

Earth Sciences

<http://earthsciences.uoregon.edu>

Josef Dufek, Department Head

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Earth science applies the basic sciences of physics, biology, chemistry, and mathematics to understanding processes that have shaped the earth through the last 4.5 billion years. Here at the UO, we are well positioned to study these processes using the natural laboratory found in Oregon, where subduction drives volcanoes and earthquakes, which uplift mountains and inspire surface processes of erosion and deposition. These in turn have in turn fostered an unparalleled fossil record of the age of mammals.

Faculty

Ilya N. Bindeman, professor (stable isotope geochemistry, volcanology). BS, 1988, Moscow; PhD, 1998, Chicago. (2004)

Edward B. Davis, professor (vertebrate paleontology). BS, 1999, Tennessee, Knoxville; PhD, 2005, California, Berkeley. (2013)

Rebecca J. Dorsey, professor (sedimentology, basin analysis). BS, 1983, Vermont; MA, 1986, PhD, 1989, Princeton. (1997)

Josef Dufek, professor (volcanology). BS, 2000, Chicago; MS, 2004, PhD, 2006, Washington (Seattle). (2018)

Brittany Erickson, associate professor (computational science). PhD, 2010, Santa Barbara (2018)

Thomas Giachetti, associate professor (volcanology). MS, 2006, PhD, 2010, Université Blaise Pascal, Clermont-Ferrand. (2015)

Emilie Hooft Toomey, professor (marine geophysics). BSc, 1990, Trinity College, Toronto; PhD, 1997, Massachusetts Institute of Technology and Woods Hole Oceanographic Institution. (1999)

Samantha Hopkins, professor (paleontology). See **Robert Donald Clark Honors College**.

Qusheng Jin, professor (biogeoscience). BS, 1994, Nanjing; MS, 1997, Chinese Academy of Sciences; PhD, 2003, Illinois, Urbana-Champaign. (2005)

Leif A. Karlstrom, associate professor (volcanology, geomorphology, fluid mechanics). BS, 2006, Oregon; PhD, 2011, California, Berkeley. (2011)

Haiyang Kehoe, assistant professor (seismology, tectonics). BS, 2017, California, San Diego; PhD, 2023, Arizona. (2025)

Daniele McKay, associate teaching professor (volcanology). BS, 2005, Oregon; PhD, 2012, Oregon. (2014)

Diego Melgar, associate professor (earthquake seismology, tsunamis, geodetic imaging). BEng., 2009, Universidad Nacional Autonoma de Mexico; MS, 2010, PhD, 2014, Scripps College. (2017)

Marli B. Miller, associate teaching professor (structural geology). BA, 1982, Colorado College; MS, 1987, PhD, 1992, Washington (Seattle). (1997)

Disha Okhai, assistant teaching professor, BA, 2017, Wellesley College; PhD, 2024, Purdue. (2024)

Carol Paty, professor (planetary and space physics). BA, 2001, Bryn Mawr College; PhD, 2006, University of Washington (Seattle). (2018)

Matthew Polizzotto, professor (soil and environmental hydrogeochemistry). BS, BA, 2001, Rochester; PhD, 2007, Stanford. (2016)

Alan W. Rempel, professor (geomechanics and applied mathematics). BASc, 1991, MSc, 1995, British Columbia; PhD, 2001, Cambridge. (2004)

Joshua J. Roering, professor (surface processes, geomorphology). BS, 1994, MS, 1995, Stanford; PhD, 2000, California, Berkeley. (2000)

Valerie Sahakian, associate professor (tectonics, ground seismology, marine geophysics). BS, 2009, Rhode Island; MS, 2010, PhD, 2015, Scripps College. (2018)

David A. Sutherland, professor (physical oceanography). BA, 2001, North Carolina, Wilmington; PhD, 2008, Massachusetts Institute of Technology and Woods Hole Oceanographic Institution. (2011)

Paul J. Wallace, professor (igneous petrology, volcanology, geochemistry). BS, 1986, George Washington University; PhD, 1991, California, Berkeley. (2001)

Research Staff

Andrew Hadlock, research assistant. BS, 2018, Florida (2019)

Sara Meyer, field technician. BS, 2010, California, Santa Cruz; IT specialist certification, 2015, Alaska, Fairbanks. (2017)

Leland O'Driscoll, seismic field technician. PhD, 2012, Oregon (2015)

James Palandri, research associate. PhD, 2000, Oregon. (2001)

Silas Thoms, research assistant. BS, 2019, Oregon State (2019)

Lucy Walsh, research assistant. MS, 2012, Oregon. (2017)

Emeriti

Eugene D. Humphreys, professor (seismology, regional tectonics). BS, 1974, MS, 1978, California, Riverside; PhD, 1985, California Institute of Technology. (1985)

A. Dana Johnston, professor (experimental petrology, geochemistry). BS, 1976, Bates; MS, 1978, PhD, 1983, Minnesota. (1986)

M. Allan Kays, professor emeritus. BA, 1956, Southern Illinois; MA, 1958, PhD, 1960, Washington (St. Louis). (1961)

William N. Orr, professor emeritus. BS, 1961, Oklahoma; MA, 1963, California, Riverside and Los Angeles; PhD, 1967, Michigan State. (1967)

Gregory J. Retallack, professor (paleobotany, paleosols). BA, 1973, Macquarie; PhD, 1978, New England University, Australia. (1981)

Mark H. Reed, professor (mineral deposits, aqueous geochemistry). BA, 1971, Carleton; MS, 1974, PhD, 1977, California, Berkeley. (1979)

Jack M. Rice, professor emeritus. AB, 1970, Dartmouth College; MS, 1972, PhD, 1975, Washington (Seattle). (1977)

Norman M. Savage, professor emeritus. BSc, 1959, Bristol; PhD, 1968, Sydney. (1971)

Douglas R. Toomey, professor (seismology, tectonics, midocean ridges). BS, 1981, Pennsylvania State; PhD, 1987, Massachusetts Institute of Technology and Woods Hole Oceanographic Institution. (1990)

Ray J. Weldon, professor (neotectonics, structural and quaternary geology). BA, 1977, Pomona; PhD, 1986, California Institute of Technology. (1987)

The date in parentheses at the end of each entry is the first year on the University of Oregon faculty.

Undergraduate Programs

Major - Bachelor's Degree

- Earth Sciences (BA/BS) (<https://catalog.uoregon.edu/arts-sciences/natural-sciences/earth-sci/ug-earth-sciences/>)

Minor

- Earth Sciences (<https://catalog.uoregon.edu/arts-sciences/natural-sciences/earth-sci/min-earth-sciences/>)

Graduate Programs

Major - Master's Degree

- Earth Sciences (MS) (<https://catalog.uoregon.edu/arts-sciences/natural-sciences/earth-sci/mas-earth-sciences/>)

Major - Doctoral Degree

- Earth Sciences (PhD) (<https://catalog.uoregon.edu/arts-sciences/natural-sciences/earth-sci/phd-earth-sciences/>)