

Subsurface Energy Engineering (MSE)

This program is designed to educate engineers in developing technologies and solving challenges related to the energy transition. The focus is on reducing carbon emissions from traditional energy sources such as fossil fuels, as well as advancing low-carbon alternatives in geothermal, CCUS, hydrogen, and energy storage industries. Once students select a degree option, they may choose to work closely with a faculty member conducting research in their area of interest. The program offers a master's degree that can be completed through a thesis, a report, or coursework alone.

Graduate Handbook

Graduate handbook information is updated and maintained by each program. Graduate handbooks are available within each program's office and [online](#). Please contact the program with concerns or questions.

Admission

All prospective degree candidates must have a background satisfactory for study of advanced petroleum and geosystems engineering as determined by the Graduate Studies Committee. For students without this background, such as those without degrees in engineering or in the petroleum-related fields, the Graduate Studies Committee will recommend a program of coursework designed to prepare the student for graduate study. Complete requirements for admission are available online (<https://www.pge.utexas.edu/graduate/admissions/>).

Total Hours Required: 30

Thesis: 30

Report: 33

Without Thesis or Report: 36

Requirements

With the approval of the Graduate Studies Committee, the student elects one of the following degree options:

Thesis option

Thirty semester hours (including six hours in the thesis course) are required to complete the program. In addition to the thesis, 18 semester hours of coursework must be completed in the Hildebrand Department of Petroleum and Geosystems Engineering; six semester hours of supporting work must be completed outside the department.

Report option

Thirty-three semester hours (including three hours in the report course) are required to complete the program. In addition to the report, 24 semester hours of coursework must be completed in the Hildebrand Department of Petroleum and Geosystems Engineering; six semester hours of supporting coursework must be completed outside the department. For students who plan to continue their studies and enter the doctoral degree program, the report may be a PhD proposal.

Option without thesis or report

Thirty-six semester hours are required to complete the program. Twenty-seven to 30 semester hours of coursework must be completed in the Hildebrand Department of Petroleum and Geosystems Engineering; six

to nine semester hours of supporting coursework must be completed outside the department.

Code	Title	Hours
All students must also follow the following requirements and policies:		

[Graduate Engineering Requirements](#)

[Graduate University Requirements](#)

Additional Requirements and Policies

All options must include at least 18 semester hours of engineering courses. The program of coursework must be approved by the graduate advisor and the vice provost for graduate and postdoctoral studies. More detailed information is available online (<https://www.pge.utexas.edu/graduate/degree-requirements/>).