SCHOOL OF EARTH, ENERGY AND ENVIRONMENTAL SCIENCES

The School of Earth, Energy and Environmental Sciences (formerly the School of Earth Sciences) lists courses under the subject code EARTH on the Stanford Bulletin's ExploreCourses web site. Courses offered by the School's departments and inter-departmental programs are linked on their separate sections, and are available at the ExploreCourses (http://explorecourses.stanford.edu) web site.

The School of Earth, Energy and Environmental Sciences includes the departments of Geological Sciences, Geophysics, Energy Resources Engineering (formerly Petroleum Engineering), and Earth System Science; and three interdisciplinary programs: the Earth Systems undergraduate B.S. and coterminal M.A. and M.S. programs, the Emmett Interdisciplinary Program in Environment and Resources (E-IPER) with Ph.D. and joint M.S, and the Sustainability and Science Practice Program with coterminal M.A. and M.S. programs.

The aims of the school and its programs are:

1. to prepare students for careers in the fields of agricultural science and policy, biogeochemistry, climate science, energy resource engineering, environmental science and policy, environmental communications, geology, geobiology, geochemistry, geomechanics, geophysics, geostatistics, sustainability science, hydrogeology, land science, oceanography, paleontology, petroleum engineering, and petroleum geology;
2. to conduct disciplinary and interdisciplinary research on a range of questions related to Earth, its resources and its environment;
3. to provide opportunities for Stanford undergraduate and graduate students to learn about the planet's history, to understand the energy and resource bases that support humanity, to address the geological and geophysical, and human-caused hazards that affect human societies, and to understand the challenges and develop solutions related to environment and sustainability.

To accomplish these objectives, the school offers a variety of programs adaptable to the needs of the individual student:

- four-year undergraduate programs leading to the degree of Bachelor of Science (B.S.)
- five-year programs leading to the coterminal Bachelor of Science and Master of Science (M.S.)
- five-year programs leading to the coterminal Bachelor of Science and Master of Arts (M.A.)
- graduate programs offering the degrees of Master of Science, Engineer, and Doctor of Philosophy.

Details of individual degree programs are found in the section for each department or program.

Undergraduate Programs in the School of Earth, Energy and Environmental Sciences

Any undergraduate admitted to the University may declare a major in one of the school's departments or the Earth Systems Program by contacting the appropriate department or program office.

Requirements for the B.S. degree are listed in each department or program section. Departmental academic advisers work with students to define a career or academic goal and assure that the student's curricular choices are appropriate to the pursuit of that goal. Advisers can help devise a sensible and enjoyable course of study that meets degree requirements and provides the student with opportunities to experience advanced courses, seminars, and research projects. To maximize such opportunities, students are encouraged to complete basic science and mathematics courses in high school or during their freshman year.

Coterminal Master's Degrees in the School of Earth, Energy and Environmental Sciences

The Stanford coterminal degree program enables an undergraduate to embark on an integrated program of study leading to the master's degree before requirements for the bachelor's degree have been completed. This may result in more expeditious progress towards the advanced degree than would otherwise be possible, making the program especially important to Earth scientists because the master's degree provides an excellent basis for entry into the profession. The coterminal plan permits students to apply for admission to a master's program after earning 120 units, completion of six non-summer quarters, and declaration of an undergraduate major, but no later than the quarter prior to the expected completion of the undergraduate degree.

The student may meet the degree requirements in the more advantageous of the following two ways: by first completing the 180 units required for the B.S. degree and then completing the three quarters required for the M.S. or the M.A. degree; or by completing a total of 15 quarters during which the requirements for the two degrees are completed concurrently. In either case, the student has the option of receiving the B.S. degree upon meeting all the B.S. requirements or of receiving both degrees at the end of the coterminal program.

Students earn degrees in the same department or program, in two different departments, or even in different schools; for example, a B.S. in Physics and an M.S. in Geological Sciences. Students are encouraged to discuss the coterminal program with their advisers during their junior year. Additional information is available in the individual department offices.

University requirements for the coterminal master's degree are described in the "Coterminal Master's Program (http://exploredegrees.stanford.edu/cotermdegrees)" section. University requirements for the master's degree are described in the "Graduate Degrees (http://exploredegrees.stanford.edu/graduatedegrees/#masterstext)" section of this bulletin.

Graduate Programs in the School of Earth, Energy and Environmental Sciences

Admission to the Graduate Program

A student who wishes to enroll for graduate work in the school must be qualified for graduate standing in the University and also must be accepted by one of the school's four departments or the Emmett Interdisciplinary Ph.D. program. One requirement for admission is submission of scores on the verbal and quantitative sections of the Graduate Record Exam. Admission to one department of the school does not guarantee admission to other departments.

Faculty Adviser

Upon entering a graduate program, the student should report to the head of the department or program who arranges with a member of the faculty to act as the student's adviser. Alternatively, in several of the departments, advisers are established through student-faculty discussions prior to admission. The student, in consultation with the adviser(s), then arranges a course of study for the first quarter and ultimately develops a complete plan of study for the degree sought.

Financial Aid

Detailed information on scholarships, fellowships, and research grants is available from the school's individual departments and programs.

Dean: Stephan A. Graham

Associate Dean, Academic Affairs: Scott Fendorf

Senior Associate Dean, Educational Affairs: Margot Gerritsen

Associate Dean, Educational Affairs: Robyn Dunbar

Assistant Dean, Multicultural Affairs: Tenea M. Nelson

Assistant Dean, Student Services: Alyssa Ferree

Lecturers: Ryan Petterson, Jennifer Saltzman, Audrey Yau