

YALE UNIVERSITY

DEPARTMENT OF GEOLOGY AND GEOPHYSICS

New Haven, Connecticut 06520-8109

Students Accepted For Degree	FIELDS		
	Physics	Astronomy	Related Fields
Doctorate			X
Master's			

1. General

President: Richard C. Levin
Dean of Graduate School: Jon Butler
Department Chairman: David Bercovici
Department Telephone Number: (203) 432-3124
Type of Institution: University
Control: Private
Setting: Urban
Total Faculty: 3,384
Total Graduate Faculty: Not separated
Total Students: 11,416
Total Graduate Students: 6,083 (incl. Professional)
Annual Graduate Tuition: All Graduate Students are provided with full tuition fellowship
Term: Semester

2. Number of Faculty in Department

The combined total of full-time primary faculty in the three professorial ranks is 26 including 3 who have primary appointments in other Yale departments. The combined total of full-time and other faculty at all ranks is 32.

3. Admission, Financial Aid, and Housing

Address admission inquiries to: Director of Graduate Studies, Yale University, Dept. of Geology & Geophysics, P.O. Box 208109, New Haven, CT 06520-8109

Graduate application fee required: \$85

Admission deadline (Fall admission): 1/2

Admission information: For fall admission, 2007, 7 students were accepted from 80 applicants.

Admission requirements: The department welcomes applicants oriented toward the earth and planetary sciences who have a bachelor's or master's degree in such fields as biology, chemistry, engineering, mathematics, meteorology, or physics, as well as those trained in geological, geophysical, and geochemical sciences. The GRE is required with no minimum acceptable score specified. Scores from a pertinent GRE Subject Test are desirable but not required. The TOEFL or IELTS exam is required for all applicants for whom English is a second language.

Address financial aid inquiries to: Admissions, Yale Graduate School, P.O. Box 208323, New Haven, CT 06520-8323.

GAPSAS application required: No, but is required if requesting a loan.

Financial aid deadline: 1/2

Loans available: Yes.

Address housing inquiries to: Yale Graduate Housing, 420 Temple Street, New Haven, CT 06511

On-campus, graduate student housing available:

See www.yale.edu/graduatehousing for current information.

Table A—Faculty, Enrollments, and Degrees Granted

Research Specialty	2006–07 Faculty	Enrollment ¹ Fall 2006		No. of Degrees Granted ² 2006–07 (2002–06)			Median No. of Years for 2006–07 Ph.D.'s
		Master's	Doc-torate	Master's	Terminal Master's	Doc-torate	
Atmos/Oceans/Climate Dynamics	9	0	9	1(7)	0(1)	1(1)	5.5
Biogeochemistry/Paleoceanography/Paleoclimate	9	0	3	0(3)	0(0)	1(4)	5.5
Geochemistry/Petrology	5	0	3	0(2)	0(1)	0(4)	5.5
Paleontology/Evolution	10	0	14	2(9)	0(0)	3(6)	5.5
Physics of the Earth's Interior	7	0	7	1(5)	0(0)	0(0)	5.5
Tectonics/Surface Processes	7	0	6	0(4)	0(0)	0(0)	5.5
Total		0	42	4(30)	0(2)	5(15)	–
Full-time Grad. Stud.		0	42				
Part-time Grad. Stud.		0	0				
First-year Grad. Stud.		0	8				
Median Years in Grad. Study (2006–07 Degrees)					–	–	5.5
Undergraduate Degrees, 2006–07 (2002–07):							3(18)

4. Graduate Degree Requirements

Master's: Students who have successfully advanced to candidacy may petition for the award of M. Phil; no admissions for Master's Program only.

Doctorate: The program includes course work during the first two years, culminating in a comprehensive qualifying examination in the defense of the dissertation. A third year review is given by each student. The thesis is the core final result of the program and it is defended orally. The average time for completion is about six years; at least three full years in residence are required.

Thesis: Thesis may, with permission, be written *in absentia*

Special Equipment, Facilities, or Programs: The department is located in a modern laboratory facility adjacent to Yale's Environmental Science Center and the Peabody Museum of Natural History. This building occupies approximately 100,000 square feet and contains laboratories for research in geophysical fluid dynamics, geophysics, geochemistry, structural geology, and experimental petrology. Laboratories are fully equipped with microscopes, instrumentation, and extensive computer facilities, including a state-of-the-art electron microprobe, mass spectrometers, an X-ray diffractometer, an AA/AE spectrophotometer, and equipment for measurement of mineral surface reaction kinetics. There are numerous personal computers, including Windows, Macs, and UNIX workstations and network connections to parallel-processing computers elsewhere on campus and supercomputers off campus. Also available in the Peabody Museum is one of the world's most important collections of fossil vertebrates, invertebrates, and minerals. The Departmental Library contains more than 112,000 volumes and 181,000 maps. The Kline Science Library is nearby. The Department runs a joint Program with the Department of Astronomy in Solar and Terrestrial Physics (<http://www.yale.edu/geology/stp/index.html>) to

study the physical mechanisms common to the Sun and Earth that govern their changes over time.

FACULTY

Professors

- Ague**, Jay, Ph.D., UC, Berkeley, 1987. Metamorphic and igneous petrology; high-temperature geochemistry.
- Bercovici**, David, Ph.D., UCLA, 1989. Geophysical and geological fluid dynamics.
- Brandon**, Mark, Ph.D., Univ. of Washington, 1984. Tectonic and geomorphic evolution of convergent plate boundaries.
- Briggs**, Derek, Ph.D., Univ. of Cambridge, 1976. Paleobiology; taphonomy; lagerstätten; phylogeny.
- Buss**, Leo, Ph.D., Johns Hopkins, 1979. Evolutionary biology; paleobiology.
- Donoghue**, Michael, Ph.D., Harvard, 1982. Evolutionary biology; phylogeny.
- Gauthier**, Jacques, Ph.D., UC, Berkeley, 1984. Vertebrate paleontology, evolution of reptiles, and phylogenetic systematics and taxonomy.
- Graedel**, Thomas, Ph.D., Univ. of Michigan, 1969. Atmospheric chemistry; industrial ecology.
- Hickey**, Leo, Ph.D., Princeton, 1967. Evolutionary history of flowering plants; comparative morphology.
- Karato**, Shun-ichiro, Ph.D., Univ. of Tokyo, 1977. Mineral physics and chemistry; high-pressure; geodynamics.
- Park**, Jeffrey, Ph.D., Scripps, UC, San Diego, 1979. Theoretical seismology; geological time series analysis; structure of the earth's interior; paleoclimate.
- Rye**, Danny, Univ. of Minnesota, 1972. Stable isotope geochemistry; fluid flow in crustal rocks; ore deposits.
- Seilacher**, Adolf (Visiting), Ph.D., Univ. of Tübingen, 1951. Latest Precambrian and Paleozoic trace fossils; taphonomy and morphology.
- Sherwood**, Steven, Ph.D., Scripps, UC, San Diego, 1995. Atmospheric physics; physical meteorology; climate dynamics.
- Skinner**, Brian, Ph.D., Harvard, 1955. Origin and distribution of mineral deposits.
- Smith**, Ronald, Ph.D., Johns Hopkins, 1975. Atmospheric dynamics and physics; regional climate; remote sensing.
- Turekian**, Karl, Ph.D., Columbia, 1955. Geochemistry of atmospheric, oceanic and earth-surface processes; planetary evolution.
- Veronis**, George, Ph.D., Brown, 1954. Geophysical fluid dynamics; ocean circulation.
- Vrba**, Elisabeth, Ph.D., Univ. of Cape Town, 1974. Mammalian paleontology; macroevolutionary processes and theory.

Wettlaufer, John, Ph.D., Univ. of Washington, 1991. Applied mathematics; geophysical fluid dynamics; condensed matter physics; ice and climate.

Associate Professors

- Blake**, Ruth, Ph.D., Univ. of Michigan, 1997. Geomicrobiology, marine geochemistry; stable isotope geochemistry.
- Evans**, David, Ph.D., CalTech, 1998. Paleomagnetism; continental reconstructions; earth-system evolution.
- Korenaga**, Jun, Ph.D., MIT/WHOI, 2000. Theoretical and observational geophysics.
- Pagani**, Mark, Ph.D., Penn State, 1998. Biogeochemistry; paleoceanography; paleoclimatology; CO₂ reconstruction.

Assistant Professors

- Affek**, Hagit, Ph.D., Weizmann Institute, 2003. Biosphere-atmosphere interactions and isotope geochemistry.
- Fedorov**, Alexey, Ph.D., Scripps, UC San Diego, 1997. Ocean-atmosphere interactions; ocean circulation; climate modeling.

Senior Research Scientists

- Berner**, Robert, Ph.D., Harvard, 1962. Computer modelling of the carbon and sulfur cycles and their effect on climate.
- Bolton**, Edward, Ph.D., UCLA, 1985. Modeling of fluid flow and mineral reactions in Earth's crust.
- Gordon**, Robert, Ph.D., Yale, 1955. Archaeometallurgy and industrial ecology.
- Skinner**, H. Catherine, Ph.D., Univ. of Adelaide, 1959. Minerals/biomaterials produced or influenced by biological processes.
- Thomas**, Ellen, Ph.D., Univ. of Utrecht, 1979. Late Cretaceous to Recent paleoceanography using benthic foraminifera and stable isotopes.

Research Scientist

- Thomson**, Stuart, Ph.D., Univ. Coll. London, 1993. Low temperature thermochronology, regional tectonics and geomorphology.

Associate Research Scientists

- Evans**, Jason, Ph.D., Australian National, 2001. Regional climate modeling and surface hydrology.
- Geerken**, Roland, Ph.D., Univ. of Karlsruhe, 1991. Remote sensing.
- Patterson**, Michael, Ph.D., Univ. of Bristol, 2001. Geophysical fluid dynamics, flow visualization, numerical simulations.