

Annual Academic Assessment Report
Department of Geosciences (GEOS)
BS GEOLOGY (GEOLBS)
August 2023

Report annually to the Dean of the college/school the following:

- **Assessment Results**

- o GEOS 4686 is a 6-credit hour required field course that has traditionally been conducted in the northern Rocky Mountains, southwestern Montana, northern Montana, and Wyoming. This six-week capstone course is project based and incorporates all aspects of geology that the students have learned throughout their program of study. Projects include rock and mineral identification, stratigraphic and structural mapping, preparation of detailed geologic maps and cross-sections, identification of mineral and ore emplacement, mapping and evaluation of geomorphic features resulting from glacial and stream erosion and deposition, and environmental investigation of acid mine drainage impacts associated with ore mineral development. Written reports presenting the data collected and detailing the students findings and interpretations are required for several of the field based projects throughout the six-week period. Some of these are individual written reports and others are team reports, exposing the students to working in diverse teams such as they will encounter when they join the workforce.
 - For summer 2022, the GEOS 4686 Field Camp course was held in Montana for five weeks. There were a total of 8 students enrolled in this course. For summer 2023, the department deferred the course to summer 2024 when enrollment of 15 students is anticipated.
- o Score gains from pre and post tests are used as a primary assessment mechanism for students in GEOS 1113 – Physical Geology and for GEOS 1133 – Earth Science.
 - These are reported separately in the core course assessment report.
- o Course grades – standard routine method used in each course in our program.
 - Ongoing
- o Admission rates into graduate programs and quality of the graduate program accepting our students.
 - Continuing coordination with the careers office to systematically capture this information
 - A poll of faculty has indicated that several of our Geology B.S. students were accepted into well-respected graduate programs (MS and PhD) this year, including the University of Kentucky and the University of Texas.
- o Placement rates of graduates into appropriate career positions and starting salaries.
 - Continuing coordination occurs with the careers office to systematically capture this information.
 - Our Careers course, first implemented in the Spring of 2021, continues to be taught. This course featured weekly seminars from geoscientists in a

diverse array of employment sectors (industry, government, non-profit, etc.).

- o Student/alumni satisfaction with learning, collected through surveys, exit interviews, or focus groups – track our students to the extent possible. We also have an external advisory board that provides feedback annually on our curriculum and the quality of the students graduating from our program.
 - The department implemented an exit survey this year. We plan on continuing to conduct exit surveys in upcoming years to better track trends in student satisfaction and career pathways.
- o Student participation rates in faculty research, publications and conference presentations.
 - A faculty poll indicated at least 3 GEOLBS students actively participated in faculty research.
- o Honors, awards, and scholarships earned by students and alumni.
 - Currently there are 4 GEOLBS Honors students.
 - 6 GEOLBS students graduated and earned their B.S. degrees.
 - Members of our 2022-23 GEOS graduating class were awarded the Geophysical Society of Tulsa annual scholarship for field camp and earned Summa Cum Laude on their Honors theses.
- **Any changes to degree/certificate planned or made on the basis of the assessment and analysis**

No changes to the GEOLBS degree plan are anticipated based on current year assessment.
- **Any changes to the assessment process made or planned.**

We anticipate changing the format of our main mechanism of assessment, the GEOS 4686 Geology Field Camp course. The goal is to make it more accessible and flexible for our students. This 6-credit course will be offered as two separate 3-credit hour courses each summer. GEOS 3373 will be a 3-credit course “Environmental Field Methods” focused on field-based problem solving and research in geomorphology and hydrogeology. GEOS 3373 will be required for all ERCBS majors. GEOS 4373 will be a 3-credit course “Geological Field Methods” focused on field-based problem solving and research in bedrock geology. GEOLBS majors will be required to take both GEOS 3373 and 4373 to fulfill their existing 6-credit field camp requirement. These course changes are being made in coordination with Ryan Cochran, Assistant Director of Academic Services for Fulbright College. We anticipate offering these two courses in lieu of GEOS 4686 effective summer 2024.

We continue to monitor our GEOLBS enrollment over the course of the past 10 years (2013-2022) in comparison to UA (see below). Declining enrollments since 2016 are a cause for concern, however, as of September 6, 2023, we anticipate the first increase in GEOLBS enrollment since 2016:

Number of students enrolled in fall semester

