Students may complete a major or minor in Geology. Within the major, students may complete a concentration in geoarchaeology.

The department seeks to give students a well-rounded earth science education that balances fundamental knowledge of geology with broadly applicable problem-solving and communication skills. The integrated science of geology combines biology, chemistry and physics as they apply to the workings of Earth and other planets. Well-trained geoscientists are increasingly in demand to address the environmental challenges and natural resource limitations of the modern world. A central tenet for understanding and predicting Earth processes and environmental change is the ability to decipher past Earth history from geologic records. Thus the major in Geology includes study of the physics and chemistry of Earth materials and processes; the history of the Earth and its organisms; and the range of techniques used to investigate the past and present workings of the Earth system. Field and lab experiences are essential parts of geology training, and at Bryn Mawr field trips and lab work are part of all introductory courses, most other classes, and most independent research projects.

MAJOR REQUIREMENTS
Thirteen courses are required for the major: GEOL 101 and 102 or 103; 202, 203, 204, and 205; at least two semesters of quantitative or computational coursework, e.g., MATH 101 and 102 or alternates approved by the adviser; a two semester sequence of CHEM (103-104) or PHYS (101-102 or 121-122); GEOL 399; and either two advanced geology courses or one advanced geology course and an additional upper-level course in biology, chemistry, mathematics, physics, or computer science. The writing requirement for the major in Geology is fulfilled in GEOL 203. This course includes a semester-long research project culminating in a scientific manuscript based on material collected in the field by enrolled students.

Additional courses in the allied sciences are strongly recommended and are required by most graduate schools. A student who wishes to follow a career in geology should plan to attend a summer field course, usually following the completion of the 200-level courses.

All Geology majors participate in a senior capstone experience (GEOL 399), which is structured into a two-semester seminar that meets weekly for 1.5 hours for a total of 1.0 credit (0.5 credits per semester). The focus of the capstone seminar is to reinforce students' ability to address geoscience questions and to communicate their findings in writing and orally. The team-taught senior seminar integrates the student's major curriculum with weekly speakers or peer-led discussions on cutting edge research, and the impact and relevance of geology to modern society.

MINOR REQUIREMENTS
A minor in Geology consists of two 100-level Geology courses, and any four of the 200- or 300-level courses offered by the department. Two 0.5 credit courses may be combined to count toward one of the 100-level courses. Alternatively, an additional 200- or 300-level course may be substituted for one of the 100-level courses to meet the minor requirements.

THESIS
At the discretion of the department faculty, rising seniors may undertake an independent thesis project (GEOL 403) in addition to mandatory full participation in the Senior Capstone Seminar (GEOL 399). Student thesis projects must be supervised by a faculty adviser. The senior thesis is modeled after a Master's thesis project, but is scaled down for the different time frame (one year versus two years) and educational level of a senior undergraduate student. The thesis project plan is initially developed and agreed upon through consultation between the supervising faculty member(s) and the student. Most of the research is conducted independently by the student. The adviser serves as a source of ideas concerning scientific literature, methodologies and project support. The adviser may visit and inspect the research sites, laboratory or model, and offer advice on how the research should be conducted or modified.

If approved to undertake a senior thesis, a student will enroll in GEOL 403 each of her final two semesters for a total of 1.0 credit (0.5 credits per semester). The thesis option adds the equivalent of one course to the standard Geology major
requirements. The first semester will focus on thesis topic formulation, background research and initiation of appropriate data acquisition. At the end of the first semester, the student must submit a formal written project proposal to department faculty members. This research proposal must demonstrate the student’s ability to successfully complete her thesis during the following semester. Following review of submitted proposals, students or faculty members may choose or recommend, respectively, not to complete the independent thesis, in which case the student would not enroll for the second semester of GEOL 403.

**CONCENTRATION IN GEOARCHEOLOGY**

The Departments of Anthropology, Classical and Near Eastern Archaeology, and Geology offer a concentration in geoarchaeology for existing majors in these departments. Please consult with Professor Magee regarding this program. Please note that these requirements are separate from those for the major and cannot be double counted. Requirements for the concentration:

- Two 100-level units from Anthropology, Classical and Near Eastern Archaeology (including ARCH 135, a half-credit course) or Geology, of which one must be from the department outside the student’s major.
- ANTH/ARCH/GEOL 270: Geoarchaeology (Magee, Barber).
- BIOL/ARCH/GEOL 328: Geospatial Data Analysis and GIS (staff).
- Two elective courses, to be chosen in consultation with the major adviser, from among current offerings in Anthropology, Classical and Near Eastern Archaeology and Geology. One of these two courses must be from outside the student’s major. Suggested courses include but are not limited to ARCH 135 (HALF-CREDIT: Archaeological Fieldwork and Methods), ANTH 203 (Human Ecology), ANTH 220 (Methods and Theory), ARCH 330 (History of Archaeology and Theory), ANTH 225 (Paleolithic Archaeology), ANTH 240 (Traditional Technologies), ARCH 308 (Ceramic Analysis), ARCH 332 (Field Techniques), GEOL 202 (Mineralogy), GEOL 205 (Sedimentology), GEOL 310 (Geophysics), and GEOL 312 (Quaternary Climates).

**HONORS**

Honors are awarded to students who have outstanding academic records in Geology and allied fields, and whose research is judged by the faculty of the department to be of the highest quality.

**FACULTY**

**Don Barber**
Associate Professor of Geology on the Harold Alderfer Chair in Environmental Studies

**Selby Cull-Hearth**
Assistant Professor of Geology

**Pedro Marenco**
Associate Professor of Geology

**Arlo Weil**
Chair and Professor of Geology

**COURSES**

**GEOL B101 HOW THE EARTH WORKS**
*Pedro Marenco, Selby Cull-Hearth*

An introduction to the study of planet Earth—the materials of which it is made, the forces that shape its surface and interior, the relationship of geological processes to people, and the application of geological knowledge to the search for useful materials. Laboratory and fieldwork focus on learning the tools for geological investigations and applying them to the local area and selected areas around the world. Three lectures and one afternoon of laboratory or fieldwork a week. One required one-day field trip on a weekend. Approach: Quantitative Readiness Required (QR); Scientific Investigation (SI). Counts towards: Environmental Studies. (Fall 2016)

**GEOL B102 EARTH: LIFE OF A PLANET**
*Staff*

The history of the Earth from its beginning, including its climate and tectonic history and the evolution of the living forms that have populated it. Three lectures, one afternoon of laboratory a week. A required two-day (Sat-Sun) field trip is taken in April. Approach: Scientific Investigation (SI). Units: 1.0. Not Offered 2016-2017)

**GEOL B103 EARTH SYSTEMS AND THE ENVIRONMENT**
*Staff*

This integrated approach to studying the Earth
focuses on interactions among geology, oceanography, and biology. Also discussed are the consequences of human energy consumption, industrial development, and land use. Two lectures and one afternoon of laboratory or fieldwork per week. A required field trip is taken in April. Approach: Scientific Investigation (SI). Counts towards: Environmental Studies. Units: 1.0. (Not Offered 2016-2017)

GEOL B110 FOCUS: EXPLORING TOPICS IN THE EARTH SCIENCES
Selby Cull-Hearth
This is a half-semester focus course. Approach: Scientific Investigation (SI)
Units: 0.5
Spring 2017: Exploring Mars. In this half-semester class, we’ll examine the latest data from the two Mars rovers currently operating on the surface, as well as satellite data from the many NASA and international missions in orbit around Mars right now. We'll explore what we know about the geologic history of Mars, including the presence of past water, and the potential for past life.

GEOL B125 FOCUS: GEOLOGY IN FILM
Pedro Marenco
This is a half semester Focus course. Geologic processes make for great film storylines, but filmmakers take great liberty with how they depict scientific “facts” and scientists. We will explore how and why filmmakers choose to deviate from science reality. We will study and view one film per week and discuss its issues from a geologist's perspective. Approach: Course does not meet an Approach Counts towards: Film Studies. Units: 0.5. (Spring 2017)

GEOL B202 MINERALOGY AND CRYSTAL CHEMISTRY
Selby Cull-Hearth
The crystal chemistry of representative minerals as well as the relationship between the physical properties of minerals and their structures and chemical compositions. Emphasis is placed on mineral identification and interpretation. The occurrence and petrography of typical mineral associations and rocks is also covered. Lecture three hours, laboratory at least three hours a week. One required field trip on a weekend. Prerequisite(s): introductory course in Geology or Chemistry (both recommended, one required).

GEOL B203 INVERTEBRATE PALEOBIOLOGY
Pedro Marenco
We will explore how the Earth-life system has evolved through time by studying the interactions between life, climate, and tectonic processes. During the lab component of the course, we will study important fossil groups to better understand their paleoecology and roles in the Earth-life system. Approach: Scientific Investigation (SI) Major Writing Requirement: Writing Intensive Counts towards: Environmental Studies Units: 1.0. (Fall 2016)

GEOL B204 STRUCTURAL GEOLOGY
Arlo Weil
An introduction to the study of rock deformation in the Earth’s lithosphere viewed from all scales - from the microscopic (atomic scale) to the macroscopic (continental scale). This class focuses on building a foundation of knowledge and understanding that will allow students to broaden their appreciation and understanding of the complexity of the Earth system and the links between geologic structures at all scales and plate tectonics. Three lectures and three hours of laboratory a week, plus a required three-day, weekend field trip. Prerequisite(s): GEOL 101 and MATH 101. Approach: Quantitative Readiness Required (QR). Units: 1.0. (Spring 2017)

GEOL B205 SEDIMENTARY MATERIALS AND ENVIRONMENTS
Don Barber
An introduction to sediment transport, depositional processes, and stratigraphic analysis, with emphasis on interpretation of sedimentary sequences and the reconstruction of past environments. Three lectures and one lab a week, plus a one-day field trip. Prerequisite(s): GEOL 101, 102, or 103 or permission of instructor. Recommended: GEOL B202 and B203. Approach: Course does not meet an Approach Units: 1.0. (Spring 2017)

GEOL B206 ENERGY RESOURCES AND SUSTAINABILITY
Don Barber
An examination of issues concerning the supply of energy required by humanity. This includes an
investigation of the geological framework that determines resource availability, aspects of energy production and resource development and the science of global climate change. Two 90-minute lectures a week. Suggested preparation: one year of college science. Approach: Scientific Investigation (SI). Counts towards: Environmental Studies Units: 1.0. (Fall 2016)

GEOL B209 NATURAL HAZARDS  
Staff  
A quantitative approach to understanding the earth processes that impact human societies. We consider the past, current, and future hazards presented by geologic processes, including earthquakes, volcanoes, landslides, floods, and hurricanes. The course includes discussion of the social, economic, and policy contexts within which natural geologic processes become hazards. Case studies are drawn from contemporary and ancient societies. Lecture three hours a week. Prerequisite(s): one semester of college science or permission of instructor. Approach: Quantitative Methods (QM); Quantitative Readiness Required (QR). Counts towards: Environmental Studies. Units: 1.0. (Not Offered 2016-2017)

GEOL B260 ORIGIN STORIES: FROM THE BIG BANG TO MOTHER EARTH  
Arlo Weil, Mary Schulz  
This is a co-taught intermediate science course, instructed by a Geology and Physics professor, that will focus on the core scientific principals related to Cosmology, Physics and Geology that help address fundamental questions regarding the origin of the Universe, the origin of time, the origin of stars and our own solar system, and the origin of Earth, its atmosphere, hydrosphere and biosphere. The course will be a mix of fundamental scientific principles used to scaffold a deeper understanding of how scientists have come to understand and question stories of origin. Group discussions will be informed by close reading of scientific texts, and occasional problem sets. Approach: Scientific Investigation (SI). Units: 1.0. (Fall 2016)

GEOL B299 GEOLOGY FIELD SHORT COURSE  
Arlo Weil  
Geology majors choosing to participate in the annual Fall—or Spring—Break Geology Department Field Trip must enroll in GEOL B299. Enrollment in this class does not guarantee a spot on the field trip. Several pre-trip class meetings help maximize student engagement on the trip by providing a forum for discussing the assigned readings. During the week-long field trip, students are exposed to geologic field methods while visiting sites that exemplify different geology from that at sites near campus. Geologic methods introduced include proper field note-taking, mapping and measuring geologic structures, and interpreting geologic history. Culminating work introduces students to geologic illustration and report writing. A passing grade requires full participation and engagement by the student before, during and after the field trip. At least one post-trip meeting is held on campus to synthesize the material covered, and to go over students’ final reports. Prerequisite(s): GEOL B101, B102 or B103; and GEOL B202, B203, B204 or B205. Approach: Scientific Investigation (SI). Units: 0.5. (Spring 2017)

GEOL B301 HIGH-TEMPERATURE GEOCHEMISTRY  
Staff  
Principles and theory of various aspects of geochemistry in rock systems, focusing on applications of chemistry to the study of igneous and metamorphic rocks. Three hours of lecture per week. Prerequisite(s): GEOL 101 or GEOL 102, and at least one semester of chemistry or physics, or professor approval. Counts towards: Environmental Studies. Units: 1.0. (Not Offered 2016-2017)

GEOL B302 LOW-TEMPERATURE GEOCHEMISTRY  
Staff  
Stable isotope geochemistry is one of the most important subfields of the Earth sciences for understanding environmental and climatic change. In this course, we will explore stable isotopic fundamentals and applications including a number of important case studies from the recent and deep time dealing with important biotic events in the fossil record and major climate changes. Prerequisite(s): GEOL 101 or GEOL 102, and at least one semester of chemistry or physics, or professor approval. Counts towards: Environmental Studies. Units: 1.0. (Not Offered 2016-2017)

GEOL B304 TECTONICS  
Arlo Weil  
Plate tectonics and continental orogeny are reviewed in light of the geologic record in selected mountain ranges and certain geophysical data.
GEOL 305 IGNEOUS AND METAMORPHIC PETROLOGY

Staff

The study of igneous and metamorphic rocks, including their origins and modes of occurrence. The focus is on understanding how these rocks form, and on applying a combination of field methods, laboratory techniques, and theoretical understanding to interpret the origins of igneous and metamorphic rocks. The class will build on the study of mineralogy by examining assemblages of coexisting minerals, and what those assemblages reveal about the pressure, temperature, and chemical conditions under which a rock must have formed. For a culminating term project we will conduct an intensive study of local metamorphic rocks. Three lecture hours weekly and one weekly lab. One weekend field trip. Prerequisite(s): GEOL 202. Units: 1.0. (Not Offered 2016-2017)

GEOL 310 INTRODUCTION TO GEOPHYSICS

Staff

An overview covering how geophysical observations of the Earth’s magnetic field, gravity field, heat flow, radioactivity, and seismic waves provide a means to study plate tectonics and the earth’s interior. Three class hours a week with weekly problem sets. Prerequisite(s): one year of college physics or with permission of professor. Units: 1.0. (Not Offered 2016-2017)

GEOL 314 MARINE GEOLOGY

Staff

An introduction to oceanography, coastal processes, and the geomorphology of temperate and tropical shorelines. Includes an overview of the many parameters, including sea level change, that shape coastal environments. Meets twice weekly for a combination of lecture, discussion and hands-on exercises, including a mandatory multi-day field trip to investigate developed and pristine sections of the Mid-Atlantic US coast. Prerequisite(s): one 200-level GEOL course OR one GEOL course AND one BIOL course (any level), OR advanced BIOL major standing (junior or senior). Counts towards: Environmental Studies. Units: 1.0. (Not Offered 2016-2017)

GEOL 350 ADVANCED TOPICS IN GEOLOGY

Staff

This is a topics course. Course content varies. Recent topics include Carbonate Petrology, Appalachian Geology, Advanced Evolution, The Snowball Controversy, and Climate Change. Units: 1.0

Fall 2016: Seminal Ideas in Earth Science.
Investigation of the seminal ideas published over the past 150 years that led modern Geology. Topics include radiogenic heat, isotopic age dating, isostasy, plate tectonics, seismic sequence stratigraphy, atmospheric CO2 & climate, evolution and mass extinctions. Students read primary literature articles chosen to explore the scientific origins of these fundamental ideas. Weekly readings are the basis for in-class discussions.

Spring 2017: Acid Mine Drainage Systems.
Acid Mine Drainage is a consequence of mining, affecting streams and ecosystems miles from the abandoned mines that cause it. In this class, we’ll examine several AMD systems in Pennsylvania, visiting the mines, sampling the AMD run-off, and analyzing our samples using Bryn Mawr’s geochemistry tools. We’ll discuss the mineral alteration processes that lead to these deposits, and the consequences they can have for local communities and ecosystems. Prerequisite GEOL 202.

Spring 2017: Carbonate Environments.
Students will study Earth’s changing environments by using geologic indicators preserved in carbonate rocks and sediments. The course is laboratory-based, with an emphasis on making predictions, observations, and interpretations on samples collected by the class during field trips to ancient and modern carbonate environments.

GEOL 399 SENIOR CAPSTONE SEMINAR

Staff

A capstone seminar course required for all Geology majors. All Geology seniors will be required to participate in this two-semester seminar that meets weekly for 1.5 hours for a total of 1.0 credit (0.5 credits per semester). Enrollment required in two half-credit courses, one in the fall and one in the spring semester of the senior year. The focus of the seminar will be to integrate the student’s major curriculum into open peer-led discussions on cutting edge research in the many diverse fields of Geology, to discuss the impact and relevance of Geology to modern society, and to work on oral and
written communication skills. Units: 0.5. (Fall 2016, Spring 2017)

GEOL B403 SUPERVISED RESEARCH  
Staff  
At the discretion of the department faculty, rising seniors may undertake an independent thesis project in addition to mandatory full participation in the senior capstone seminar. This student thesis is conducted under the supervision of a faculty adviser(s). The undertaking of a thesis is modeled after a Master’s thesis project, which is scaled down for the different time frame (one year versus two years) and educational level of a senior undergraduate student. The thesis project plan is initially developed, and agreed upon by conference between the supervising faculty member(s) and the student. Most of the research is conducted independently by the student. The adviser serves as a source of ideas concerning scientific literature, methodologies, and financial support. The adviser may visit and inspect the research sites, laboratory or model, and offer advice on how the research should be conducted or modified. Units: 0.5, 1.0. (Fall 2016, Spring 2017)

GEOL B425 PRAXIS III  
Staff  
Independent or group projects with a significant emphasis on community outreach and service. Projects usually focus on addressing environmental issues through collaborative work with off-campus practitioners. Prerequisite(s): advanced standing in the environmental studies concentration or permission of the instructor. Counts towards: Praxis Program. Units: 1.0. (Not Offered 2016-2017)

BIOL B236 EVOLUTION  
Pedro Marenco, G. Davis  
A lecture/discussion course on the development of evolutionary biology. This course will cover the history of evolutionary theory, population genetics, molecular and developmental evolution, paleontology, and phylogenetic analysis. Lecture three hours a week. Approach: Scientific Investigation (SI). Counts towards: Biochemistry and Molecular Biology. Units: 1.0. (Spring 2017)

BIOL B250 COMPUTATIONAL METHODS IN THE SCIENCES  
Staff  
A study of how and why modern computation methods are used in scientific inquiry. Students will learn basic principles of visualizing and analyzing scientific data through hands-on programming exercises. The majority of the course will use the R programming language and corresponding open source statistical software. Content will focus on data sets from across the sciences. Six hours of combined lecture/lab per week. Approach: Quantitative Methods (QM); Quantitative Readiness Required (QR); Scientific Investigation (SI). Major Writing Requirement: Writing Attentive Counts towards: Biochemistry and Molecular Biology; Environmental Studies; Neuroscience. Units: 1.0. (Not Offered 2016-2017)

ENVS B397 SENIOR SEMINAR IN ENVIRONMENTAL STUDIES  
J Goldsmith  
In this capstone course, senior Environmental Studies minors from across the disciplines will draw on the perspectives and skills gained from their majors and from their preparatory work in the minor to collaboratively engage high-level questions of environmental inquiry. Prerequisite(s): Open only to Environmental Studies minors who have completed all introductory work for the minor. Counts towards: Environmental Studies Units: 1.0. (Fall 2016)

GEOL B103 EARTH SYSTEMS AND THE ENVIRONMENT  
Staff  
This integrated approach to studying the Earth focuses on interactions among geology, oceanography, and biology. Also discussed are the consequences of human energy consumption, industrial development, and land use. Two lectures and one afternoon of laboratory or fieldwork per week. A required field trip is taken in April. Approach: Scientific Investigation (SI). Counts towards: Environmental Studies. Units: 1.0. (Not Offered 2016-2017)

GEOL B109 QUANTITATIVE PROBLEMS IN THE EARTH SCIENCE  
Staff  
An introduction to quantitative methods used for solving problems in Earth science. We will examine a wide variety of geologic questions: seismicity and earthquakes, volcanic activity, landslide triggers, flooding patterns, and more. We will then practice a range of quantitative techniques to approach those questions, both from a broad, global perspective
and by examining current, relevant case studies. Prerequisite(s): Quantitative Readiness Required. Approach: Quantitative Methods (QM); Quantitative Readiness Required (QR); Scientific Investigation (SI). Units: 1.0. (Not Offered 2016-2017)

GEOL B206 ENERGY RESOURCES AND SUSTAINABILITY
*Don Barber*
An examination of issues concerning the supply of energy required by humanity. This includes an investigation of the geological framework that determines resource availability, aspects of energy production and resource development and the science of global climate change. Two 90-minute lectures a week. Suggested preparation: one year of college science. Approach: Scientific Investigation (SI). Counts towards: Environmental Studies. Units: 1.0. (Fall 2016)

GEOL B209 NATURAL HAZARDS
*Staff*
A quantitative approach to understanding the earth processes that impact human societies. We consider the past, current, and future hazards presented by geologic processes, including earthquakes, volcanoes, landslides, floods, and hurricanes. The course includes discussion of the social, economic, and policy contexts within which natural geologic processes become hazards. Case studies are drawn from contemporary and ancient societies. Lecture three hours a week. Prerequisite(s): one semester of college science or permission of instructor. Approach: Quantitative Methods (QM); Quantitative Readiness Required (QR). Counts towards: Environmental Studies. Units: 1.0. (Not Offered 2016-2017)

GEOL B302 LOW-TEMPERATURE GEOCHEMISTRY
*Staff*
Stable isotope geochemistry is one of the most important subfields of the Earth sciences for understanding environmental and climatic change. In this course, we will explore stable isotopic fundamentals and applications including a number of important case studies from the recent and deep time dealing with important biotic events in the fossil record and major climate changes. Prerequisite(s): GEOL 101 or GEOL 102, and at least one semester of chemistry or physics, or professor approval. Counts towards: Environmental Studies. Units: 1.0. (Not Offered 2016-2017)

PHYS B350 COMPUTATIONAL METHODS IN THE PHYSICAL SCIENCES
*Staff*
This course provides an introduction to a variety of computational tools and programming techniques that physical science graduates might encounter in graduate work or employment in STEM-related fields. Tools explored will include both command-line and GUI programming environments, both scripting and scientific programming languages, basic programming concepts such as loops and function calls, and key scientific programming applications such as integration, finding of roots and minima/maxima, least-square fitting, solution of differential equations, boundary-value problems, finite-element analysis, Fourier analysis, matrix operations, Monte Carlo techniques, and possibly neural networks. Where possible, examples will be taken from multiple scientific disciplines, in addition to physics. This course is intended for second semester sophomores, juniors and seniors. Co-requisite(s): MATH B203 and three units of science (Biology, Physics, Chemistry or Geology). Units: 1.0. (Not Offered 2016-2017)

ARCH B104 ARCHAEOLOGY OF AGRICULTURAL AND URBAN REVOLUTIONS
*Peter Magee*
This course examines the archaeology of the two most fundamental changes that have occurred in human society in the last 12,000 years, agriculture and urbanism, and we explore these in Egypt and the Near East as far as India. We also explore those societies that did not experience these changes. Approach: Cross-Cultural Analysis (CC); Inquiry into the Past (IP). Counts towards: Geoarchaeology; Middle Eastern Studies. Units: 1.0. (Spring 2017)

ARCH B135 FOCUS: ARCHAEOLOGICAL FIELDWORK AND METHODS
*Staff*
The fundamentals of the practice of archaeology through readings and case studies and participatory demonstrations. Case studies will be drawn from the archives of the Nemea Valley Archaeological Project and material in the College's collections. Each week there will be a one-hour laboratory that will introduce students to a variety of fieldwork methods and forms of analysis. This is a half semester Focus course. Approach: Inquiry into the
Past (IP). Counts towards: Geoarchaeology
Units: 0.5. (Not Offered 2016-2017)

**ARCH B308 CERAMIC ANALYSIS**
*Peter Magee*
Pottery is a fundamental means of establishing the relative chronology of archaeological sites and of understanding past human behavior. Included are theories, methods and techniques of pottery description, analysis and interpretation. Topics include typology, seriation, ceramic characterization, production, function, exchange and the use of computers in pottery analysis. Laboratory work on pottery in the department collections. Prerequisite(s): permission of instructor. Counts towards: Geoarchaeology
Units: 1.0. (Spring 2017)