The earth, environmental, and planetary sciences encompass a wide range of inquiries into the physical, chemical, and biological processes that shape the earth and the planets. Application of these inquiries to understanding a planet’s evolution through time is a unique attribute of geological investigations. Knowledge of the past and present reveals the constraints of our environment and serves as a guide for the future.

In recent years, significant advances have been made in the understanding of Earth’s interior, the nature of surface and near-surface processes, the history of the Earth’s climate, the ecology of living and ancient organisms, and the comparative geology of other planets. Geological knowledge is fundamental to resource conservation, land use planning and other environmental concerns.

Department faculty have active research programs to investigate planet formation and evolution, and Earth and environmental history. The department offers degree programs leading to the Bachelor of Arts (BA) and Bachelor of Science (BS) in Geological Sciences, BA in Environmental Geology, MA in Environmental Geology, MA, Master of Science (MS), and Doctor of Philosophy (PhD) in Environmental Studies. The Environmental Studies Program is described elsewhere in this bulletin.

Department Faculty
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Professor and Chair
https://casfaculty.case.edu/steven-hauck/
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Ralph P. Harvey, PhD
(University of Pittsburgh)
Professor
Planetary geology

Beverly Z. Saylor, PhD
(Massachusetts Institute of Technology)
Professor
Sedimentary geology

James A. Van Orman, PhD
(Massachusetts Institute of Technology)
Professor
Geochemistry

Peter J. Whiting, PhD
(University of California, Berkeley)
Professor; Associate Dean, College of Arts and Sciences; Director, Environmental Studies
Geomorphology; surface water hydrology; environmental geology

Adjunct Faculty
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(University of Turin/University of Genoa)
Adjunct Associate Professor
Structural geology

Jeffrey Balcerski, PhD
(Case Western Reserve University)
Adjunct Assistant Professor

Andrew Dombard, PhD
(Washington University in St. Louis)
Adjunct Associate Professor; University of Illinois-Chicago
Planetary geophysics

Joseph Hannibal, PhD
(Kent State University)
Adjunct Associate Professor; Cleveland Museum of Natural History
Invertebrate paleontology

Nathan Jacobson, PhD
(University of California)
Adjunct Associate Professor

Zhicheng Jing, PhD
(Yale University)
Adjunct Associate Professor

Elham Mohsenian, PhD
(University of Leoben)
Adjunct Assistant Professor

Anne Willem Omta, PhD
(Vrije Universiteit)
Adjunct Assistant Professor

Michael Ryan, PhD
(Univ of Calgary)
Adjunct Associate Professor

David Saja, PhD
(University of Pennsylvania)
Adjunct Assistant Professor

Mineralogy

Emeritus
Gerald Matisoff, PhD
(Johns Hopkins University)
Professor Emeritus
Sedimentary and environmental geochemistry
Peter McCall, PhD, JD  
(Yale University)  
Professor Emeritus  
Benthic ecology, paleoecology

Samuel M. Savin, PhD  
(California Institute of Technology)  
Jesse Earl Hyde Professor Emeritus of Geological Sciences and Dean Emeritus, College of Arts and Sciences  
Isotope geochemistry

Visiting Faculty

Onema Adojoh, PhD  
(University of Liverpool, United Kingdom)  
Visiting Assistant Professor  
Geomicropaleontology; environmental and climate change; coastal sedimentology

Anne Omta, PhD  
(Vrije Universiteit)  
Visiting Assistant Professor  
Ocean biogeochemistry; climate dynamics

Programs

• Environmental Geology, BA  
• Environmental Studies, BA  
• Environmental Studies, Minor  
• Geological Sciences, BA  
• Geological Sciences, BS  
• Geological Sciences, Minor  
• Geological Sciences, MS  
• Geological Sciences, PhD

Dual Degrees

• Programs toward Graduate or Professional Degrees