GEOLOGY (GEOL)

Courses

GEOL 1010. Topics In: First-Year Seminar. 3 Credits.
Intensive first-year seminar focused on specific themes and/or disciplinary perspectives. Emphasis on developing critical reading and writing skills, substantive revision, information literacy, and analytical thinking. First-year seminars are frequently organized to meet one of the disciplinary Catamount Core requirements. Topics vary by offering; periodic offering at intervals that may exceed four years. Catamount Core: WIL1.

GEOL 1020. Topics In: LASP Seminar. 0 or 4 Credits.
Intensive course in a broad disciplinary area (humanities, social sciences, arts, or natural sciences). Part of an integrated first-year experience in which students take 2-4 classes exploring aesthetic, humanistic, social, linguistic, environmental, or scientific issues. May repeat for credit with different content. Topics vary by offering; periodic offering at intervals that may exceed four years. Co-requisite: Enrollment in the appropriate Liberal Arts Scholars Program. Catamount Core: WIL1.

GEOL 1055. Topics In Intro to Geo. 3 Credits.
Exploration of geological processes and concepts. May be repeated for credit with different content. Topics vary by offering; periodic offering at intervals that may exceed four years.

GEOL 1400. Environmental Geology. 0 or 4 Credits.
Application of many basic principles of chemistry to selected environmental problems in geosciences (e.g. acid mine drainage, carbon dynamics, weathering, and contaminant metal mobility). With laboratory. May not be taken for credit concurrently with, or following receipt of, credit for GEOL 3405. Prerequisite: GEOL 1400 or Instructor permission. Catamount Core: N2, SU.

GEOL 2105. Earth Materials. 3 Credits.
Exploration of the building blocks of the Earth (elements, minerals, and rocks) and their connection to the Earth's past, present, and possible sustainable future. No laboratory. May not be taken for credit concurrently with, or following receipt of, credit for GEOL 3105. Prerequisite: GEOL 1400 or Instructor permission. Catamount Core: N2, SU.

GEOL 2405. Environmental Geochem w/lab. 0 or 4 Credits.
Application of many basic principles of chemistry to selected environmental problems in geosciences (e.g. acid mine drainage, carbon dynamics, weathering, and contaminant metal mobility). With laboratory. May not be taken for credit concurrently with, or following receipt of, credit for GEOL 3405. Prerequisite: CHEM 1400. Catamount Core: N1.

GEOL 2525. Geocomputing. 3 Credits.
Introduction to a variety of computing tools commonly used in sciences and geosciences in particular. Hands-on experience; real data are used to resolve specific problems. Prerequisite: Sophomore standing. Catamount Core: QD.

GEOL 2990. Special Topics. 1-18 Credits.
See Schedule of Courses for specific titles.

GEOL 3105. Earth Materials w/lab. 0 or 4 Credits.
Exploration of the building blocks of the Earth (elements, minerals, and rocks) and their connection to the Earth's past, present, and possible sustainable future. With laboratory. May not be taken for credit concurrently with, or following receipt of, credit for GEOL 2105. Prerequisite: GEOL 1400 or Instructor permission. Catamount Core: N2, SU.

GEOL 3405. Environmental Geochem w/lab. 0 or 4 Credits.
Application of many basic principles of chemistry to selected environmental problems in geosciences (e.g. acid mine drainage, carbon dynamics, weathering, and contaminant metal mobility). With laboratory. May not be taken for credit concurrently with, or following receipt of, credit for GEOL 2405. Prerequisite: CHEM 1400. Catamount Core: N2, OC.

GEOL 3410. Geomorphology. 0 or 4 Credits.
Examines, using lectures, labs, and field-based independent study research projects, processes which change Earth's surface and the history of landscape development. Considers fundamental geologic constraints on environmental problems. Prerequisite: GEOL 1400 or Instructor permission.

GEOL 3515. Field Geology. 4 Credits.
Geological evolution of western Vermont as seen through actual field mapping in the Burlington area. Specifically designed for sophomores majoring or minoring in Geology or related sciences. Prerequisite: GEOL 1400 or Instructor permission.

GEOL 3990. Special Topics. 1-18 Credits.
See Schedule of Courses for specific titles.

GEOL 3991. Internship. 1-18 Credits.
On-site supervised work experience combined with a structured academic learning plan directed by a faculty member or a faculty-staff team in which a faculty member is the instructor of record, for which academic credit is awarded. Offered at department discretion.

GEOL 3993. Independent Study. 1-18 Credits.
A course which is tailored to fit the interests of a specific student, which occurs outside the traditional classroom/laboratory setting under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

GEOL 3995. Undergraduate Research. 1-18 Credits.
Undergraduate student work on individual or small team research projects under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.
GEOL 4105. Structural Geology. 0 or 4 Credits.
Examines processes and problems concerning the mechanical behavior of the Earth’s crust and surface. Includes rock deformation stress, strain, and the interpretation of geological structures.
Prerequisites: GEOL 3515, GEOL 2105.

GEOL 4405. Geochemistry of Natural Waters. 3 Credits.
Basic concepts of chemical equilibria applied to natural waters, including thermodynamics, pH, oxidation-reduction, weathering, and solution equilibria. Prerequisite: CHEM 1450.
Catamount Core: N1, QD.

GEOL 4990. Special Topics. 1-18 Credits.
See Schedule of Courses for specific titles.

GEOL 4994. Teaching Assistantship. 1-3 Credits.
Undergraduate student service as a teaching assistant, usually in an introductory-level course in the discipline, for which credit is awarded. Offered at department discretion.

GEOL 4996. Honors. 1-6 Credits.
College honors thesis or other department/program honors, under the supervision of a faculty member. Offered at department discretion.