

Annual Academic Assessment Report
Department of Geosciences (GEOS)
BS GEOLOGY (GEOLBS)
May 2024

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

Assessment Results

- 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 2023, there were only 2 GEOLBS students who needed the course to complete their degree. Arrangements were made for them to take field camp with Oklahoma State University. For summer 2024, the GEOS 4686 Geology Field Camp course resumed with 13 UA students.
- 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.
- Course grades – standard routine method used in each course in our program.
 - Ongoing
- 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.
- 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.).

- 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.
- Student participation rates in faculty research, publications and conference presentations.
 - A faculty poll indicated at least 5 GEOLBS students actively participated in faculty research.
- Honors, awards, and scholarships earned by students and alumni.
 - Currently there are 4 GEOLBS Honors students.
 - Members of our 2023-24 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.**

Several changes have been made and are also in the process of being made with regards to GEOS 4686 in order to: (1) provide access to field training and methods for our ERSCBS majors, (2) make field training more accessible to students who cannot afford to be away from work for 5-6 weeks in one period, and (3) provide more flexibility for all GEOS students to earn credit for summer field courses.

- To achieve these goals, GEOS 4686 has been split into two 3-credit courses: GEOS 36703 “Environmental Field Methods” and GEOS 46803 “Geological Field Methods”. All ERSCBS majors will be required to take GEOS 36703 which will be formally offered for the first time in Summer 2025. All GEOLBS majors will be required to take both GEOS 36703 and 46803 to achieve their 6-credit field requirement. The combined 6-credit field camp course GEOS 4686 will be offered for the last time in Summer 2025, and GEOS 46803 will be offered for the first time in Summer 2026. Each of these course and degree plan changes have been submitted and are at varying stages of approval. The dates mentioned previously are anticipated pending final approval

We continue to monitor our GEOLBS enrollment over the course of the past 10 years (2013-2022) in comparison to UA (see below), and declining enrollments since 2016 have been a cause for concern. During academic year 2023-2024 we saw the first increase in GEOLBS enrollment since 2016 (from 26 to 28 majors; see figure on next page).

Geoscience Undergraduate Enrollment

■ GEOLBS ■ GEOGBA ■ ERSCBS ■ GISTCP

