
DEPARTMENT OF GEOLOGICAL SCIENCES PROGRESS REPORT ACADEMIC DEPARTMENTAL PROGRAM REVIEW YEAR 1: 2016-2017

1-Year Goals (2016-2017)

- Revise/redirect the “Earth and Environmental Systems undergraduate track.” This includes further research into the suggestion that the department create a new “Environmental (Geo)Science undergraduate track.” The Department will work on revising the current to track and determine how they can incorporate the reviewer suggestions.
- Create a “Climate Change” Interdisciplinary Program/group. The Department has already begun this process. It was not recommended by reviewers yet it will bring together departments across disciplines for research and potentially academic collaborations.
- Resume annual meetings between the department heads of Geological Sciences and Physics and the Arts and Sciences Research Dean to discuss space assignments in Gardiner Hall. These meetings were instituted in 2010 when the departments moved into the newly-renovated building to annually assess the space needs of the two departments and to make changes in space assignment in accordance to needs. The Academic Program Review committee defined several significant space needs, and the Department of Geological Sciences has created a plan to solve which they would like to propose to the Physics Department.

Accomplishments and Discussion

Much of FY17 was spent reviewing and rewriting our Functions and Criteria statement. Not only is 2017 the year for a required review, Promotion and Tenure issues in the department made the review a priority.

Revision of the Earth and Environmental Systems undergraduate track. As a first step on this project, BS degrees in Environmental Geology were reviewed from the institutions of our external reviewers and NMSU peer institutions. U Idaho, Montana State U, and Kansas State U do not offer degrees in Environmental Geology.

- U New Mexico, BS Environmental Sciences
- Northern Arizona U, BS Environmental Sciences

- U Oregon, BS Environmental Geoscience
- Central Washington U, BS Environmental Geological Sciences
- U Wyoming, BS Environmental Geology and Geohydrology
- Colorado State U, Environmental Geology Concentration
- Oregon State U, Environmental Sciences
- U Texas El Paso, Environmental Science, Concentration in Geology

The Earth and Environmental Systems (EES) concentration is similar to many of these degrees. Common themes include the core upper division GEOL classes (Mineralogy, Petrology, Sedimentation/Stratigraphy, Structural Geology, Field Methods), water and natural resources classes, policy/law/ethics classes, biology classes, and GIS classes. Themes in degrees from other institutions that are missing in our program include:

- Calculus (five of the eight programs require two semesters of calculus)
- Ecology classes
- Environmental Geology class (we have no faculty to teach this)
- Remote sensing

Our degree requires two semesters of foreign language or the high school equivalent; this requirement is not present in the other degree plans.

Moving Forward. The faculty will discuss the EES concentration in FY18 and make revisions based on the suggestion of the External Review Committee to make links across campus with strong departments with environmental expertise.

Create a “Climate Change” Interdisciplinary Program/Group. While this was not a recommendation of the External Review Committee, the idea arose during development of the Action Plan. Work on this project is still in the planning stages.

Moving Forward. Our goal for FY18 is to contact Climate Change researchers in other departments, notably David DuBois, KC Carroll, and others in Plant and Environmental Sciences, Biology, Jornada Experimental Range/LTER, and other departments campus-wide. A meeting will be held to gauge interest in a working group.

Resume annual meetings between the department heads of Geological Sciences and Physics and the Arts and Sciences Research Dean to discuss space assignments in Gardiner Hall. A meeting between Dean Pontelli, Associate Dean Murphy, Dr. Zollner (Physics) and Dr. McMillan (Geological Sciences) is scheduled for 13 September 2017.

Moving Forward. Annual meetings will be held to discuss space use in Gardiner Hall.

2-5 Year Goals (2017-2022)

- Adding 1½ - 2 faculty lines. This would include converting Dr. Emily Johnson from College-Track to Tenure-Track and adding a new paleoclimatologist. Both requests are currently under review in College of Arts and Sciences and if not filled, the department will continue to submit requests when possible.
- Hire a full-time lab technician to help service specialized laboratory equipment
- Continue to address space needs for labs, lab classrooms, and GA space

Accomplishments and Discussion

Adding faculty lines. Dr. Emily Johnson was hired as a half-time tenure-track Assistant Professor in Fall 2017.

Moving forward. The department will continue to request a faculty line in paleoclimatology.

Hire full-time lab technician. The need specified in the External Review Committee Report is a technician for the Mass Spectrometry Lab. The department is exploring ways to raise funds for this position. In Fall 2017, the Mass Spectrometry Lab was recognized by the College as an official laboratory, and Dr. Frank Ramos was named as Director. Heightened visibility should help bring in external work, providing partial funding for a technician. In addition, the department is considering changes in the structure of the Analytical Lab facility (Mass Spectrometry, XRF, LIBS) which may result in partial funding for the technician position.

Moving forward. The department will creatively seek funding for a full-time technician that meets the department's needs.

Continue to address space needs. The department needs to use its space efficiently if it is to obtain additional space currently used by the Physics Department. With that thought in mind, the department is considering space use in the Analytical Lab. Also, the Zuhl Collection Director's office will become available in October with the opening of the renovated Zuhl Museum on campus. Although these are small changes, they could alleviate some space issues.

Moving forward. The department head will organize meetings about space in Gardiner Hall every year.