

ENERGY GEOSCIENCE

Contact Information

Energy Geoscience
<https://profms.rice.edu/>
 203 Keck Hall
 713-348-3188

Colin A. Zelt
 Faculty Director
czelt@rice.edu

Dagmar Beck
 PSM Program Director
dkbeck@rice.edu

The professional master's degree in Energy Geoscience (formerly Subsurface Geoscience) is geared for students who have a geoscience background and would like to become proficient in their area of interest. Students can choose from four areas of specialization that will prepare them to apply geological knowledge and geophysical methods to find and develop reserves of oil and natural gas; or to hone their skills in manipulating and managing energy-related data, or to refit/expand their skill-set to the new areas of the on-going energy transition.

The core requirements for the degree are strong technical courses, management and policy courses, with communication skills training, and include an industrial internship or work experience. Students select a group of elective courses from an area of specialization (see below), or from a variety of other courses related to their interest.

The MSEG degree program offers four areas of specialization:

- **Energy Data Management:** prepares students to understand exploration and production as a data-driven business, to become data enabled geoscientists to match demands in the energy industry, *or*
- **Energy Transition and Sustainability:** addresses geoscience methods that are going to be needed in a successful energy transition, such as geo-thermal, carbon sequestration and storage, minerals, etc., *or*
- **Geology:** prepares students with strong skills in using seismic and other geophysical methods along with geological principles to find oil and natural gas, including topics addressing the ongoing energy industry transition, *or*
- **Geophysics:** prepares students to become technical experts in aspects of seismology.

The MS in Energy Geoscience (MSEG) degree is part of the professional science master's (PSM) program at Rice housed in the Wiess School of Natural Sciences. These master's degrees are designed for students seeking to gain further scientific core expertise coupled with enhanced management and communication skills. They instill a level of scholastic proficiency that exceeds that of the bachelor's level, and create the cross-functional aptitudes needed in modern industry. This program will allow students to move more easily into careers related to energy data management, geology, and/or geophysics and new energy exploration.

A coordinated MBA/MSEG degrees program is also offered in conjunction with the Jesse H. Jones Graduate School of Business.

Energy Geoscience does not currently offer an academic program at the undergraduate level.

Master's Program

- **Master of Science in Energy Geoscience (MSEG) Degree** (<https://ga.rice.edu/programs-study/departments-programs/natural-sciences/energy-geoscience/energy-geoscience-mseg/>)

Coordinated Program

- **Master of Science in Energy Geoscience (MSEG) Degree / Master of Business Administration (MBA) Degree** (<https://ga.rice.edu/programs-study/departments-programs/natural-sciences/energy-geoscience/business-administration-mba-energy-geoscience-mseg/>)

Director

Colin A. Zelt

Professors

Jonathan Ajo-Franklin
 Richard G. Gordon
 Alan R. Levander
 Julia K. Morgan
 Fenglin Niu

Associate Professor

Helge Gonnerman

Assistant Professor

Melodie E. French

Adjunct Faculty

Kenneth Abdulah
 Omer Alpak
 Mauricio Araya
 Kevin Biddle
 Oner Celepcikay
 Detlef Hohl
 Jeffrey Nunn
 Malcolm Ross
 Kurt Rudolph
 Eric Scott

For Rice University degree-granting programs:

To view the list of official course offerings, please see [Rice's Course Catalog](https://courses.rice.edu/admweb!/SWKSCAT.cat?p_action=cata) (https://courses.rice.edu/admweb!/SWKSCAT.cat?p_action=cata)

To view the most recent semester's course schedule, please see [Rice's Course Schedule](https://courses.rice.edu/admweb!/SWKSCAT.cat) (<https://courses.rice.edu/admweb!/SWKSCAT.cat>)

Description and Code Legend

Note: Internally the university uses the following descriptions, codes, and abbreviations for this academic program. The following is a quick reference:

Course Catalog/Schedule

- Course offerings/subject codes: Courses from various subjects may apply towards this program

Department Description and Code

- Earth, Environmental, and Planetary Sciences: EEPS

Graduate Degree Description and Code

- Master of Science in Energy Geoscience degree: MSEG

Graduate Degree Program Description and Code

- Degree Program in Energy Geoscience: EGEO

CIP Code and Description ¹

- **EGEO** Major/Program: CIP Code/Title: *40.0601 - Geology/Earth Science, General*

¹ Classification of Instructional Programs (CIP) 2020 Codes and Descriptions from the National Center for Education Statistics: <https://nces.ed.gov/ipeds/cipcode/>