from the Lumpkin College of Business & Applied Sciences, College of Arts & Humanities, College of Education & Professional Studies, and College of Sciences.

d. Other:

1. January 28, 2016 invitation from Dr. Karla Sanders, Co-Chair of the Committee on Retention Efforts (CORE), to an enrollment forum, *Telling Our Eastern Story: The Path to Success from Recruitment to Retention and Graduation*, to be held on Thursday, March 3, 2016.
   The forum will conflict with the CAA meeting time. As a result, Dr. Gronnvoll asked if a council member would be willing to attend the forum serving as a representative for CAA. Dr. Reid indicated she was willing given she had already planned to attend a portion of the forum to give a presentation. Dr. Gronnvoll will inform Dr. Sanders about it.

2. February 5, 2016 memorandum from Interim Dean Klarup, College of Sciences, requesting to add a statement to the catalog regarding provisional admission to the Nursing major.
   Ms. Fopay and Dr. Kidd-Marshall provided an explanation for the request.

   The following update will be made to the undergraduate catalog, effective immediately.

Nursing (B.S.)

Total Semester Hours required for the Degree: 120 semester hours

The RN to BS Nursing Program is committed to offering superior, accessible undergraduate nursing education for registered nurses pursuing a bachelor's of science degree with a major in nursing. The courses are taught via distance education to accommodate the schedules of working professionals.

Admission to the Nursing Major
Enrollment in RN to BS nursing courses is limited to students who have been admitted to the nursing major. A complete Application for the RN to BS in Nursing Program Admission must be on file in the nursing office to be considered for admission to the major. Admission decisions are made by a nursing committee and are competitive.

Provisional Admission to the Nursing Major
Provisional admission to the major is available to students from community colleges with whom EIU has a Dual Track Agreement in place. Such students may apply for provisional admission. While provisionally admitted to the major they may enroll in EIU coursework as provided in the dual track agreement. Full unconditional admission will be granted upon meeting the RN to BS in Nursing program requirements.

III. Committee Reports:
None.

IV. Items Added to the Agenda:

1. 16-12, HIS 4375, History Capstone Seminar (Revised Course)
2. 16-13, History (B.A.) (Revised Major)
3. 16-14, History with International Studies (B.A.) (Revised Option)
4. 16-15, History Minor (Revised Minor)
5. 16-16, SOC 2830, Family and Society (Revised Course)
6. 16-17, PLS 3543, Civil Liberties in America (Revised Course)
7. 16-18, Organizational & Professional Development Major and Admission Requirements (Revised Major and Admission Requirements)
8. 16-19, Organizational & Professional Development Major Core Requirements (Revised Core Requirements)

Dr. Martinez moved and Dr. Ruholl seconded the motion to add these items to the agenda.

V. Items Acted Upon:

1. 16-11, Admission Requirements for the Health Studies Major (all options) (Revised Admission Requirements).
Dr. Rhoads presented the proposal. There were no questions.

Dr. Reid moved and Ms. Smith seconded the motion to approve the proposal. The motion passed unanimously.

The proposal was approved, effective Fall 2016.

Criteria for Admission to the Department of Health Studies Major:

- Completion of 15 semester hours of work taken at EIU or at another institution of higher education.
- Minimum of 2.0 cumulative grade point average.

2. Ms. Duffin moved and Ms. Smith seconded the motion to suspend the CAA bylaws to act upon agenda items 16-18 and 16-19 at the meeting today.

3. 16-18, Organizational & Professional Development Major and Admission Requirements (Revised Major and Admission Requirements).
Dr. Steinke presented the proposal. There were no questions.

Ms. Smith moved and Dr. Reid seconded the motion to approve the proposal. The motion passed unanimously.

The proposal **(See Attachment A)** was approved, effective Fall 2016.

4. 16-19, Organizational & Professional Development Major Core Requirements (Revised Core Requirements).
Dr. Steinke presented the proposal and answered questions of the council.

Ms. Smith moved and Dr. Ruholl seconded the motion to approve the proposal. The motion passed unanimously.

The proposal **(See Attachment B)** was approved, effective Fall 2016.

VI. Other:

1. Discussion of the Faculty Laureate nomination submission process and establishing a secured site for housing the materials.
The CATS Office created a secured site for the Faculty Laureate Committee to review the Faculty Laureate nomination materials. Dr. Reid provided an explanation and Ms. Fopay displayed the website. Ms. Duffin, last year's Chair of the Faculty Laureate Committee, said she would share with Dr. Reid the communications she sent out to the campus community last year announcing the award. The deadline to invite nominations for the designation of faculty laureate is February 19, 2016.

VII. Pending:

1. 15-146, CTE 3000G, Consumers in the Marketplace (Revised Course)
2. Executive Action: October 19, 2015 memorandum from Dean Izadi, LCBAS, requesting executive action to decouple FCS 3300 and CTE 3000, and delete CTE 3000 from the catalog.

VIII. Ongoing:

1. Multi-year plan regarding the University Learning Goals (For details concerning the plan, see agenda Item 13-83, CAA Learning Goals Committee's Recommendations & Resolution, which was approved by CAA at its 4/25/13 meeting.)

IX. Meeting Adjournment:

1. Ms. Smith moved and Ms. Duffin seconded the motion to adjourn the meeting. The motion was approved by acclamation.

   The meeting adjourned 2:25 p.m.

The February 18, 2016 CAA meeting was canceled. The next meeting will be held at 2:00 p.m. on Thursday, February 25, 2016.

–Minutes prepared by Ms. Janet Fopay, Recording Secretary

The current agenda and all CAA council minutes are available on the Web at http://www.eiu.edu/~eiucaa/.
In addition, an electronic course library is available at http://www.eiu.edu/~eiucaa/elibrary/.

********** ANNOUNCEMENT OF NEXT MEETING **********
February 25, 2016
Room 4440, Booth Library @ 2:00 p.m.

Agenda:

1. 16-17, PLS 3543, Civil Liberties in America (Revised Course)
2. 16-12, HIS 4375, History Capstone Seminar (Revised Course)
3. 16-13, History (B.A.) (Revised Major)
4. 16-14, History with International Studies (B.A.) (Revised Option)
5. 16-15, History Minor (Revised Minor)
6. 16-16, SOC 2830, Family and Society (Revised Course)

Approved Executive Actions:

BAS
Effective Fall 2016

1. Revise the course prerequisites for MAR 3780.

   MAR 3780 - Promotion Management. (3-0-3) On Demand. Development of comprehensive, non-personal, promotional campaigns to effectively communicate product offerings and organizational messages to target audiences. Prerequisites & Notes: BUS 3470 or BUS 3100 **or ENT 3500,** and admission to the School of Business, or to a minor offered by the School of Business, or to the Advertising Minor, or the Financial Literacy Concentration, or permission of the Associate Chair, School of Business. Credits: 3

2. Amend the course prerequisites for MAR 3875.

   MAR 3875 - Retail Management. (3-0-3) F, S. The objective of the course is to provide a framework for analyzing internal and external environment factors which affect the firm's retailing activities. Emphasis is placed on the firm's decisions and policies relating to demand analysis, spatial decisions, merchandise policies, pricing strategy, and promotion activities. Consideration is also given to retail control methods. Prerequisites & Notes: BUS 3470 or BUS 3100 **or ENT 3500,** and Admission to the School of Business, or the Financial Literacy Concentration, or to a minor offered by the School of Business, or permission of the Associate Chair, School of Business. Credits: 3

3. Change the course prerequisites for MAR 4470.

   MAR 4470 - Professional Sales. (3-0-3) F, S. Students develop professional sales presentations through the application of both oral and written communication skills in the determination and satisfaction of buyers' needs. Prerequisites & Notes: BUS 3470 or BUS 3100 **or ENT 3500,** and admission to the School of Business or to a minor offered by the School of Business or permission of the Associate Chair. Credits: 3

COS
Effective Fall 2016

1. Change the course prefixes of all Geology and Geology and Earth Science courses and update several course descriptions.

Current	Revisions
ESC 1120G - The Natural Environment. (3-2-4) F, S. An introduction to basic components of Earth's natural environment, focusing on physical processes related to air, water, land, and life. Topics covered include energy interactions, weather and climate, water resources, landforms, disasters, ecosystems, and human-environment relations. Cross listed with GEG 1120G. Credits: 4	~~ESC~~ GEO **1120G - The Natural Environment. (3-2-4) F, S.** An introduction to basic components of Earth's natural environment, focusing on physical processes related to air, water, land, and life. Topics covered include energy interactions, weather and climate, water resources, landforms, disasters, ecosystems, and human-environment relations. ~~Cross listed with GEG 1120G.~~ Credits: 4
ESC 1300G - Introduction to Earth Sciences. (3-2-4) An introduction to earth processes, resources, rocks, minerals, maps, time, and plate tectonics. The interaction of natural processes in the physical environment and human activity will be discussed. Cross-listed with GEL 1300G. Lab work and field trip are required. P1 907L Prerequisites & Notes: Grade and credit hours for this course will be removed if student already has credit for or is registered in ESC/GEL 1320G. Credits: 4	~~ESC~~ GEO **1300G - Introduction to Earth Sciences. (3-2-4)** An introduction to earth processes, resources, rocks, minerals, maps, time, and plate tectonics. The interaction of natural processes in the physical environment and human activity will be discussed. ~~Cross-listed with GEL 1300G.~~ Lab work and field trip are required. P1 907L Prerequisites & Notes: Grade and credit hours for this course will be removed if student already has credit for or is registered in ~~ESC/GEL~~ GEO 1320G. Credits: 4
ESC 1320G - Geology of National Parks. (3-2-4) F, S. Explore the interesting features and sweeping landscapes that make the National Park system the pride of America. From a scientific perspective, students will become familiar with the geologic phenomena existing in the National Parks and gain a better appreciation of their creation and importance. Learning about these natural wonders will be facilitated by lecture, videos, virtual field trips, lab work and a field trip. Cross listed with GEL 1320G. Prerequisites & Notes: Grade and credit hours for this course will be removed if student already has credit for or is registered in ESC/GEL 1300G. Credits: 4	~~ESC~~ GEO **1320G - Geology of National Parks. (3-2-4) F, S.** Explore the interesting features and sweeping landscapes that make the National Park system the pride of America. From a scientific perspective, students will become familiar with the geologic phenomena existing in the National Parks and gain a better appreciation of their creation and importance. Learning about these natural wonders will be facilitated by lecture, videos, virtual field trips, lab work and a field trip. ~~Cross listed with GEL 1320G.~~ Prerequisites & Notes: Grade and credit hours for this course will be removed if student already has credit for or is registered in ~~ESC/GEL~~ GEO 1300G. Credits: 4
ESC 1390G - Introduction to Earth Sciences, Honors. (3-2-4) On Demand. Study of the planet Earth as a system consisting of the lithosphere, hydrosphere, and atmosphere. Emphasis on how processes occurring within the solid, liquid, and gaseous portions of the Earth system act to influence its surface. Field trips and short papers will stress scientific communication skills. Cross-listed with GEL 1390G. WI Prerequisites & Notes: Admission to the University Honors College. Credits: 4	~~ESC~~ GEO **1390G - Introduction to Earth Sciences, Honors. (3-2-4) On Demand.** Study of the planet Earth as a system consisting of the lithosphere, hydrosphere, and atmosphere. Emphasis on how processes occurring within the solid, liquid, and gaseous portions of the Earth system act to influence its surface. Field trips and short papers will stress scientific communication skills. ~~Cross-listed with GEL 1390G.~~ WI Prerequisites & Notes: Admission to the University Honors College. Credits: 4
ESC 1400G - Weather and Climate. (3-2-4) F, S. This course provides a basic understanding of global weather and climate processes. It emphasizes prominent theoretical and applied aspects of the atmosphere that affect our everyday life. Topics covered also include contemporary issues such as weather analysis, severe weather, weather forecasting, and climate change. P1 905L Credits: 4	~~ESC~~ GEO **1400G - Weather and Climate. (3-2-4) F, S.** This course provides a basic understanding of global weather and climate processes. It emphasizes prominent theoretical and applied aspects of the atmosphere that affect our everyday life. Topics covered also include contemporary issues such as weather analysis, severe weather, weather forecasting, and climate change. P1 905L Credits: 4
ESC 1490G - Weather and Climate, Honors. (3-2-4) On Demand. An introduction to the study of the atmosphere and its processes. Topics include: atmospheric structure and composition, weather elements, climatic change, and interactions between man and the atmosphere. Research papers and field trips required. P1 905L WI Prerequisites & Notes: Admission to the University Honors College. Credits: 4	~~ESC~~ GEO **1490G - Weather and Climate, Honors. (3-2-4) On Demand.** An introduction to the study of the atmosphere and its processes. Topics include: atmospheric structure and composition, weather elements, climatic change, and interactions between man and the atmosphere. Research papers and field trips required. P1 905L WI Prerequisites & Notes: Admission to the University Honors College. Credits: 4
ESC 2420 - Regional Geomorphology. (2-2-3) On Demand. Landforms of the United States; work with maps of landforms; consideration to composition, distribution and the processes by which the land is shaped. Field trip. P1 905L Credits: 3	~~ESC~~ GEO **2420 - Regional Geomorphology. (2-2-3) On Demand.** Landforms of the United States; work with maps of landforms; consideration to composition, distribution and the processes by which the land is shaped. Field trip. P1 905L Credits: 3
ESC 2450G - Oceanography. (3-0-3) Integrated, descriptive study of the World Ocean, including the physics, chemistry, biology, and geology of the marine environment and the interrelationship between the World Ocean and human activities. Cross-listed with GEL 2450G. Credits: 3	~~ESC~~ GEO **2450G - Oceanography. (3-0-3)** Integrated, descriptive study of the World Ocean, including the physics, chemistry, biology, and geology of the marine environment and the interrelationship between the World Ocean and human activities. ~~Cross-listed with GEL 2450G.~~ Credits: 3
ESC 3010G - Environmental Physical Sciences. (3-0-3) A study of physical environmental Earth processes and their interrelationship with human activities. This will include both the impact of the Earth on human communities and the impact of human communities on the Earth. Cross-Listed with GEL 3010G. Credits: 3	~~ESC~~ GEO **3010G - Environmental Physical Sciences. (3-0-3)** A study of physical environmental Earth processes and their interrelationship with human activities. This will include both the impact of the Earth on human communities and the impact of human communities on the Earth. ~~Cross-Listed with GEL 3010G.~~ Credits: 3

ESC 3020 - Natural Disasters. (3-0-3) F. On Demand. This course examines the physical properties of different types of natural hazards—including earthquakes, volcanic eruptions, slope movements, flooding, hurricanes, and tornadoes—and human responses to them. The natural causes of these events, human risk and vulnerability, challenges of disaster preparation and response, and the role of scientists in these issues are explored. Cross listed with GEG 3020. WI Credits: 3	~~ESC~~ GEO **3020 - Natural Disasters. (3-0-3) F. On Demand.** This course examines the physical properties of different types of natural hazards—including earthquakes, volcanic eruptions, slope movements, flooding, hurricanes, and tornadoes—and human responses to them. The natural causes of these events, human risk and vulnerability, challenges of disaster preparation and response, and the role of scientists in these issues are explored. ~~Cross-listed with GEG 3020.~~ WI Credits: 3
ESC 3200 - Human Impacts on the Environment. (3-0-3) Emphasis on human impacts on the environment and the necessity of conservation. Discussion of sustainability and resources as potential factors limiting society's development. Focus on humans as agents of environmental change. Cross-listed with GEG 3200. Credits: 3	~~ESC~~ GEO **3200 - Human Impacts on the Environment. (3-0-3)** Emphasis on human impacts on the environment and the necessity of conservation. Discussion of sustainability and resources as potential factors limiting society's development. Focus on humans as agents of environmental change. ~~Cross-listed with GEG 3200.~~ Credits: 3
ESC 3300 - Soils. (2-2-3) On Demand. Overview of soil sciences such as taxonomy, soil formation, properties of soils, common soil problems and their solutions, evaluation of soils, and pollution from uses of soils. Prerequisites & Notes: GEL/ESC 1300G or GEL/ESC 1320G or GEL/ESC 1390G or GEL/ESC3010G; and CHM 1310G and 1315G. Credits: 3	~~ESC~~ GEO **3300 - Soils. (2-2-3) On Demand.** Overview of soil sciences such as taxonomy, soil formation, properties of soils, common soil problems and their solutions, evaluation of soils, and pollution from uses of soils. Prerequisites & Notes: GEO 1120G or ~~GEL/ESC~~ GEO 1300G or ~~GEL/ESC~~ GEO 1320G or ~~GEL/ESC~~ GEO 1390G or ~~GEL/ESC~~ GEO 3010G; and CHM 1310G and 1315G. Credits: 3
ESC 3400 - Broadcast Meteorology Practicum. (3-0-3) F. Study of forecasting techniques, synoptic meteorology, and using scientific methods in determining a meteorological forecast for the general public. Students will engage in preparing daily forecasts from meteorological models and then broadcast their results online. This course will enhance the students' future in broadcasting by merging science and communication. Students will have an opportunity to work with WEIU-TV. Cross-listed with GEG 3400. Prerequisites & Notes: ESC 1400G. Credits: 3	~~ESC~~ GEO **3400 - Broadcast Meteorology Practicum. (3-0-3) F.** Study of forecasting techniques, synoptic meteorology, and using scientific methods in determining a meteorological forecast for the general public. Students will engage in preparing daily forecasts from meteorological models and then broadcast their results online. This course will enhance the students' future in broadcasting by merging science and communication. Students will have an opportunity to work with WEIU-TV. ~~Cross-listed with GEG 3400.~~ Prerequisites & Notes: ~~ESC~~ GEO 1400G. Credits: 3
ESC 3410 - Climatology. (2-2-3) F. Study of the earth's energy and water balances, climate classification systems, synoptic climatology, paleoclimatology, agricultural and urban climatology, theory of jet streams. Prerequisites & Notes: ESC 1400G (or equivalent). Credits: 3	~~ESC~~ GEO **3410 - Climatology. (2-2-3) F.** Study of the earth's energy and water balances, climate classification systems, synoptic climatology, paleoclimatology, agricultural and urban climatology, theory of jet streams. Prerequisites & Notes: ~~ESC~~ GEO 1400G (or equivalent). Credits: 3
ESC 3415 - The Restless Atmosphere. (3-0-3) On Demand. This course is designed to provide students with an understanding of the essential processes responsible for determining patterns in our atmospheric system. It will emphasize principal components of the atmosphere from a human perspective. Topics covered will include discussions of climate variability, severe weather, anthropogenic climate change, and atmospheric forecasting. It also stresses the dynamic nature of the atmosphere as it affects humans and their activities. Cross-listed with GEG 3415. Credits: 3	~~ESC~~ GEO **3415 - The Restless Atmosphere. (3-0-3) On Demand.** This course is designed to provide students with an understanding of the essential processes responsible for determining patterns in our atmospheric system. It will emphasize principal components of the atmosphere from a human perspective. Topics covered will include discussions of climate variability, severe weather, anthropogenic climate change, and atmospheric forecasting. It also stresses the dynamic nature of the atmosphere as it affects humans and their activities. ~~Cross-listed with GEG 3415.~~ Credits: 3
ESC 3530 - Medieval Archaeology and Cultural Heritage in Europe. (4-0-4) S. An introduction to archaeology as a crossroads discipline, integrating a humanistic inquiry into history with the scientific methodologies which help evaluate the vestiges of past material culture. It is taught only abroad, and emphasizes the cultural heritage of the host country. May not be repeated. Cross-listed with HIS 3530. Prerequisites & Notes: Corequisite: STA 3970. Consent of the instructor. Credits: 4	~~ESC~~ GEO **3530 - Medieval Archaeology and Cultural Heritage in Europe. (4-0-4) S.** An introduction to archaeology as a crossroads discipline, integrating a humanistic inquiry into history with the scientific methodologies which help evaluate the vestiges of past material culture. It is taught only abroad, and emphasizes the cultural heritage of the host country. May not be repeated. Cross-listed with HIS 3530. Prerequisites & Notes: Corequisite: STA 3970. Consent of the instructor. Credits: 4
ESC 3550 - Surface Water Processes and Resources. (2-2-3) On Demand. Principles of the water cycle, surface and subsurface routing, drainage basins, stream channel form and processes, effects of climate. Illustrates human responses to and modification of hydrologic systems. Field trip required. Writing intensive. WI Prerequisites & Notes: ESC/GEL 1300G. Credits: 3	~~ESC~~ GEO **3550 - Surface Water Processes and Resources. (2-2-3) On Demand.** Principles of the water cycle, surface and subsurface routing, drainage basins, stream channel form and processes, effects of climate. Illustrates human responses to and modification of hydrologic systems. Field trip required. Writing intensive. WI Prerequisites & Notes: ~~ESC/GEL~~ GEO 1120G or GEO 1300G or GEO 1320G or GEO 1390G. Credits: 3
ESC 3830 - GIS: Building Geodatabases. (2-2-3) S. This course covers the fundamental concepts of building geographic databases and focuses on the storage, management, and quality control of GIS data. Students will learn how to create Esri Geodatabases, how to migrate existing data to a geodatabase, and how to edit data stored in a geodatabase. GEG 5830 is an equivalent course. Cross-listed with GEG 3830. Prerequisites & Notes: GEG 3810 or permission from the instructor. Credits: 3	~~ESC~~ GEO **3830 - GIS: Building Geodatabases. (2-2-3) S.** This course covers the fundamental concepts of building geographic databases and focuses on the storage, management, and quality control of GIS data. Students will learn how to create Esri Geodatabases, how to migrate existing data to a geodatabase, and how to edit data stored in a geodatabase. ~~GEG~~ GEO 5830 is an equivalent course. ~~Cross-listed with GEG 3830.~~ Prerequisites & Notes: ~~GEG~~ GEO 3810 or permission from the instructor. Credits: 3
ESC 3850 - GPS: Mapping the Modern Way. (2-2-3) S. Introduction to the Global Positioning System, with an emphasis on GPS theory, GPS field applications, GPS data manipulation, and GPS data presentation using computer mapping techniques. Cross-listed with GEG 3850. Credits: 3	~~ESC~~ GEO **3850 - GPS: Mapping the Modern Way. (2-2-3) S. I**ntroduction to the Global Positioning System, with an emphasis on GPS theory, GPS field applications, GPS data manipulation, and GPS data presentation using computer mapping techniques. ~~Cross-listed with GEG 3850.~~ Credits: 3

ESC 39601 - Special Topics I. (Arr.-Arr.-1-4) On Demand. Readings, discussion, reports, on-campus and off-campus fieldwork on specific areas of topics in earth science. May be repeated once. No more than six hours of Special Topics credit. Prerequisites & Notes: Minimum of two courses in earth science (ESC) or consent of the instructor. Credits: 1 to 4	~~ESC~~ **GEO 39601 - Special Topics in Earth Science I. (Arr.-Arr.-1-4) On Demand.** Readings, discussion, reports, on-campus and off-campus fieldwork on specific areas of topics in earth science. May be repeated once. No more than six hours of Special Topics credit. Prerequisites & Notes: Minimum of two courses in earth science (~~ESC~~) or consent of the instructor. Credits: 1 to 4
ESC 39602 - Special Topics II. (Arr.-Arr.-1-4) On Demand. Readings, discussion, reports, on-campus and off-campus fieldwork on specific areas of topics in earth science. May be repeated once. No more than six hours of Special Topics credit. Prerequisites & Notes: Minimum of two courses in earth science (ESC) or consent of the instructor. Credits: 1 to 4	~~ESC~~ **GEO 39602 - Special Topics in Earth Science II. (Arr.-Arr.-1-4) On Demand.** Readings, discussion, reports, on-campus and off-campus fieldwork on specific areas of topics in earth science. May be repeated once. No more than six hours of Special Topics credit. Prerequisites & Notes: Minimum of two courses in earth science (~~ESC~~) or consent of the instructor. Credits: 1 to 4
ESC 39603 - Special Topics III. (Arr.-Arr.-1-4) On Demand. Readings, discussion, reports, on-campus and off-campus fieldwork on specific areas of topics in earth science. May be repeated once. No more than six hours of Special Topics credit. Prerequisites & Notes: Minimum of two courses in earth science (ESC) or consent of the instructor. Credits: 1 to 4	~~ESC~~ **GEO 39603 - Special Topics in Earth Science III. (Arr.-Arr.-1-4) On Demand.** Readings, discussion, reports, on-campus and off-campus fieldwork on specific areas of topics in earth science. May be repeated once. No more than six hours of Special Topics credit. Prerequisites & Notes: Minimum of two courses in earth science (~~ESC~~) or consent of the instructor. Credits: 1 to 4
ESC 3970 - Study Abroad. (Arr.-Arr.-1-15) See STA 3970. Credits: 1 to 15	~~ESC~~ **GEO 39701 - Study Abroad in Earth Science. (Arr.-Arr.-1-15)** See STA 3970. Credits: 1 to 15
ESC 3990 - Medieval Archaeology, Honors. (Arr-Arr-1-4). An introduction to archaeology as a crossroads discipline, integrating a humanistic inquiry into history with the scientific methodologies which help evaluate the vestiges of past material culture. It will be taught only within the Semester Abroad program and emphasize the cultural heritage in the countries concerns. May be repeated. Cross-listed with HIS 3990. WI Prerequisites & Notes: Students enrolled for credit must be admitted to the Honors College and must enroll for four semester hours. Student auditors must have permission of the Dean of the Honors College and may enroll for one to four semester hours. Credits: 1 to 4	~~ESC~~ **GEO 3990 - Medieval Archaeology, Honors. (Arr-Arr-1-4).** An introduction to archaeology as a crossroads discipline, integrating a humanistic inquiry into history with the scientific methodologies which help evaluate the vestiges of past material culture. It will be taught only within the Semester Abroad program and emphasize the cultural heritage in the countries concerns. May be repeated. Cross-listed with HIS 3990. WI Prerequisites & Notes: Students enrolled for credit must be admitted to the Honors College and must enroll for four semester hours. Student auditors must have permission of the Dean of the Honors College and may enroll for one to four semester hours. Credits: 1 to 4
ESC 42751 - Internship in Earth Science I. (Arr.-Arr.-1-6) On Demand. (Credit/No Credit) An individually planned work experience in a business or agency appropriate to the student's area of specialization. Note: A maximum of three semester hours may be counted as elective credit in the Earth Science minor. Prerequisites & Notes: Completion of at least 9 hours of course work toward Earth Science minors, permission of the Geology/Geography Department Chair, the Internship Coordinator, and acceptance of the student by a business or agency. May be repeated once. No more than 12 hours of Internship credit. Credits: 1 to 6	~~ESC~~ **GEO 42751 - Internship in Earth Science I. (Arr.-Arr.-1-6) On Demand. (Credit/No Credit)** An individually planned work experience in a business or agency appropriate to the student's area of specialization. Note: A maximum of three semester hours may be counted as elective credit in the Earth Science minor. Prerequisites & Notes: Completion of at least 9 hours of course work toward Earth Science minors, permission of the Geology/Geography Department Chair, the Internship Coordinator, and acceptance of the student by a business or agency. May be repeated once. No more than 12 hours of Internship credit. Credits: 1 to 6
ESC 42752 - Internship in Earth Science II. (Arr.-Arr.-1-6) On Demand. (Credit/No Credit) An individually planned work experience in a business or agency appropriate to the student's area of specialization. Note: A maximum of three semester hours may be counted as elective credit in the Earth Science minor. Prerequisites & Notes: Completion of at least 9 hours of course work toward Earth Science minors, permission of the Geology/Geography Department Chair, the Internship Coordinator, and acceptance of the student by a business or agency. May be repeated once. No more than 12 hours of Internship credit. Credits: 1 to 6	~~ESC~~ **GEO 42752 - Internship in Earth Science II. (Arr.-Arr.-1-6) On Demand. (Credit/No Credit)** An individually planned work experience in a business or agency appropriate to the student's area of specialization. Note: A maximum of three semester hours may be counted as elective credit in the Earth Science minor. Prerequisites & Notes: Completion of at least 9 hours of course work toward Earth Science minors, permission of the Geology/Geography Department Chair, the Internship Coordinator, and acceptance of the student by a business or agency. May be repeated once. No more than 12 hours of Internship credit. Credits: 1 to 6
ESC 42753 - Internship in Earth Science III. (Arr.-Arr.-1-6) On Demand. (Credit/No Credit) An individually planned work experience in a business or agency appropriate to the student's area of specialization. Note: A maximum of three semester hours may be counted as elective credit in the Earth Science minor. Prerequisites & Notes: Completion of at least 9 hours of course work toward Earth Science minors, permission of the Geology/Geography Department Chair, the Internship Coordinator, and acceptance of the student by a business or agency. May be repeated once. No more than 12 hours of Internship credit. Credits: 1 to 6	~~ESC~~ **GEO 42753 - Internship in Earth Science III. (Arr.-Arr.-1-6) On Demand. (Credit/No Credit)** An individually planned work experience in a business or agency appropriate to the student's area of specialization. Note: A maximum of three semester hours may be counted as elective credit in the Earth Science minor. Prerequisites & Notes: Completion of at least 9 hours of course work toward Earth Science minors, permission of the Geology/Geography Department Chair, the Internship Coordinator, and acceptance of the student by a business or agency. May be repeated once. No more than 12 hours of Internship credit. Credits: 1 to 6
ESC 44001 - Independent Study I. (Arr.-Arr.-1) Individual study under faculty supervision on a topic selected by the student. May be repeated once. No more than six hours of Independent Study credit. Prerequisites & Notes: Permission of the faculty supervisor and approval of the department chairperson. Credits: 1	~~ESC~~ **GEO 44001 - Independent Study in Earth Science I. (Arr.-Arr.-1)** Individual study under faculty supervision on a topic selected by the student. May be repeated once. No more than six hours of Independent Study credit. Prerequisites & Notes: Permission of the faculty supervisor and approval of the department chairperson. Credits: 1

ESC 44002 - Independent Study II. (Arr.-Arr.-2) Individual study under faculty supervision on a topic selected by the student. May be repeated once. No more than six hours of Independent Study credit. Prerequisites & Notes: Permission of the faculty supervisor and approval of the department chairperson. Credits: 2	~~ESC~~ GEO **44002 - Independent Study in Earth Science II. (Arr.-Arr.-2)** Individual study under faculty supervision on a topic selected by the student. May be repeated once. No more than six hours of Independent Study credit. Prerequisites & Notes: Permission of the faculty supervisor and approval of the department chairperson. Credits: 2
ESC 44003 - Independent Study III. (Arr.-Arr.-3) Individual study under faculty supervision on a topic selected by the student. May be repeated once. No more than six hours of Independent Study credit. Prerequisites & Notes: Permission of the faculty supervisor and approval of the department chairperson. Credits: 3	~~ESC~~ GEO **44003 - Independent Study in Earth Science III. (Arr.-Arr.-3)** Individual study under faculty supervision on a topic selected by the student. May be repeated once. No more than six hours of Independent Study credit. Prerequisites & Notes: Permission of the faculty supervisor and approval of the department chairperson. Credits: 3
ESC 44301 - Undergraduate Research in Earth Science I. (Arr.-Arr.-1) On Demand. Field, laboratory, or theoretical research. Faculty supervised. A written report of an oral presentation is required. Prerequisites & Notes: Completion of 15 semester hours of Earth Science/Geology courses (ESC/GEL), permission of department chair. May be repeated once. No more than six hours of Undergraduate Research credit in combined department undergraduate research courses (Geology, Earth Science, Geography). Credits: 1	~~ESC~~ GEO **44301 - Undergraduate Research in Earth Science I. (Arr.-Arr.-1) On Demand.** Field, laboratory, or theoretical research. Faculty supervised. A written report of an oral presentation is required. Prerequisites & Notes: Completion of 15 semester hours of Earth Science/Geology courses ~~(ESC/GEL)~~, permission of department chair. May be repeated once. No more than six hours of Undergraduate Research credit in ~~combined~~ department undergraduate research courses ~~(Geology, Earth Science, Geography~~). Credits: 1
ESC 44302 - Undergraduate Research in Earth Science I. (Arr.-Arr.-2) On Demand. Field, laboratory, or theoretical research. Faculty supervised. A written report of an oral presentation is required. Prerequisites & Notes: Completion of 15 semester hours of Earth Science/Geology courses (ESC/GEL), permission of department chair. May be repeated once. No more than six hours of Undergraduate Research credit in combined department undergraduate research courses (Geology, Earth Science, Geography). Credits: 2	~~ESC~~ GEO **44302 - Undergraduate Research in Earth Science I. (Arr.-Arr.-2) On Demand.** Field, laboratory, or theoretical research. Faculty supervised. A written report of an oral presentation is required. Prerequisites & Notes: Completion of 15 semester hours of Earth Science/Geology courses ~~(ESC/GEL)~~, permission of department chair. May be repeated once. No more than six hours of Undergraduate Research credit in ~~combined~~ department undergraduate research courses ~~(Geology, Earth Science, Geography)~~. Credits: 2
ESC 44303 - Undergraduate Research in Earth Science II. (Arr.-Arr.-3) On Demand. Field, laboratory, or theoretical research. Faculty supervised. A written report of an oral presentation is required. Prerequisites & Notes: Completion of 15 semester hours of Earth Science/Geology courses (ESC/GEL), permission of department chair. May be repeated once. No more than six hours of Undergraduate Research credit in combined department undergraduate research courses (Geology, Earth Science, Geography). Credits: 3	~~ESC~~ GEO **44303 - Undergraduate Research in Earth Science II. (Arr.-Arr.-3) On Demand.** Field, laboratory, or theoretical research. Faculty supervised. A written report of an oral presentation is required. Prerequisites & Notes: Completion of 15 semester hours of Earth Science/Geology courses ~~(ESC/GEL)~~, permission of department chair. May be repeated once. No more than six hours of Undergraduate Research credit in ~~combined~~ department undergraduate research courses ~~(Geology, Earth Science, Geography)~~. Credits: 3
GEG 1100G - Cultural Geography. (3-0-3) A geographic survey of population, agriculture, politics, language, religion, folk and popular culture, ethnicity, and cities, focusing on origins, processes, and patterns in western and non-western cultures. S4 900N Credits: 3	~~GEG~~ GEO **1100G - Cultural Geography. (3-0-3)** A geographic survey of population, agriculture, politics, language, religion, folk and popular culture, ethnicity, and cities, focusing on origins, processes, and patterns in western and non-western cultures. S4 900N Credits: 3
GEG 1120G - The Natural Environment. (3-2-4) F, S. An introduction to basic components of Earth's natural environment, focusing on physical processes related to air, water, land, and life. Topics covered include energy interactions, weather and climate, water resources, landforms, disasters, ecosystems, and human-environment relations. Cross listed with ESC 1120G. Credits: 4	~~GEG~~ GEO **1120G - The Natural Environment. (3-2-4) F, S.** An introduction to basic components of Earth's natural environment, focusing on physical processes related to air, water, land, and life. Topics covered include energy interactions, weather and climate, water resources, landforms, disasters, ecosystems, and human-environment relations. ~~Cross listed with ESC 1120G~~. Credits: 4
GEG 1190G - Cultural Geography, Honors. (3-0-3) On Demand. A geographic survey of population, agriculture, politics, language, religion, folk and popular culture, ethnicity, and cities, focusing on origins, processes, and patterns in western and non-western cultures. Field trips and a field research paper will enhance the student's ability to read and interpret places and landscapes. S4 900N WI Prerequisites & Notes: Admission to the University Honors College. Credits: 3	~~GEG~~ GEO **1190G - Cultural Geography, Honors. (3-0-3) On Demand.** A geographic survey of population, agriculture, politics, language, religion, folk and popular culture, ethnicity, and cities, focusing on origins, processes, and patterns in western and non-western cultures. Field trips and a field research paper will enhance the student's ability to read and interpret places and landscapes. S4 900N WI Prerequisites & Notes: Admission to the University Honors College. Credits: 3
GEG 1200G - World Regional Geography. (3-0-3) A geographic analysis exploring developed and developing regions of the world. Discussion of regions and countries, people and environments, will emphasize international understanding. Equivalent Course: GEG 1290G. S4 900N Credits: 3	~~GEG~~ GEO **1200G - World Regional Geography. (3-0-3)** A geographic analysis exploring developed and developing regions of the world. Discussion of regions and countries, people and environments, will emphasize international understanding. Equivalent Course: ~~GEG~~ GEO 1290G. S4 900N Credits: 3
GEG 1290G - World Regional Geography, Honors. (3-0-3) On Demand. A geographical analysis examining the developed and developing regions of the world. Discussion of interrelationships between people and their environments from a spatial viewpoint. Research papers and class presentations are required to raise international geographic awareness. S4 900N WI Prerequisites & Notes: Admission to the University Honors College. Credits: 3	~~GEG~~ GEO **1290G - World Regional Geography, Honors. (3-0-3) On Demand.** A geographical analysis examining the developed and developing regions of the world. Discussion of interrelationships between people and their environments from a spatial viewpoint. Research papers and class presentations are required to raise international geographic awareness. S4 900N WI Prerequisites & Notes: Admission to the University Honors College. Credits: 3
GEG 3000 - Geography of Illinois. (3-0-3) Su. A regional and topical analysis of Illinois' geography. The course will focus on physical processes and landforms, historic settlement, the rural/urban divide, and current political economy, and human-environment interactions such as resource consumption, urbanization, agriculture, and the environment. Credits: 3	~~GEG~~ GEO **3000 - Geography of Illinois. (3-0-3) Su.** A regional and topical analysis of Illinois' geography. The course will focus on physical processes and landforms, historic settlement, the rural/urban divide, and current political economy, and human-environment interactions such as resource consumption, urbanization, agriculture, and the environment. Credits: 3

GEG 3020 - Natural Disasters. (3-0-3) F. On Demand. This course examines the physical properties of different types of natural hazards—including earthquakes, volcanic eruptions, slope movements, flooding, hurricanes, and tornadoes—and human responses to them. The natural causes of these events, human risk and vulnerability, challenges of disaster preparation and response, and the role of scientists in these issues are explored. Cross listed with ESC 3020. WI Credits: 3	~~GEG~~ GEO **3020 - Natural Disasters. (3-0-3) F.** On Demand. This course examines the physical properties of different types of natural hazards—including earthquakes, volcanic eruptions, slope movements, flooding, hurricanes, and tornadoes—and human responses to them. The natural causes of these events, human risk and vulnerability, challenges of disaster preparation and response, and the role of scientists in these issues are explored. ~~Cross listed with ESC 3020.~~ WI Credits: 3
GEG 3025 - Geography of the United States and Canada. (3-0-3) F, Su. This course is designed as a regional geographic approach of the North American realm. The course begins with an overview of the physical and human characteristics of the U.S. and Canada followed by in-depth analysis of major themes and trends of assigned regions. Students will evaluate North America's regions and critically analyze how they function as components of national, continental, and worldwide systems. Credits: 3	~~GEG~~ GEO **3025 - Geography of the United States and Canada. (3-0-3) F, Su.** This course is designed as a regional geographic approach of the North American realm. The course begins with an overview of the physical and human characteristics of the U.S. and Canada followed by in-depth analysis of major themes and trends of assigned regions. Students will evaluate North America's regions and critically analyze how they function as components of national, continental, and worldwide systems. Credits: 3
GEG 3050 - Geography and Culture of Africa. (3-0-3) On Demand. A geographic survey of Africa's contemporary development prospects, population growth and food production, rural-urban migration, changing cultural landscapes and their impact on the environment, urban and industrial development, history of colonialism, and regional differences in economic, social, political, cultural, and environmental conditions. Credits: 3	~~GEG~~ GEO **3050 - Geography and Culture of Africa. (3-0-3) On Demand.** A geographic survey of Africa's contemporary development prospects, population growth and food production, rural-urban migration, changing cultural landscapes and their impact on the environment, urban and industrial development, history of colonialism, and regional differences in economic, social, political, cultural, and environmental conditions. Credits: 3
GEG 3055 - Geography and Culture of Asia. (3-0-3) On Demand. A regional geography with emphasis on population dynamics, physical and cultural landscapes, environment, and economic development that gives the distinct characteristics of Eastern, Southern, Southeastern and Southwestern realms of Asia. An investigation of problems and prospects of Asian countries. Credits: 3	~~GEG~~ GEO **3055 - Geography and Culture of Asia. (3-0-3) On Demand.** A regional geography with emphasis on population dynamics, physical and cultural landscapes, environment, and economic development that gives the distinct characteristics of Eastern, Southern, Southeastern and Southwestern realms of Asia. An investigation of problems and prospects of Asian countries. Credits: 3
GEG 3060 - Geography and Culture of Europe. (3-0-3) S-even-numbered years. This course is designed as a geographic study of the European Realm that will focus on both the human and physical characteristics of the continent. Topics will include the environmental, population, cultural, economic, and political geography of the region. Special attention will be given to the dynamic changes of the European economic and political situation and how it impacts the continent and the rest of the world. Course may not be repeated. Credits: 3	~~GEG~~ GEO **3060 - Geography and Culture of Europe. (3-0-3) S-even-numbered years.** This course is designed as a geographic study of the European Realm that will focus on both the human and physical characteristics of the continent. Topics will include the environmental, population, cultural, economic, and political geography of the region. Special attention will be given to the dynamic changes of the European economic and political situation and how it impacts the continent and the rest of the world. Course may not be repeated. Credits: 3
GEG 3070 - Geography and Culture of Mexico, Central America and Caribbean. (3-0-3) On Demand (even-numbered years) This course studies the natural and cultural landscapes of Middle America including Mexico, the Caribbean, and Central America. Special attention is given to the geographical identity and cultural diversity of the region. Topics include environmental issues, colonial history, natural resources, industrialization, geopolitical contexts, transportation, agriculture, population patterns, urban growth and migration.	~~GEG~~ GEO **3070 - Geography and Culture of Mexico, Central America and Caribbean. (3-0-3) On Demand (even-numbered years)** This course studies the natural and cultural landscapes of Middle America including Mexico, the Caribbean, and Central America. Special attention is given to the geographical identity and cultural diversity of the region. Topics include environmental issues, colonial history, natural resources, industrialization, geopolitical contexts, transportation, agriculture, population patterns, urban growth and migration.
GEG 3080 - Geography and Culture of South America. (3-0-3) On Demand (odd-numbered years). South America. This course studies the natural and cultural landscapes of South America. Special attention is given to the geographical identity and cultural diversity of the region. Topics include environmental issues, colonial history, natural resources, industrialization, geopolitical contexts, transportation, agriculture, population patterns, urban growth and migration. Credits: 3	~~GEG~~ GEO **3080 - Geography and Culture of South America. (3-0-3) On Demand (odd-numbered years).** South America. This course studies the natural and cultural landscapes of South America. Special attention is given to the geographical identity and cultural diversity of the region. Topics include environmental issues, colonial history, natural resources, industrialization, geopolitical contexts, transportation, agriculture, population patterns, urban growth and migration. Credits: 3
GEG 3100 - Global Threats and Problems. (3-0-3) S. An interdisciplinary study of current global problems. Four different social scientific approaches will be used to analyze complex questions regarding the survival of humanity given current threats to our environments, cultures, geopolitical affiliations, and socioeconomic structures. Topics may include famine, terrorism, information control, and disease, among others. Course may not be repeated. Cross-listed with CSC/ECN/PLS/SOC 3100. Credits: 3	~~GEG~~ GEO **3100 - Global Threats and Problems. (3-0-3) S.** An interdisciplinary study of current global problems. Four different social scientific approaches will be used to analyze complex questions regarding the survival of humanity given current threats to our environments, cultures, geopolitical affiliations, and socioeconomic structures. Topics may include famine, terrorism, information control, and disease, among others. Course may not be repeated. Cross-listed with CSC/ECN/PLS/SOC 3100. Credits: 3
GEG 3200 - Human Impacts on the Environment. (3-0-3) Emphasis on human impacts on the environment and the necessity of conservation. Discussion of sustainability and resources as potential factors limiting society's development. Focus on humans as agents of environmental change. Cross-listed with ESC 3200. Credits: 3	~~GEG~~ GEO **3200 - Human Impacts on the Environment. (3-0-3)** Emphasis on human impacts on the environment and the necessity of conservation. Discussion of sustainability and resources as potential factors limiting society's development. Focus on humans as agents of environmental change. ~~Cross-listed with ESC 3200.~~ Credits: 3

GEG 3310 - Introduction to Biogeography. (3-0-3) F. An introduction to the geographic distribution of terrestrial and aquatic organisms and the modifications of these distributions created and altered by both physical and human activities over various spatial and temporal scales. Specific attention is given to contemporary geographic issues affecting changes to both human and natural systems, their linkages, and consequences. Credits: 3	~~GEG~~ GEO **3310 - Introduction to Biogeography. (3-0-3) F.** An introduction to the geographic distribution of terrestrial and aquatic organisms and the modifications of these distributions created and altered by both physical and human activities over various spatial and temporal scales. Specific attention is given to contemporary geographic issues affecting changes to both human and natural systems, their linkages, and consequences. Credits: 3
GEG 3320 - Natural Resource Conservation. (3-0-3) S. A topical and regional assessment of conservation issues related to farmlands, wetlands, waterways, grasslands, forests, and other natural systems. Specific attention will be given to contemporary geographic issues affecting rural and agricultural conservation topics prevalent in the U.S., with specific studies focusing on east-central Illinois. Credits: 3	~~GEG~~ GEO **3320 - Natural Resource Conservation. (3-0-3) S.** A topical and regional assessment of conservation issues related to farmlands, wetlands, waterways, grasslands, forests, and other natural systems. Specific attention will be given to contemporary geographic issues affecting rural and agricultural conservation topics prevalent in the U.S., with specific studies focusing on east-central Illinois. Credits: 3
GEG 3330 - Agricultural Geography. (3-0-3) S. A topical and regional analysis of historic and current trends in agricultural practices and land use. Readings pertaining to how land is used, where our food and fiber comes from, and geographic issues regarding sustainability will be central to our discussions. Specific attention will be given to U.S. agricultural systems and related issues. Credits: 3	~~GEG~~ GEO **3330 - Agricultural Geography. (3-0-3) S.** A topical and regional analysis of historic and current trends in agricultural practices and land use. Readings pertaining to how land is used, where our food and fiber comes from, and geographic issues regarding sustainability will be central to our discussions. Specific attention will be given to U.S. agricultural systems and related issues. Credits: 3
GEG 3340 – Land Change Science. (3-0-3) On Demand. An examination of the types, rates, causes, and consequences of contemporary land use and land cover change, primarily in the United States.	~~GEG~~ GEO **3340 – Land Change Science. (3-0-3) On Demand.** An examination of the types, rates, causes, and consequences of contemporary land use and land cover change, primarily in the United States.
GEG 3400 - Broadcast Meteorology Practicum. (3-0-3) F. Study of forecasting techniques, synoptic meteorology, and using scientific methods in determining a meteorological forecast for the general public. Students will engage in preparing daily forecasts from meteorological models and then broadcast their results online. This course will enhance the students' future in broadcasting by merging science and communication. Students will have an opportunity to work with WEIU-TV. Cross-listed with ESC 3400. Prerequisites & Notes: ESC 1400G. Credits: 3	~~GEG~~ GEO **3400 - Broadcast Meteorology Practicum. (3-0-3) F.** Study of forecasting techniques, synoptic meteorology, and using scientific methods in determining a meteorological forecast for the general public. Students will engage in preparing daily forecasts from meteorological models and then broadcast their results online. This course will enhance the students' future in broadcasting by merging science and communication. Students will have an opportunity to work with WEIU-TV. ~~Cross-listed with ESC 3400.~~ Prerequisites & Notes: ~~ESC~~ GEO 1400G. Credits: 3
GEG 3415 - The Restless Atmosphere. (3-0-3) On Demand. This course is designed to provide students with an understanding of the essential processes responsible for determining patterns in our atmospheric system. It will emphasize principal components of the atmosphere from a human perspective. Topics covered will include discussions of climate variability, severe weather, anthropogenic climate change, and atmospheric forecasting. It also stresses the dynamic nature of the atmosphere as it affects humans and their activities. Cross-listed with ESC 3415. Credits: 3	~~GEG~~ GEO **3415 - The Restless Atmosphere. (3-0-3) On Demand.** This course is designed to provide students with an understanding of the essential processes responsible for determining patterns in our atmospheric system. It will emphasize principal components of the atmosphere from a human perspective. Topics covered will include discussions of climate variability, severe weather, anthropogenic climate change, and atmospheric forecasting. It also stresses the dynamic nature of the atmosphere as it affects humans and their activities. ~~Cross-listed with ESC 3415.~~ Credits: 3
GEG 3420 - Geomorphology: Surficial Processes and Landforms. (2-2-3) S. Geomorphology. This course examines landforms, their development and their spatial and temporal distribution on earth's surface, and the processes responsible for their formation. The wide-ranging roles of glaciers, rivers, slope movements, wind, waves, weathering, and humans on landforms and geomorphological processes are presented. Cross-listed with GEL 3420. WI Prerequisites & Notes: ESC/GEG 1120G or ESC/GEL 1300G or ESC/GEL 1320G or consent of instructor. Credits: 3	~~GEG~~ GEO **3420 - Geomorphology: Surficial Processes and Landforms.** (2-2-3) S. Geomorphology. This course examines landforms, their development and their spatial and temporal distribution on earth's surface, and the processes responsible for their formation. The wide-ranging roles of glaciers, rivers, slope movements, wind, waves, weathering, and humans on landforms and geomorphological processes are presented. ~~Cross-listed with GEL 3420.~~ WI Prerequisites & Notes: ~~ESC/GEG~~ GEO 1120G or ~~ESC/GEL~~ GEO 1300G or ~~ESC/GEL~~ GEO 1320G or 1390G or consent of instructor. Credits: 3
GEG 3500 - Climate, Environment and History Since the last Ice Age. (3-0-3) F. Since the 1960s historians and geographers have become more concerned with the impact of climate on history and the global environment, with increasing emphasis on the interdisciplinary nature of this study. Students will engage in exploring the last 18,000 years with an integrated historic and geographic methodology, to gain a better understanding of how human societies have adapted to climate-driven changes. Cross-listed with HIS 3500. WI Credits: 3	~~GEG~~ GEO **3500 - Climate, Environment and History Since the last Ice Age. (3-0-3) F.** Since the 1960s historians and geographers have become more concerned with the impact of climate on history and the global environment, with increasing emphasis on the interdisciplinary nature of this study. Students will engage in exploring the last 18,000 years with an integrated historic and geographic methodology, to gain a better understanding of how human societies have adapted to climate-driven changes. Cross-listed with HIS 3500. WI Credits: 3
GEG 3600 - Economic Geography. (3-0-3) On Demand. Survey of theoretical and empirical approaches to the location of economic activities and of organizational structures. Analysis of spatial patterns of resource, industrial, commercial and service activities. Emphasis on local and regional development, growth and decline, transportation and planning. Credits: 3	~~GEG~~ GEO **3600 - Economic Geography. (3-0-3) On Demand.** Survey of theoretical and empirical approaches to the location of economic activities and of organizational structures. Analysis of spatial patterns of resource, industrial, commercial and service activities. Emphasis on local and regional development, growth and decline, transportation and planning. Credits: 3
GEG 3620 - Geography of Tourism. (3-0-3) S-odd-numbered years. This course is designed as a spatial analysis of the world's major tourism destination regions including environmental, urban, and cultural attractions. Geographic and economic factors affecting the development of tourism regions are considered. Course may not be repeated. Credits: 3	~~GEG~~ GEO **3620 - Geography of Tourism. (3-0-3) S-odd-numbered years.** This course is designed as a spatial analysis of the world's major tourism destination regions including environmental, urban, and cultural attractions. Geographic and economic factors affecting the development of tourism regions are considered. Course may not be repeated. Credits: 3

GEG 3640 - Geography of Sports. (3-0-3) S. This course is designed as a geographic survey of sports and the impact they have on the contemporary global society. This course will provide an overview of the history and current trends of sports including their origin and diffusion within the United States and around the world. The economic, social, and cultural impact of sports will also be covered. Each student is expected to gain an understanding of how sports have changed over time and how they have shaped our society today. Credits: 3	~~GEG~~ GEO **3640 - Geography of Sports. (3-0-3) S.** This course is designed as a geographic survey of sports and the impact they have on the contemporary global society. This course will provide an overview of the history and current trends of sports including their origin and diffusion within the United States and around the world. The economic, social, and cultural impact of sports will also be covered. Each student is expected to gain an understanding of how sports have changed over time and how they have shaped our society today. Credits: 3
GEG 3650 - Advanced Cultural Geography. (3-0-3) F-odd-numbered years. Concerned with understanding the material culture that gives character to a place or area. Emphasis on a study of environmental perception, attitudes and values that influence our personal images of the world. Special focus on reading and interpreting the ordinary landscape of the manmade habitat. Credits: 3	~~GEG~~ GEO **3650 - Advanced Cultural Geography. (3-0-3) F-odd-numbered years.** Concerned with understanding the material culture that gives character to a place or area. Emphasis on a study of environmental perception, attitudes and values that influence our personal images of the world. Special focus on reading and interpreting the ordinary landscape of the manmade habitat. Credits: 3
GEG 3700 - Historical Geography of the United States. (3-0-3) On Demand. Reconstructing past geographical landscapes of the United States to 1900. Emphasis on changing landscape patterns and spatial organization patterns through time, perception of relic landscape features and contemporary preservation of distinctive historic places and areas. Credits: 3	~~GEG~~ GEO **3700 - Historical Geography of the United States. (3-0-3) On Demand.** Reconstructing past geographical landscapes of the United States to 1900. Emphasis on changing landscape patterns and spatial organization patterns through time, perception of relic landscape features and contemporary preservation of distinctive historic places and areas. Credits: 3
GEG 3750 - Population Geography. (3-0-3) On Demand. Survey of world distribution of population through time. Examines patterns and consequences of mortality, fertility and migration. Emphasis on theories and models of migration, past and contemporary migration patterns, and information flow and individual movement in geographic space. Credits: 3	~~GEG~~ GEO **3750 - Population Geography. (3-0-3) On Demand.** Survey of world distribution of population through time. Examines patterns and consequences of mortality, fertility and migration. Emphasis on theories and models of migration, past and contemporary migration patterns, and information flow and individual movement in geographic space. Credits: 3
GEG 3775 - Urban Geography. (3-0-3) S, Su. Examines from a geographic perspective the origin, location, function, internal structure, growth and interaction of urban areas in the United States and other regions of the world; considers problems of modern cities and the role of city planning in Western and non-Western contexts. Credits: 3	~~GEG~~ GEO **3775 - Urban Geography. (3-0-3) S, Su.** Examines from a geographic perspective the origin, location, function, internal structure, growth and interaction of urban areas in the United States and other regions of the world; considers problems of modern cities and the role of city planning in Western and non-Western contexts. Credits: 3
GEG 3780 - Land Use Planning. (3-0-3) S, Su. An introduction to land use planning in the United States, focusing on the geographic and institutional dimensions; a survey of the policy and legislative basis for land use controls at the urban, regional, and federal level, including controlled growth, zoning, development agreements, and environmental legislation. Credits: 3	~~GEG~~ GEO **3780 - Land Use Planning. (3-0-3) S, Su.** An introduction to land use planning in the United States, focusing on the geographic and institutional dimensions; a survey of the policy and legislative basis for land use controls at the urban, regional, and federal level, including controlled growth, zoning, development agreements, and environmental legislation. Credits: 3
GEG 3800 - Introduction to Cartography. (2-2-3) S. Instruction and practice in the basic techniques of map making. Emphasis on problems involved in selection of proper source materials for the base and body of the map and methods of mechanical reproduction. Credits: 3	~~GEG~~ GEO **3800 - Introduction to Cartography. (2-2-3) S.** Instruction and practice in the basic techniques of map making. Emphasis on problems involved in selection of proper source materials for the base and body of the map and methods of mechanical reproduction. Credits: 3
GEG 3810 - Geographic Information Systems I. (2-2-3) An introduction to geographic information systems (GIS) using ESRI ArcGIS. Students will create, georeference, and edit a spatial geodatabase, query and analyze data and produce informative, functional cartographic output. Supplemental to this course, students may optionally work towards and obtain the ESRI Introduction to ArcGIS 1 Certificate. Course may not be repeated. Credits: 3	~~GEG~~ GEO **3810 - Geographic Information Systems I. (2-2-3)** An introduction to geographic information systems (GIS) using ESRI ArcGIS. Students will create, georeference, and edit a spatial geodatabase, query and analyze data and produce informative, functional cartographic output. Supplemental to this course, students may optionally work towards and obtain the ESRI Introduction to ArcGIS 1 Certificate. Course may not be repeated. Credits: 3
GEG 3820 - Remote Sensing I. (2-2-3) F. An introduction to basic principles and applications of remote sensing. The theory and physical properties of image acquisition, processing and analysis will be demonstrated using examples from a variety of applications. Course may not be repeated. Credits: 3	~~GEG~~ GEO **3820 - Remote Sensing I. (2-2-3) F.** An introduction to basic principles and applications of remote sensing. The theory and physical properties of image acquisition, processing and analysis will be demonstrated using examples from a variety of applications. Course may not be repeated. Credits: 3
GEG 3830 - GIS: Building Geodatabases. (2-2-3) S. This course covers the fundamental concepts of building geographic databases and focuses on the storage, management, and quality control of GIS data. Students will learn how to create Esri Geodatabases, how to migrate existing data to a geodatabase, and how to edit data stored in a geodatabase. GEG 5830 is an equivalent course. Cross-listed with ESC 3830. Prerequisites & Notes: GEG 3810 or permission from the instructor. Credits: 3	~~GEG~~ GEO **3830 - GIS: Building Geodatabases. (2-2-3) S.** This course covers the fundamental concepts of building geographic databases and focuses on the storage, management, and quality control of GIS data. Students will learn how to create Esri Geodatabases, how to migrate existing data to a geodatabase, and how to edit data stored in a geodatabase. ~~GEG~~ GEO 5830 is an equivalent course. ~~Cross-listed with ESC 3830.~~ Prerequisites & Notes: GEG 3810 or permission from the instructor. Credits: 3
GEG 3850 - GPS: Mapping the Modern Way. (2-2-3) S. Introduction to the Global Positioning System, with an emphasis on GPS theory, GPS field applications, GPS data manipulation, and GPS data presentation using computer mapping techniques. Cross-listed with ESC 3850. Credits: 3	~~GEG~~ GEO **3850 - GPS: Mapping the Modern Way. (2-2-3) S. I**ntroduction to the Global Positioning System, with an emphasis on GPS theory, GPS field applications, GPS data manipulation, and GPS data presentation using computer mapping techniques. ~~Cross-listed with ESC 3850.~~ Credits: 3
GEG 3855 - Computer Mapping. (2-2-3) F. Methods and techniques for map construction and production using computer processing and graphic displays. Prerequisites & Notes: GEG 3800. Credits: 3	~~GEG~~ GEO **3855 - Computer Mapping. (2-2-3) F.** Methods and techniques for map construction and production using computer processing and graphic displays. Prerequisites & Notes: ~~GEG~~ GEO 3800. Credits: 3

GEG 3860 - Geographic Information Systems II. (2-2-3) Using geographic information systems (GIS) software, students will analyze and solve problems by applying advanced spatial analysis, automation of spatial and attribute data, advanced editing, and advanced options for cartographic display and thematic mapping. Supplemental to this course, students may work towards and obtain the ESRI Introduction to ArcGIS II Certificate. Prerequisites & Notes: GEG 3810. Course may not be repeated. Credits: 3	~~GEG~~ GEO **3860 - Geographic Information Systems II. (2-2-3)** Using geographic information systems (GIS) software, students will analyze and solve problems by applying advanced spatial analysis, automation of spatial and attribute data, advanced editing, and advanced options for cartographic display and thematic mapping. Supplemental to this course, students may work towards and obtain the ESRI Introduction to ArcGIS II Certificate. Prerequisites & Notes: ~~GEG~~ GEO 3810. Course may not be repeated. Credits: 3
GEG 3865 - Advanced Cartography. (1-4-3) On Demand. Instruction and practice in the techniques of thematic mapping including design, compilation, construction and photographic reproduction. Introduction to data transformation and computer-assisted reproduction. Prerequisites & Notes: GEG 3800. Credits: 3	~~GEG~~ GEO **3865 - Advanced Cartography. (1-4-3) On Demand.** Instruction and practice in the techniques of thematic mapping including design, compilation, construction and photographic reproduction. Introduction to data transformation and computer-assisted reproduction. Prerequisites & Notes: ~~GEG~~ GEO 3800. Credits: 3
GEG 3870 - Remote Sensing II. (2-2-3) S. An advanced study in remote sensing theory and practice including in-depth variations in classification and spatial analysis procedures with applications to the geographical, geological, biological, and social sciences. Prerequisites & Notes: GEG 3820. Course may not be repeated. Credits: 3	~~GEG~~ GEO **3870 - Remote Sensing II. (2-2-3) S.** An advanced study in remote sensing theory and practice including in-depth variations in classification and spatial analysis procedures with applications to the geographical, geological, biological, and social sciences. Prerequisites & Notes: ~~GEG~~ GEO 3820. Course may not be repeated. Credits: 3
GEG 3875 - Field Methods. (1-4-3) Application of geographical field techniques to the analysis of areas. Emphasis on making physical and cultural observations and measurements including map reading, photo interpretation, field sketch mapping, compass traverses, sampling, questionnaire design, interviewing, analysis and reporting. Credits: 3	~~GEG~~ GEO **3875 - Field Methods. (1-4-3)** Application of geographical field techniques to the analysis of areas. Emphasis on making physical and cultural observations and measurements including map reading, photo interpretation, field sketch mapping, compass traverses, sampling, questionnaire design, interviewing, analysis and reporting. Credits: 3
GEG 3885 - Quantitative Methods in Geography. (1-4-3) F. Application of basic descriptive and inferential statistics. Emphasis on the understanding of the quantitative method as it is applied in the analysis and classification of geographical data and spatial problems. Credits: 3	~~GEG~~ GEO **3885 - Quantitative Methods in Geography. (1-4-3) F.** Application of basic descriptive and inferential statistics. Emphasis on the understanding of the quantitative method as it is applied in the analysis and classification of geographical data and spatial problems. Credits: 3
GEG 3970 - Study Abroad. (Arr.-Arr.-1-15) See STA 3970. Credits: 1 to 15	~~GEG~~ GEO **39702 - Study Abroad in Geography. (Arr.-Arr.-1-15)** See STA 3970. Credits: 1 to 15
GEG 40001 - Human Geography Seminar. (3-0-1-3). On Demand. Reports and discussion of selected topics in human geography. May be taken twice for credit. Credits: 1-3	~~GEG~~ GEO **40001 - Human Geography Seminar. (3-0-1-3). On Demand.** Reports and discussion of selected topics in human geography. May be taken twice for credit. Credits: 1-3
GEG 40002 - Environmental/Physical Geography Seminar. (3-0-1-3). On Demand. Reports and discussion of selected topics in environmental/physical geography. May be taken twice for credit. Credits: 1-3	~~GEG~~ GEO **40002 - Environmental/Physical Geography Seminar. (3-0-1-3). On Demand.** Reports and discussion of selected topics in environmental/physical geography. May be taken twice for credit. Credits: 1-3
GEG 40003 - Techniques Seminar. (3-0-1-3). On Demand. Reports and discussion of selected topics in geographic techniques. May be taken twice for credit. Credits: 1-3	~~GEG~~ GEO **40003 - Techniques Seminar. (3-0-1-3). On Demand.** Reports and discussion of selected topics in geographic techniques. May be taken twice for credit. Credits: 1-3
GEG 42751 - Internship in Geography I. (Arr.-Arr.-1-6) On Demand. (Credit/No Credit) An individually planned work experience in a business or agency appropriate to the student's area of specialization. Note: A maximum of three semester hours may be counted as elective credit in the Geography minor. Prerequisites & Notes: Completion of at least 9 hours of course work toward Geography major or minor, permission of the Geology/Geography Chair, the Internship Coordinator, and acceptance of the student by a business or agency. May be repeated once. No more than 12 hours of Internship credit. Credits: 1 to 6	~~GEG~~ GEO 42851 - **Internship in Geography I. (Arr.-Arr.-1-6) On Demand. (Credit/No Credit)** An individually planned work experience in a business or agency appropriate to the student's area of specialization. Note: A maximum of three semester hours may be counted as elective credit in the Geography minor. Prerequisites & Notes: Completion of at least 9 hours of course work toward Geography major or minor, permission of the Geology/Geography Chair, the Internship Coordinator, and acceptance of the student by a business or agency. May be repeated once. No more than 12 hours of Internship credit. Credits: 1 to 6
GEG 42752 - Internship in Geography II. (Arr.-Arr.-1-6) On Demand. (Credit/No Credit) An individually planned work experience in a business or agency appropriate to the student's area of specialization. Note: A maximum of three semester hours may be counted as elective credit in the Geography minor. Prerequisites & Notes: Completion of at least 9 hours of course work toward Geography major or minor, permission of the Geology/Geography Chair, the Internship Coordinator, and acceptance of the student by a business or agency. May be repeated once. No more than 12 hours of Internship credit. Credits: 1 to 6	~~GEG~~ GEO 42852 - **Internship in Geography II. (Arr.-Arr.-1-6) On Demand. (Credit/No Credit)** An individually planned work experience in a business or agency appropriate to the student's area of specialization. Note: A maximum of three semester hours may be counted as elective credit in the Geography minor. Prerequisites & Notes: Completion of at least 9 hours of course work toward Geography major or minor, permission of the Geology/Geography Chair, the Internship Coordinator, and acceptance of the student by a business or agency. May be repeated once. No more than 12 hours of Internship credit. Credits: 1 to 6
GEG 42753 - Internship in Geography III. (Arr.-Arr.-1-6) On Demand. (Credit/No Credit) An individually planned work experience in a business or agency appropriate to the student's area of specialization. Note: A maximum of three semester hours may be counted as elective credit in the Geography minor. Prerequisites & Notes: Completion of at least 9 hours of course work toward Geography major or minor, permission of the Geology/Geography Chair, the Internship Coordinator, and acceptance of the student by a business or agency. May be repeated once. No more than 12 hours of Internship credit. Credits: 1 to 6	~~GEG~~ GEO 42853 - **Internship in Geography III. (Arr.-Arr.-1-6) On Demand. (Credit/No Credit)** An individually planned work experience in a business or agency appropriate to the student's area of specialization. Note: A maximum of three semester hours may be counted as elective credit in the Geography minor. Prerequisites & Notes: Completion of at least 9 hours of course work toward Geography major or minor, permission of the Geology/Geography Chair, the Internship Coordinator, and acceptance of the student by a business or agency. May be repeated once. No more than 12 hours of Internship credit. Credits: 1 to 6

GEG 44001 - Independent Study I. (Arr.-Arr.-1) F, S. Intensive individual study on a topic selected by student with approval of instructor and with permission of the department chairperson. May be repeated once. No more than six hours of Independent Study credit. Credits: 1	~~GEG~~ **GEO 44101 - Independent Study in Geography I. (Arr.-Arr.-1) F, S.** Intensive individual study on a topic selected by student with approval of instructor and with permission of the department chairperson. May be repeated once. No more than six hours of Independent Study credit. Credits: 1
GEG 44002 - Independent Study II. (Arr.-Arr.-1) F, S. Intensive individual study on a topic selected by student with approval of instructor and with permission of the department chairperson. May be repeated once. No more than six hours of Independent Study credit. Credits: 2	~~GEG~~ **GEO 44102 - Independent Study in Geography II. (Arr.-Arr.-1) F, S.** Intensive individual study on a topic selected by student with approval of instructor and with permission of the department chairperson. May be repeated once. No more than six hours of Independent Study credit. Credits: 2
GEG 44003 - Independent Study III. (Arr.-Arr.-3) F, S. Intensive individual study on a topic selected by student with approval of instructor and with permission of the department chairperson. May be repeated once. No more than six hours of Independent Study credit. Credits: 3	~~GEG~~ **GEO 44103 - Independent Study in Geography III. (Arr.-Arr.-3) F, S.** Intensive individual study on a topic selected by student with approval of instructor and with permission of the department chairperson. May be repeated once. No more than six hours of Independent Study credit. Credits: 3
GEG 44301 - Undergraduate Research in Geography I. (Arr.-Arr.-1) On Demand. Field, laboratory, or theoretical research faculty supervised. A written report of an oral presentation is required. Prerequisites & Notes: Completion of 15 semester hours toward the Geography major or minor, permission of the instructor and department chair. May be repeated once. No more than six hours of Undergraduate Research credit in combined department undergraduate research courses (Geology, Earth Science, Geography). Credits: 1	~~GEG~~ **GEO 44401 - Undergraduate Research in Geography I. (Arr.-Arr.-1) On Demand.** Field, laboratory, or theoretical research faculty supervised. A written report of an oral presentation is required. Prerequisites & Notes: Completion of 15 semester hours toward the Geography major or minor, permission of the instructor and department chair. May be repeated once. No more than six hours of Undergraduate Research credit in ~~combined~~ department undergraduate research courses ~~(Geology, Earth Science, Geography~~). Credits: 1
GEG 44302 - Undergraduate Research in Geography II. (Arr.-Arr.-2) On Demand. Field, laboratory, or theoretical research faculty supervised. A written report of an oral presentation is required. Prerequisites & Notes: Completion of 15 semester hours toward the Geography major or minor, permission of the instructor and department chair. May be repeated once. No more than six hours of Undergraduate Research credit in combined department undergraduate research courses (Geology, Earth Science, Geography). Credits: 2	~~GEG~~ **GEO 44402 - Undergraduate Research in Geography II. (Arr.-Arr.-2) On Demand.** Field, laboratory, or theoretical research faculty supervised. A written report of an oral presentation is required. Prerequisites & Notes: Completion of 15 semester hours toward the Geography major or minor, permission of the instructor and department chair. May be repeated once. No more than six hours of Undergraduate Research credit in ~~combined~~ department undergraduate research courses ~~(Geology, Earth Science, Geography~~). Credits: 2
GEG 44303 - Undergraduate Research in Geography III. (Arr.-Arr.-3) On Demand. Field, laboratory, or theoretical research faculty supervised. A written report of an oral presentation is required. Prerequisites & Notes: Completion of 15 semester hours toward the Geography major or minor, permission of the instructor and department chair. May be repeated once. No more than six hours of Undergraduate Research credit in combined department undergraduate research courses (Geology, Earth Science, Geography). Credits: 3	~~GEG~~ **GEO 44403 - Undergraduate Research in Geography III. (Arr.-Arr.-3) On Demand.** Field, laboratory, or theoretical research faculty supervised. A written report of an oral presentation is required. Prerequisites & Notes: Completion of 15 semester hours toward the Geography major or minor, permission of the instructor and department chair. May be repeated once. No more than six hours of Undergraduate Research credit in ~~combined~~ department undergraduate research courses ~~(Geology, Earth Science, Geography~~). Credits: 3
GEG 44441 - Honors Independent Study I. (Arr.-Arr.-1) Intensive individual study on a topic selected by the student with approval of the instructor. May be repeated once. No more than six hours of Independent Study credit. Prerequisites & Notes: Admission to the Departmental Honors Program for Geography Majors and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 1	~~GEG~~ **GEO 44441 - Honors Independent Study in Geography I. (Arr.-Arr.-1)** Intensive individual study on a topic selected by the student with approval of the instructor. May be repeated once. No more than six hours of Independent Study credit. Prerequisites & Notes: Admission to the Departmental Honors Program for Geography Majors and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 1
GEG 44442 - Honors Independent Study II. (Arr.-Arr.-2) Intensive individual study on a topic selected by the student with approval of the instructor. May be repeated once. No more than six hours of Independent Study credit. Prerequisites & Notes: Admission to the Departmental Honors Program for Geography Majors and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 2	~~GEG~~ **GEO 44442 - Honors Independent Study in Geography II. (Arr.-Arr.-2)** Intensive individual study on a topic selected by the student with approval of the instructor. May be repeated once. No more than six hours of Independent Study credit. Prerequisites & Notes: Admission to the Departmental Honors Program for Geography Majors and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 2
GEG 44443 - Honors Independent Study III. (Arr.-Arr.-3) Intensive individual study on a topic selected by the student with approval of the instructor. May be repeated once. No more than six hours of Independent Study credit. Prerequisites & Notes: Admission to the Departmental Honors Program for Geography Majors and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 3	~~GEG~~ **GEO 44443 - Honors Independent Study in Geography III. (Arr.-Arr.-3)** Intensive individual study on a topic selected by the student with approval of the instructor. May be repeated once. No more than six hours of Independent Study credit. Prerequisites & Notes: Admission to the Departmental Honors Program for Geography Majors and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 3
GEG 4555 - Honors Research. (Arr.-Arr.-1-6) Original research in geography on a topic studied by the student while enrolled in GEG 44441 or 44442 or 44443. A written report and oral presentation are required. May be repeated once. Prerequisites & Notes: Admission to the Departmental Honors Program for Geography Majors and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 1 to 6	~~GEG~~ **GEO 4555 - Honors Research in Geography. (Arr.-Arr.-1-6)** Original research in geography on a topic studied by the student while enrolled in ~~GEG~~ GEO 44441 or 44442 or 44443. A written report and oral presentation are required. May be repeated once. Prerequisites & Notes: Admission to the Departmental Honors Program for Geography Majors and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 1 to 6

GEG 4644 - Honors Thesis. (Arr.-Arr.-1-6) Written thesis based on original research performed while enrolled in GEG 4555. An oral presentation is required. May be repeated once. Prerequisites & Notes: Admission to the Departmental Honors Program for Geography Majors and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 1 to 6	~~GEG~~ GEO **4644 - Honors Thesis in Geography. (Arr.-Arr.-1-6)** Written thesis based on original research performed while enrolled in ~~GEG~~ GEO 4555. An oral presentation is required. May be repeated once. Prerequisites & Notes: Admission to the Departmental Honors Program for Geography Majors and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 1 to 6
GEG 4666 - Honors Seminar. (Arr.-Arr.-3) Reports, discussion and/or laboratory/field work on selected topics in geography. Prerequisites & Notes: Admission to the Departmental Honors Program for Geography Majors and permission of the Departmental Honors Coordinator and Departmental Chairperson. Credits: 3	~~GEG~~ GEO **4666 - Honors Seminar in Geography. (Arr.-Arr.-3)** Reports, discussion and/or laboratory/field work on selected topics in geography. Prerequisites & Notes: Admission to the Departmental Honors Program for Geography Majors and permission of the Departmental Honors Coordinator and Departmental Chairperson. Credits: 3
GEL 1300G - Introduction to Earth Sciences. (3-2-4) An introduction to earth processes, resources, rocks, minerals, maps, time, and plate tectonics. The interaction of natural processes in the physical environment and human activity will be discussed. Cross-listed with ESC 1300G. Lab work and field trip are required. P1 907L Prerequisites & Notes: Grade and credit hours for this course will be removed if student already has credit for or is registered in ESC/GEL 1320G. Credits: 4	~~GEL~~ GEO **1300G - Introduction to Earth Sciences. (3-2-4)** An introduction to earth processes, resources, rocks, minerals, maps, time, and plate tectonics. The interaction of natural processes in the physical environment and human activity will be discussed. ~~Cross-listed with ESC 1300G~~. Lab work and field trip are required. P1 907L Prerequisites & Notes: Grade and credit hours for this course will be removed if student already has credit for or is registered in ~~ESC/GEL~~ GEO 1320G. Credits: 4
GEL 1320G - Geology of National Parks. (3-2-4) F, S. Explore the interesting features and sweeping landscapes that make the National Park system the pride of America. From a scientific perspective, students will become familiar with the geologic phenomena existing in the National Parks and gain a better appreciation of their creation and importance. Learning about these natural wonders will be facilitated by lecture, videos, virtual field trips, lab work and a field trip. Cross listed with ESC 1320G. Prerequisites & Notes: Grade and credit hours for this course will be removed if student already has credit for or is registered in ESC/GEL 1300G. Credits: 4	~~GEL~~ GEO **1320G - Geology of National Parks. (3-2-4) F, S.** Explore the interesting features and sweeping landscapes that make the National Park system the pride of America. From a scientific perspective, students will become familiar with the geologic phenomena existing in the National Parks and gain a better appreciation of their creation and importance. Learning about these natural wonders will be facilitated by lecture, videos, virtual field trips, lab work and a field trip. ~~Cross listed with ESC 1320G.~~ Prerequisites & Notes: Grade and credit hours for this course will be removed if student already has credit for or is registered in ~~ESC/GEL~~ GEO 1300G. Credits: 4
GEL 1390G - Introduction to Earth Sciences, Honors. (3-2-4) On Demand. Study of the planet Earth as a system consisting of the lithosphere, hydrosphere, and atmosphere. Emphasis on how processes occurring within the solid, liquid, and gaseous portions of the Earth system act to influence its surface. Field trips and short papers will stress scientific communication skills. Cross-listed with ESC 1390G. WI Prerequisites & Notes: Admission to the University Honors College. Credits: 4	~~GEL~~ GEO **1390G - Introduction to Earth Sciences, Honors. (3-2-4) On Demand.** Study of the planet Earth as a system consisting of the lithosphere, hydrosphere, and atmosphere. Emphasis on how processes occurring within the solid, liquid, and gaseous portions of the Earth system act to influence its surface. Field trips and short papers will stress scientific communication skills. ~~Cross-listed with ESC 1390G~~. WI Prerequisites & Notes: Admission to the University Honors College. Credits: 4
GEL 1430 - Historical Geology. (3-2-4) S. Development of major structural segments of Earth's crust; fossil record of life; age relations among rock units. Field work. Prerequisites & Notes: ESC/GEL 1300G or ESC/GEL 1320G or ESC/GEL 1390G. Credits: 4	~~GEL~~ GEO **1430 - Historical Geology. (3-2-4) S.** Development of major structural segments of Earth's crust; fossil record of life; age relations among rock units. Field work. Prerequisites & Notes: ~~ESC/GEL~~ GEO 1300G or ~~ESC/GEL~~ GEO 1320G or ~~ESC/GEL~~ GEO 1390G. Credits: 4
GEL 2100 - Geology of Energy Resources. (3-0-3) S. This course is designed to explore the science behind the energy resources – how the deposits form geologically, how geologists explore the earth to discover where the deposits are located and what techniques and technology are required to extract and process the resources as well as the remediation techniques necessary to restore the landscape after extraction has ceased. Prerequisites & Notes: ESC/GEL 1300G or ESC/GEL 1320G or ESC/GEL 1390G or equivalent; may not be taken concurrently. Credits: 3	~~GEL~~ GEO **2100 - Geology of Energy Resources. (3-0-3) S.** This course is designed to explore the science behind the energy resources – how the deposits form geologically, how geologists explore the earth to discover where the deposits are located and what techniques and technology are required to extract and process the resources as well as the remediation techniques necessary to restore the landscape after extraction has ceased. Prerequisites & Notes: ESC/GEL GEO 1300G or ESC/GEL GEO 1320G or ESC/GEL GEO 1390G or equivalent; may not be taken concurrently. Credits: 3
GEL 2300G - Science and Technology: A Promise or a Threat? (3-0-3) The course will discuss the methods and development of scientific discoveries, their technological applications, and the impact of these activities on cultural, social, political, economic, and religious values. The influence of society on scientific research and technological development will be studied as well. Cross-listed with AET 2300G. WI Credits: 3	~~GEL~~ GEO **2300G - Science and Technology: A Promise or a Threat? (3-0-3)** The course will discuss the methods and development of scientific discoveries, their technological applications, and the impact of these activities on cultural, social, political, economic, and religious values. The influence of society on scientific research and technological development will be studied as well. Cross-listed with AET 2300G. WI Credits: 3
GEL 2440 - Mineralogy. (3-2-4) F. A study of minerals with emphasis on crystallography, chemistry, classification, identification, genesis, and association. Prerequisites & Notes: ESC/GEL 1300G or ESC/GEL 1320G or ESC/GEL 1390G; and CHM 1310G and 1315G or concurrent enrollment. Credits: 4	~~GEL~~ GEO **2440 - Mineralogy. (3-2-4) F.** A study of minerals with emphasis on crystallography, chemistry, classification, identification, genesis, and association. Prerequisites & Notes: ESC/GEL GEO 1300G or ESC/GEL GEO 1320G or ESC/GEL GEO 1390G; and CHM 1310G and 1315G or concurrent enrollment. Credits: 4
GEL 2450G - Oceanography. (3-0-3) Integrated, descriptive study of the World Ocean, including the physics, chemistry, biology, and geology of the marine environment and the interrelationship between the World Ocean and human activities. Cross-listed with ESC 2450G. Credits: 3	~~GEL~~ GEO **2450G - Oceanography.** (3-0-3) Integrated, descriptive study of the World Ocean, including the physics, chemistry, biology, and geology of the marine environment and the interrelationship between the World Ocean and human activities. ~~Cross-listed with ESC 2450G~~. Credits: 3

GEL 3010G - Environmental Physical Sciences. (3-0-3) A study of physical environmental Earth processes and their interrelationship with human activities. This will include both the impact of the Earth on human communities and the impact of human communities on the Earth. Cross-Listed with ESC 3010G. Credits: 3	~~GEL~~ GEO **3010G - Environmental Physical Sciences. (3-0-3)** A study of physical environmental Earth processes and their interrelationship with human activities. This will include both the impact of the Earth on human communities and the impact of human communities on the Earth. ~~Cross-Listed with ESC 3010G.~~ Credits: 3
GEL 3085 - Vertebrate Paleoenvironments and Paleoecology. (3-0-3) S. This course will investigate principles of vertebrate paleontology, paleoenvironmental and paleoecological reconstructions and analyses. The focus will be on the fossil record of vertebrate organisms from their origins through the Pleistocene. Prerequisites & Notes: GEL 1430 or permission of the instructor; may not be taken concurrently. Restriction: Sophomore, Junior, or Senior status. Credits: 3	~~GEL~~ GEO **3085 - Vertebrate Paleoenvironments and Paleoecology. (3-0-3) S.** This course will investigate principles of vertebrate paleontology, paleoenvironmental and paleoecological reconstructions and analyses. The focus will be on the fossil record of vertebrate organisms from their origins through the Pleistocene. Prerequisites & Notes: ~~GEL~~ GEO 1430 or permission of the instructor; may not be taken concurrently. Restriction: Sophomore, Junior, or Senior status. Credits: 3
GEL 3115 - Introduction to Paleoclimate. (3-2-4) F. An introduction to basic principles and applications of paleoclimatology. A review of processes and archives of climate data will be investigated using examples from Earth history. Prerequisites & Notes: GEL 1430 or permission of the instructor; may not be taken concurrently. Credits: 4	~~GEL~~ GEO **3115 - Introduction to Paleoclimate. (3-2-4) F.** An introduction to basic principles and applications of paleoclimatology. A review of processes and archives of climate data will be investigated using examples from Earth history. Prerequisites & Notes: ~~GEL~~ GEO 1430 or permission of the instructor; may not be taken concurrently. Credits: 4
GEL 3405 - Petrology. (3-2-4) S. A study of the physical, chemical, spatial, and chronological properties and processes that reflect the origin, evolution, and occurrence of igneous and metamorphic rocks. Laboratory work emphasizes the petrographic microscope and its applications. Field work required. Prerequisites & Notes: GEL 2440. Credits: 4	~~GEL~~ GEO **3405 - Petrology. (3-2-4) S.** A study of the physical, chemical, spatial, and chronological properties and processes that reflect the origin, evolution, and occurrence of igneous and metamorphic rocks. Laboratory work emphasizes the petrographic microscope and its applications. Field work required. Prerequisites & Notes: ~~GEL~~ GEO 2440. Credits: 4
GEL 3420 - Geomorphology: Surficial Processes and Landforms. (2-2-3) S. Geomorphology. This course examines landforms, their development and their spatial and temporal distribution on earth's surface, and the processes responsible for their formation. The wide-ranging roles of glaciers, rivers, slope movements, wind, waves, weathering, and humans on landforms and geomorphological processes are presented. Cross-listed with GEG 3420. WI Prerequisites & Notes: ESC/GEG 1120G or ESC/GEL 1300G or ESC/GEL 1320G or consent of instructor. Credits: 3	~~GEL~~ GEO **3420 - Geomorphology: Surficial Processes and Landforms.** (2-2-3) S. Geomorphology. This course examines landforms, their development and their spatial and temporal distribution on earth's surface, and the processes responsible for their formation. The wide-ranging roles of glaciers, rivers, slope movements, wind, waves, weathering, and humans on landforms and geomorphological processes are presented. ~~Cross-listed with GEG 3420~~. WI Prerequisites & Notes: ~~ESC/GEG~~ GEO 1120G or ~~ESC/GEL~~ GEO 1300G or ~~ESC/GEL~~ GEO 1320G or consent of instructor. Credits: 3
GEL 3425 - Engineering Geology. (2-2-3) F-even-numbered years. Introduction to procedures used for site selection and design of engineering structures in the Earth. Introductory soil and rock mechanics and their use in analysis of structures will be emphasized. Prerequisites & Notes: ESC/GEL 1300G or ESC/GEL 1320G or ESC/GEL 1390G or ESC/GEL 1390G or permission of instructor; PHY 1151G and PHY 1152G or PHY 1351G and PHY 1352G. Credits: 3	~~GEL~~ GEO **3425 - Engineering Geology. (2-2-3) F-even-numbered years.** Introduction to procedures used for site selection and design of engineering structures in the Earth. Introductory soil and rock mechanics and their use in analysis of structures will be emphasized. Prerequisites & Notes: ~~ESC/GEL~~ GEO 1300G or ~~ESC/GEL~~ GEO 1320G or ~~ESC/GEL~~ GEO 1390G ~~or ESC/GEL 1390G~~ or permission of instructor; PHY 1151G and PHY 1152G or PHY 1351G and PHY 1352G. Credits: 3
GEL 3430 - Structural Geology. (2-2-3) F. Forces involved in the deformation of rocks with emphasis on the recognition and interpretation of the resultant geologic structures. Field work. Prerequisites & Notes: GEL 1430, 3405 and MAT 1330 or equivalent or permission of instructor. Credits: 3	~~GEL~~ GEO **3430 - Structural Geology. (2-2-3) F.** Forces involved in the deformation of rocks with emphasis on the recognition and interpretation of the resultant geologic structures. Field work. Prerequisites & Notes: ~~GEL~~ GEO 1430, 3405 and MAT 1330 or equivalent or permission of instructor. Credits: 3
GEL 3440 - Tectonics. (3-0-3) S-odd-numbered years. This course will evaluate the plate tectonic paradigm in terms of its historical evolution and modern application to understanding earth processes. Focus will be placed on defining the geometric, kinematic, and dynamic framework of the three types of plate boundaries, existing problems with rigid plate theory, and the evidence for the plate tectonic approximation. Field work is required. Prerequisites & Notes: GEL 3430 or permission of the instructor. Credits: 3	~~GEL~~ GEO **3440 - Tectonics. (3-0-3) S-odd-numbered years.** This course will evaluate the plate tectonic paradigm in terms of its historical evolution and modern application to understanding earth processes. Focus will be placed on defining the geometric, kinematic, and dynamic framework of the three types of plate boundaries, existing problems with rigid plate theory, and the evidence for the plate tectonic approximation. Field work is required. Prerequisites & Notes: ~~GEL~~ GEO 3430 or permission of the instructor. Credits: 3
GEL 3460 - Economic Mineral Deposits. (2-2-3) On Demand. Origin, geologic occurrence and utilization of metallic and non-metallic mineral deposits. Field work. Prerequisites & Notes: Prior or concurrent enrollment in GEL 3405. Credits: 3	~~GEL~~ GEO **3460 - Economic Mineral Deposits. (2-2-3) On Demand.** Origin, geologic occurrence and utilization of metallic and non-metallic mineral deposits. Field work. Prerequisites & Notes: Prior or concurrent enrollment in ~~GEL~~ GEO 3405. Credits: 3
GEL 3470 - Seminar. (Arr.-Arr.-1-3) F, S. Discussions, reports, and field/laboratory work concerning selected geoscience topics, with instructor guidance. May be taken more than twice for credit if a different topic is covered each time. Credits: 1 to 3	~~GEL~~ GEO **3470 - Seminar in Geology. (Arr.-Arr.-1-3) F, S.** Discussions, reports, and field/laboratory work concerning selected geoscience topics, with instructor guidance. May be taken more than twice for credit if a different topic is covered each time. Credits: 1 to 3
GEL 3500 - Volcanology. (2-2-3) On Demand. A study of volcanic features and eruptions. The relationship of eruptive products, styles, and mechanisms to volcanic features and hazards is emphasized. Prerequisites & Notes: GEL 3405 or concurrent enrollment. Credits: 3	~~GEL~~ GEO 3505 **- Volcanology. (2-2-3) On Demand.** A study of volcanic features and eruptions. The relationship of eruptive products, styles, and mechanisms to volcanic features and hazards is emphasized. Prerequisites & Notes: ~~GEL~~ GEO 3405 or concurrent enrollment. Credits: 3
GEL 3510 - Principles of Sedimentation. (2-2-3) F. Sources of sediments, mechanics of transportation, depositional controls, post-depositional changes; physical and chemical properties of sedimentary rocks, classifications; analytical laboratory techniques. Field work. Prerequisites & Notes: GEL 1430 and 3405. Credits: 3	~~GEL~~ GEO **3510 - Principles of Sedimentation. (2-2-3) F.** Sources of sediments, mechanics of transportation, depositional controls, post-depositional changes; physical and chemical properties of sedimentary rocks, classifications; analytical laboratory techniques. Field work. Prerequisites & Notes: ~~GEL~~ GEO 1430 and 3405. Credits: 3

GEL 3525 - Hydrogeology. (2-2-3) On Demand. The study of the inter-relationships of geological materials and processes with water. Prerequisites & Notes: GEL/GEG 3420. Credits: 3	~~GEL~~ **GEO 3525 - Hydrogeology. (2-2-3) On Demand.** The study of the inter-relationships of geological materials and processes with water. Prerequisites & Notes: ~~GEL/GEG~~ GEO 3420. Credits: 3
GEL 3560 - Principles of Stratigraphy. (2-2-3) S. Development and use of stratigraphic column, sedimentary facies, space-time relationships, principles or correlation, tectonic framework of sedimentation, analysis of clastic, organic, chemical sedimentary sequences. Field work. Prerequisites & Notes: GEL 3510. Credits: 3	~~GEL~~ **GEO 3560 - Principles of Stratigraphy. (2-2-3) S.** Development and use of stratigraphic column, sedimentary facies, space-time relationships, principles or correlation, tectonic framework of sedimentation, analysis of clastic, organic, chemical sedimentary sequences. Field work. Prerequisites & Notes: ~~GEL~~ GEO 3510. Credits: 3
GEL 3970 - Study Abroad. (Arr.-Arr.-1-15) See STA 3970. Credits: 1 to 15	~~GEL~~ **GEO 39703 - Study Abroad in Geology. (Arr.-Arr.-1-15)** See STA 3970. Credits: 1 to 15
GEL 4200 - Introduction to Geophysical Exploration. (3-0-3) On Demand. Introduction to the theories of gravity, magnetics, heat flow, and reflection and refraction seismology; application of these geophysical methods in the interpretation of earth structure and composition, with emphasis on exploration for economic materials and on tectonic activity. Prerequisites & Notes: GEL 3430 and PHY 1161, 1162 or PHY 1361, 1362. Credits: 3	~~GEL~~ **GEO 4200 - Introduction to Geophysical Exploration. (3-0-3) On Demand.** Introduction to the theories of gravity, magnetics, heat flow, and reflection and refraction seismology; application of these geophysical methods in the interpretation of earth structure and composition, with emphasis on exploration for economic materials and on tectonic activity. Prerequisites & Notes: ~~GEL~~ GEO 3430 and PHY 1161, 1162 or PHY 1361, 1362. Credits: 3
GEL 42751 - Internship in Geology I. (Arr.-Arr.-1-6) On Demand. (Credit/No Credit) An individually planned work experience in a business or agency appropriate to the student's area of specialization. Prerequisites & Notes: Completion of at least 9 hours of course work toward Geology major or minor, permission of the Geology/Geography Department Chair, the Internship Coordinator, and acceptance of the student by a business or agency. May be repeated once. No more than 12 hours of Internship credit. Credits: 1 to 6	~~GEL~~ **GEO 42951 - Internship in Geology I. (Arr.-Arr.-1-6) On Demand. (Credit/No Credit)** An individually planned work experience in a business or agency appropriate to the student's area of specialization. Prerequisites & Notes: Completion of at least 9 hours of course work toward Geology major or minor, permission of the Geology/Geography Department Chair, the Internship Coordinator, and acceptance of the student by a business or agency. May be repeated once. No more than 12 hours of Internship credit. Credits: 1 to 6
GEL 42752 - Internship in Geology II. (Arr.-Arr.-1-6) On Demand. (Credit/No Credit) An individually planned work experience in a business or agency appropriate to the student's area of specialization. Prerequisites & Notes: Completion of at least 9 hours of course work toward Geology major or minor, permission of the Geology/Geography Department Chair, the Internship Coordinator, and acceptance of the student by a business or agency. May be repeated once. No more than 12 hours of Internship credit. Credits: 1 to 6	~~GEL~~ **GEO 42952 - Internship in Geology II. (Arr.-Arr.-1-6) On Demand. (Credit/No Credit)** An individually planned work experience in a business or agency appropriate to the student's area of specialization. Prerequisites & Notes: Completion of at least 9 hours of course work toward Geology major or minor, permission of the Geology/Geography Department Chair, the Internship Coordinator, and acceptance of the student by a business or agency. May be repeated once. No more than 12 hours of Internship credit. Credits: 1 to 6
GEL 42753 - Internship in Geology III. (Arr.-Arr.-1-6) On Demand. (Credit/No Credit) An individually planned work experience in a business or agency appropriate to the student's area of specialization. Prerequisites & Notes: Completion of at least 9 hours of course work toward Geology major or minor, permission of the Geology/Geography Department Chair, the Internship Coordinator, and acceptance of the student by a business or agency. May be repeated once. No more than 12 hours of Internship credit. Credits: 1 to 6	~~GEL~~ **GEO 42953 - Internship in Geology III. (Arr.-Arr.-1-6) On Demand. (Credit/No Credit)** An individually planned work experience in a business or agency appropriate to the student's area of specialization. Prerequisites & Notes: Completion of at least 9 hours of course work toward Geology major or minor, permission of the Geology/Geography Department Chair, the Internship Coordinator, and acceptance of the student by a business or agency. May be repeated once. No more than 12 hours of Internship credit. Credits: 1 to 6
GEL 44001 - Independent Study I. (Arr.-Arr.1) Independent study in the field of geology, designed for the individual needs of the student. Prerequisites & Notes: GEL 1430 or permission of the instructor and department chair. May be repeated once. No more than six semester hours of Independent Study credit. Credits: 1	~~GEL~~ **GEO 44201 - Independent Study in Geology I. (Arr.-Arr.1)** Independent study in the field of geology, designed for the individual needs of the student. Prerequisites & Notes: ~~GEL~~ GEO 1430 or permission of the instructor and department chair. May be repeated once. No more than six semester hours of Independent Study credit. Credits: 1
GEL 44002 - Independent Study II. (Arr.-Arr.2) Independent study in the field of geology, designed for the individual needs of the student. Prerequisites & Notes: GEL 1430 or permission of the instructor and department chair. May be repeated once. No more than six semester hours of Independent Study credit. Credits: 2	~~GEL~~ **GEO 44202 - Independent Study in Geology II. (Arr.-Arr.2)** Independent study in the field of geology, designed for the individual needs of the student. Prerequisites & Notes: ~~GEL~~ GEO 1430 or permission of the instructor and department chair. May be repeated once. No more than six semester hours of Independent Study credit. Credits: 2
GEL 44003 - Independent Study III. (Arr.-Arr.3) Independent study in the field of geology, designed for the individual needs of the student. Prerequisites & Notes: GEL 1430 or permission of the instructor and department chair. May be repeated once. No more than six semester hours of Independent Study credit. Credits: 3	~~GEL~~ **GEO 44203 - Independent Study in Geology III. (Arr.-Arr.3)** Independent study in the field of geology, designed for the individual needs of the student. Prerequisites & Notes: ~~GEL~~ GEO 1430 or permission of the instructor and department chair. May be repeated once. No more than six semester hours of Independent Study credit. Credits: 3
GEL 44301 - Undergraduate Research in Geology I. (Arr.-Arr.-1) On Demand. Field, laboratory, or theoretical research. Faculty supervised. A written report of an oral presentation is required. Prerequisites & Notes: Completion of 15 semester hours toward the Geology major or minor, permission of instructor and department chair. May be repeated once. No more than six semester hours of Undergraduate Research credit in combined department undergraduate research courses (Geology, Earth Science, Geography). Credits: 1	~~GEL~~ **GEO 44501 - Undergraduate Research in Geology I. (Arr.-Arr.-1) On Demand.** Field, laboratory, or theoretical research. Faculty supervised. A written report of an oral presentation is required. Prerequisites & Notes: Completion of 15 semester hours toward the Geology major or minor, permission of instructor and department chair. May be repeated once. No more than six semester hours of Undergraduate Research credit in ~~combined~~ department undergraduate research courses ~~(Geology, Earth Science, Geography)~~. Credits: 1

GEL 44302 - Undergraduate Research in Geology II. (Arr.-Arr.-2) On Demand. Field, laboratory, or theoretical research. Faculty supervised. A written report of an oral presentation is required. Prerequisites & Notes: Completion of 15 semester hours toward the Geology major or minor, permission of instructor and department chair. May be repeated once. No more than six semester hours of Undergraduate Research credit in combined department undergraduate research courses (Geology, Earth Science, Geography). Credits: 2	~~GEL~~ **GEO 44502 - Undergraduate Research in Geology II. (Arr.-Arr.-2) On Demand.** Field, laboratory, or theoretical research. Faculty supervised. A written report of an oral presentation is required. Prerequisites & Notes: Completion of 15 semester hours toward the Geology major or minor, permission of instructor and department chair. May be repeated once. No more than six semester hours of Undergraduate Research credit in ~~combined~~ department undergraduate research courses ~~(Geology, Earth Science, Geography)~~. Credits: 2
GEL 44303 - Undergraduate Research in Geology III. (Arr.-Arr.-3) On Demand. Field, laboratory, or theoretical research. Faculty supervised. A written report of an oral presentation is required. Prerequisites & Notes: Completion of 15 semester hours toward the Geology major or minor, permission of instructor and department chair. May be repeated once. No more than six semester hours of Undergraduate Research credit in combined department undergraduate research courses (Geology, Earth Science, Geography). Credits: 3	~~GEL~~ **GEO 44503 - Undergraduate Research in Geology III. (Arr.-Arr.-3) On Demand.** Field, laboratory, or theoretical research. Faculty supervised. A written report of an oral presentation is required. Prerequisites & Notes: Completion of 15 semester hours toward the Geology major or minor, permission of instructor and department chair. May be repeated once. No more than six semester hours of Undergraduate Research credit in ~~combined~~ department undergraduate research courses ~~(Geology, Earth Science, Geography)~~. Credits: 3
GEL 44441 - Honors Independent Study I. (Arr.-Arr.-1) Independent Study in geosciences, designed for the individual needs of the student. May be repeated once. No more than six hours of Independent Study credit. Prerequisites & Notes: Admission to the Departmental Honors Program for Geology Majors and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 1	~~GEL~~ **GEO 44451 - Honors Independent Study in Geology I. (Arr.-Arr.-1)** Independent Study in geosciences, designed for the individual needs of the student. May be repeated once. No more than six hours of Independent Study credit. Prerequisites & Notes: Admission to the Departmental Honors Program for Geology Majors and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 1
GEL 44442 - Honors Independent Study II. (Arr.-Arr.-2) Independent Study in geosciences, designed for the individual needs of the student. May be repeated once. No more than six hours of Independent Study credit. Prerequisites & Notes: Admission to the Departmental Honors Program for Geology Majors and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 2	~~GEL~~ **GEO 44452 - Honors Independent Study in Geology II. (Arr.-Arr.-2)** Independent Study in geosciences, designed for the individual needs of the student. May be repeated once. No more than six hours of Independent Study credit. Prerequisites & Notes: Admission to the Departmental Honors Program for Geology Majors and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 2
GEL 44443 - Honors Independent Study III. (Arr.-Arr.-3) Independent Study in geosciences, designed for the individual needs of the student. May be repeated once. No more than six hours of Independent Study credit. Prerequisites & Notes: Admission to the Departmental Honors Program for Geology Majors and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 3	~~GEL~~ **GEO 44453 - Honors Independent Study in Geology III. (Arr.-Arr.-3)** Independent Study in geosciences, designed for the individual needs of the student. May be repeated once. No more than six hours of Independent Study credit. Prerequisites & Notes: Admission to the Departmental Honors Program for Geology Majors and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 3
GEL 4450 - Well Log Interpretation. (2-2-3) On Demand. Fundamental principles of open hole log in investigating subsurface geology are discussed with emphasis on petroleum exploration. This is essentially an applied course with stress on how to take data from well logs, calculate and analyze these data. Prerequisites & Notes: GEL 3510. Credits: 3	~~GEL~~ **GEO 4450 - Well Log Interpretation. (2-2-3) On Demand.** Fundamental principles of open hole log in investigating subsurface geology are discussed with emphasis on petroleum exploration. This is essentially an applied course with stress on how to take data from well logs, calculate and analyze these data. Prerequisites & Notes: ~~GEL~~ GEO 3510. Credits: 3
GEL 4480 - Optical Mineralogy. (3-2-4) On Demand. Use of the polarizing microscope for determination of optical properties of minerals; identification of minerals in thin section. Prerequisites & Notes: Prior or concurrent enrollment in GEL 3405. Credits: 4	~~GEL~~ **GEO 4480 - Optical Mineralogy. (3-2-4) On Demand.** Use of the polarizing microscope for determination of optical properties of minerals; identification of minerals in thin section. Prerequisites & Notes: Prior or concurrent enrollment in ~~GEL~~ GEO 3405. Credits: 4
GEL 4490 - Invertebrate Paleontology. (2-2-3) F. Description and classification of major fossil invertebrate groups; preservation of fossils; use of fossils in geologic work. Field work. Prerequisites & Notes: GEL 1430; BIO 1001G. Credits: 3	~~GEL~~ **GEO 4490 - Invertebrate Paleontology. (2-2-3) F.** Description and classification of major fossil invertebrate groups; preservation of fossils; use of fossils in geologic work. Field work. Prerequisites & Notes: ~~GEL~~ GEO 1430; BIO 1001G. Credits: 3
GEL 4555 - Honors Research. (Arr.-Arr.-1-6) Research in the geosciences undertaken with close supervision of a geoscience faculty member. Written report required. At least one semester hour is required of students in the Departmental Honors Program. A maximum of five additional semester hours credit may be applied to the Departmental Honors Program and/or the major in geology. Prerequisites & Notes: Admission to the Departmental Honors Program for Geology Majors, and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 1 to 6	~~GEL~~ **GEO 4556 - Honors Research in Geology. (Arr.-Arr.-1-6)** Research in the geosciences undertaken with close supervision of a geoscience faculty member. Written report required. At least one semester hour is required of students in the Departmental Honors Program. A maximum of five additional semester hours credit may be applied to the Departmental Honors Program and/or the major in geology. Prerequisites & Notes: Admission to the Departmental Honors Program for Geology Majors, and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 1 to 6
GEL 4644 - Honors Thesis. (Arr.-Arr.-1-6) Written thesis based upon a survey of the geological literature and student's original research performed under the close supervision of a geoscience faculty member. At least one semester hour is required of students in the Departmental Honors Program. May not be repeated. Prerequisites & Notes: Admission to the Departmental Honors Program for Geology Majors, and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 1 to 6	~~GEL~~ **GEO 4645 - Honors Thesis in Geology. (Arr.-Arr.-1-6)** Written thesis based upon a survey of the geological literature and student's original research performed under the close supervision of a geoscience faculty member. At least one semester hour is required of students in the Departmental Honors Program. May not be repeated. Prerequisites & Notes: Admission to the Departmental Honors Program for Geology Majors, and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 1 to 6

GEL 46661 - Honors Seminar I. (Arr.-Arr.-1 to 6) Discussions, reports, and field/laboratory work concerning selected geoscience topics, with instructor guidance. May be repeated once if a different topic is pursued. Prerequisites & Notes: Admission to the Departmental Honors Program for Geology Majors and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 1 to 6	~~GEL~~ GEO 46671 - **Honors Seminar in Geology I. (Arr.-Arr.-1 to 6)** Discussions, reports, and field/laboratory work concerning selected geoscience topics, with instructor guidance. May be repeated once if a different topic is pursued. Prerequisites & Notes: Admission to the Departmental Honors Program for Geology Majors and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 1 to 6
GEL 46662 - Honors Seminar II. (Arr.-Arr.-1 to 6) Discussions, reports, and field/laboratory work concerning selected geoscience topics, with instructor guidance. May be repeated once if a different topic is pursued. Prerequisites & Notes: Admission to the Departmental Honors Program for Geology Majors and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 1 to 6	~~GEL~~ GEO 46672 - **Honors Seminar in Geology II. (Arr.-Arr.-1 to 6)** Discussions, reports, and field/laboratory work concerning selected geoscience topics, with instructor guidance. May be repeated once if a different topic is pursued. Prerequisites & Notes: Admission to the Departmental Honors Program for Geology Majors and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 1 to 6
GEL 46663 - Honors Seminar III. (Arr.-Arr.-1 to 6) Discussions, reports, and field/laboratory work concerning selected geoscience topics, with instructor guidance. May be repeated once if a different topic is pursued. Prerequisites & Notes: Admission to the Departmental Honors Program for Geology Majors and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 1 to 6	~~GEL~~ GEO 46673 - **Honors Seminar in Geology III. (Arr.-Arr.-1 to 6)** Discussions, reports, and field/laboratory work concerning selected geoscience topics, with instructor guidance. May be repeated once if a different topic is pursued. Prerequisites & Notes: Admission to the Departmental Honors Program for Geology Majors and permission of the Departmental Honors Coordinator and Department Chairperson. Credits: 1 to 6
ESC 4900 - Earth Science Field Experience for Teachers. (2-6-5) Su. Introduction to and field investigations of earth materials and resources, geological and geomorphical processes, and their historical relationships. Prerequisites & Notes: Teaching license or permission of the instructor. Credits: 5	~~ESC~~ GEO **4900 - Earth Science Field Experience for Teachers. (2-6-5) Su.** Introduction to and field investigations of earth materials and resources, geological and geomorphical processes, and their historical relationships. Prerequisites & Notes: Teaching license or permission of the instructor. Credits: 5
ESC 4950 - Earth Science Field Experience Research for Teachers. (Arr.-Arr.-1-3) Su or F. Research on specific topic or topics developed while enrolled in ESC 4900. Prerequisites & Notes: Prerequisite or corequisite: ESC 4900. Credits: 1 to 3	~~ESC~~ GEO **4950 - Earth Science Field Experience Research for Teachers. (Arr.-Arr.-1-3) Su or F.** Research on specific topic or topics developed while enrolled in ~~ESC~~ GEO 4900. Prerequisites & Notes: Prerequisite or corequisite: ~~ESC~~ GEO 4900. Credits: 1 to 3
GEG 4910 - GIS Programming. (3-2-4) On Demand. An introduction to programming techniques used in spatial data management and analysis. This course is intended for students with some experience in geographic information systems (GIS) who want to learn how to extend GIS to perform custom analyses, to automate common GIS tasks, or just to learn how spatial data is structured and managed "under the hood". Topics will include visual models and diagrams of GIS workflows, automation, web mapping, spatial data structures and spatial algorithms. No prior programming experience is required. Prerequisites & Notes: "C" or better in GEG 3810/5810 or equivalent, or permission of instructor. Credits: 4	~~GEG~~ GEO **4910 - GIS Programming. (3-2-4) On Demand.** An introduction to programming techniques used in spatial data management and analysis. This course is intended for students with some experience in geographic information systems (GIS) who want to learn how to extend GIS to perform custom analyses, to automate common GIS tasks, or just to learn how spatial data is structured and managed "under the hood". Topics will include visual models and diagrams of GIS workflows, automation, web mapping, spatial data structures and spatial algorithms. No prior programming experience is required. Prerequisites & Notes: "C" or better in ~~GEG~~ GEO 3810/5810 or equivalent, or permission of instructor. Credits: 4
GEL 4800 - Summer Field Geology in the Black Hills, S.D. (Arr.-Arr.-6) Su. Individual and group problem-solving by application of field methods and techniques, including plane table and total station mapping and air photo interpretation. Six weeks of field study required. Contact Director of Summer Field Geology concerning fees and registration. This course is complementary to nearly all of the department's geology courses. This requirement must be met in the EIU Geology Field Station in the Black Hills of South Dakota. In cases of students' health limitations, with the approval of the department chair, an alternative program will be provided. Prerequisites & Notes: GEL 1430, 3405, and 3430. GEL 3510, 3560 and 4490 recommended. In special cases, permission of chairperson and field camp director is required. Graduate students will complete an additional field research project that has been approved by the field camp director. This project must be successfully completed by the end of the course. Credits: 6	~~GEL~~ GEO **4800 - Summer Field Geology in the Black Hills, S.D. (Arr.-Arr.-6) Su.** Individual and group problem-solving by application of field methods and techniques, including plane table and total station mapping and air photo interpretation. Six weeks of field study required. Contact Director of Summer Field Geology concerning fees and registration. This course is complementary to nearly all of the department's geology courses. This requirement must be met in the EIU Geology Field Station in the Black Hills of South Dakota. In cases of students' health limitations, with the approval of the department chair, an alternative program will be provided. Prerequisites & Notes: ~~GEL~~ GEO 1430, 3405, and 3430. ~~GEL~~ GEO 3510, 3560 and 4490 recommended. In special cases, permission of chairperson and field camp director is required. Graduate students will complete an additional field research project that has been approved by the field camp director. This project must be successfully completed by the end of the course. Credits: 6
GEL 4850 - Environmental Geology. (3-0-3) Study of natural and engineered interactions of contaminants and the geologic environment. Topics include types and analysis of common contaminants, surface and groundwater quality, risk analysis, U.S. environmental law, industrial and municipal waste disposal, and remediation techniques. Prerequisites & Notes: ESC/GEL 1300G or ESC/GEL 1320G or ESC/GEL 1390G; CHM 1410; MAT 1330 (or MAT 1400), or permission of the instructor. Credits: 3	~~GEL~~ GEO **4850 - Environmental Geology. (3-0-3)** Study of natural and engineered interactions of contaminants and the geologic environment. Topics include types and analysis of common contaminants, surface and groundwater quality, risk analysis, U.S. environmental law, industrial and municipal waste disposal, and remediation techniques. Prerequisites & Notes: ~~ESC/GEL~~ GEO 1300G or ~~ESC/GEL~~ GEO 1320G or ~~ESC/GEL~~ GEO 1390G; CHM 1410; MAT 1330 (or MAT 1400), or permission of the instructor. Credits: 3
GEL 4892 - Introduction to Paleobotany. (3-2-4) On Demand. Introduction to the origin and theories of evolution, diversification, radiation, and paleogeography of plants through time, with special reference to vascular plants. Field work. Prerequisites & Notes: BIO 1200G or permission of instructor. Credit not granted for both GEL 4892 and BIO 4892. Credits: 4	~~GEL~~ GEO **4892 - Introduction to Paleobotany. (3-2-4)** On Demand. Introduction to the origin and theories of evolution, diversification, radiation, and paleogeography of plants through time, with special reference to vascular plants. Field work. Prerequisites & Notes: BIO 1200G or permission of instructor. Credit not granted for both ~~GEL~~ GEO 4892 and BIO 4892. Credits: 4

Pending Executive Actions:

CAH

Effective Fall 2016

1. Revise the prerequisites for MUS 1070.

   MUS 1070 - Introduction to Music Technology. (2-0-2) S. An overview of computers, peripherals, and software, and how they can be used effectively in a musical environment. Prerequisites & Notes: ~~MUS 1501.~~ **Music major status or permission of instructor.** Credits: 2

2. Add prerequisites for MUS 2070.

   MUS 2070 - Electronic Music Studio Techniques. (2-Arr.-2) S. Principles and use of music synthesizers, MIDI, sequencers, and recording techniques in the production and shaping of electronic sound. **Prerequisites & Notes: MUS 1070 or permission of instructor.** Credits: 2

3. Revise the term of offering for THA 2005.

   THA 2005 - Stage Makeup. (3-3-3) ~~**F.**~~ **F-even-numbered years.** Fundamentals in design and use of stage theatrical makeup. Students will execute makeup designs using basic techniques and progressing to more challenging makeup styles. TA 912 Credits: 3

4. Delete THA 2257 from the catalog.

   ~~**THA 2257 - Graphics for the Performing Arts. (3-3-3) F.** Concerned with the processes of drafting, perspective drawing and figure drawing as applicable to the areas of scenic design, lighting design and costume design for the theatre. Prerequisites & Notes: THA 2110, 2211, or permission of the instructor. Credits: 3~~

5. Change the term of offering for THA 2281.

   THA 2281 - Summer Theatre: Performance I. (Arr.-Arr.-3-6) ~~**Su.**~~ **On Demand.** Practical, comprehensive experiences in performance in theatre arts. May substitute for THA 2244 with permission of the instructor and Department Chair. A maximum of nine semester hours total from THA 2281 and 4810 may be counted toward graduation. Contact Theatre Arts Department for details concerning auditions and interviews. Credits: 3 to 6

6. Update the term of offering for THA 2282.

   THA 2282 - Summer Theatre: Tech I. (Arr.-Arr.-3-6) ~~**Su.**~~ **On Demand.** Practical, comprehensive experiences in technical theatre arts. May substitute for THA 2210 and/or 2211 with permission of the instructor and Department Chair. A maximum of nine semester hours total from 2282 and 4811 may be counted toward graduation. Contact Theatre Arts Department for details concerning auditions and interviews. Credits: 3 to 6

7. Modify the term of offering for THA 2961.

   THA 2961 - Study Abroad Elective. On Demand. This course is used by students who are studying abroad, and who will transfer credits back to the university at the end of the term. Credits: 1-16

8. Revise the term of offering for THA 3257.

   THA 3257 - Digital Theatrical Design. (3-3-3) ~~**S.**~~ **On Demand.** This course, a technical course for the Theatre Arts major, will serve as a prerequisite to further design studies in certain areas of scene, lighting and costume design. A basic knowledge of Macintosh computers is helpful, but not required. Prerequisites & Notes: THA 2210, 2211, or permission of the instructor. Credits: 3

9. Update the term of offering for THA 3334.

   THA 3334 - Performing Voice. (2-2-2) ~~**S.**~~ **S-odd-numbered years.** A continuation of the work begun in Basic Acting with a focus on vocal production. Emphasis on developing an audible, resonant voice; clear diction; and a relaxed and properly aligned body, all in the context of acting/performance. Prerequisites & Notes: THA 1134 or permission of instructor. Credits: 2

10. Change the term of offering for THA 3349.

    THA 3349 - Classical Acting Styles. (3-3-3) ~~**On Demand.**~~ **F-odd-numbered years.** A course for advanced students that explores classical dramatic texts, including but not limited to Shakespeare, Restoration drama, and/or the early Greek playwrights, using text analysis, movement, vocal, and imaginative skills. This course is restricted to Theatre Arts majors and minors. Prerequisites & Notes: THA 2244 with a grade of ""C or better, and either THA 1134 or THA 3334 with a grade of "C" or better. Credits: 3

11. Amend the term of offering for THA 3350.

    THA 3350 - Stage Management. (3-3-3) ~~**F.**~~ **On Demand.** A hands-on introduction to the basic techniques of Stage Management for the theatre. Students in the course will be involved with an actual production from pre-production, through rehearsal and performance, to strike and evaluation. Prerequisites & Notes: A grade of "C" or better in ENG 1001G, ENG 1002G, THA 2210, THA 2211, THA 2244, and THA 2258. Credits: 3

12. Modify the term of offering for THA 3445.

    THA 3445 - Directing. (3-3-3) ~~**S.**~~ **F-even-numbered years.** The study and actual production of the play. Central emphasis is placed on directing. Prerequisites & Notes: THA 2211, 2244, 2258 or permission of the instructor. Credits: 3

13. Update the term of offering for THA 3500.

    THA 3500 - Independent Study. (Arr.-Arr.-1-6) On Demand. Problems in theatre arts in which the student works under the supervision of a staff member. Prerequisites & Notes: Permission of the instructor and the Department Chair. Course is repeatable one time for a maximum of 6 credit hours. Credits: 1 to 6

14. Revise the term of offering for THA 3751G.

    THA 3751G - Origins of European Theatre. (3-0-3) ~~**F, Su.**~~ **F.** A journey through the major periods in the development of theatre in Europe, from prehistoric times through the Renaissance. Connections to the social, political, religious, and artistic trends of the times will be emphasized. Special attention will be given to artists who have had a lasting impact on world theatre. No background in or knowledge of theatre is required. WI Prerequisites & Notes: A grade of "C" or better in ENG 1001G and 1002G. Credits: 3

15. Amend the term of offering for THA 3752G.

    THA 3752G - European and U.S. Theatre from 1660 to the Present Day. (3-0-3) ~~**S or Su.**~~ **S.** A journey through the major periods in the development of theatre in Europe and the US, from the time of the English Restoration and colonization of North America to today. Connections to the social, political, religious, and artistic trends of the times will be emphasized. Special attention will be given to artists who have had a lasting impact on world theatre. No background in or knowledge of theatre is required. WI Prerequisites & Notes: A grade of "C" or better in ENG 1001G and 1002G. Credits: 3

16. Update the term of offering for THA 3961.

    THA 3961 - Study Abroad Elective. On Demand. This course is used by students who are studying abroad, and who will transfer credits back to the university at the end of the term. Credits: 1-16

17. Change the term of offering for THA 3970.

    THA 3970 - Study Abroad. (Arr.-Arr.-1-15) On Demand. See STA 3970. Credits: 1 to 15

18. Revise the term of offering for THA 4275.

    THA 4275 - Theatre Internship. (Arr.-Arr.-1-6.) ~~F, S, Su.~~ On Demand. (Credit/No Credit) On-the-job experience for Theatre Arts majors in an approved performance, technical/design, or business capacity in theatre or such allied areas as film, television, radio, theme park, etc. Purpose is to augment skills not usually available in the classroom setting. Prerequisites & Notes: THA arts major, senior level, approval of the Department Chair. Credits: 1 to 6

19. Amend the term of offering to THA 4444.

    THA 4444 - Honors Independent Study. (3-0-3) On Demand. Consideration of special topics in Theatre. Special emphasis on an area of interest to the student approved by faculty supervisor and Departmental Honors Coordinator. Prerequisites & Notes: Admission to the Departmental Honors Program and permission of the Departmental Honors Coordinator. Credits: 3

20. Update the term of offering for THA 2282.

    THA 45501 - Advanced Design Studies I. (3-3-3) ~~As needed.~~ On Demand. Problems in theatrical design (scenic, lighting, costume) in which a student works and studies under the supervision of a faculty member to produce a design for a particular theatrical production of the Theatre Arts Department. Prerequisites & Notes: Permission of the instructor and the Department Chair plus completion of one design course. Credits: 3

21. Modify the term of offering for THA 45502.

    THA 45502 - Advanced Design Studies II. (3-3-3) ~~As needed.~~ On Demand. Problems in theatrical design (scenic, lighting, costume) in which a student works and studies under the supervision of a faculty member to produce a design for a particular theatrical production of the Theatre Arts Department. Prerequisites & Notes: Permission of the instructor and the Department Chair plus completion of one design course. Credits: 3

22. Revise the term of offering for THA 45503.

    THA 45503 - Advanced Design Studies III. (3-3-3) ~~As needed.~~ On Demand. Problems in theatrical design (scenic, lighting, costume) in which a student works and studies under the supervision of a faculty member to produce a design for a particular theatrical production of the Theatre Arts Department. Prerequisites & Notes: Permission of the instructor and the Department Chair plus completion of one design course. Credits: 3

23. Change the term of offering for THA 4555.

    THA 4555 - Honors Research. (3-0-3) On Demand. In consultation with a faculty member, the student designs, executes, and writes the results of an original piece of research. Any methodology may be utilized. Prerequisites & Notes: Admission to the Departmental Honors Program and permission of the Departmental Honors Coordinator. Credits: 3

24. Update the term of offering for THA 4644.

    THA 4644 - Honors Thesis. (3-0-3) **On Demand.** Intensive research in preparation of a thesis on a topic in Theatre approved by faculty supervisor and the Departmental Honors Coordinator. Prerequisites & Notes: Admission to the Departmental Honors Program and permission of the Departmental Honors Coordinator. May be taken twice for credit. Credits: 3

25. Change the term of offering for THA 4666.

    THA 4666 - Honors Seminar. (3-0-3) **On Demand.** Areas of investigation which require integration of Theatre Arts activities and research will be treated. Prerequisites & Notes: Admission to the Departmental Honors Program and permission of the Departmental Honors Coordinator. Credits: 3

26. Modify the term of offering for THA 4810.

    THA 4810 - Summer Theatre: Performance II. (Arr.-Arr.-3-6) ~~**Su.**~~ **On Demand.** Practical, comprehensive experiences in performance in theatre arts. May substitute, with permission of the instructor(s) and the Department Chair, for 3344, 3345, 3346, 3347, and/or 3431. A maximum of nine semester hours total from THA 2281 and 4810 may be counted toward graduation. Contact the Theatre Arts Department for details concerning auditions and interviews. Credits: 3 to 6

27. Revise the term of offering for THA 4811.

    THA 4811 - Summer Theatre: Tech II. (Arr.-Arr.-3-6) ~~**Su.**~~ **On Demand.** Practical, comprehensive experiences in technical theatre. May substitute, with permission of the instructor(s) and the Department Chair, for 4550. A maximum of nine semester hours total from THA 2282 and 4811 may be counted toward graduation. Contact the Theatre Arts Department for details concerning auditions and interviews. Credits: 3 to 6

28. Update the term of offering for THA 4812.

    THA 4812 - Summer Theatre: Directing. (Arr.-Arr.-3-6) ~~**Su.**~~ **On Demand.** Practical, comprehensive experiences in theatrical directing. May substitute, with permission of the instructor(s) and the Department Chair, for 4400. Contact the Theatre Arts Department for details concerning auditions and interviews. Credits: 3 to 6

29. Amend the term of offering for THA 4834.

    THA 4834 - Methods of Play Production in Middle and Secondary Schools. (2-3-3) ~~**Su.**~~ **On Demand.** The course focuses on the special problems of play production in the public schools for non-theatre majors. Prerequisites & Notes: Graduate or senior standing or permission of the instructor. Credits: 3

COS
Effective Fall 2016

1. Revise the course title for BIO 3850.

    ~~**BIO 3850 - Environmental Biology.**~~ **Environmental Health and Sustainability. (3-3-4)** An introduction to the principles of environmental sciences for biology majors. This course investigates the foundations of environmental science with particular attention to environmental problems from a biological perspective and the costs and benefits to their "solutions" from the local to global scale. This course pays particular attention to how to analyze, interpret and present scientific information in the life sciences. Prerequisites & Notes: BIO 1200G and BIO 1300G. Credits: 4

Pending Executive Actions:
NOTE: The following changes are contingent upon the approval of the CTE 3000G course proposal (agenda item 15-146) which is currently pending.

BAS
Effective Fall 2016

1. Delete CTE 3000 from the catalog.

   ~~**CTE 3000 - Consumers in the Marketplace. (3-0-3) F, S.** Factors affecting personal and family financial management, including investments and savings, use of credit, insurance and taxes. Credit will not be granted for both CTE 3000 and FCS 3300. Credits: 3~~

2. Decouple FCS 3300 and CTE 3000.

   FCS 3300 - Personal and Family Finance. (3-0-3) F, S. A study of factors affecting the buymanship of food, clothing, housing, transportation, credit, and insurance. ~~Credit not granted for both FCS 3300 and CTE 3000.~~ Credits: 3

Attachment A

Organizational and Professional Development (B.S.)

Total Semester Hours Required for Degree: 120 semester hours

The Organizational and Professional Development Program offers a Bachelor of Science degree with a major in Organizational and Professional Development that prepares students with significant working experience for positions as supervisors, project leaders, change agents, and trainers in a variety of organizational settings.

Application Criteria

To apply for admission to the Organizational and Professional Development program, a student must:

1. Have earned a minimum of 30 credit hours from an accredited institution;
2. Have earned a cumulative GPA of at least 2.50 or higher;

Students that do not meet these admission requirements, but meet EIU's general transfer admission requirements will have their application reviewed by the OPD coordinator. Following this review, students may be required to participate in a pre-entry interview or submit a new application for consideration at a later time.

General Education Requirements

- Humanities and Fine Arts. Credits: 9
- Language. Credits: 9
- Mathematics. Credits: 3
- Scientific Awareness. Credits: 7
- Senior Seminar. Credits: 3
- Social and Behavioral Sciences. Credits: 9

Major

Semester Hours Required for OPD Major: 12 ~~-30~~ semester hours

Major Requirements

- ~~Prior Occupational Learning. Credits: 1-30 (see footnote **)~~ **~~OR~~** OPD 4810 – Principles of Career Development. Credits: 3
- OPD 4830 - Organizational Perspectives: Past, Present and Future. Credits: 3
- OPD 4835 - Supervision in Organizations. Credits: 3
- OPD 4840 - Training Program Development. Credits: 3

Areas of Concentration

Students may also select an area of concentration consisting of courses taken in addition to the General Requirements and Major Requirements. Each concentration is planned to supplement the student's professional goals or personal interests and must be done in consultation with the student's advisor. The two areas of concentration and the recommended electives for each are:

Training/Development Concentration

Nine semester hours from the list below.

- OPD 4800 - Strategies and Processes of Teaching and Training. Credits: 3
- OPD 4845 - Improvement in Organizations. Credits: 3
- OPD 4855 - Web-Based Training and Instruction. Credits: 3
- OPD 4860 - Facilitating Learning and Project Groups. Credits: 3
- OPD 4890 - Accelerated Learning and Training. Credits: 3
- MGT 3450 - Human Resource Management. Credits: 3
- MIS 3515 - Information Presentation. Credits: 3

Supervision/Leadership Concentration
Nine semester hours from the list below.

- AET 4943 - Manufacturing Management. Credits: 3
- BUS 3500 - Management Information Systems. Credits: 3
- OPD 4815 - Conflict in Organizations Credits: 3
- OPD 4820 - Change Strategies in Organizations. Credits: 3
- OPD 4825 - Ethical Behavior in Organizations Credits: 3
- OPD 4870 - Coaching and Mentoring for Critical Thinking in the Workplace. Credits: 3
- OPD 4880 - Productive Work Teams. Credits: 3
- MIS 3530 - Business Web Site Design. Credits: 3

Footnotes:
*Of the 120 semester hours required to complete the degree, at least 25 semester hours of courses from EIU must be included.

****OPD majors must maintain a cumulative GPA of 2.5 within the OPD Major. Calculation of the major GPA is based on all courses taken through Eastern Illinois University with the prefix OPD or approved as major courses for the BS in Organizational and Professional Development.**

~~**Based on recommendations developed while enrolled in OPD 3000 - Learning Analysis through Portfolio Development, students may prepare and submit a portfolio which explicitly describes college-level learning based on prior occupational experiences. This credit may be granted via OPD 3200 or other course numbers within the Organizational and Professional Development Program.~~

Attachment B

Organizational and Professional Development Core Coursework (12 hours)

OPD 4830	Organizational Perspectives	3 s.h.
OPD 4835	Supervision in Organizations	3 s.h.
OPD 4840	Training Program Development	3 s.h.
OPD 4810 ~~or~~	Principles of Career Development	3 s.h.
~~OPD 3000~~	~~Learning Analysis Through Portfolio Development~~	~~3 s.h.~~

ELECTIVES

OPD 3000	**Learning Analysis Through Portfolio Development**	**3 s.h.**
OPD 3020	Principles of Organizational and Professional Development	3 s.h.
OPD 4430	Research in Organizations	3 s.h.
OPD 4700	Leadership in Organizations	3 s.h.
OPD 4800	Strategies& Process Teach/Train	3 s.h.
OPD 4815	Conflict in Organizations	3 s.h.
OPD 4820	Change in Organizations	3 s.h.
OPD 4825	Ethical Behavior in Organizations	3 s.h.
OPD 4845	Improvement in Organizations	3 s.h.
OPD 4855	Web-Based Training and Instruction	3 s.h.
OPD 4860	Facilitating Learning & Project Grps	3 s.h.
OPD 4864	Strength-Based Organizational and Professional Development Methods	3 s.h.
OPD 4865	Diversity in Organizations	3 s.h.
OPD 4870	Coaching and Mentoring for Critical Thinking in the Workplace	3 s.h.
OPD 4880	Productive Work teams	3 s.h.
OPD 4890	Accelerated Learning and Training	3 s.h.