

**Response to Program Review Evaluation Team Report**  
**Department of Geosciences**  
**May 15, 2008**

**Response to Identified Program Strengths**

The department concurs with the review team's report listing faculty, students, and curriculum as overall strengths of the program.

**Strength 1. Faculty:**

The Geosciences faculty are dedicated teachers who also conduct extensive research and provide a wide range of professional and university service. Faculty also provide students with opportunities to participate in research projects, and help major students obtain employment and entrance into graduate programs. We will continue to focus our efforts on providing high quality education to majors, teaching service courses, and contributing to the general education of non-majors. We will seek to retain highly qualified faculty by providing a positive work environment, facilitating professional development, seeking increased monetary compensation, and finding ways to better reward faculty mentoring of undergraduate research.

**Strength 2. Students:**

We have an energetic group of majors, many of whom conduct undergraduate research and participate in service activities. Most graduates of our program have become successfully employed and/or attended graduate school. We will work to continue attracting majors and preparing them for future careers. As the demand for trained geoscientists and Earth science teachers increases, we expect the number of majors to grow. Although enrollments in general education classes have remained relatively flat over the last 5 years, we anticipate future growth as overall university enrollment grows.

**Strength 3. Curriculum:**

Our curriculum is carefully planned, emphasizes field experiences, incorporates environmental and geospatial applications, and covers key knowledge and skill areas. Student learning outcomes are assessed by multiple methods, and students are overall very satisfied with the program. We will continue to provide a diversified curriculum, with an emphasis on field applications, that prepares students for employment and graduate studies. We also plan to further strengthen the Earth Science Teaching program and provide additional support to in-service teachers.

**Response to Identified Program Challenges**

The review listed three main challenges that we will actively address over the next 5 years.

**Challenge 1. Staffing:**

Increased staffing is a key concern as faculty are being stretched to the limit, with many teaching overloads (including unpaid overload for summer field camp), mentoring undergraduate research, managing budgets, and having to do computer IT activities.

Computer support for the GEAR (Geospatial and Environmental Applied Research) Lab, multimedia classrooms, web-enhanced classes, and other technological applications is key to success of our program, as well as other programs in the College of Science, which would be significantly improved by hiring a computer technician for the college. We are also facing increased pressure to teach additional online classes (our online sections are consistently filled), support the Davis Campus, and begin teaching multiple sections of labs in support courses. Although we continue to use qualified adjunct faculty to teach some introductory courses, adding a lecturer/lab manager position would allow us to better support educational needs of students, and possibly provide some reassigned time to faculty who mentor undergraduate research. Additionally, more consistent office support would be helpful for managing budgets, cataloguing collections, and tracking alumni. Despite the limited number of faculty and staff, we have been able to provide a broadly based geosciences program.

**Challenge 2. Space:**

Space will become a key concern as our program grows. Although we have remodeled two classrooms and a lab room to meet current teaching needs, new space (including Phase II of the Science Lab Building) will be needed for offices of any additional faculty/staff, and to house new equipment (such as a scanning electron microscope and x-ray diffractometer for which a foundation proposal is currently pending).

**Challenge 3. Equipment maintenance:**

The department has made significant improvements in equipment, including computer upgrades to the GEAR Lab, new petrographic microscopes, image display system, surveying equipment, and recent additions to the water well field, but maintenance and obtaining additional equipment are ongoing challenges. The department allocates significant resources to the GEAR Lab (including faculty time to cover IT activities), which provides students with experiences using industry-standard computer applications and increases their employability. Hiring of a college computer technician and a department lecturer/ lab manager would help us cover time intensive tasks of maintaining equipment and preparing labs.

**Responses to Review Team's Recommendations**

**Recommendation 1. Increase staffing:**

With support from the Dean, a search committee is being formed, with representation from Geosciences, to hire a College of Science computer technician who can help with IT support of the GEAR lab and other computer applications in our program. As enrollments grow, the department will also seek funding for a lecturer/lab manager position so that we can offer additional sections of classes and labs that are nearing maximum enrollment. Such a position would decrease the pressure on faculty to teach overloads, increase the ability of faculty to mentor student research, and allow us to increase support for the Davis Campus and WSU Online. Until funding is secured for such a position, the department will continue to use qualified adjunct faculty to help meet needs. We note that obtaining a lecturer/lab manager was also recommended in previous reviews (1996, 2003).

Recommendation 2. Explore effects of curriculum on graduate school admissions:

Most students meet with an advisor at least once a year, and are encouraged to take courses that will prepare them for career choices, including graduate school. Some students, however, avoid taking additional math classes, which may limit future options. Thus we plan to develop a professional track for the Geology Major that will specifically include calculus as a requirement. We also plan to expand program assessment efforts to include a survey of recent graduates to identify strengths and weaknesses of our curriculum and then make appropriate changes to our program.

Recommendation 3. Increase funding and development efforts:

The department has developed an alumni data base, and we plan to put additional efforts into maintaining contacts with alumni, such as social events and a news letter. We will continue working with the WSU Development Office to further increase donations. We also plan to work with the Dean in forming a College of Science advisory committee that will have representation in geosciences. In the future, as more alumni advance in the professional work force, we will consider developing a departmental advisory committee to help with fund raising and increasing employment opportunities for graduating majors.